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FOLLOW THE MONEY, PART I AND PART II

HEARINGS

BEFORE THE

SUBCOMMITTEE ON INVESTIGATIONS AND OVERSIGHT

COMMITTEE ON SCIENCE AND TECHNOLOGY

ONE HUNDRED ELEVENTH CONGRESS

FIRST SESSION

March 19, 2009
and
May 5, 2009

Serial No. 111–12
and
Serial No. 111–25

Printed for the use of the Committee on Science and Technology

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FOLLOW THE MONEY, PART I: ACCOUNTABILITY AND TRANSPARENCY IN RECOVERY ACT SCIENCE FUNDING

THURSDAY, MARCH 19, 2009

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON INVESTIGATIONS AND OVERSIGHT,
COMMITTEE ON SCIENCE AND TECHNOLOGY,
Washington, DC.

The Subcommittee met, pursuant to call, at 10:00 a.m., in Room 2318 of the Rayburn House Office Building, Hon. Brad Miller [Chairman of the Subcommittee] presiding.

BART GORDON, TENNESSEE
CHAIRMAN

RALPH M. HALL, TEXAS
RANKING MEMBER

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SUITE 2320 RAYBURN HOUSE OFFICE BUILDING
WASHINGTON, DC 20515-6301
(202) 225-6375
TTY: (202) 226-4410
http://science.house.gov

Subcommittee on Investigations and Oversight

Hearing on

Follow the Money, Part I: Accountability and Transparency in Recovery Act Science Funding

Thursday, March 19, 2009
10:00 a.m. – 12:00 p.m.
2318 Rayburn House Office Building

Witness List

PANEL I

Dr. Cora Marrett, *Senior Accountability Officer*
National Science Foundation

Mr. Ronald R. Spoehel, *Chief Financial Officer*
National Aeronautics and Space Administration

Ms. Ellen Herbst, *Senior Official for Recovery Implementation*
U.S. Department of Commerce

Mr. Matthew Rogers, *Senior Advisor*
U.S. Department of Energy

PANEL II

Mr. Tim Cross, *Interim Inspector General*
National Science Foundation

Mr. Todd Zinser, *Inspector General*
U.S. Department of Commerce

Mr. Gregory H. Friedman, *Inspector General*
U.S. Department of Energy

Ms. Eileen Norcross, *Senior Research Fellow, Mercatus Center at George Mason University*

Ms. Patricia Dalton, *Managing Director, Natural Resources and Environment Division*
U.S. Government Accountability Office

HEARING CHARTER

SUBCOMMITTEE ON INVESTIGATIONS AND OVERSIGHT COMMITTEE ON SCIENCE AND TECHNOLOGY U.S. HOUSE OF REPRESENTATIVES

Follow the Money, Part I: Accountability and Transparency in Recovery Act Science Funding

THURSDAY, MARCH 19, 2009
10:00 A.M.–12:00 P.M.
2318 RAYBURN HOUSE OFFICE BUILDING

I. Summary

The Subcommittee will meet on March 19, 2009, to receive testimony relating to the accountability and transparency provisions in the *American Recovery and Reinvestment Act* (H.R. 1; hereafter cited as the "Recovery Act"). The Subcommittee will take testimony on steps taken by agencies under the Committee's jurisdiction to establish accountability for the funds they will receive under the Act.

Witnesses on the first panel have been designated as "senior accountability officers" by their agencies and are nominally in charge of planning for spending Recovery Act funds. The second panel is composed of Inspectors General (IGs) and the Government Accountability Office (GAO). These witnesses will describe their roles in overseeing appropriate distribution of these funds and highlight for the Subcommittee issues specific to our agencies that will deserve close oversight attention while these funds are available.

II. Witness List

Panel I

- **Dr. Cora Marrett,** Deputy Director (Acting) and Senior Accountability Officer, National Science Foundation
- **Ronald R. Spoehel,** Chief Financial Officer, National Aeronautics and Space Administration
- **Ellen Herbst,** Senior Official for Recovery Implementation, Department of Commerce
- **Matthew Rogers,** Senior Advisor to the Secretary, Department of Energy

Panel II

- **Tim Cross,** Inspector General (Acting), National Science Foundation
- **Todd Zinser,** Inspector General, Department of Commerce
- **Gregory H. Friedman,** Inspector General, Department of Energy
- **Patricia Dalton,** Managing Director, Natural Resources and Environment Division, Government Accountability Office

At the request of Mr. Broun, we have also invited testimony from **Eileen Norcross,** Senior Research Fellow at the Mercatus Center of George Mason University.

III. Funding Provisions

Funds made available under the Recovery Act are intended to accomplish certain purposes, defined in Section 3(a):

1. To preserve and create jobs and promote economic recovery.
2. To assist those most impacted by the recession.
3. To provide investments needed to increase economic efficiency by spurring technological advances in science and health.
4. To invest in transportation, environmental protection, and other infrastructure that will provide long-term economic benefits.

5. To stabilize State and local government budgets, in order to minimize and avoid reductions in essential services and counterproductive State and local tax increases.

Further, the Act requires that, "The President and the heads of federal departments and agencies shall manage and expend the funds made available in this Act so as to achieve the purposes specified in subsection (a), including commencing expenditures and activities as quickly as possible consistent with prudent management." [Section 3(b)]

What follows is a short description of the Recovery Act funds allocated to the major agencies under the jurisdiction of the Committee on Science and Technology:

Department of Energy (DOE) $15.9 billion

Of direct interest to the Committee is $1.6 billion provided for the Department's Office of Science, and $400 million made available for the Advanced Research Projects Agency–Energy (established in the *America COMPETES Act* in the last Congress).

The Department also received $2.5 billion for "applied research, development, demonstration and deployment activities" in energy efficiency and renewable energy. The bill directed $800 million to biomass energy efforts, $400 million to geothermal energy projects and $50 million to standards and efficiency work for information and communication technologies. Further, $2 billion is provided for grants in support of advanced battery manufacturing.

For fossil research and development, the Act provides $3.4 billion. Approximately half ($2.32 billion) supports Round 3 of the Clean Coal Power Initiative and CO_2 capture and storage research. Another $1 billion is available for general fossil energy research projects.

Finally, the Act establishes a new loan guarantee program ". . . for renewable technologies and transmission technologies." The Department will have $6 billion for this purpose, and the conference report indicates it is expected this will leverage ten times that amount in private funds to develop such technologies.

National Aeronautics and Space Administration (NASA) $1 billion

Each of the Agency's appropriation accounts received funding in the Recovery Act:

- The Science account received $400 million to expedite development of the first round of missions set out in the National Research Council's 2007 Earth science decadal survey, and to upgrade NASA's supercomputers.
- Aeronautics has $150 million to focus on aviation safety, mitigation of environmental impacts from aviation and projects related to replacement of the air traffic control system.
- $400 million is made available for Exploration, which will likely be used to shrink the current hiatus between Shuttle retirement and initial operation of new Constellation systems.
- The agency also obtained $50 million to assist in repairing facilities at the Johnson Space Center damaged by Hurricane Ike last year.

National Science Foundation (NSF) $3 billion

The majority of funds available to NSF are provided in the Research and Related Activities account, with $300 million targeted on the major research instrumentation program and $200 million set aside for academic facilities modernization. The conference report requires that all of the research divisions share in at least some of the other $2 billion in the account, after providing for ". . . advancements in supercomputing technology."

Scholarship programs supported by the Foundation receive an additional $100 million, while $400 million is made available to programs funded by the Major Research Equipment appropriation.

National Institute of Standards and Technology (NIST) $580 million

The research program at NIST is bolstered by $220 million to support research, to provide more competitive grants and purchase needed equipment for laboratories. Remaining funding is split evenly between the agency's own facility construction efforts and a competitive grant program for research science buildings.

Not included in the total above is an additional $20 million transferred from the Department of Health and Human Services to support NIST's efforts in developing security and inter-operability standards for health information technology. A further

$10 million from the Department of Energy is intended to assist in bringing intelligence to the national electrical power grids.

National Oceanic and Atmospheric Administration (NOAA) $830 million

The Appropriations Committee directed NOAA to provide $230 million to reduce its "backlog of research, restoration, navigation, conservation and management activities." The remaining $600 million is split between work on facilities, ships and equipment, weather forecasting and satellite development ($430 million), and $170 million targeted on climate activities such as modeling, data records and studies in mitigation.

IV. Accountability Provisions

For the agencies, the Recovery Act imposes new requirements to accompany the new funding available. For spending on infrastructure projects, the agencies are directed to obligate at least half of the funds available within 120 days of the bill's enactment (February 16, 2009). Grant funding is to be employed "in a manner that maximizes job creation and economic benefit." Contracts awarded as part of Recovery Act activities are to be fixed-price and awarded by the competitive process set forth in the Federal Acquisition Regulation; contracts awarded by other means are to be highlighted in a special section of the *Recovery.gov* website.

The Office of Management and Budget (OMB), on February 9, 2009, directed the agencies "to name, no later than February 13, 2009, a senior official responsible for coordinating recovery-related efforts across your agency." Those officials represent the agency witnesses here today. Weekly reports on agency activities relating to implementation of the Recovery Act were to be posted on the agency's own website for Recovery Act actions beginning March 3. According to the first weekly reports published by the agencies testifying at the hearing, there have been no expenditures to date using Recovery Act funds. The formal plans for distributing Recovery Act resources are due to OMB by May 1.

The Recovery Act does not relieve the agencies of their normal requirements for assuring the proper use of funds, such as prohibitions against discrimination in the *Civil Rights Act* and the reviews required by the *National Environmental Policy Act.* OMB has told the agencies that they can expect their performance to be measured against the following criteria:

1. Audits and investigation of Recovery Act funds occurring to identify wasteful spending and minimize waste, fraud, and abuse;
2. Qualified personnel overseeing Recovery Act funds;
3. Opportunities to use competitive awards maximized;
4. Timely award of dollars;
5. Timely expenditure of dollars;
6. Timely completion of planned work;
7. Cost overruns minimized; and
8. Improper payments minimized.

However, because of the short window during which Recovery Act funds will be available (appropriations under the Act will generally expire at the end of Fiscal Year (FY) 2010 unless otherwise stated) and specific direction in the Act to expedite disbursement, the agencies will have to execute their normal processes with alacrity, over and above the work needed to deal with regular activities.

At the same time, agency staff devoted to acquisition has been shrinking government-wide, from 67,085 in 1992 to 61,434 in FY 2007, according to the Federal Acquisition Institute (with half of those at the Department of Defense). The Professional Services Council, an organization of government contractors, warned last month that "[w]ithout a government workforce sufficient to plan, deliver and manage the contracts and grants that dispense these huge funds, it will be like constructing an office building on a foundation of sand." The state of these acquisition staffs was a focus of OMB Director Peter Orszag at the first meeting with the Cabinet to discuss Recovery Act implementation. **Agency witnesses should be questioned closely about steps they are taking to address their weaknesses in this critical area.**

It is the responsibility of the agency Inspectors General to monitor agency operations for waste, fraud and abuse, and they will have similar responsibilities for funds made available by the Recovery Act. It is anticipated that their work will provide the bulk of the information related to accountability that will become available on *Recovery.gov* (*http://www.recovery.gov/*, the central information website created in the Recovery Act). The Inspectors General have a specific responsibility to receive reports from the public relating to items funded by the Act and to determine if those reports demonstrate improper use of those funds. It will also be the IGs investigating allegations of retaliation against whistleblowers under the protections for State, local and contractor employees providing information on misuse of Recovery Act funds. The following table identifies the additional funding made available to the IGs in the Act:

Department of Energy	$15 million
National Aeronautics and Space Administration	$2 million
National Science Foundation	$2 million
Department of Commerce	$6 million

These funds remain available to the DOE IG until the end of FY 2012, and to the other IGs until FY 2013. The Subcommittee has asked each of the witnesses to describe how the extra resources will be employed.[1]

To coordinate the work of the IGs, Title XV of the Recovery Act establishes a new entity named the Recovery Accountability and Transparency Board. The Board will have the power to determine if contracts and grants issued with Recovery Act funding conform to law and regulation and if they are appropriately managed. The Board will also evaluate the performance of the agency acquisition staffs. The Board will report to Congress and the public regarding the use of Recovery Act funds at least on a quarterly basis, and can issue immediate ("flash") reports in cases requiring immediate attention. The Board will also maintain *Recovery.gov*. Given its position at the apex of the accountability structure, the Board will make recommendations for the prevention of waste fraud and abuse to the agencies, to which the agency must respond by report to Congress and the President within 30 days.

Membership for the Board is drawn from a subset of the departmental IGs, including two of our witnesses (Inspectors General Zinser and Friedman). President Obama has appointed the Inspector General of the Department of the Interior, Earl Devaney, to serve as the Board's Chairman (Mr. Devaney has taken leave from Interior to fill this job and has made a promise to Chairman Miller to appear at a future Subcommittee hearing). The Act specifically tasks the Board to consult and collaborate with the Inspectors General, the Government Accountability Office and State auditors in the conduct of its affairs and in the preparation of the reviews and reports it will publish. The Board receives a budget of $84 million to fund its activities until its termination date of September 30, 2013.

With regard to GAO's contribution to Recovery Act oversight, the acting Comptroller General, Gene Dodaro, testified before the Senate Committee on Homeland Security and Government Affairs on March 5, 2009. He described the steps he has taken to begin cooperating with the IG community, State auditors and OMB as contemplated in the Act. Based on GAO's prior work, he highlighted fraud prevention, contract management and grant accountability as areas deserving special focus as Recovery Act funds are expended. GAO received an additional $25 million in the Act for salaries and expenses relating to their responsibilities under the Act.

While we have asked the IG and GAO witnesses to distill general oversight principles (like those just discussed) from their respective bodies of work, they also can describe specific management challenges that relate to Recovery Act programs. Both NASA and the Department of Energy have spent years on GAO's high-risk list for contract management. When either agency employs a contract to spend Recovery Act money, how will the procurement process close the gaps GAO identifies? A recent report by the Department of Energy Inspector General indicates that the office

[1] The Subcommittee has made an affirmative decision to not invite the NASA Inspector General, Mr. Robert "Moose" Cobb. Both Chairman Gordon and Subcommittee Chairman Miller have recommended his ouster for almost two years, most recently in a letter to the White House. Based on investigative work by the Subcommittee and by the President's Council on Integrity and Efficiency (PCIE), Mr. Cobb has not lived up to the high standards of conduct and integrity expected of an Inspector General. It was apparent from the PCIE investigation that Mr. Cobb failed to understand how to properly employ auditors and did not respect the audit staff in his organization. This may explain the finding in a recent report by GAO (done at the request of Chairman Gordon and Chairman Miller) that the NASA IG audit operation demonstrated close to the weakest performance of any IG office in the Federal Government. For every tax dollar assigned to Mr. Cobb's office, his audit operation discovers just thirty-six cents in potential savings. For an agency that puts 80 percent of its budget out the door in contracts and grants, that is an inexplicably low number. The Department of Commerce IG and Department of Energy IG were found to return $2.25 and $2.37, respectively. If anyone wishes more information on these matters, please contact the Subcommittee staff.

managing loan guarantees at the Department is overstretched with its existing workload, and now faces an additional $6 billion provided for a new set of guarantees authorized by the Recovery Act. What will be done to reduce the overload?

Ms. Norcross will address the ability of nongovernmental organizations, academia, and the private sector to complement existing oversight of the American Recovery and Reinvestment Act. Additionally, she will also speak to what tools Congress can provide to these organizations that will further enable transparency and oversight. As co-founder of the website *StimulusWatch.org*, Ms. Norcross will also discuss the role of technology in promoting accountability.

Mr. Devaney, in a *Wall Street Journal* article published March 9, 2009, noted that his previous experience indicated that fraud in federal expenditures averaged “around seven percent of all big contracts.” While he stated that he believes strong agency oversight can keep losses “well below” that level, it is unlikely that it will end up reduced to zero. The efforts being made on accountability are themselves an experiment. Depending on their success at minimizing improper expenditures, they may become the standard for measuring federal spending distributions in the future.

Chairman MILLER. Good morning and welcome to our hearing, *"Follow the Money: Accountability and Transparency in Recovery Act Science Spending."* I understand Dr. Broun, the Ranking Republican of the Subcommittee, will be with us shortly. Mr. Bilbray is serving in his stead for the moment.

This subcommittee's hearings usually or frequently have as witnesses people that we think may have done wrong. None of our witnesses today have done wrong, yet anyway, but we want to hear from you on how you are going to do right.

Our purpose today is twofold: to learn how agencies in this committee's legislative jurisdiction intend to distribute funds available under the *American Recovery and Reinvestment Act* and then to examine what will be done to guarantee that those funds are not awarded improperly or wasted.

Last Thursday President Obama told State officials seeking guidance on the use of Recovery Act funds that, "If we see money being misspent, we are going to put a stop to it." I assume he would give the same warning to universities, to scientists, to businesses seeking funds from our agencies and today we will begin to find out how that will be accomplished.

Congress and the President enacted the Recovery Act to respond to extraordinary circumstances. It leaves the agencies to walk a fine line. If you want to jump-start the economy by expanding employment, the money in this bill needs to get into the pipeline quickly, but Congress did not relieve the agencies of their responsibility to adhere to federal contracting rules when distributing the funds, which takes time and skilled personnel, first to award the grant or contract and then to manage the contract in a way that ensures a productive outcome.

The innovations in the Recovery Act are not in streamlining contracting techniques. Rather, the Act requires agencies to gather more information regarding their awards and to make that information more available to the public than has ever been done before. The Act also sets up elaborate systems among the Inspectors General and the Government Accountability Office, the GAO, to ensure that waste, fraud and abuse are at a minimum. It is probably unrealistic to think that they will be eliminated entirely.

All of this—expanded spending, transparent competition and awards tracking, and accountability after the award has been made—must be carried out while dealing with the ordinary agency, the IG and GAO business.

Our first panel has been asked to explain how they intend to balance these competing pressures and to accomplish the goals of the Recovery Act. The witnesses on the panel represent the designated accountability officers of the Department of Energy, NASA, NSF and Department of Commerce. They are in the front line of conversations with OMB and program divisions in their agencies about carrying out the Recovery Act.

Congress turns to IGs and the Government Accountability Office, the GAO, for expertise and accountability. Our witnesses on the second panel bring to bear their experience in detecting waste, fraud and abuse, something that will be vital for managing the outflow of Recovery Act dollars. With the pressure to move the money, we cannot depend solely on audits after the fact to avoid diversion of those grants and contracts and I expect to hear that they are closely cooperating with the agency management to build protections into project evaluation and procurements.

The late Senator from Illinois, Everett Dirksen, is credited with the line, "A billion here, a billion there, pretty soon you are talking about real money." Today we are talking about 20 times that amount of money.

When the stimulus funds run out next year, we want to know where the money went, and if those funds succeeded in meeting the goals that Congress set. This committee will particularly want to know, did they provide investments needed to increase economic efficiency by spurring technological advances in science and health?

I expect to hear from our witnesses that this will not be an easy task but one that you are prepared to tackle and get right. Since this is just the first hearing on this subject, more to look forward to, for this subcommittee, we anticipate monitoring progress along these lines over the course of the 111th Congress.

I now recognize the Subcommittee's Ranking Member, if he has caught his breath, the gentleman from Georgia, Dr. Broun, for his opening statement.

[The prepared statement of Chairman Miller follows:]

PREPARED STATEMENT OF CHAIRMAN BRAD MILLER

Good morning, and welcome to our hearing, *"Follow the Money: Accountability and Transparency in Recovery Act Science Spending."*

Our purpose today is twofold—to learn how agencies in the Committee's legislative jurisdiction intend to distribute funds available under the *American Recovery and Reinvestment Act,* and then to examine what will be done to guarantee that those funds are not awarded improperly or wasted.

Last Thursday, President Obama told State officials seeking guidance on the use of Recovery Act funds that, "If we see money being misspent, we're going to put a stop to it." I assume he would give the same warning to universities, scientists and businesses seeking funds from our agencies, and today we will begin to find out how this will be accomplished.

Congress and the President enacted the Recovery Act to respond to extraordinary circumstances. It leaves the agencies to walk a fine line. If you want to jump-start the economy by expanding employment, the money in this bill needs to get into the spending pipeline quickly. Yet Congress did not relieve the agencies of their responsibility to adhere to federal contracting rules when distributing these funds, which takes time and skilled personnel first to award the grant or contract and then to manage in a way that ensures a productive outcome.

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The late Senator from Illinois, Everett Dirksen, is credited with the line, "A billion here, a billion there; pretty soon you're talking real money." Today we'll be talking about some 20 times that threshold for real money.

When the stimulus funds run out next year, we want to know where they went and if these funds succeeded in meeting the goals Congress set forth. This committee will particularly want to know, did they "provide investments needed to increase economic efficiency by spurring technological advances in science and health"?

I expect to hear from our witnesses that this will not be an easy task, but one they are prepared to tackle and get right. Since this is just the first hearing on this subject for this subcommittee, we anticipate monitoring progress along these lines over the course of the 111th Congress.

I now recognize the Subcommittee's Ranking Member, the gentleman from Georgia, Dr. Broun, for his opening statement.

Mr. BROUN. I thank the Chairman and I beg his forgiveness and the panel's forgiveness for running late. Something very important came up and delayed me a bit and I came running literally from my office here, so I apologize and I hope you all will forgive me for running late.

Thank you, Mr. Chairman. I want to thank you for holding this hearing and commend you for addressing oversight at our science agencies. This committee has an important responsibility to ensure that funding from the *American Recovery and Reinvestment Act* is spent appropriately, and I look forward to working with you, Chairman Gordon and Ranking Member Hall to make sure we do just that.

Addressing oversight, accountability and transparency at agencies is an important task, but Congress should also be held to these same principles. In attempting to live up to these standards, Democratic leadership has failed the American people. The stimulus bill was bloated with earmarks and pushed through Congress without a single oversight hearing. We will hear from witnesses shortly about the importance of preventing waste, fraud and abuse ahead of time rather than trying to detect it after the fact. They will speak to the need to get policies and procedures for spending the money established early in the process instead of playing "gotcha" after the money has been spent. This is important guidance that we will insist the agencies follow, yet the irony of the situation is that Congress never did this work itself.

Without a single hearing by any committee, the Democratic leadership has tripled our nation's debt and forced us to borrow from our children, grandchildren and foreign nations. We spent $787 billion in this bill. To put this into perspective, last year's budget for non-security discretionary spending was roughly $390 billion. That is almost twice as much as last year's budget and doesn't even take into account the omnibus or other bail-outs that we have passed on top of that. Neither this committee nor any other had a role in developing appropriate oversight, accountability and transparency measures necessary for such an enormous bill. We never held a hearing or a single markup. Therefore, it is somewhat comical to talk about stimulus accountability and transparency when there wasn't any behind this bill's formulation.

Don't get me wrong, making sure our science agencies are funded at the appropriate authorization levels is important, but that is not what we are talking about here. We are talking about not learning from the lessons of post-Katrina disaster relief, Iraq reconstruction and the Troubled Asset Relief Program, all instances where expediency trumped accountability and the taxpayer suffered. I was outraged just as the American people were to hear that AIG executives received taxpayer money as bonuses while their company crumbled around them. If the stimulus bill had seen the light of day, perhaps Democratic leadership would not have been able to add a loophole for AIG executive bonuses. History has shown that throwing as much money as we can out the window as fast as we can has never ended well. Congress should have known this and taken a more measured approach to aiding our economy, which brings me to an important point. Obama Administration economic advisor Larry Summers indicated numerous times that the stimulus bill would be "timely, targeted and temporary." I have serious concerns about the impact that a temporary surge of money will have on our scientific enterprise. A temporary influx of funds without a long-term commitment will lead to a boom-and-bust scenario similar to that experienced by NIH after its budget doubled earlier this decade. As *Science Magazine* noted in a 2007 article, "Between 1998 and 2003, the budget of the National Institutes of Health rose from $13 billion to more than $27 billion with a plan known as The Doubling. Now that the tsunami of cash has receded, many life scientists, especially those in the early phase of their careers, have found conditions no better and in some ways worse than before the process began."

While the Obama Administration has clearly indicated that this enormous influx of money will be "temporary," our investment in science should be steady and predictable, not volatile and fleeting.

Thank you, Mr. Chairman. I look forward to the witnesses' testimony and look forward to working with you going forward, oversight in a truly nonpartisan endeavor. We have disagreements on the underlying substance and process associated with the stimulus bill but I hope now that the dust has settled, we can work together in a productive manner to minimize waste, fraud, abuse and mismanagement at our science agencies.

I yield back.

[The prepared statement of Mr. Broun follows:]

PREPARED STATEMENT OF REPRESENTATIVE PAUL C. BROUN

Thank you Mr. Chairman. I want to thank you for holding this hearing, and commend you for addressing oversight at our science agencies.

This committee has an important responsibility to ensure that funding from the *American Recovery and Reinvestment Act* is spent appropriately, and I look forward to working with you, Chairman Gordon, and Ranking Member Hall to make sure we do just that.

Addressing oversight, accountability, and transparency at agencies is an important task, but Congress should also be held to these same principles. In attempting to live up to these standards, Democratic Leadership has failed the American people.

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We will hear from witnesses shortly about the importance of preventing waste, fraud, and abuse ahead of time rather than trying to detect it after-the-fact.

They will speak to the need to get policies and procedures for spending money established early in the process, instead of playing "gotcha" after the money has been spent.

This is important guidance that we will insist the agencies follow, yet the irony of the situation is that Congress never did this work itself.

Without a single hearing by any committee, the Democratic Leadership has tripled our nation's debt and forced us to borrow from our children, grandchildren, and foreign nations. We spent $787 billion in this bill. To put this into perspective, last year's budget for-non-security discretionary spending was roughly $390 billion. That's almost twice as much as last year's budget, and doesn't even take into account the Omnibus or other bail-outs that we passed on top of that.

Neither this committee, nor any other, had a role in developing appropriate oversight, accountability, and transparency measures necessary for such an enormous bill. We never held a hearing, or a single markup. Therefore, it is somewhat comical to talk about stimulus accountability and transparency when there wasn't any behind this bill's formulation.

Don't get me wrong, making sure our science agencies are funded at the appropriate authorization levels is important, but that's not what we are talking about here.

We are talking about not learning from the lessons of post-Katrina disaster relief, Iraq Reconstruction, and the Troubled Asset Relief Program—all instances where expediency trumped accountability and the taxpayer suffered. I was outraged, just as the American people were, to hear that AIG executives received taxpayer money as bonuses while their company crumbled around them. If the Stimulus bill had seen the light of day, perhaps Democratic leadership would not have been able to add a loophole for AIG executive bonuses.

History has shown that throwing as much money as we can out the window as fast as we can has never ended well. The Congress should have known this and taken a more measured approach to aiding our economy.

Which brings me to an important point. Obama Administration Economic Advisor Larry Summers indicated numerous times that the stimulus bill would be "timely, targeted, and temporary." I have serious concerns about the impact that a temporary surge of money will have on our scientific enterprise. A temporary influx of funds without a long-term commitment will lead to a boom-and-bust scenario similar to that experienced by NIH after its budget doubled earlier this decade.

As *Science Magazine* noted in a 2007 article, "Between 1998 and 2003, the budget of the National Institutes of Health rose from $13 billion to more than $27 billion in a plan known as "the doubling." Now that the tsunami of cash has receded, many life scientists—especially those in the early phase of their careers—have found conditions no better, and in some ways worse, than before the process began."

While the Obama Administration has clearly indicated that this enormous influx of money will be "temporary," our investment in science should be steady and predictable, not volatile and fleeting.

Thank you Mr. Chairman. I look forward to the witnesses' testimony and working with you going forward. Oversight it truly a nonpartisan endeavor. We may have disagreements on the underlying substance and process associated with the Stimulus bill, but I hope that now that the dust has settled, we can work together in a productive manner to minimize waste, fraud, abuse, and mismanagement at our science agencies.

I yield back.

Chairman MILLER. Thank you, Dr. Broun.

I ask unanimous consent, I am not sure I need to, but I ask unanimous consent that any additional opening statements submitted by Members will be included in the record, and without objection that is so ordered.

[The prepared statement of Chairman Gordon follows:]

PREPARED STATEMENT OF CHAIRMAN BART GORDON

Good morning, Mr. Chairman. I am pleased to see your subcommittee devoting attention to how our agencies are preparing to spend recovery money.

In the Recovery Act, Congress placed extra requirements on agencies to insure that taxpayer money was carefully managed and accounted for.

The Congress expects that money will be put into circulation quickly to meet the employment goals of the Act, but it is just as important that the money is awarded fairly and for purposes that serve real public needs.

I look forward to hearing how the agencies are getting ready to ramp up awards.

The Recovery Act also provided extra funding for the Inspectors General and the Government Accountability Office so that they could expand their operations and monitor the coming surge in government spending. I look forward to the testimony of our IGs and GAO regarding their efforts to provide an extra level of oversight and accountability inside the agencies.

Finally, the Obama Administration has brought a renewed commitment to transparency in all aspects of government. In our democracy, the greatest accountability measure you can embrace is to let the public know what you are doing and how you are doing it.

I am very pleased that an unprecedented level of information will be made available to the public through *Recovery.gov,* however I am interested in learning how agencies intend to provide that information, where there will be challenges in providing accurate information, and whether the right policies are in place to guide the agencies in their reporting requirements.

This will not be the last hearing on the Recovery Act held by this committee, but I think it is an excellent start.

Thank you, Mr. Chairman and I yield back.

Panel I

Chairman MILLER. It is now my pleasure to introduce our witnesses at this time. Dr. Cora Marrett is the Senior Accountability Officer and Acting Deputy Director at the National Science Foundation. Mr. Ronald Spoehel is the Chief Financial Officer of the National Aeronautics and Space Administration. Ms. Ellen Herbst is the Senior Officer of Recovery and Implementation with the U.S. Department of Commerce, and Mr. Matthew Rogers is the Senior Advisor to Secretary Chu at the U.S. Department of Energy.

As our witnesses should know, you will each have five minutes for your spoken testimony. Your written testimony will be included in the record for the hearing. When you all have completed your oral testimony, we will have questions. Each Member will have five minutes to question the panel. It is the practice of the Committee to receive testimony under oath. Since I said earlier none of you have done wrong yet, I don't think you have to worry about anything but we do take testimony under oath. Do any of you have any objection to swearing an oath, to take an oath? You also have a right to be represented by counsel. We are trying to make you at as ease as we can by asking you these questions. Do any of you have counsel here? Okay. Now if you would now please stand and raise your right hand. Do you swear to tell the truth and nothing but the truth? The record will reflect that all the witnesses took the oath.

We will now begin with Dr. Cora Marrett. Dr. Marrett, you may begin.

STATEMENT OF DR. CORA MARRETT, ACTING DEPUTY DIRECTOR, NATIONAL SCIENCE FOUNDATION

Dr. MARRETT. Thank you for inviting me on behalf of the National Science Foundation. I am Cora Marrett, Acting Deputy Director and Senior Accountability Officer for Recovery Act activities at NSF.

NSF is honored to have a role in stimulating the American economy. The $3 billion entrusted to us will sustain and advance major research initiatives, enhance support for science, technology, engineering and mathematics education, and help renew America's research infrastructure. The immediate impact will be felt by investigators, postdoctoral fellows, graduate and undergraduate students and teachers throughout the Nation. We now support nearly

200,000 of these individuals every year. We expect to add approximately 50,000 in Fiscal Year 2009 with Recovery funds. Over the long run, our investments should help the Nation meet the increasing demands for new knowledge and innovative technologies.

We are confident that NSF can maintain the highest standards of competitive merit review, distribute the funds in a timely manner and meet all of the requirements for accountability and transparency. We have formal policies and procedures for implementing the guidance and a plan for allocating the funds.

Moreover, we have proposals and procedures; we have proposals in place that merit the funding and procedures for handling expeditiously the other proposals we will receive. For all of these reasons, NSF is confident that we can make the first awards within the next few weeks.

Of the $3 billion allotted to NSF, $2.5 billion is for Research and Related Activities, $400 million for Major Research Equipment and Facilities Construction and $100 million for Education and Human Resources. Now, not only is NSF prepared to distribute the funds, but so are the science and engineering research and education communities poised to expend the funds quickly and effectively.

We recognize the importance of building and maintaining the confidence of Congress and the American people. We maintain an unwavering commitment to our merit review processes, processes considered by many to be the gold standard for achieving excellence, accountability and transparency in grant making. NSF will not compromise the fairness and competitiveness that mark our processes and we can make this commitment, given the caliber of our staff and of our management practices, both refined over many decades.

Now, we have more than a plan for the Recovery Act funds, we have a structure in place. As the Senior Accountability Officer, I oversee a steering committee drawn from across the Agency. Several members of the committee themselves direct "tiger teams," teams with responsibilities aligned with the requirements of the Recovery Act. We are working closely with the National Science Board, our governing body, and our Office of the Inspector General. These connections will help us meet the enhanced monitoring and reporting requirements of the Act. Personally, I take seriously my responsibility to deliver information in a timely way and to ensure the quality of that information.

In conclusion then, the high expectations for NSF derive from the discoveries and the innovations that the agency has helped generate over the past six decades. The landmark legislation then enables us to strengthen our contributions and in so doing move forward the Nation and the American people.

Mr. Chairman, this concludes my remarks. I will certainly answer any questions should you have them.

[The prepared statement of Dr. Marrett follows:]

PREPARED STATEMENT OF CORA MARRETT

Chairman Miller, Ranking Member Broun, and distinguished Members of the Subcommittee, thank you for inviting me to speak on the National Science Foundation's participation in the *America Recovery and Reinvestment Act.* I am Dr. Cora Marrett, Acting Deputy Director and Senior Accountability Officer for Recovery Act Activities for NSF.

The Foundation is grateful and honored that our role in stimulating the American economy has been recognized. The $3 billion Recovery Act investment in NSF programs will sustain and advance major research initiatives, enhance support for science, technology, engineering and mathematics education, and help renew America's research infrastructure:

The immediate impact of this investment will be felt by investigators, post-doctoral fellows, graduate and undergraduate students, and teachers throughout the Nation. NSF funding now helps to support nearly 200,000 of these individuals every year. We expect to add approximately 50,000 in FY 2009 with Recovery Act funds.

Over the longer-term, a vibrant research and education enterprise will help meet increasing demands for the new knowledge and innovative technologies that contribute to sustainable economic prosperity and quality of life.

As you know, the Recovery Act mandates an unprecedented level of transparency and accountability. NSF is confident that the agency can maintain the highest standards of competitive merit review, distribute Recovery Act funds in a timely manner, and meet all requirements for accountability and transparency.

1. How soon will you begin to allocate funds for your agency programs funded through the Recovery Act?

The Foundation has developed formal policies and procedures for implementing the Recovery Act and a plan and framework for allocating funds. Moreover, we have proposals in place that merit the funding and we have and procedures for handling expeditiously other proposals we will receive. For these reasons, NSF is confident that we can begin to make the first awards within the next few weeks.

As you know, NSF Recovery Act funds total $3 billion. $2.5 billion is available for Research and Related Activities, and includes $300 million for Major Research Instrumentation (MRI) and $200 million for Academic Research Instrumentation (ARI). The remaining $2 billion supports new research grants and critical infrastructure needs; with an emphasis on deferred maintenance and enhancements for existing research facilities.

In addition, the Recovery Act stipulates $400 million for Major Research Equipment and Facilities Construction, and $100 million for Education and Human Resources. The $100 million includes $25 million for the Math and Science Partnerships Program and $60 million for the Noyce Teacher Scholarship Program, and $15 million for a Science Masters program authorized in the *America COMPETES Act.*

Not only will NSF distribute these funds expeditiously, we expect that the science and engineering communities are poised to immediately expend funds that will advance discovery and innovation, and enhance the economy. The highly rated proposals we have been unable to support provide ample evidence of this. Colleges and universities have urgent needs to retain talented faculty, graduate students and post-doctoral fellows. They. are also prepared to use Recovery Act funds to refurbish laboratories and upgrade information systems technology.

2. There will be increased pressure to bypass standard procedures in order to accelerate the delivery of Recovery funds through grants and contracts. How will you ensure the expedited awards maintain a selection and management process that is fair, competitive, and advances the President's long-term policy agenda?

In awarding Recovery Act funds, the Foundation recognizes the importance of building and maintaining the confidence and trust of Congress and the American people. NSF maintains a steadfast commitment to established merit review processes, considered by many to be the "gold standard" for achieving excellence, accountability, transparency and effectiveness in grant-making activities.

The NSF merit review process, relies on a pool of over 50,000 volunteer reviewers, selected from a pool of national and international experts, to evaluate the proposals we receive. Proposals are weighed against two established criteria: intellectual merit and broader impacts of the proposed research. The second criterion considers the impact that the research can have beyond the advancement of new knowledge, for example in teaching, training and learning.

NSF will not, and need not bypass these established procedures in order to move funds rapidly. We have proposals already reviewed through the merit process this fiscal year that we could not fund with our regular budget. The budgets for these highly rated proposals total at least $2 billion. Reviews underway or to be completed shortly will generate additional proposals appropriate for Recovery Act funding. NSF will not compromise the fairness and competitiveness that marks the review process.

The Foundation's first priority is to fund highly-rated proposals that would otherwise be declined for lack of funds. These investments clearly reflect the Administration's commitment to advance science and innovation to build a sustainable economic future. NSF places a high priority on using Recovery Act funds to support proposals from first time principal investigators and for high risk and transformative research. Both of these goals are also priorities for the Administration.

3. How will you ensure the agency staff responsible for contracts and grant management have the knowledge and skills necessary to properly award and manage contracts and grants funded by Recovery Act resources?

The Recovery Act clearly requires NSF to employ highly qualified staff to execute the critical responsibilities of grant and contract management. As you know, awarding and managing grants and contracts is the bread-and-butter business of the Foundation. In addition to well established merit review processes, NSF has a cadre of highly experienced grants management staff. Effective management processes, refined over many decades, are already in place to ensure that Recovery Act funds are awarded in a timely-manner while maintaining the integrity of award management processes.

4. What structures do you plan to establish to ensure compliance with directions from the Office of Management and Budget? How will these structures ensure the timely delivery of information on Recovery Act projects to the public web portal, *Recovery.gov,* as directed by the Act and President Obama?

NSF has more than a plan; we have a structure in place. The Senior Accountability Officer, my role, oversees a Recovery Act Steering Committee drawn from across the agency. Many members of the Steering Committee themselves direct "tiger-teams" with specific responsibilities aligned with the requirements of the Recovery Act.

NSF management continues to work closely with the National Science Board, our governing body, and the Office of the Inspector General to develop appropriate procedures to meet the enhanced monitoring and reporting requirements of the Recovery Act. The responsibility for the timely delivery of information to the *Recovery.gov* web portal rests with the Chief Accountability Officer. A single office compiles the information that currently is required on a weekly basis.

In conclusion, the high expectations accompanying the Recovery Act are a direct reflection of the discoveries and innovations that NSF and its partners in the research and education community have brought to the Nation over the past six decades. This landmark legislation provides the means to move forward and to greatly strengthen these contributions to the Nation and the American people.

Mr. Chairman, this concludes my remarks. I would be pleased to answer any questions.

BIOGRAPHY FOR CORA MARRETT

Dr. Cora Marrett was appointed Acting Deputy Director of the National Science Foundation, effective January 18, 2009.

She had been the Assistant Director for Education and Human Resources (EHR), a position she held from February 2007 until becoming Acting Deputy Director. She led NSF's mission to achieve excellence in U.S. science, technology, engineering and mathematics (STEM) education at all levels and in both formal and informal settings. Earlier, from 1992–1996, Dr. Marrett was NSF's Assistant Director for Social, Behavioral and Economic Sciences (SBE).

Prior to returning to NSF in 2007, Dr. Marrett served as the University of Wisconsin's Senior Vice President for Academic Affairs for six years. Before that, she served as Senior Vice Chancellor for Academic Affairs and Provost at the University of Massachusetts–Amherst for four years.

Dr. Marrett holds a B.A. degree from Virginia Union University, and M.A. and Ph.D. degrees from UW–Madison, all in sociology. She received an honorary doctorate from Wake Forest University in 1996, and was elected a fellow of the American Academy of Arts and Sciences in 1998 and the American Association for the Advancement of Science in 1996.

Chairman MILLER. Thank you, Dr. Marrett.

Mr. Spoehel for five minutes.

STATEMENT OF MR. RONALD R. SPOEHEL, CHIEF FINANCIAL OFFICER, NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Mr. SPOEHEL. Chairman Miller, Ranking Member Broun and distinguished Members of the Subcommittee, thank you for the opportunity to appear today to discuss steps being taken at NASA to implement the Recovery Act.

The Recovery Act entrusts NASA with the stewardship of just over $1 billion of Recovery Act funds, with almost 95 percent or $950 million designated for expenditure on science, aeronautics and exploration activities, and $50 million for cross-agency support activities prioritized for hurricane damage repair, along with $2 million for the NASA Office of Inspector General.

While NASA is working aggressively to fulfill the Act's mandate of commencing Recovery Act activities and expenditures as quickly as possible, the Agency is also committed to managing Recovery Act funding under the heightened level of transparency and accountability demanded by the Congress and the Administration. We want the American people to rest assured that they will know where and how each of their Recovery Act dollars is being spent at NASA.

NASA's planning, execution, reporting and oversight for Recovery Act activities began early, even before the Act was signed by the President. NASA is still in the early stages of implementing Recovery Act specific processes and activities, and while OMB guidance continues to evolve, it is my view that the Recovery Act requirements can be successfully implemented at NASA within a framework that substantially relies on existing Agency processes and structures. NASA already has well-established and effective procedures in place for budget planning and execution and for procurement, as well as for internal controls and external reporting, and the Agency intends to leverage those existing capabilities to accomplish rapid, timely Recovery Act planning and budget execution and procurements, while fully meeting all the requirements of the Act, related OMB guidance, and relevant laws and regulations. The Agency's planning process for Recovery Act activities and the associated allocation of funds is well underway, consistent with Recovery Act direction provided by Congress and OMB guidance, and also consistent with NASA goals and priorities as established by the President and Congress.

NASA senior management recognizes that meeting the commitments of the President and Congress will require sustained focus and accountability from all, particularly in the awarding, managing and overseeing the contracts and grants funded by the Recovery Act. NASA's annual procurement obligations have exceeded $15 billion on average over the last four years and the $1 billion of Recovery Act funds, most of which will go to contract awards, is just over six percent of that amount. For the Recovery Act funding, the Agency intends to use its well-established processes and procedures for effectively and efficiently awarding—or planning, awarding and managing contract and grant awards in a fair and equitable manner. Oversight of the procurement process is maintained through several means beginning with a strong internal communication network within NASA's procurement community, monthly reviews of major procurements, periodic on-site intensive reviews of individual procurements, further supplemented by oversight and internal control reviews conducted regularly by the Agency. NASA recognizes that these processes can only be effective if it maintains a skilled and knowledgeable cadre of acquisition professionals, and the Agency has established a rigorous procurement training program as well as a contracting certification program.

In closing, NASA is committed to the effective, efficient and responsible use of the resources entrusted to the Agency, and to the implementation of a robust and comprehensive program that meets the requirements of the Recovery Act and other relevance guidance and laws with the level of transparency and accountability demanded.

I would be happy to respond to any questions you or the Members of the Committee may have. Thank you, Mr. Chairman.

[The prepared statement of Mr. Spoehel follows:]

PREPARED STATEMENT OF RONALD R. SPOEHEL

Mr. Chairman and Members of the Subcommittee, thank you for the opportunity to appear today to discuss the steps being taken at NASA to implement the *American Recovery and Reinvestment Act of 2009* (P.L. 111–5), commonly referred to as the Recovery Act. My testimony will outline NASA's progress to date and the actions the Agency is taking to provide for the special accountability and transparency called for by the Act.

The Recovery Act entrusts NASA with the stewardship of just over $1.0 billion in Recovery Act funds. Almost 95 percent of these funds, or $950 million, are designated for expenditure on Science, Aeronautics and Exploration activities. Specifically, $400 million has been appropriated for Science, $150 million for Aeronautics, and $400 million for Exploration. Of the remaining funds, $50 million is for Cross-Agency Support, with the highest priority being given to restoring NASA-owned facilities damaged from hurricanes last year, and $2 million is for the NASA Office of Inspector General.

While NASA is aggressively working to fulfill the Act's mandate of commencing Recovery Act activities and expenditures as quickly as possible, the Agency is also committed to managing Recovery Act funding under the heightened level of transparency and accountability demanded by Congress and the Administration. We want the American people to rest assured they will know where and how each of their Recovery Act dollars at NASA is being invested.

Reinforcing the Structures for Compliance with the Recovery Act and Initial Implementing Guidance for the Recovery Act

In my role as the senior agency Recovery Act official for the Agency, as designated by NASA's Acting Administrator, I am coordinating NASA efforts in planning, execution, reporting and oversight related to the spending of the Recovery Act funds appropriated for the Agency. These efforts began even before the Recovery Act was signed by the President on February 17, and NASA has proactively considered the implications of the guidance from the Office of Management and Budget (OMB), even while still in draft form. Although the OMB guidance continues to evolve and NASA is still in the early stages of implementing its Recovery Act-specific processes and activities, it is my view that the Recovery Act can be successfully implemented at NASA within a framework that substantially relies on existing Agency processes and structures.

For example, NASA has well-established procedures for budget planning and execution. The teams involved in that process include staff from offices across Headquarters. These same teams already have the processes and internal controls in place, with slight modification, for the rapid planning and budget execution encouraged by the Recovery Act. In the month since the Recovery Act was signed into law, NASA already coordinated with Treasury to establish unique Treasury Fund Symbols covering all of its Recovery Act funding, identified how it will implement separate accounting of Recovery Act funds in its financial systems with new Work Breakdown Structure codes, and developed and reviewed with the Administration the Agency's initial spending plans for use of Recovery Act funds for restoration of hurricane-damaged facilities, together with required apportionments from OMB and warrants from Treasury. Planning also is well underway for the Science, Aeronautics and Exploration Recovery Act activities, and those should be complete in advance of the 60 day deadline for the Agency spending plan specified in the Conference Report accompanying the Recovery Act. In all of this activity, NASA is able to leverage its existing teams and processes to accomplish timely Recovery Act planning and budget execution.

NASA also will leverage its existing processes for internal controls and external reporting as the Agency implements the reporting and oversight requirements of the Recovery Act and the OMB guidance. Based on the information currently available on requirements, it is anticipated that NASA's processes or systems will require only minor modification for compliance with the final requirements. We do know, for example, that new reports will be required from NASA and other government contractors, and the Agency is in discussions with OMB about the need for new government-wide contract clauses to capture these requirements. Until such clauses and OMB's final requirements are approved, NASA will not know the full implications for how reporting and oversight is to be handled. However, our experience with other requirements, like developing and publicly posting weekly reports on Recovery Act activities, is that these have been readily implemented by the functional teams assigned. Overall, what we have seen so far leads us to believe that our functional teams involved in Recovery Act implementation are more than capable of developing and overseeing the timely implementation of the new reports and processes required.

NASA senior management recognizes that meeting the commitments of the President and the Congress will require sustained focus and accountability from all, particularly in the awarding, managing, and overseeing the contracts and grants receiving Recovery Act funds. Close coordination of the functional teams at NASA, with almost daily meetings at present, is intended to ensure that the Agency Recovery Act activities achieve both the quick implementation and the full accountability and transparency called for by the Recovery Act.

Timeline for Funding of Agency Activities

The NASA planning process for Recovery Act activities and the associated allocation of funds is well underway, consistent with the direction provided by Congress and OMB guidance. Initial plans for the $50 million in Cross-Agency Support appropriations for hurricane repair have been approved by OMB. Funding has been prepared for obligation under contract following submission of the spending plan called for in the Conference Report accompanying the Recovery Act and completion of the open procurement process. Each of the NASA Mission Directorates—the organizations responsible for Agency mission programs and projects—which received appropriations under the Recovery Act are developing program plans for Agency review. Once these plans are finalized within NASA, as anticipated in the next few weeks, they will be provided to OMB for Administration review and, subsequently, submitted as part of the Agency spending plan as directed in the Conference Report accompanying the Recovery Act. Following that submission, the Agency will distribute the funds to the allocated projects, begin the procurement processes to award new contracts and tasks on existing contracts, and then obligate these funds.

Ensuring Fair and Competitive Awards, and Knowledgeable Procurement and Grants Management Staff

NASA has well-established processes and procedures for effectively and efficiently planning, awarding and managing a substantial volume of contract and grant awards. Over the last four years, the average amount of NASA's annual procurement obligations was over $15 billion. As such, the $1.0 billion of Recovery Act funds, most of which will go to contract awards, represents just over six percent of NASA's annual amount of contract and grant obligations. While some changes to Agency processes will be needed to meet special Recovery Act requirements, the increase in total procurement activity represents only a modest increase over current annual levels.

Consequently, NASA intends to continue utilizing its standard proven procedures for Recovery Act funding, in substantially the same way as for regular appropriations, in order to ensure that Agency and Government financial controls and accountability standards are maintained. These procedures begin with the project planning and approval process, which in this case includes identifying specific project activities that meet approved Recovery Act plans, and are consistent with NASA goals and priorities as established by the President and the Congress. NASA's financial system provides controls over the distribution of these funds, so only approved Recovery Act projects will receive funds—in NASA this occurs through the centralized financial system via approved Work Breakdown Structure codes.

The Agency acquisition process complies with the Federal Acquisition Regulation (FAR) and the NASA FAR Supplement, both of which provide the regulatory guidance on the announcement, solicitation, evaluation, and award processes to ensure that each procurement is conducted in a fair and equitable manner. In addition, in 2007, NASA developed and published a set of NASA Procurement Tenets, which outline a framework for conducting procurements that meet the Agency's requirements with the best business approach for the Agency. These tenets are consistent with, and in substance reflect, many of the essential elements of the President's Memorandum on Government Contracting issued on March 4, 2009. For example, NASA's third tenet requires the Agency's programs and projects to maximize and optimize competition when acquiring supplies and services. This requires early and ongoing communication with all personnel involved in the procurement process, and the NASA Office of Procurement will be a part of the review process for specific implementation plans in order to ensure compliance with procurements regulations, NASA Procurement Tenets, the OMB Guidance related to the Recovery Act, and the Recovery Act.

Further, oversight of the procurement process is maintained through several means. A strong communication network exists between the Office of Procurement at NASA Headquarters and the procurement staff at each NASA Center. For example, regular teleconferences are held with the procurement officers across the Agency, enabling the rapid dissemination of policy and the honing in on issues as they arise in the field. In addition, the Assistant Administrator for Procurements holds monthly reviews of major procurements, providing a regular opportunity to review each Center's activities in greater detail. Further, procurement surveys are conducted on-site at each Center on a periodic basis. These surveys encompass intensive reviews of individual procurements, permitting a validation that the proper process has been followed in compliance with applicable laws and regulations. And, those are further supplemented by oversight and internal control reviews conducted regularly by the Agency.

NASA recognizes that these processes can only be effective if it maintains a skilled and knowledgeable cadre of acquisition professionals. To this end, NASA has established and maintains a rigorous procurement training program that provides its contracting workforce with the competencies and skills necessary to perform well in the increasingly complex and ever changing acquisition environment. In addition, NASA's contracting certification program requires fulfillment of education requirements, training, experience, and continuous learning points. Prior to receiving a new warrant, a contracting professional must be certified at the appropriate certification level. NASA also concentrates on continuously improving specific skills of the procurement workforce, such as cost and pricing skills, to ensure that the Agency receives the overall best value in the award of contracts and grants.

In addition to established training, detailed information regarding the award and administration of contracts and grants, specifically designed for the Recovery Act funding, is currently being developed and planned for dissemination by the Office of Procurement to the NASA procurement community via the Agency's Center Procurement Officers. This information will be used to supplement the established policies and procedures at each NASA Center for the review and approval of processes leading to the award of contracts and grants, and the subsequent administration of those contractual vehicles. Stringent oversight will be implemented both at each Center and at Headquarters to ensure that the Recovery Act milestones and requirements are met.

Conclusion

In closing, NASA is committed to a robust and comprehensive program that meets the requirements of the Recovery Act and other relevant guidance and laws. The effective, efficient, and responsible use of the resources that have been provided to NASA is good stewardship. NASA is committed to carrying out this stewardship to achieve the objective of the Administration and Congress to expedite Recovery Act project spending within increased standards for transparency and accountability.

I would be happy to respond to any questions you or the other Members of the Subcommittee may have.

BIOGRAPHY FOR RONALD R. SPOEHEL

Ronald R. Spoehel has served as the Presidentially-appointed Senate-confirmed Chief Financial Officer of the National Aeronautics and Space Administration since

September 2007. As Chief Financial Officer, he oversees all financial management activities relating to the programs and operations of the Agency. He serves on the U.S. Chief Financial Officers Council coordinating agency financial management activities with other federal agencies and participating with other agency Chief Financial Officers in supporting implementation of Presidential objectives.

Mr. Spoehel has held various financial and general management positions throughout his career, including serving as Executive Vice President, Chief Financial Officer and Director of ICx Technologies, an advanced technologies security solutions company; Executive Vice President, Chief Financial Officer and Director of ManTech International Corporation, a NASDAQ-listed government technology solutions company; Chairman and founder of Alpine Partners, a private investment advisory firm; Chief Executive Officer and Director of Optinel Systems, an optical communications equipment company; Vice President-Corporate Development of Harris Corporation, a NYSE-listed Fortune 500 global communications equipment and defense electronics company; Senior Vice President of ICF Kaiser International, a NYSE-listed company with global operations; Vice President, Investment Banking of Lehman Brothers; Vice President of Bank of America; and, program financial management with Hughes Aircraft Company.

Mr. Spoehel is an honors graduate of the University of Pennsylvania, where he received his Bachelor of Science degree in economics and MBA from the Wharton School and his Master of Science degree in engineering from the Moore School of Electrical Engineering. He serves on the U.S. Air Force Audit Committee and he has served on the Board of Directors of the Professional Services Council and the Advisory Council for the Wharton and Engineering Schools at the University of Pennsylvania. Mr. Spoehel has also served on the Boards of private companies both in the U.S. and in Europe.

Chairman MILLER. Thank you, Mr. Spoehel.

Ms. Herbst for five minutes.

STATEMENT OF MS. ELLEN HERBST, SENIOR ADVISOR FOR RECOVERY IMPLEMENTATION, U.S. DEPARTMENT OF COMMERCE

Ms. HERBST. Chairman Miller, Ranking Member Broun and distinguished Members of the Subcommittee, my name is Ellen Herbst. I am the Senior Advisor for Recovery Implementation at the Department of Commerce, and I appreciate this opportunity to discuss how the Department of Commerce will implement the American Recovery and Reinvestment Act.

Under the Recovery Act, the Commerce Department is receiving $7.9 billion. Commerce agencies receiving funding include the Economic Development Administration, the National Institute of Standards and Technology, the National Oceanic and Atmospheric Administration, the Bureau of the Census and the National Telecommunications and Information Administration, and funding is also included for the Office of Inspector General to conduct audits and oversight. At the Commerce Department, Recovery Act funds will be used to invest in business development, innovative research, construction projects, expanding broadband services and other programs that will create jobs and build a foundation for recovery.

The Subcommittee asks that my focus be on a number of important questions related to the Commerce Department's plan to ensure accountability and transparency. The Department has established a clear path forward for meeting our responsibilities under the Act. We are committed to allocating funding in an expeditious, open and transparent manner that ensures accountability. To this end, we are working closely with the senior management in each of the five agencies receiving Recovery Act funds. Additionally, we are working with Commerce's Office of Budget and the Administration's Office of Management and Budget and we are on track to transmit to Congress spending plans for agency programs funded in H.R. 1 within the timeframe required. These plans will be posted to Commerce's recovery website.

The Department is also committed to ensuring that all grants and contracts are awarded in a fair and timely manner. The Department has engaged its grants and acquisition counsels to thoroughly review requirements of the Act, establish standardizing reporting of grants and acquisitions awarded, ensure consistency in the wide dissemination of information to be made publicly available, and ensure the correct and complete recording of award information. Standard processes and procedures are to be followed in the awards of grants and contracts. At the same time, we are doing what we can to streamline and improve the underlying processes.

Another key element of the Department's strategy involves staff competence. We have made significant progress in ensuring our acquisition core meets government-wide certification requirements and they will be working with other senior-level professionals and management to plan and execute the appropriate mechanisms for successful implementation of the Recovery Act. In all cases, our Office of Acquisition Management will be assisting the grants and acquisitions communities to ensure both timeliness and that the highest standards of accountability and transparency are met.

The Department is also making sure we have the structure and personnel in place to ensure our compliance with OMB guidance. The Department appointed me as the senior staff person to coordinate, integrate and manage our implementation of the Recovery Act. We too have formed a steering committee and have formed several work teams with representatives from all Department offices and bureaus receiving funds to plan and implement the Act across the Department. We are also receiving proactive advice and education from our Office of Inspector General.

Mr. Chairman, I will conclude with this: President Obama has called the American Recovery and Reinvestment Act the most sweeping economic recovery package in our history. At the Commerce Department, we are committed to working with the Congress, the President and the American people to meet the highest standards of transparency and accountability in allocating this vital Recovery Act funding.

Thank you, and I would be happy to answer any questions you may have.

[The prepared statement of Ms. Herbst follows:]

PREPARED STATEMENT OF ELLEN HERBST

Good morning, Mr. Chairman, Ranking Member Broun, and Members of the Subcommittee. My name is Ellen Herbst. I am the Senior Advisor for Recovery Implementation at the Department of Commerce. Thank you for the opportunity to appear before you today to discuss the Department of Commerce plans for the *American Recovery and Reinvestment Act of 2009.*

The *American Recovery and Reinvestment Act of 2009* ("the Recovery Act" "ARRA") was signed into law by President Barack Obama on February 17, 2009. It is an unprecedented effort to jump-start our economy, create or save millions of jobs, and put a down payment on addressing long-neglected challenges so our country can thrive in the 21st century. The Recovery Act is an extraordinary response to promote economic recovery and growth, and includes measures to modernize our nation's infrastructure, enhance energy independence, expand educational opportunities, preserve and improve affordable health care, provide tax relief, and protect those in greatest need.

The U.S. Department of Commerce will receive $7.9 billion to create and save jobs for American workers as part of the historic economic stimulus bill recently signed by President Obama. As he stated, "The *American Recovery and Reinvestment Act* is the most sweeping economic recovery package in our history . . .. We have begun the essential work of keeping the American Dream alive in our time." The President has noted that the Recovery Act will create or save 3.3 million jobs over the next two years.

ARRA investments in Commerce agencies, which will be allocated in an open, transparent and timely manner, include funding for business development, innovative research, construction projects, expanding broadband services and other programs that will create jobs in a broad range of occupations and industries.

Economic Development Administration

The Recovery Act includes $150 million for the Economic Development Administration to provide grants to economically distressed areas across the Nation to generate private sector jobs. Priority consideration will be given to those areas that have experienced sudden and severe economic dislocation and job loss due to corporate restructuring. Funds will be disbursed through the agency's traditional grant-making process and will support efforts to create higher-skill, higher-wage jobs by promoting innovation and entrepreneurship and connecting regional economies with the worldwide marketplace.

National Oceanic and Atmospheric Administration

The Recovery Act funding for the National Oceanic and Atmospheric Administration (NOAA) is $830 million including:

- $230 million slated for habitat restoration, navigation projects and vessel maintenance
- $430 million for construction and repair of NOAA facilities, ships and equipment, improvements for weather forecasting and satellite development; and
- $170 million to be used for climate modeling activities, including supercomputing procurement, and research into climate change.

Bureau of the Census

To ensure a successful 2010 Decennial Census, the Recovery Act includes $1 billion to hire new personnel for partnership and outreach efforts to minority communities and hard-to-reach populations, increase targeted media purchases, and ensure proper management of other operational and programmatic risks.

National Institute of Standards and Technology

Through the Recovery Act, the National Institute of Standards and Technology (NIST) is provided a total of $610 million, including:

- $220 million for NIST laboratory research, measurements, and other services supporting economic growth and U.S. innovation through funding of such items as competitive grants, research fellowships, and advanced measurement equipment and supplies;
- $360 million to address NIST's backlog of maintenance and renovation projects and for construction of new facilities and laboratories, including $180 million for a competitive construction grant program for funding research science buildings outside of NIST;
- $20 million in funds transferred from the Department of Health and Human Services for standards-related research that supports the security and interoperability of electronic medical records to reduce health care costs and improve the quality of care; and
- $10 million in funds are provided, through the Department of Energy, for NIST to help develop a comprehensive framework for a nationwide, fully inter-operable smart grid for the U.S. electric power system.

National Telecommunications and Information Administration

The Recovery Act provides critical funding for programs at the National Telecommunications and Information Administration (NTIA) including:

- $4.7 billion to establish a Broadband Technology Opportunities Program (STOP) for awards to eligible entities to develop and expand broadband services to rural and under-served areas and improve access to broadband by public safety agencies:

  - Of these funds, not less than $250 million will be available for innovative programs that encourage sustainable adoption of broadband services;
  - At least $200 million will be available to upgrade technology and capacity at public computing centers, including community colleges and public libraries;
  - Up to $350 million of the BTOP funding is designated for the development and maintenance of statewide broadband inventory maps; and
  - $10 million will be a transfer to the Office of Inspector General for the purposes of BTOP audits and oversight; and
- $650 million for the DTV Converter Box Coupon Program to allow NTIA to issue coupons to all households currently on the waiting list, to start mailing coupons via first class mail and to ensure vulnerable populations are prepared for the transition from analog-to-digital television transmission.

Office of Inspector General

The Recovery Act includes $6 million for the Office of Inspector General (OIG) to conduct audits and oversight of the programs and activities funded by the ARRA in addition to the $10 million provided to the OIG for oversight of the Broadband Technology Opportunities Program. With such a large infusion of cash expected to be obligated within a short time frame, this oversight will be important in evaluating the effectiveness of these programs and detecting and preventing waste, fraud and abuse.

The Subcommittee, in its letter of invitation, asked that my testimony focus on a number of important questions related to the Commerce Department's plan to ensure accountability and transparency in the process of implementing the ARRA.

Mr. Chairman, the Department of Commerce has established a clear path forward for meeting our responsibilities under the ARRA. First, the Department is working with the senior management in each bureau that received ARRA funding, as well as the Department's Office of Budget and the Office of Management and Budget (OMB), to complete approved spending plans for the agency programs funded through the Recovery Act. We expect to complete these plans and transmit them to Congress within the time frame required in the legislation. Once those spending plans are approved, they will be posted to the Department's Recovery website.

The Department is committed to ensuring that all ARRA grants and contracts are awarded in a fair, impartial and timely manner. We are working to streamline and improve existing procedures without compromising transparency and accountability.

The Department has worked closely with OMB to develop and promulgate standard processes and language to be included in grant and acquisition awards that address the recipient reporting requirements of ARRA and follow the specific guidance in the legislation (e.g., *Buy American Act; Davis Bacon Act*). As well, the Department has engaged its Grants and Acquisition Councils to thoroughly review requirements of the Act, to establish standardized reporting of grants/acquisitions awarded utilizing ARRA funds, to ensure consistency in wide dissemination of information to be made publicly available through *Grants.gov, FedBizOps.gov, Recovery.gov* and agency and bureau Recovery Act web pages, and to ensure the correct and complete recording of award information through existing processes to *USASpending.gov*.

Recognizing the urgency of getting the funding made available by ARRA into the community, streamlined processes have been or are being established for acquisitions. For example, those programs/acquisitions less than S75 million anal not designated as a "major investment" will undergo an Office of Acquisition Management (OAM) review via a paper process in lieu of monthly Investment Review Board meetings. The process for reviewing those programs/acquisitions greater than $75 million or those designated as a "major investment" is currently under refinement.

These management reviews will ensure that, to the maximum extent possible, acquisitions will be made on a fully competitive basis and on a fixed price basis. Where other than full and open competition is necessary or appropriate, or where other than a fixed price type contract will be utilized, the justification will be reviewed for sufficiency, compliance with Federal Acquisition Regulations, and for full consideration of all options available.

A reporting process has been established to provide DOC management with an on-going flow of information regarding planned acquisitions and grants and the progress of those awards through the process. To a large degree, existing processes will be utilized, but with a focus on streamlining the process wherever possible. The ability to expedite will rely heavily on the thoroughness and quality of the up-front work done by the acquiring/granting office. OAM will oversee that work to ensure speed of process does not diminish the quality of the decisions made or sacrifice quality of the process and award in favor of expediency.

In order to meet that challenge, OAM has drafted a Risk Management and Oversight Plan. This Plan has been developed based on the provisions of ARRA, DOC OIG's Initial Oversight Plan, the guidance provided in *"A Guide to Grant Oversight and Best Practices for Combating Grant Fraud"* by the National Procurement Fraud Task Force, the Statement of the Acting Comptroller General of the United States, *"GAO's Role in Helping to Ensure Accountability and Transparency"* and historical GAO and OIG reports regarding the acquisition and/or financial assistance functional areas.

Another key element of the Department's strategy involves staff competence. The Department has been hard at work making sure that those with responsibility for carrying out the necessary work to well implement the ARRA have the knowledge and skills necessary,to properly award and manage contracts. The Department has been making significant progress in ensuring that its acquisition corps (including Program/Project Managers, Contracting Officer Technical Representatives, Contracting Officers and Contract Specialists) meet government-wide certification requirements. Depending on the complexity of Recovery Act-funded acquisitions, Bureau Procurement Officials will be assigning those acquisitions to individuals within the existing cadre of staff with the requisite knowledge, skills, expertise and experience necessary to properly award and administer acquisitions. These individuals will be supplemented or assisted by others (other senior level acquisition professionals, the DOC Office of General Counsel, the Office of Acquisition Management) to strategize, plan and execute the appropriate contract mechanisms for successful implementation of the Recovery Act.

We recognize that acquisition resources within DOC and across the Government will be challenged by the requirements of the Recovery Act. Therefore, the Department will take advantage of all hiring flexibilities and options available and will, where appropriate, transfer acquisitions to other federal agencies for execution where their resources and expertise surpass the resources available within DOC, or will utilize contractor support for the acquisition function. As staff is committed to the execution of the Recovery Act programs, new hires, transfers to other agencies for acquisition purposes and contractor support will be utilized to fulfill the other day-to-day acquisitions necessary outside of the Recovery Act.

In the Grants area, DOC has been developing for the past two years a formal online Grants training and certification program. The first module developed, Price Evaluation, is of key importance to the successful evaluation of applications and the successful oversight of grant expenditures to mitigate fraud, waste anal abuse in the execution of a grant. The DOC Grants community has been relatively stable and, thus, will rely on seasoned, trained and experienced Grants Specialists and Federal Program Officers to execute programs under the ARRA. All grants specialists partner with the Financial Assistance Law Division of the DOC Office of General Counsel, which provides a fresh "set of eyes" to the process and its execution.

In all cases, the Office of Acquisition Management (OAM) will be assisting the grants and acquisition communities to address developing issues and to provide guidance and assistance in compliance with the provisions of this legislation and the governing regulations. As well, OAM will, as detailed above, be instituting a rigorous oversight and reporting program associated with ARRA-funded grants and contracts, which will provide DOC management insight into resource challenges and allow for input into the process.

Mr. Chairman, the Department is hard at work making sure that we have the structures and personnel in place to ensure DOC compliance with OMB guidance and statutory requirements. The Department appointed me as the senior staff person to coordinate, integrate and manage our implementation of the Recovery Act. We have formed several cross-bureau, cross-function work teams to plan and implement the Recovery Act across the Department. Our Departmental Work Team structure is as follows:

- Senior Advisor and Program Management staff are responsible for overall coordination and management at the Department level of ARRA implementation, including timely delivery of information on Recovery Act projects.
- ARRA Working Group structure—provides senior oversight and management to all subgroups. This Working Group consists of
  - Recovery Implementation Steering Committee with subject matter expertise composed of senior managers from all Department-level Offices (Acquisition and Grants, General Counsel, Financial Management, Budget, Human Resources, Legislative and Intergovernmental Affairs, Public Affairs, Management and Organization, Policy and Strategic Planning and

the Chief Information Officer) as well as a senior manager from the Office of Inspector General, who provide proactive advice and education. Members of the Steering Committee are responsible for providing guidance in their area of responsibility as well as coordinating communication and activities. They, in turn, work with the functional offices within each bureau to support specific activities.

- ○ Recovery Implementation Bureau Points of Contact (POC)—a single senior manager from each of the bureaus receiving funding (Census, EDA, NIST, NOAA and NTIA) as well as a representative from the Office of Inspector General. These bureau POCs are responsible for coordinating and managing bureau efforts with Departmental efforts. Each bureau has its own internal team working on bureau-specific activities and oversight, and the bureau POC is the communication and management liaison to the Department.
- ○ Leaders of each of the work group sub-teams. There are multiple subteams working on specific issues including:
    - Transparency to the public
    - Detailed data reporting and systems
    - Grant and contract recipient reporting.

Mr. Chairman, thank you for the opportunity to testify before the Subcommittee today. Congress, the President and the American people have trusted us with this unprecedented effort to invest in our economy, create or save millions of jobs and build a foundation for recovery. We do not take this challenge lightly and are committed to the high standards both you in Congress and the President have charged us to uphold.

The Department of Commerce is committed to implementing the provisions of the ARRA in a transparent manner that ensures accountability. We look forward to working with you, the other Members of this subcommittee, and the entire Congress, to ensure we do this right on behalf of the American people. I would be happy to answer any questions you may have.

Biography for Ellen Herbst

Ellen Herbst joined the Federal Government as Director, National Technical Information Service (NTIS), effective July 11, 2005. As an agency of the U.S. Department of Commerce, NTIS serves our nation as the largest central resource for government-funded scientific, technical, engineering, and business related information available today.

Ellen has spent 25 years in private industry with extensive involvement with growing businesses in the security, processing and imaging systems markets. She has held senior management positions at Spectra Systems Corporation, a supplier of security materials, and Giesecke & Devrient America, a supplier of banknotes, security documents and currency automation systems. Ms. Herbst has also held various key management positions at E.I. DuPont De Nemours and Company where she served as Business Manager for their Digital Systems and Equipment Service Divisions. In addition to these qualifications Ellen has extensive experience in financial and strategic planning and integration of acquisitions.

She received her B.S., in Economics and Accounting in 1979 from the University of Delaware and her M.B.A., in 1995 from the Wharton School of Business, University of Pennsylvania.

Chairman MILLER. Thank you, Ms. Herbst.

Mr. Rogers for five minutes.

STATEMENT OF MR. MATTHEW ROGERS, SENIOR ADVISOR, U.S. DEPARTMENT OF ENERGY

Mr. ROGERS. Chairman Miller, Ranking Member Broun and Members of the Subcommittee, thank you for the opportunity to be here today to discuss the U.S. Department of Energy's actions to assure accountability and transparency in Recovery Act funding including our efforts to promote science and technology.

Today's severe economic conditions demand rapid action. Effective implementation of the American Recovery Act and Reinvestment Act of 2009 is an urgent priority of the Administration, for Secretary Chu and for the Department of Energy. Congress has given the Department a great opportunity and a great responsibility to administer $32.7 billion in Recovery Act grant and contract authority, $6 billion in credit subsidy costs that will support tens of billions in new loan guarantees and $6.5 billion in borrowing authority. Secretary Chu is personally committed to providing the direction, resources and oversight needed to assure the timely but accountable distribution of this funding to support short-term needs and protect taxpayers while investing for the long term in a new economy powered by clean, reliable, affordable and secure energy.

When Secretary Chu asked me to serve as his Senior Advisor for Recovery Act Implementation, he emphasized that we must deliver on four objectives: get projects underway quickly, invest in projects with lasting value, exercise an unprecedented degree of transparency and oversight, and deliver a tangible down payment on the Nation's energy and environmental future. We began the public part of this process last week with the Vice President's announcement of the first $8.1 billion for weatherization and State energy grant programs and we will soon have additional funding announcements. These Recovery Act funds will create jobs and lay the groundwork for a less carbon intensive, less oil dependent and cleaner energy economy. All of our efforts are geared toward meeting President Obama's pledge to act boldly and urgently to put Americans back to work by reinvesting in a new clean energy economy. At the time, we recognize that the Recovery Act programs will, and should, receive heightened public scrutiny and so we are putting in place the leadership and control procedures necessary to track performance and account for expenditures.

The Department of Energy is committed to carrying out the economic recovery plan with the highest level of speed, discipline, transparency and accountability. Under our Chief Financial Officer Steve Isakowitz's leadership, the Department has taken significant steps to improve oversight and strengthen internal controls to ensure the funds are spent effectively. Every morning the Recovery Act leadership principals from every program and every major function get together to ensure clear alignment on priorities, to report progress and to resolve any outstanding issues that could impede success. We have developed strong oversight strategies for Recovery Act implementation including: building up-front risk assessments, building specific risk management plans, upgrading process controls, establishing personal risk assurance accountabilities and expanding outreach, training and coordination between headquarters and field offices.

As soon as the Recovery Act was passed, we conducted Department-wide risk assessments to identify existing or potential vulnerabilities within our programs that could hinder our efforts to deliver on the Recovery Act. From these identified risks, senior management officials have begun developing risk mitigation plans to increase internal controls and reduce opportunities for fraud, waste and abuse of recovery funds. For example, some programs have determined to use a phased approach to their distribution of funds. This will allow them to better maintain accountability by measuring performance against clear project milestones and disbursing new funds on the basis of successful performance. Several programs have also significantly expanded fraud training for their program managers and senior officials. In high-risk programs such as the Office of Environmental Management, I have met personally or via phone and video conference with all of the site managers, major contractors, State regulators and major unions to make clear the expectations up front for accountability, delivery, oversight and transparency.

As part of our planning and monitoring efforts, the Chief Financial Officer's Office of Program Analysis and Evaluation and the Office of Internal Review have taken steps to address internal controls, guidance, document standards, external reporting requirements, outcome validation and early issue identification.

The Department has also taken several steps to ensure that all procurement vehicles incorporate a selection process that is fair and advances the President's long-term policy agenda to ensure that all solicitations, contracts and financial assistance awards comply with OMB's Recovery Act requirements. We have issued standard language for all these procurement instruments.

Mr. Chairman and Members of the Subcommittee, at the Department of Energy we are committed to creating jobs by developing new, innovative ways to provide clean, reliable and secure energy. Congress has vested the Department with significant responsibility under the Recovery Act. We have begun and will continue to institute a culture of transparency, accountability, integrity and efficiency as we capitalize on our advances in science and technology to better manage the Nation's energy resources and contribute to a competitive, growing and environmentally sustainable U.S. economy.

Mr. Chairman, thank you for the opportunity to appear before you today. This concludes my testimony and I am happy to answer questions.

[The prepared statement of Mr. Rogers follows:]

PREPARED STATEMENT OF MATTHEW ROGERS

Chairman Miller, Ranking Member Broun, and Members of the Subcommittee, thank you for the opportunity to be here today to discuss the U.S. Department of Energy's actions to ensure accountability and transparency in Recovery Act funding, including our efforts to promote science and technology.

Today's severe economic conditions demand rapid action. Effective implementation of the *American Recovery and Reinvestment Act of 2009* is an urgent priority for the Administration, for Secretary Chu, and for the Department of Energy. Congress has given the Department a great opportunity and a great responsibility to administer $32.7 billion in Recovery Act grant and contract authority, $6 billion in credit subsidy costs that will support tens of billions in new loan guarantees and $6.5 billion in borrowing authority. Secretary Chu has said repeatedly that getting this money into the economy quickly, carefully, and transparently is a top priority for him. To this end he has personally committed to providing the direction, resources, and oversight needed to assure the timely but accountable distribution of this funding to support short-term needs and protect taxpayers while investing for the long-term in a new economy powered by clean, reliable, affordable, and secure energy.

When Secretary Chu asked me to serve as his Senior Advisor for Recovery Act Implementation, he emphasized that we must deliver on four clear objectives:

- Get projects under way quickly,
- Invest in projects with lasting value,
- Exercise an unprecedented degree of transparency and oversight, and

- Deliver a tangible down payment on the Nation's energy and environmental future.

We began the public part of this process last week with the Vice President's announcement of $8.1 billion for Weatherization and State Energy programs, and we will soon have additional funding announcements. These Recovery Act funds will create jobs and lay the groundwork for a less carbon-intensive, less oil-dependent, and cleaner energy economy. All of our efforts are geared toward meeting President Obama's pledge to act boldly and urgently to put Americans back to work by reinvesting in a new clean energy economy. At the same time, we recognize that Recovery Act programs will, and should, receive heightened public scrutiny, and so we are putting in place the leadership and control procedures necessary to track performance and account for expenditures.

Department of Energy and GAO's High-Risk List

In this context, it is critical that the Department have in place the most rigorous control and oversight processes to manage and account for the Recovery Act funds—the more so given the Department's past challenges and difficulties in providing adequate management and oversight of its major projects. Since 1990, contract and program management concerns have kept the Department of Energy on the Government Accountability Office's (GAO) High-Risk List. In recent years, however, the Department's Office of Management has made substantial progress and has implemented numerous corrective actions. For example, the Department has developed an action plan to address the major Department risk factors and significantly improve not only the Department's performance in contract and project management, but its overall culture of spending. The plan includes steps to improve risk management, strengthen cost estimation, increase oversight, optimize staff, improve acquisition planning and strategies, and better incorporate project management requirements. The plan also reflects the Department's commitment to improved performance and increased accountability through well-defined metrics and reporting.

As a result of these and other efforts, GAO, in its January 2009 High-Risk Update, noted that the Department has met three of the five criteria necessary for removal from its High-Risk List. Specifically, the Department has demonstrated strong leadership, developed a corrective action plan, and made progress in implementing effective solutions. Still remaining to be addressed, however, are issues relating to human capital and contract management, and these have caused the Department to remain on GAO's High-Risk List. To address the human resource challenges, the Department is implementing actions based on other federal agencies' best practices. We have also taken steps to establish a more structured, disciplined approach to contract and project management, with an emphasis on improved oversight.

In its update, GAO recognized that the Department's Office of Science has demonstrated continuous, strong performance in meeting original cost and schedule targets. As a result, GAO refined the Department's high-risk area primarily to the National Nuclear Security Administration and the Office of Environmental Management. And, accordingly, the Department will be following the project management requirements of DOE Order 413.3A and paying special attention to the performance and oversight of those Environmental Management projects receiving significant funding from the Recovery Act.

Recovery Act Transparency and Accountability

The Department of Energy is committed to carrying out the economic Recovery plan with the highest level of speed, discipline, transparency, and accountability. Under our CFO Steve Isakowitz' leadership, the Department has taken significant steps to improve oversight and strengthen internal controls to ensure that funds are spent effectively. Every morning, the Recovery Act leadership principals from every program and every major function, including representatives from the Offices of the Chief Financial Officer, General Counsel, Procurement and Human Capital, get together to ensure clear alignment on priorities, to report progress, and to resolve any outstanding issues that could impede success. We have developed strong oversight strategies for Recovery Act implementation, including up-front risk assessments and building specific risk management plans, upgrading process controls, establishing personal risk assurance accountabilities, and expanding outreach, training, and coordination between Headquarters and field offices.

As soon as the Recovery Act was passed, we conducted Department-wide risk assessments to identify existing or potential vulnerabilities within our programs that may hinder our efforts to deliver on the Recovery Act. From these identified risks, senior management officials have begun developing risk mitigation plans to increase internal controls and reduce opportunities for fraud, waste, and abuse of Recovery funds. For example, some programs have determined to use a phased approach in their distribution of funds. This will allow them to maintain better accountability by measuring performance against clear project milestones and disbursing new funds on the basis of successful performance. Several programs have also significantly expanded fraud training for their program managers and senior officials. In high-risk programs such as the Office of Environmental Management, I have met personally or via phone and video conference with all of the site managers, major contractors, State regulators, and major unions to make clear the expectations up front for accountability, delivery, oversight, and transparency.

As part of our planning and monitoring efforts, the Chief Financial Officer's Office of Program Analysis and Evaluation and the Office of Internal Review have taken steps to address internal controls guidance, documentation standards, external reporting requirements, outcome validation, and early issues identification. On an ongoing basis, we participate on government-wide teams led by OMB to develop implementation guidance and requirements. Based on the initial OMB guidance and subsequent meetings, we have already issued Recovery Act implementation guidance to aid programs in developing specific performance plans that detail the status of projects, performance metrics, major project milestones, and risk management. In addition, the CFO's office led a two day "all-hands" field CFO education session for financial control officers to make sure everyone understands his or her responsibilities with respect to oversight and accountability under the Recovery Act.

Within the CFO's office, we are also aligning our financial systems to accept Recovery Act data, perform analysis, and track the execution of Recovery Act plans so that senior management can monitor progress. Separate Treasury account symbols have been established to comply with requirements for tracking and reporting Recovery Act funding separately from existing Department funding. Project codes are being established in our accounting system as Recovery projects are approved by the Secretary. These efforts will all allow the Department to better monitor and assess the progress of Recovery Act projects and will also facilitate the Department's reporting to *Recovery.gov,* which in turn will assure the accountability and transparency for the American people which the President has promised.

The Department has taken several steps to ensure that all procurement vehicles incorporate a selection process that is fair and advances the President's long-term policy agenda. To ensure that all solicitations, contracts, and financial assistance awards comply with OMB's Recovery Act requirements, we have issued standard language for all these procurement instruments. We are also directing our contracting professionals to pay special attention to the content quality of specific areas, including clear scope definition, adequate documentation to support decisions, compliance with transparency requirements, and small business considerations.

In our efforts to ensure accountability, we have required each Headquarters program element, field office managers, and Field Chief Financial Officers to sign an "Acknowledgement of Management Accountability of Internal Controls." This document will serve as a commitment from management to maintain a strong internal control environment. The signed acknowledgements are required prior to any distribution of Recovery funds. The Department will require an additional assurance letter at the end of the fiscal year to support financial statement reporting. These policies and procedures will help ensure that we achieve the outcomes envisioned by the President and the accountability expected by our fellow Americans.

Loan Guarantee Program

Title XVII of the *Energy Policy Act of 2005* and the 2007 *Energy and Water Appropriations Act* authorized the Department of Energy to provide loan guarantees for advanced technology projects that avoid, reduce, or sequester anthropogenic greenhouse gas emissions or air pollutants. The GAO and Office of Inspector General have both identified issues with management, accountability and transparency in this program. I am pleased to report to you this morning that the Loan Guarantee Program has made substantial progress over this past year, and Secretary Chu has directed us to accelerate the process significantly and deliver the first loans in a matter of months, while maintaining appropriate oversight and due diligence to protect taxpayers' interests. We are taking steps to reduce the cycle time from application to loan guarantee so that good projects are funded, with all due speed and due diligence. We have also taken steps to improve the Program's transparency and to attract quality projects that will result in environmental benefits, create jobs, and contribute to long-term economic growth and competitiveness. The Loan Guarantee Program is expanding its efforts to recruit and hire highly qualified personnel to complete the necessary project evaluation, environmental compliance, due diligence, credit underwriting, monitoring, and oversight activities. The Department is committed to managing the Loan Guarantee Program carefully to maintain the integrity and objectives of the program and to ensure that the taxpayers' interests are protected.

Conclusion

Mr. Chairman and Members of the Subcommittee, at the Department of Energy we are committed to creating jobs by developing new, innovative ways to provide clean, reliable, and secure energy. Congress has vested the Department with significant responsibility under the Recovery Act. We have begun and will continue to institute a culture of transparency, accountability, integrity, and efficiency as we capitalize on our advances in science and technology to better manage the Nation's energy resources and contribute to a competitive, growing, and environmentally sustainable U.S. economy.

Mr. Chairman, thank you for the opportunity to appear before you today. This concludes my testimony and I am happy to answer questions. Thank you.

BIOGRAPHY FOR MATTHEW ROGERS

Matt Rogers is the Senior Advisor to the Secretary of Energy for the Recovery Act.

Previously, he was a Senior Partner in McKinsey & Company's San Francisco Office. Over time with McKinsey he led their, America's Petroleum Practice and their North American Electric Power and Natural Gas practice, and helped establish their Clean Technology practice. Matt spent more than 20 years consulting with leading oil companies and utilities globally.

Matt played a leading role in developing McKinsey's perspectives on global energy supply/demand and greenhouse gas abatement economics. He served the Obama Presidential Transition Team in a special effort to develop opportunities to reduce the cost and increase renewables content in federal energy procurement.

Matt graduated *magna cum laude* from Princeton University. After graduation he joined Credit Suisse First Boston as an energy investment banking analyst. He earned an M.B.A. from Yale University's School of Management.

Matt is married to the Honorable Yvonne Gonzalez Rogers, who serves as a California Superior Court Judge on the Alameda County bench. They have three children—ages 13, 10, and 7.

DISCUSSION

Chairman MILLER. Thank you, Mr. Rogers.

We will now begin our first round of questions, and the Chairman recognizes himself for five minutes.

The idea of a stimulus package, of stimulus spending, is that it does not just help the immediate recipients but it ripples through the economy; that whoever directly receives federal funds buys meat, the butcher buys bread, the baker buys candlesticks, the candlestick-maker buys something else, and we obviously need that since we have been losing 600,000 jobs a month and we need it as quickly as we can to spend money quickly and spend money well, carefully. How quickly do you think you can get the money out the door so the recipients can start buying meat and bread and candlesticks? Dr. Marrett, an approximate date when the money will start going out?

Dr. MARRETT. I indicated in my testimony that we are talking about a matter of weeks. That should be two or three weeks at the most that we will begin to move the money out of the door.

Chairman MILLER. Mr. Spoehel.

Mr. SPOEHEL. The timing in NASA's case will depend on the length of the procurement cycles. The award of contracts that we have for the initial hurricane repair, for example, will likely take a month so I would say it is probably at least two months before the actual work under any of those contracts would be undertaken and that is again assuming that all the approvals and requisite reviews by OMB and Congress have been achieved.

Chairman MILLER. Ms. Herbst.

Ms. HERBST. The answer is dependent on the different bureaus but, for instance, in NTIA we have DTV coupon money flowing again already. Approximately two-thirds of our monies we believe will go out as competitive grants and contracts so we are in that process now of announcing grants and so forth.

Chairman MILLER. Mr. Rogers.

Mr. ROGERS. In the Department of Energy, the first funds should be going out in the next couple of weeks. The weatherization activities, we need to get a short form application from the states binding them under the Recovery Act terms and then we are turning around and obligating the first 10 percent of the funds immediately to the states in response to that. Likewise, as soon as the obligations for the next departments come through, we will be getting those monies out the door quickly as well.

Chairman MILLER. Ms. Herbst, I understand that NIST had construction competition last year. You got 100 applications. You only had the funding for three. But I assume the others are still on the shelf. Were some of those also strong projects that would be logical, worthy recipients of funding?

Ms. HERBST. The NIST spend plan is just about approved and we recognize the flexibility given to award from both 2008 competition and 2009, so we are preserving that flexibility in our planning to move forward in that fashion.

Chairman MILLER. So you will be able to fund some of those projects without re-bidding them because you already evaluated, all the work has been done?

Ms. HERBST. Well, we have been given the—the Act stipulated that we could do it that way and we are certainly looking at that in our planning.

Chairman MILLER. What would be the difference in timing if you took the plans already evaluated on the shelf versus re-bidding, going back through all the rigmarole—I am sorry—all the oversight.

Ms. HERBST. If I could, can I get back to you with that so I can give you a very specific answer on that?

Chairman MILLER. Okay.

Ms. HERBST. Thank you.

Dr. Marrett, I hear from the universities, the research universities in my district that the researchers love working with FastLane; they hate working with *grants.gov*. This all comes at an awkward time. Is there anything you can do to have this subject to FastLane so it can remain up and running and let the bugs in *grants.gov* be worked out later?

Dr. MARRETT. Well, we certainly will be processing our own. We will continue to use FastLane. We do work with a number of other agencies with reference to FastLane and have been in discussion recently. There will be some limits, of course, to how much we will be able to absorb from everywhere across the Federal Government, but we are in conversation about how to have our own processes and what would be available, how to make that as widely available as possible.

Chairman MILLER. Dr. Marrett, I also hear from researchers in my district that although the grants usually ask who will be doing this work, how many graduate assistants will you be using or whatever else, it is not typically—their work is not typically judged by how many jobs it creates, and they are a little puzzled by how all that is going to work and how they are supposed to report back on job creation from grants. What kind of guidance will they get from OMB—or are you getting from OMB—to tell the research agencies what to tell universities on job creation data, how to keep it, what to look for?

Dr. MARRETT. The guidance is emerging from OMB and we are in conversation with all of the agencies, but in addition, our grantees have always reported what they are doing, how many people they are anticipating and in their subsequent reports how many people they have in fact employed. So some of this will not be new for gathering the information. What I said about the numbers of students, post-docs, undergraduate and graduate students, postdoctoral students, for the programs that we have in the education world, I talk about teachers, we have for some time been monitoring these numbers that we are talking about. We will have additional procedures where this will have to be reported as a part of the activities for any grant that is given.

Chairman MILLER. I guess this is for all the panelists. Is there going to be a consistent policy across all agencies on how that data is going to be collected? What will be required? Just flip a coin.

Ms. HERBST. All the agencies who receive funding are working with and through OMB, who is coordinating the guidance on jobs creation, counting methodology, tracking methodology and reporting methodology.

Mr. ROGERS. And we are working trying to—the Office of Science within the Department of Energy is trying to work quite closely with the National Science Foundation to make sure that the processes are similar across the various agencies because what you don't want to have is to have different researchers think one money group is different from another money group, either because the reporting is different or the application is different, so we are trying to get consistency between and among the agencies on that basis.

Chairman MILLER. My time has expired, not gloriously but some.

Dr. Broun. I recognize Dr. Broun for five minutes of questioning.

Mr. BROUN. Thank you, Mr. Chairman.

The first question would be to Mr. Rogers. Mr. Rogers, the Secretary was here—appeared before this whole committee—and during the questioning, I asked the Secretary if he realized that there was not a consensus, not a consensus, I repeat, not a consensus on human-induced global warming, and he disagreed with me on that. He talked about that if a scientist came forward and refuted the consensus, that that individual would be counted a hero. Well, there are thousands of such scientists around this country, around this world that refute that there is any human-induced, if any at the most a very minuscule effect on human-induced global warming. I am very concerned about the granting process and accountability that you guys are going to be doing when the Secretary displays such blatant scientific blindness. There are many scientists all over this country, all over the world, that will very readily say that human-induced global warming is not factual and so if you guys go forward in the granting process taking the attitude that this is absolutely the consensus, this is absolutely the fact and don't do any grants, don't do anything to look at the other side, first thing, it is not scientifically—there is no scientific integrity there, and I see a tremendous lack of that in the attitude of the Secretary.

As you go forward with this granting process, I hope and pray that you will take into consideration that there are other views than the Secretary's and will look at granting some of this money to other people. Would you please reassure me, because I have no assurance today that that is going to happen? I see what is happening with this Administration and with your Secretary and I hope it stops there, but within your agency there is tremendous scientific blindness about other ideas. Can you please tell me how you are going to assure me, as a Member of Congress, and the American people who are watching you this moment how we are going to make sure that science prevails and not political policy that is being driven by other things than scientific methods? Before you answer that question, I want to tell you, I am a physician. I believe in scientific theory. I believe totally in scientific integrity and I do not see that with your Secretary.

Mr. ROGERS. One of the things that is helpful about the Recovery Act is, it actually specifies the blocks of that spending quite clearly, and my task is very straightforward in that regard. We need to move those funds out against those projects with a high degree of transparency and accountability. What is good about it is, if you take a look at the funds we have, for example, for grant programs, of the $32.7 billion that we have for grants and contracts, approximately $13 billion of that is dedicated towards energy efficiency. I would argue and we would argue that those are among the highest return investment opportunities that the American public has and that these—we are working closely with the Council of Economic Advisors to show what the return on the American taxpayer's investment is in energy efficiency programs. These are programs that should put dollars back in the pockets of hardworking Americans and demonstrate a good investment in energy efficiency is a high-return one for the overall U.S. economy. So in those kind of topics, I don't think the issue is about global warming or not, it is just a good investment for the American people to make.

In terms of the scientific question, what I think we are driving towards, and as we get the grant programs defined for the Office of Fossil Energy or the Office of Electricity, is what we are trying to do is create a series of experiments at scale against a broad range of technologies that address the particular topics that were brought up in the Recovery Act, and by examining a diverse range of technologies, what we then do is give the market the opportunity to decide what mix of capital costs, operating costs and efficiency is the most appropriate one to be adopted by industry, and so I think it creates quite a good dynamic where you do the good science across a broad range and then effectively leave it up to the market to adopt—to decide on adoption rates and adoption standards. So those are the approaches that we are taking. We should approach this with each of the different programs as they come out and explore whether in fact we are meeting that test.

Mr. BROUN. Well, thank you, sir. My time is expired and I thank the Chairman, but you still don't reassure me, sir.

Chairman MILLER. Thank you, Dr. Broun.

Ms. Dahlkemper for five minutes.

Ms. DAHLKEMPER. Thank you, Mr. Chairman.

Thank you all for being here. I appreciate the opportunity to ask you a few questions. I am a new Member from Pennsylvania, and it is great to be on this type of a committee because people in my district expect when I vote for something as important as this Recovery Act that we know where the money goes and we have transparency. Obviously there is a lot of anger about money that has been given out, so this is very, very important to me and to my constituents. I want to ask on a scale of one to ten, how prepared do you believe you are currently to really be the stewards of this money, and my goal is that you are at a ten eventually if you are not there and how do you plan to get there if you are not?

Dr. MARRETT. I am glad you let us know what the scale was on. I was getting ready to put us down near one thinking that was at the top. But if 10 is where we are aiming for, it would depend on which parts. We certainly, as indicated, have the commitment, we have plans. There are still some matters that we are working on to ensure that everything is going to be in place and so I would not want to say that we have reached 10 as of today. I will guarantee we will be at 10 before that time period I had given you of when the grants, when the funds will go out of the door. So that is what we are aiming towards, and I think we are quite well on the way to being exactly at the point you are talking about.

Ms. DAHLKEMPER. Thank you.

Mr. Spoehel.

Mr. SPOEHEL. I think the processes and structures that NASA has in place would allow the Agency to meet the requirements as they are known under the Recovery Act. There are guidances, as was mentioned before, that are evolving so it is hard to know until that solidifies exactly what readiness state we are in, but I believe we are ready.

Ms. DAHLKEMPER. Ms. Herbst.

Ms. HERBST. For the Department of Commerce, I would echo that we are following the guidance closely. We have plans in place. We have created a risk inventory and are looking at risk mitigation plans. The area that we are working on right now is staffing up particularly in the contracts and grants professional area. We have identified the resources we need and we are working expeditiously to obtain those resources.

Mr. ROGERS. I think as Dr. Marrett was arguing, different programs are different places in this process. Our commitment to you is that we are going to have the program to a high level of preparedness before the funds go out. What we did were two things. First is, we established this risk assessment for each of the programs and then are having each of the programs develop risk mitigation plans against the major risk areas that they have. Until those risk plans are in place and until we have walked through a series of quite disciplined milestones, none of the money can be obligated, or no checks can go out, and so that is the combination between my office and the CFO's office to make sure that each of them has to certify readiness before the first check clears, and again, each of the programs are at different places but all will be ready before the money moves.

Ms. DAHLKEMPER. I have another question that I would like to kind of address to the entire panel. Different areas of this country are having greater economic issues than other areas. Where I am from, the northwest part of Pennsylvania, we had a depressed economy before the rest of the Nation was really suffering as they are right now. When you are looking at the monies and granting this money out, are you taking into consideration at all what areas of the country have the greatest needs for jobs, for job creation, for economic development?

Dr. MARRETT. As I indicated, we have proposals in place and proposals will be coming in, and we certainly—for National Science Foundation, we have to rely on what comes to us. But one of the things that we did quite recently was to map across the country where the current proposals that could be considered under the Recovery Act, where those are located, to try to make sure that when we talk about trying to have "broader impacts," we mean "broader impacts" making sure that we are addressing the needs as those might vary across the country. So we are paying close attention to the quality of the work that is coming to us and the fact that that work is, in fact, represented across all parts of the Nation.

Ms. DAHLKEMPER. Would anyone else like to address that?

Mr. ROGERS. Within the Department of Energy, every dollar under the Recovery Act is associated with a job amount, a state and an impact, and then a set of milestones that that project has to achieve in order to reach those jobs and that impact, and so what is nice now is that we are going to be able to report out by state, which you can see with the existing formula grants, and then by Congressional district to be able to show the American people where those funds are going so that you can see that those dollars are in fact going to work in your neighborhoods. The good thing again about the Department of Energy's formula grant activities is both for the State levels and then as we come out with the energy efficiency activities for the local levels, we are going to be addressing every state in the country and we are going to be addressing 1,700 municipalities with direct funds and then as with Dr. Marrett, there is a whole set of them that are coming in then from the marketplace but the ability to go back and track jobs by Congressional district is a really important one so that you can see where those monies are being spent.

Ms. DAHLKEMPER. Ms. Herbst, did you want to comment at all?

Ms. HERBST. I would echo Mr. Rogers in terms of in addition to the criteria around specific program outcomes that are grant making, the process already has, the jobs creation criteria is being added and we will track where those jobs are. Additionally, in Commerce we have the Economic Development Administration and specifically have been directed to look at regions that have experienced economic dislocation and job loss as part of the grant-making criteria.

Ms. DAHLKEMPER. Okay. Thank you.

Chairman MILLER. Thank you, Ms. Dahlkemper. For information for Members of the Committee, when I exceed the time, I will generally use that as a rule of thumb of how indulgent I will be for other Members, so both Dr. Broun and Ms. Dahlkemper exceeded their time but not by as much as I exceeded my time.

Mr. Bilbray for roughly five minutes.

Mr. BILBRAY. Thank you, Mr. Chairman.

In the spirit of full disclosure, Mr. Chairman, I serve as the Ranking Member for the Government Oversight Committee on Procurement and Government Oversight so this is sort of a two-fer for me. But I want to clarify that I think that what has happened this week with AIG is exactly why somebody like myself, who has been in government oversight since 1976—it is kind of scary to think I got elected to city council before Jimmy Carter was elected. That is how long I have been in the game. In fact, that was the days when I had a mustache and long hair. But the one thing I saw when the bail-out under Bush was being proposed was, it was wide open for this kind of abuse. Now, the discussion of this bill was the fact that we had a bill dropped at 10 minutes 'til midnight and we were asked to start an intelligent debate at 9:00 the next morning, and I just think that we have to recognize the huge potential for abuse because of the lack of oversight in the creation, and that means now the huge responsibility we have to really look at oversight in the implementation. So we have got to make up for that, and you think that people are upset right now about AIG, they are darn well going to be upset about this if we don't try to correct it, and the one thing I have tried to do working with my Democratic colleagues on oversight is to use the opportunity, that this is a new Administration with a whole new structure and help this new Administration avoid the pitfalls of the previous Administration. So rather than play gotcha the way that oversight usually does, we need to be proactive and point out the mistakes of the Bush and the Clinton Administrations so that the Obama Administration doesn't fall into the same problem. So just so you know where I am coming from and where we are working over on that committee and there is a lot of information that I receive there that I will apply here.

Mr. Rogers, we talk about—we can argue the merits of what my scientists at Scripps say and where we are going and different scientists are saying whatever, but there are some scientific facts that we have ignored in the past. A good example is your choice of the term "green" or "renewable," and let me tell you, let me tell you, when you have Duke University that just came out with a report that said it would be better never to plant the crop than to grow corn for ethanol, better for the soil, better for the environment, across the board. I certainly hope that when we are reviewing applications that we remember that. When you have the Air Resources Board of California, which I had the privilege of serving on for six years, the premiere clean air people—you would admit that they are cutting-edge when it comes to admissions issues. When the ARB, the Air Resources board of California, which there is a slew of states that do nothing but follow their guidelines, actually adopt their guidelines, and let us face it, most people don't like following California anywhere except to Hollywood, when they say that ethanol is no better for the environment than regular gasoline, in other words, the word is getting out from the scientists that the only thing green about burning ethanol is how much money the industry is making off of the consumer. Are you going to be able to reflect as you look at this that when you talk about a gallon, you don't talk about a gallon for gallon like what we get with ethanol where you lose 30 percent, but mile for mile, BTU to BTU, the outcome and the efficiency, not what people are telling you about what is clean and what gives you the mileage, are you able to be able to reflect that?

Mr. ROGERS. In the program evaluation, for example, of some of the auto loan programs, there is a simple one we have. The Argonne National Lab has done a very nice set of technical analysis that reflects a multitude of real-world functions in terms of the operations in that evaluation. So how do people really drive cars as a simple model as well as, you know, issues like the ones that you raised, and I think that is where the—what the Department can bring to this debate again is good scientific evaluation that incorporates all the different factors in a consistent fashion as we go through program evaluation.

Mr. BILBRAY. Okay, because E85, to give credit to E85 and not give a credit to natural gas compressed gas, even to have E85 in the same category is really ignoring good science, and I know politics the way it is and I know where the President is from and all his buddies, but the fact is, this is one of those things I am going to be pounding on because just as much as we need to stand up for good science about climate change is where the answer is.

Now, we are going to be using non-profits a lot on this and one of the things we have run into, and Ms. Herbst, we brought into this issue, everybody is talking about the previous Administration's contracts with for-profit organizations in Iraq. The new big scandal is going to be what the Bush Administration did with so-called non-profits and the lack of accountability for those contracts in Afghanistan.

Mr. Rogers, are we going to maintain a level of oversight on non-profits? Because when we do energy retrofits, you know that is very, very cost-effective, but traditionally non-profits have jumped into that but the oversight and the accountability of non-profits have never, ever been up to the standards that we have held with for-profits. Are we ready to change that and hold them to the same standard just because they are so-called community based? Are they going to be required to hold the same standards that we do for profits?

Mr. ROGERS. So one of the most important improvements in oversight that we are implementing as part of the Recovery Act is a change in the way that we look at the weatherization program. Historically, the money flows through the states and we would look at the State level to figure out how the state is actually costing or spending those funds and we would do that every other year with the states. Under the current model, what we are doing is moving to a much more direct oversight model where first the States have to issue plans and milestones. They only get funding with respect to meeting their milestone objectives. Secondly, we are going to be auditing not just the funds flow but actually the outcomes from the way the states are spending the funds. So the states now have to report within five business days of the close of every month who receives the checks from the states, which non-profits receive that, and instead of us going in and just saying can you show us that a nonprofit did how many houses, we actually now have the ability to go in and look at which houses actually got done and go to the house and figure out was it done, to what standard, did they do it—how much money did they spend, what kind of returns did they get for that investment, which is something that we haven't had either the resources or the authority to do in the past.

Mr. BILBRAY. Ms. Herbst, following up on this just to get down to it is one of the critical components of distributing these funds was the census of what is the population base, and we are talking about—let me just follow up with this one, please. This is a very important issue in California, and that is, the scientific accurate data that we need for our census is going to be under your department. We have talk of the use of ACORN, one of those non-profits that are under investigation. In California, the criminal investigation is as long as my arm, and to talk about a non-profit that is under investigation, that is under that kind of cloud really lends itself to the kind of outrage that we said that private sector, you know, being investigated the same way. Are we going to be contracting with non-profits that have that cloud, and if we are, doesn't that send a whole message that the entire census if we use those groups may be suspect down the road when it is a critical time to be able to try to use that data?

Chairman MILLER. I am sorry. Ms. Herbst, Mr. Bilbray has now exceeded his time by substantially more than I exceeded my time, so if you could make your answer just a sentence or two and you can respond further in writing if you like.

Ms. HERBST. Thank you, because I would like to respond in detail as a follow-up. We are committed to the importance and the accuracy of the census. The Census Partnership Program Plan, which is part of the Communication Plan, is under review regularly and the spending on that is under review and we intend to continue that. We also intend to have the same oversight regardless of whether it is a profit or nonprofit. All of our processes around acquisitions and grants do not distinguish between those two. Thank you.

Chairman MILLER. Thank you. I will now recognize myself for a second round of questioning. I understand with votes coming, it probably will not be the case that Members other than Mr. Broun and I will be able to have a second round.

Dr. Marrett, your agency is getting a $3 billion increase over two years. You are now a $6 billion agency, so that is a pretty stiff increase. We have—our staff has heard that many of your employees, most of your employees are working hard already and most are in fact working well beyond an eight-hour day. How is your staff going to manage that really very significant increase in work to make sure that the money is managed properly?

Dr. MARRETT. Our staff acknowledges, we have to acknowledge that there are pressures on the Foundation given that the staffing levels have not been increasing. Against that backdrop though, there is a great deal of enthusiasm on the part of all the staff. The level of commitment is amazing. In addition, the workload is not going to be even across the Foundation and so some will have more than others and thus we are looking at how to even out a lot more the workload issues. So we are working on that. The other matter has to do with something that I think is affecting all of us. The Office of Personnel Management is also looking at strategies that might be put into place that will help with the staffing issues that we are all confronting at this time, so we are paying a lot of attention to what kinds of flexibilities we have internally, what kinds of strategies might be possible through the experiences elsewhere and certainly working to make sure that we do not place great stresses on what is still a very enthusiastic staff.

Chairman MILLER. Thank you, Dr. Marrett.

Mr. Spoehel, my concerns about NASA are different. You make the point correctly that the increase for NASA is not really that much more than your current budget and that you can simply supervise this funding in the way that you supervise your existing funding. I think it is a $1 billion increase in a $17 billion budget. The problem is your existing management. NASA has consistently remained on GAO's list of the agency that is at highest risk for mismanagement in contract administration, at risk for waste, fraud and abuse. This committee is now looking at various acquisition contracts by NASA, generally how NASA administers contracts and decides what to contract. We are not entirely reassured by the assertion that you will just manage this the way you are managing everything else. What changes does NASA—you are kind of a juncture where you can make changes. You will shortly have a new director. We devoutly hope you will have a new IG. What changes do you contemplate making in NASA's management of contracts now?

Mr. SPOEHEL. Over a year ago, in response to the continued portrayal of NASA on the high-risk list, NASA undertook a comprehensive corrective action plan, and based on the progress under that, as may have been noted, GAO improved—recognized the improvement that NASA had made under the high-risk series. NASA continues to undertake additional actions under that and I would be glad to provide the Committee with a copy of that if that is something you would like to go into in more detail [see *Appendix 2: Additional Material for the Record.*]

Chairman MILLER. Okay. Ms. Herbst, the NPOESS satellite has been one of this committee's, the Subcommittee's and the broader Committee's concerns for the last several years and we have heard again and again, the project has been mismanaged and the mismanagement has cost taxpayers considerably, and that we are at some risk by not having the system in place to collect climate change data and weather prediction data to improve our weather prediction capability. Have you developed a plan to use some of the Recovery Act funds to address the many problems with the NPOESS system?

Ms. HERBST. NOAA is very focused on program execution, particularly in this program, and is planning on using Recovery Act funds towards that program to reduce technical and schedule risk, and again, their spend plans are working their way through the approval process in the Department. We expect to have them out shortly. And that will include the plan around the NPOESS satellite.

Chairman MILLER. My time has expired by just a little bit.

Dr. Broun.

Mr. BROUN. Thank you, Mr. Chairman. I am always going to give you leeway because I may need it at sometimes myself.

Chairman MILLER. And I have the gavel.

Mr. BROUN. And you have the gavel. Correct. I am sure you will remind me of that over and over again.

I want to start with Ms. Herbst but I would like all of you to answer this question. I want to associate myself with the concerns and remarks that my colleague, Mr. Bilbray, said. Ms. Herbst, would you please reassure me, this committee and the American people that you all will not be granting any of these funds to profits or non-profits, either one, to any group that is under criminal investigation for whatever reason and that you will take diligent efforts to make sure that that happens? I think it is atrocious, totally unacceptable the way that the original TARP funds were handled by the Bush Administration, and I think it is extremely important for this Administration to make sure that those funds are expended in a better way, and one way to do that is to assure us as a committee and assure the American people that groups such as ACORN, which is under investigation in numerous states, it is not just one little enclave of these folks, it is a systemic problem with ACORN, but would you please reassure us that you will take very diligent efforts to ensure that the taxpayers' dollars are not going to be given to groups that are under criminal investigation, particularly those that are under investigation for fraud, and then I would like all the rest of you to answer that if we still have time within my five minutes.

Ms. HERBST. The Department of Commerce has identified the contracts and grants area in total across all of our bureaus as a key area of risk to mitigate and manage and we have spent additional time with our senior people developing risk management and oversight plans, providing additional guidance. We also plan from a personnel standpoint to put our senior experienced contracts and grants people on Recovery Act contracts and grants. Because of the additional oversight, the additional reporting and accountability requirements, we feel we need to put our most experienced people on those. We intend to then bring in other resources to handle through our normal processes and oversight the existing underlying grants and contracts activity. We have also taken a specific look at our investment review board procedures and processes, which are used at the department level to review high-level, high-risk, high-dollar types of contracts, grants and programs, and we are putting special emphasis on Recovery Act grants and contracts for the review board. We will be very diligent in reviewing those grants and contract awards and will use all of the oversight and management processes that we have to ensure that.

Mr. BROUN. I am about to run out of time. I would like for the other three of you to please answer that in writing. We are going to present, I think, questions in writing, so if you all would please answer that question.

But back to Ms. Herbst before my time runs out, would you assure me that you are not going to give grants to ACORN to do census?

Ms. HERBST. I would like to be able to get back to you. I would like to go back to the Department and give you an answer in very great detail on that if I may.

Mr. BROUN. Well, if you don't have that answer, certainly I will be glad to give you that latitude, but I highly encourage, just for the sake of integrity of the census which is extremely important to every single American, and most of them don't realize how important that is, but this organization is under criminal investigation, criminal investigation, in numerous states across this country. And I highly recommend that the agency absolutely not even begin to consider granting ACORN any money whatsoever to be involved in the census, and I encourage all of your agencies to take diligent efforts to make sure that no contracts are given to anybody, profit or non-profit, that is under criminal investigation because it is going to lay a cloud on this Administration, on this Congress, on everything that is done, so I encourage you all to do so. There is a database that you all can search. It is not updated enough. That is a whole other issue. But I encourage you to do that. With that, I will yield back.

Chairman MILLER. Thank you, Ms. Herbst. I actually hold the 435th seat in Congress, so I thought the Census Bureau did an outstanding job last time. The Members from Utah, not so much.

It turns out we do have time for another round of questioning, Ms. Dahlkemper, if you have another round of questioning. If not, it probably makes sense for us to stand at ease and go to vote and have the next panel. Do you have a second round?

Ms. DAHLKEMPER. I just have one question that should be fairly easy, hopefully, to answer. But it is about other agencies where desired or needed. Have you been getting the necessary support and if not, you know, can we do anything to help you with that because I find that agencies often don't cooperate as we really would hope that they would here in the Federal Government.

Dr. MARRETT. Well, speaking on behalf of NSF, there has been quite a bit of interaction across the agencies. You have heard some of that among us today, but there are other agencies that we are working with, especially both to learn about what are potential effective practices to ensure that there are commonalities. I can't think of, then, any particular problems that I would say we have encountered in working with the other agencies.

Mr. ROGERS. Indeed, from an Energy Department standpoint, the level of collaboration among departments has been at a very, very high level. We have joint ventures now with HUD and with HHS on community grant activities, with Interior and Agriculture on a whole set of siting issues, with Labor and Education on job training issues so that we are actually getting the most for the taxpayers' funds, that we are either not leaving big gaps or showing up in duplicative ways. And the level of commitment to collaboration in a positive way from the American taxpayer has been extraordinary since the passage of the Recovery Act.

Ms. DAHLKEMPER. That is great to hear. Thank you very much.

Chairman MILLER. Thank you. Mr. Bilbray, it looks like you will have time for a couple minutes as well.

Mr. BILBRAY. Thank you, Mr. Chairman. Mr. Rogers, we had a great ability to talk directly to the Energy Secretary. The Energy Secretary made it very clear that he understands that the answer for clean fuel is a petroleum-like product with the BTU's, clean environment, and that alcohol ethanol is not the answer. Is your department ready to draw the line and make sure you are not using taxpayers' funds to subsidize technology that produces a fuel that is not recognized by the best experts as a clean fuel, i.e., ethanol?

Mr. ROGERS. The funding within the Recovery Act focused on renewables is still going through the consideration process, and we are still working with the Office of Management and Budget to be able to talk exactly about how that breaks down. We should have a very clear set of guidance out on that in the next several weeks where we can address that issue specifically.

Mr. BILBRAY. Mr. Rogers, were you around in the '90s when the Federal Government mandated the inclusion of MTBE, a.k.a. methanol in our gasoline stream in non-attainment areas?

Mr. ROGERS. I have been around the Federal Government for 30 days, so I was not here in the 1990's.

Mr. BILBRAY. Well, let me just remind you. The fact is, the Federal Government has gone down roads before thinking it is an environmental option, not taking the time to talk to the scientists and creating not only a huge waste of taxpayers' money but huge environmental damage. Santa Monica now still has polluted wells from a federally mandated additive that was supposedly—and I just want to say again. I don't care if it is even cellulosic. The Secretary made it quite clear in his hearing that he is looking for an option that produces a fuel that is not 30 percent less efficient than traditional fossil fuels and does not create more pollution per mile. And watch the way they work their numbers. They will say per gallon, and they will say tailpipe emissions. They won't talk total emissions. And if I sound really hard-nosed about this, it is that we have had to live with the environmental damage of a misguided federal strategy, and if you want to see a scandal like AIG, in a few months we could have—all this new science coming out on ethanol and your department subsidizing it, and I don't think you want to be in that position, sir. So I hope that you look at these things, apples to oranges, mile for mile, gallon for gallon, and emissions at a truly environmental item. Can we do that?

Mr. ROGERS. The Secretary's guidance on this topic is quite clear, and you know, what is good about working for the Secretary is he sinks his teeth into a set of topics and gets into the science in great detail, and then that translates quite quickly into the structure of both the direct options that we have as well as of the grant-making that we undertake. As we work through this process, he is directly involved in that activity.

Mr. BILBRAY. Well, I think what I am excited about is I have got a Californian who knows the frustration of us in California watching Washington do things in the name of the environment that has been absolutely disastrous, and now we finally got somebody at the right place who can sort of try to wake up this town that there are environmental opportunities out there and there are some really lost leaders. And I am still very excited about somebody trying to show me how we are going to make coal clean from the mining to the transporting to the use, and I will still stand up and say clean coal is about as logical as safe cigarettes. In a few years people are going to understand that, but this one I really do not want us to waste this money. I don't want the outrage with this Administration that we have seen with the last Administration, and we can avoid this if we just are willing to take the time to make sure we got our facts straight first.

And I don't care if it is the technology we choose or the people we choose to implement these funds. We darn well better be careful because Congress was not careful. We did not take the time, and you have got to make sure you take the time and do it right because we didn't do it right. Thank you very much, Mr. Chairman.

Chairman MILLER. Thank you. I think we have now completed with this panel. It does appear we might have time to get started on the second panel, at least perhaps to do the introductions. So if we could fairly quickly change places, but we will shortly be called for votes.

Panel II

I would like to introduce our second panel. Mr. Gregory Friedman is the Inspector General for the United States Department of Energy. Mr. Todd Zinser is the Inspector General for the U.S. Department of Commerce. Mr. Tim Cross is the Interim Inspector General at the National Science Foundation. Ms. Eileen Norcross is a Senior Research Fellow at the Mercatus Center, a think tank at George Mason University, and Ms. Patricia Dalton is the Managing Director of the Natural Resources and Environment Division at the U.S. Government Accountability Office.

As you know, from having been here for the previous witnesses, you each have five minutes for your oral testimony. Your written testimony is as long as you would like for it to be within reasonable limits, and that will be submitted for the record. After your oral testimony, we will have rounds of questioning, perhaps just one, in which each Member will have five minutes to question the panel. It is the practice of the Subcommittee to receive testimony under oath. Do any of you have any objection to swearing an oath, to taking an oath? Okay. You also have the right to be represented by counsel. Do any of you have counsel here? If you would now all please stand and raise your right hand, do you swear to tell the truth and nothing but the truth? Let the record reflect that each of the witnesses swore the oath.

Mr. Friedman, I think we have time to take your testimony.

STATEMENT OF MR. GREGORY H. FRIEDMAN, INSPECTOR GENERAL, U.S. DEPARTMENT OF ENERGY

Mr. FRIEDMAN. Mr. Chairman and Members of the Subcommittee, I appreciate the opportunity to testify today on accountability and transparency issue related to the *American Recovery and Reinvestment Act of 2009*. As you know, the Department of Energy will receive approximately $40 billion for various science, energy, and environmental programs and initiatives. Furthermore, based on the Recovery Act and previously approved programs, the Department has been authorized to make or guarantee loans totaling up to $127 billion for innovative technologies as well as auto industry advancements.

The Recovery Act will undoubtedly have a significant impact on the operations and the activities of the Department and, in turn, on the Office of Inspector General. The passage of this legislation makes this a transformative time for the Department of Energy, particularly in the areas of scientific discovery and innovation.

My staff and I are committed to evaluating the actions of the Department to ensure that Recovery Act funds are used both efficiently and effectively. Utilizing a risk-based oversight strategy, my office will: First, evaluate the internal control structure for the most significant programs receiving Recovery Act funds. Second, through transaction testing, evaluate the effectiveness of the Department's distribution of funds to key external recipients. Third, evaluate the Department metrics to gauge program success. Fourth, provide fraud awareness briefings throughout the Department complex and coordinate with federal, State, and local prosecutors and law-enforcement agencies, and fifth, enhance our program to process and report on whistleblower retaliation complaints. In addition, the Act creates the Recovery Accountability and Transparency Board. As Inspector General for the Department of Energy, I will participate actively as a member of this Board.

This strategy takes into account management challenges that we have reported on over time as well as issues that we expect as a result of new initiatives related to the Recovery Act. These include concerns about the following: The Department's ability to administer or manage its large portfolio of contracts and related financial instruments; the Department's loan guarantee program, specifically related to having adequate staffing to manage the programs and the inherent vulnerabilities and operational risks associated with massive increases in funding and mission responsibilities, all in a relatively short timeframe. We will treat these concerns as priorities as we move forward.

While continuing to focus attention on our customary responsibilities, in recent weeks my office has accelerated efforts to provide proactive oversight of Recovery Act funds and programs. In addition to developing our oversight strategy, my office will shortly issue two reports to the Department regarding the Department's implementation of the Act. First we will provide the Department with a report on lessons learned based on prior Office of Inspector General work. This report will provide the Department, we hope, with a resource to establish a framework to manage the unprecedented amount of funding under the legislation. Secondly, we will provide a report on staffing concerns relating to the Department's acquisition workforce and their impact on the implementation of the Recovery Act. Using our risk-based approach, my office has also initiated a review of the Office of Energy Efficiency and Renewable Energy. This office will be one of the first to put money on the street as a result of the Recovery Act. Furthermore, to mitigate potential fraud risks, my office has launched a proactive effort to communicate with federal and State prosecutors on strategy for pursuing allegations of fraud, and we have also delivered over 15 fraud awareness briefings to various Department elements. Finally, in order to make the most effective use of available oversight resources, my office is currently involved in discussions with several State auditors to establish collaborative efforts, most notably in the area of weatherization, to follow the expenditure of Recovery Act funds to project completion. We have also commenced outreach efforts with the Government Accountability Office to discuss interaction and communications as it relates to the Recovery Act.

We appreciate the significance of the Department of Energy's participation in the Recovery Act and the potential short- and long-term implications for the U.S. economy. We are mindful as well of the special responsibilities of the Office of Inspector General to help ensure transparency and accountability, all in the interest of the American taxpayers. We will work diligently to meet these challenges. We look forward to keeping this Subcommittee and others in Congress apprised of the results of our work.

Mr. Chairman, this concludes my statement, and I would be pleased to answer any questions that the Subcommittee may have.

[The prepared statement of Mr. Friedman follows:]

PREPARED STATEMENT OF GREGORY H. FRIEDMAN

Mr. Chairman and Members of the Subcommittee:

I appreciate the opportunity to testify today on accountability and transparency issues related to the *American Recovery and Reinvestment Act of 2009* (Recovery Act). My testimony focuses on the efforts of my office to provide effective oversight of Recovery Act funds at the Department of Energy, which will receive approximately $40 billion for various science, energy, and environmental programs and initiatives. Furthermore, based on the Recovery Act and previously approved programs, the Department has been authorized to make or guarantee loans totaling up to $127 billion for innovative technologies as well as auto industry advancements.

The Recovery Act will undoubtedly have a significant impact on the operations and activities of the Department and, in turn, the Office of Inspector General. Under the Recovery Act, the Federal Government hopes to stimulate the economy in the shortest timeframe possible, while fostering an unprecedented level of accountability, oversight, and transparency. The passage of this legislation makes this a transformative time for the Department of Energy, particularly in the area of scientific discovery and innovation.

Consistent with the objectives outlined in the Recovery Act, my office has developed a strategy to provide the most effective oversight possible given our available resources. Before discussing the specifics of the oversight strategy, I would like to outline a few fundamental principles that I believe must guide the Department's management of Recovery Act funds.

- *Prevention and Detection:* In terms of oversight, it is important to note that simply detecting problems after the fact is not satisfactory. As the Department works to establish safeguards and internal controls for managing Recovery Act funds, the *prevention* of fraud, waste, and abuse must be a top priority.
- *Expediency and Accountability:* A principle feature of the Recovery Act involves the allocation of funds with all possible speed as a means of stimulating the economy. While expeditious action is an important goal, the Department must be mindful of the fact that accountability must be maintained over funds.
- *Management Responsibility:* Responsible program managers and contracting officials must exercise effective program management as a primary tool to ensure Recovery Act success. Inspector General oversight activities supplement, rather than supplant, program execution.

Office of Inspector General Oversight Strategy

My staff and I are committed to evaluating the actions the Department takes to ensure that Recovery Act funds are used both efficiently and effectively. Our risk-based strategy for achieving these goals includes the following steps:

- *Evaluate the internal control structure for the most significant programs receiving Recovery Act funds:* To ensure effective oversight, my office will review the internal control structure and management of Department programs, beginning with those receiving in excess of $500 million in funding under the Recovery Act. To provide immediate feedback on areas needing improvement, "real time" reviews will be initiated as controls are established, and policies and procedures are developed.
- *Evaluate the effectiveness of the Department's distribution of funds to key external recipients:* The vast majority of funds provided to the Department will be distributed under various procurement instruments to contractors, State and local governments, educational institutions, and non-profit organizations. After reviewing the Department's internal control structure, my office will evaluate the controls established by the primary recipients over the use of funds.
- *Examine the use of funds through transaction testing, utilizing a risk-based approach:* My office will conduct transaction testing at the recipient or end-user level to fully explore the effectiveness and efficiency of Recovery Act projects.
- *Evaluate Department metrics to gauge program success:* We will evaluate established goals and metrics to ensure that they address Recovery Act objectives. We will also test specific performance and economic information, including reported performance in the critical area of job creation, to determine whether objectives are being met.
- *Provide fraud awareness briefings throughout the Department complex:* On a regular basis, the Office of Inspector General will provide fraud awareness briefings to groups of federal employees, contractor officials, and fund recipients. These briefings aid significantly in preventing fraud, waste and abuse by heightening managers' awareness of fraud indicators and familiarizing officials with our operations.
- *Enhance existing relationships with federal, State, and local prosecutors and law enforcement agencies:* These relationships are critical to establishing effective networks for identifying areas that are most vulnerable to fraud, waste, and abuse as well as bringing to justice those who would defraud the government.
- *Expand Hotline capabilities:* The Office of Inspector General maintains a Hotline to facilitate the reporting of allegations of fraud, waste, abuse, or mismanagement in Department of Energy programs or operations. On an annual basis, the Hotline receives approximately 1,300 complaints. We anticipate receiving an additional 500 Hotline complaints each year that pertain to Recovery Act funds. In the coming months, we will expand our Hotline capabilities, as necessary, to accommodate these complaints.
- *Enhance our program to process and report on whistleblower retaliation complaints, to respond to new requirements under the Recovery Act:* The Office of Inspector General will direct additional resources to review retaliation complaints relating to Recovery Act programs.
- *Participate actively as a member of the Recovery Accountability and Transparency Board:* As outlined in the Recovery Act, I will serve with nine other Inspectors General on the Recovery Accountability and Transparency Board. This work will complement my regular duties as Department of Energy Inspector General. I look forward to working closely with my colleagues to help ensure that Recovery Act funds are spent efficiently and effectively throughout government.

Areas Requiring Special Attention

The strategy outlined above takes into account management challenges that we have reported on over time as well as new issues that we expect as a result of the sudden influx of substantial additional Department funding.

For example, for over a decade, the Office of Inspector General has identified "contract administration" as one of the most significant management challenges facing the Department. We have issued numerous reports on a wide variety of contract administration and project management deficiencies. Given the Department's almost total reliance on contractors to carry out its mission, a commitment to effective contract administration will be of vital importance as the unprecedented flow of funds begins under the Recovery Act.

The Office of Inspector General has also reported on the maturity of the internal control structure of the Department's loan guarantee program, questioning whether it was adequately staffed to support its goals and objectives. For example, prior to the signing of the Recovery Act, we reported that staffing levels were not adequate to, among other things, monitor disbursed loans and complete credit underwriting for applicants. We noted that the Department has stated its intention to augment the staffing levels. We think this is a positive step that should be pursued aggressively as the process of reviewing and approving loan guarantee applications proceeds.

As implementation of the Recovery Act continues, all parties should recognize that the potential risk of fraud increases dramatically when large blocks of funds are quickly disbursed. Our experience in the investigative arena has demonstrated that even during periods of normal operation, the Department is vulnerable to the misuse of funds, submission of false or fictitious data, employee conflicts of interest, and other related wrongdoing.

Finally, given the magnitude of the Recovery Act, successfully infusing funds into existing Department programs will be a significant challenge. For example, the Office of Electricity Delivery and Energy Reliability, which will continue to lead efforts to modernize the electric grid, had a budget of approximately $138 million in Fiscal Year 2008. Under the Recovery Act, this Office will receive $4.5 billion, the bulk of which will be used for electricity delivery and energy reliability activities. Such an expansive increase in funding in a short timeframe carries with it certain vulnerabilities and operational risks.

These are just a few examples of areas relating to Recovery Act programs and operations that we believe will require special attention by Department management. Utilizing the risk-based oversight approach previously outlined, in conjunction with experience gleaned in part from existing management challenges, we will continue our efforts in these, as well as other, critical areas to aid the Department in the successful implementation of the Recovery Act.

Accomplishments to Date

While continuing to focus attention on our customary responsibilities, in recent weeks my office has accelerated efforts to provide proactive oversight of Recovery Act funds and programs. To date, my office has:

- Developed a comprehensive oversight strategy, as outlined above.
- Completed and will shortly issue a "lessons learned" report based on concerns identified in prior work. The report will provide the Department with a resource as it works to establish a framework to manage the unprecedented amount of funding under the Recovery Act.
- Initiated a review of the Office of Energy Efficiency and Renewable Energy's implementation of the Recovery Act.
- Launched a proactive effort to communicate with federal and State prosecutors on strategies for pursuing allegations of fraud.
- Completed and will shortly issue a report on staffing concerns relating to the Department's acquisition workforce and its impact on implementation of the Recovery Act.
- Delivered several fraud awareness briefings to various Departmental elements, including the Office of the Chief Financial Officer, the Office of Energy Efficiency and Renewable Energy, the Office of Science, the Office of Environmental Management, and the Bonneville Power Administration. We have numerous other briefings scheduled in the near future.
- Initiated discussions with the State Auditors in several states to establish collaborative efforts, most notably in the area of weatherization, to follow the expenditure of Recovery Act funds to project completion.
- Commenced outreach efforts with the Government Accountability Office to discuss interaction and communication as it relates to the Recovery Act.
- Applied additional resources for receiving and reviewing whistleblower retaliation complaints associated with Recovery Act programs, as outlined in the legislation.

Conclusion

We appreciate the significance of the Department of Energy's participation in the Recovery Act and the potential short and long term implications for the U.S. economy. We are mindful, as well, of the special responsibilities of the Office of Inspector General to help ensure transparency and accountability, all in the interest of the American taxpayers. We have already initiated efforts in this arena and will continue to work diligently to meet these challenges. We look forward to keeping this Subcommittee and others in Congress apprised of the results of our work.

Mr. Chairman, this concludes my statement, and I would be pleased to answer any questions that the Subcommittee may have.

BIOGRAPHY FOR GREGORY H. FRIEDMAN

Gregory H. Friedman was nominated by the President and confirmed by the U.S. Senate as Inspector General of the U.S. Department of Energy in 1998. Mr. Friedman started his federal career in 1968 and has been with the Department of Energy, Office of Inspector General, since 1982. As Inspector General, he is responsible for a nationwide, independent program of audits, inspections, and law enforcement efforts related to the Department of Energy's programs and operations. In addition to his responsibilities as Inspector General, Mr. Friedman now serves as a member of the newly created Recovery Act Accountability and Transparency Board.

Mr. Friedman received a Bachelor's degree in Business Administration from Temple University and a Master's degree in Business Administration from Fairleigh Dickinson University. In 1979–1980, Mr. Friedman was selected as a Princeton Fellow in Public Affairs and spent a year in residence at Princeton University's Woodrow Wilson School for Public and International Studies.

In 2002, Mr. Friedman was named by the Comptroller General of the United States to serve as a member of the Advisory Council on Government Auditing Standards. In addition, he led the development of the "Federal Audit Manual," for the first time providing universal guidelines for conducting federal financial audits.

From 2005 to 2008, Mr. Friedman served as Vice Chairman of the President's Council on Integrity and Efficiency. Mr. Friedman has been a guest lecturer on the topics of audit, integrity, government oversight and management. In addition, Mr. Friedman is a member of several professional organizations, and has served in leadership positions in the Association of Government Accountants and the Institute of Internal Auditors. Mr. Friedman has also been active in a number of community and philanthropic organizations.

During his federal career, Mr. Friedman has received numerous awards, including the Department of Energy's Meritorious Service Award, the Meritorious Presidential Rank Award, and the Presidential Rank Award for Distinguished Executive.

Chairman MILLER. Thank you, Mr. Friedman. Dr. Broun and I need to go and vote now. We have three votes. We should be back within half an hour, and when we return, Mr. Zinser, you will be first up. So we are now at ease.

[Recess.]

Chairman MILLER. Okay. We are back. Mr. Zinser for five minutes.

STATEMENT OF MR. TODD J. ZINSER, INSPECTOR GENERAL, U.S. DEPARTMENT OF COMMERCE

Mr. ZINSER. Good afternoon, Mr. Chairman, Ranking Member Broun. Thank you for inviting us to testify today on the oversight of the science program and initiatives at the Department of Commerce that will be funded through the *American Recovery and Reinvestment Act.* The Recovery Act requires unprecedented accountability and transparency on the part of government agencies receiving stimulus funds and establishes a strong oversight role for Offices of Inspector General. The Department of Commerce received approximately $7.9 billion in stimulus funding; $1.4 billion of this amount is for science activities at the National Oceanic and Atmospheric Administration and the National Institute of Standards and Technology.

The Department has assigned some of its very best people to lead its Recovery Act efforts, and we have found that all those involved are committed to meeting the challenges ahead. Nonetheless, spending stimulus funds effectively poses significant risks and challenges for the Department of Commerce. At the outset, we see six areas of risk facing the Department in spending Recovery Act funds.

First, spending these funds expeditiously with little time to staff up and gear operations to accommodate the additional activities significantly increases the risks for fraud and waste in stimulus-funded initiatives as well as in the Department's traditionally funded operations.

Second, the executive branch, including the Department of Commerce, is still in transition. Key leadership positions remain unfilled. This puts at risk the leadership vision and the decision-making important in executing a cohesive Recovery Act plan.

Third, the Act's emphasis on grant and contract spending puts additional pressure on already overburdened management and administrative operations, particularly the Department's grants management and acquisition workforce.

Fourth, construction grants and contracts, which NOAA and NIST are expressly required to fund, are inherently risky and difficult to manage effectively. In addition, the construction grant program to be administered by NIST is a relatively new program.

Five is specific requirements related to competitive contracts such as maximizing the use of fixed price contracts and the Act's Buy American requirements will require extra vigilance.

And finally the Act's strict oversight requirements and reporting deadlines will require a greater level of centralized management of the bureaus than the Department has historically exercised. This is a significant challenge for the Department because it has been expected to exercise a greater centralized management role without sufficient funding to do so in the past and without funding to do so in the Recovery Act.

Mr. Chairman, my written statement includes examples of audits and investigations of grants and contracts where we have found problems. My written statement also includes examples of important actions the Department is taking to strengthen its administration of grants and contracts. And you heard from Ellen Herbst on your first panel this morning about steps the Department is taking specifically for the Recovery Act.

The Office of Inspector General has established a Recovery Act task force. We are also participating in the Department's steering committee in an advisory capacity to reinforce the recommendations we have made in our past audit work. We are scheduling fraud awareness briefings by our investigative staff and technical assistance briefings by our audit staff. We have hired a risk management expert to lead our task force and have organized along eight subject matter areas: transparency and accountability, grants, program acquisition and construction, scientific and technical research, the broadband technology program, census, digital TV, and fraud awareness.

Our early work with the Department and its bureaus is aimed at the prevention of fraud, waste and abuse and reinforcing the notion that the program offices themselves have the most critical role in providing oversight of the projects and contracts they fund. With additional oversight funding we have received, we will not be able to audit every contract and grant. We will need to target our resources to those projects and grants that present the greatest risk.

We would like to commend the Subcommittee for holding this hearing early in the process and focusing attention on the importance of oversight in the science programs funded by the Recovery Act. We would welcome the opportunity to assist the Subcommittee with your oversight work however we can. That concludes my statement, Mr. Chairman. I would be pleased to answer any questions you may have.

[The prepared statement of Mr. Zinser follows:]

PREPARED STATEMENT OF TODD J. ZINSER

Mr. Chairman, Ranking Member, and Members of the Subcommittee:

Thank you for inviting us to testify today on accountability and transparency in the science programs and initiatives that will be funded through the *American Recovery and Reinvestment Act of 2009.* The Recovery Act requires unprecedented accountability and transparency on the part of government agencies receiving stimulus funds, both for their spending decisions and the impact of funded activities—particularly as they contribute to the Administration's goals of creating jobs and strengthening the economy.

To ensure this accountability and transparency, the Act establishes a strong oversight role for Offices of Inspector General in monitoring their agency's use of stimulus funds and coordinating their collective Recovery Act oversight throughout the IG community. We have new responsibilities for investigating whistleblower complaints from employees of contractors, grantees, and State or local government entities receiving stimulus funding. And we have a new oversight entity in the Recovery Accountability and Transparency Board, created by the Act. As 1 of the 10 inspectors general appointed to serve on the Board, I believe Congress—in establishing the Board—created an important mechanism for building on the collective strength of the IG community to "follow the money"—ensuring that agencies distribute stimulus funds effectively and exercise the oversight necessary to ensure that those funds are used in accordance with the intent of the legislation.

My testimony today will respond to the Subcommittee's questions regarding science funding the Department has received under the Recovery Act; risks the Department faces in spending its stimulus funds, based on our prior audit and investigation work; and our planned approach for oversight. Specifically, I will address three areas:

1. The Commerce programs and operations that received funding.
2. The challenges and risks facing the Department in using Recovery Act funds effectively to meet the objectives of the Act.
3. The Office of Inspector General's initial work plans for conducting effective oversight of the Department's stimulus-funded programs.

COMMERCE'S RECOVERY ACT FUNDING IS CONCENTRATED IN FIVE BUREAUS

The Department of Commerce received $7.946 billion in stimulus funding—$1.440 billion of this amount is for science programs and activities at two Commerce bureaus—the National Oceanic and Atmospheric Administration and the National Institute of Standards and Technology (Table 1).

Table 1. Commerce Stimulus Funding	
NTIA	$5.3 billion
Census	$1 billion
NOAA	$830 million*
NIST	$610 million*
EDA	$150 million
OIG	$ 16 million

*Science funding

The Office of Inspector General received a total of $16 million in stimulus funding to conduct oversight: $6 million for general oversight over the next four years and $10 million for oversight of the National Telecommunications and Information Administration's $4.7 billion initiative to expand access to broadband services.

Bureau Spending Will Focus on Science, Technology, Decennial Census, and Business Development Initiatives Aimed at Job Creation

NOAA will direct its stimulus dollars toward activities intended to promote and enhance its broad marine and environmental stewardship mandates.

- $430 million will be used for construction and repair of NOAA facilities, ships, and equipment; improvements in weather forecasting; and development of satellites;
- $230 million for habitat restoration, navigation projects, and vessel maintenance; and
- $170 million for climate modeling activities, including procurement of supercomputers and research into climate change.

NIST will use its Recovery Act funds to expand its technical research capacity. It will use

- $360 million to construct research facilities, including $180 million in competitive grants for the construction of research science buildings; and
- $220 million for scientific and technical research, equipment, and services.

NIST will receive an additional $20 million from the Department of Health and Human Services to accelerate efforts to develop and deploy electronic health records and a nationwide health care information technology testing infrastructure, and $10 million from the Department of Energy to help develop a comprehensive framework for a nationwide, fully inter-operable "smart grid" for the U.S. electric power system. The remaining Commerce agencies that received stimulus funds will similarly apply them to activities aimed at enhancing their missions and supporting a variety of national priorities and needs.

NTIA received $4.7 billion to develop and expand broadband services in areas that have no service or are under-served and to improve broadband access among public safety agencies.

NTIA received an additional $650 million for the Digital-to-Analog Converter Box Program, established under the Digital Television Transition and Public Safety Act of 2005. NTIA will use these funds to eliminate the backlog of coupon requests and ensure that consumers who are currently on the waiting list for coupons receive them promptly.

The **Census Bureau** will use its $1 billion to staff and conduct certain 2010 decennial census operations, focusing on partnership and media efforts designed to increase participation among minority communities and hard-to-reach populations, and to enhance management of other 2010 operations and programs.

EDA's stimulus funds will support grant programs in its traditional lines of business—public works projects, revolving loan funds, business development and technical assistance—in economically distressed areas throughout the Nation, with priority given to areas that have experienced significant job loss due to corporate restructuring.

A detailed breakdown of the Recovery Act funding received by the Department is provided in Appendix A.

THE DEPARTMENT FACES SIGNIFICANT CHALLENGES AND RISKS IN SPENDING RECOVERY ACT FUNDS EFFECTIVELY

The Department has assigned some of its very best people to lead its Recovery Act efforts and we have found that all those involved are committed to meeting the challenges ahead. Nonetheless, spending stimulus funds effectively and in a manner that meets the economic objectives of the Recovery Act poses significant risks for the Department of Commerce and will put significant strain on a number of already stretched resources and vulnerable operations.

The Department's $7.9 billion in stimulus funding, in effect, doubles Commerce resources over FY 2008 levels. The Department's enacted budget was $7.7 billion last year. Its FY 2009 budget, apart from Recovery Act funding, is $9.2 billion. Although a substantial proportion of the Recovery Act funding received by the Department will continue to be expended in fiscal year 2010 and, to a lesser degree, in fiscal years 2011 through 2013, the clear intent of the Act is to award funds as expeditiously as possible. NOAA's stimulus funding effectively increases its FY 2009 resources by nearly 20 percent and NIST's Recovery Act funding increases its available resources by a potential 74 percent.

As the agencies carry out their plans, there will be significant challenges and risks along the way. At the outset, we see six areas of risk facing the Department and its bureaus.

1. Spending Recovery Act funding quickly and with little time to staff up and gear operations to accommodate the new and expanded programs, grants, and contracts it will support significantly increases the risks for fraud and waste in both stimulus-funded activities and the Department's traditionally-funded operations. This applies across the government—not just the Department of Commerce.
2. The Executive Branch, including the Department of Commerce, is still in transition. Key leadership positions remain unfilled. While the career staff is capable of managing their programs, this puts at risk the leadership vision and decision-making important in formulating and executing a cohesive Recovery Act plan.
3. The Recovery Act's emphasis on grants and contract spending puts additional pressure on weak management and administrative operations that we have identified in our audit work over the years, particularly with regard to
    - the Department's decentralized grants management structure, which consists of three separate management systems operated by three different bureaus—each managing a subset of Commerce grant activity according to policies established at the Department level; and
    - the Department's shortage of qualified contracting specialists, technical specialists, and subject matter experts—particularly in light of the anticipated shift from cost-type contracts, which are predominantly used today, to fixed-price contracts, which require different knowledge and skill sets.
4. Construction grants and contracts funded by the Recovery Act are inherently risky and historically difficult to manage effectively. In addition, the construction grant program to be administered by NIST is a relatively new program for the agency.
5. There are specific requirements related to competitive contracts including maximizing the use of fixed-price contracts and Buy American requirements that will necessitate extra vigilance.
6. The Act's strict oversight requirements and reporting deadlines will require a greater level of centralized management of Commerce bureaus than the Department has historically exercised.

I would like to focus my discussion on the Act's emphasis on grants and contract spending at Commerce, particularly as it impacts science activities; to highlight some examples from our audits and investigations of potential problems; and to briefly discuss the special challenges facing NOAA and NIST in managing stimulus-funded construction projects.

THE RECOVERY ACT'S EMPHASIS ON GRANTS AND CONTRACT SPENDING PUTS NEW PRESSURE ON THE DEPARTMENT TO SHORE UP WEAKNESSES IN GRANTS AND PROCUREMENT MANAGEMENT AND OVERSIGHT

We estimate that approximately two-thirds of Commerce's $7.9 billion in stimulus funding will be dedicated to grants and contracting: in addition to the $215 million NIST will spend for science, research, and construction grants and contracts, NOAA will use the bulk of its $830 million for grants and contracts in a variety of mission activities, including $170 million for grants in coastal and marine habitat restoration. NTIA will operate a $4.7 billion grants program for improved broadband access. EDA's $150 million in stimulus funds is exclusively for economic development grants.

Effective grants and acquisition management has been a long-standing challenge for the Federal Government because these programs are susceptible to fraud, waste, and abuse if not adequately monitored. Acquisition management and shortages in skilled contracting staff are among the top management challenges we reported as facing the Department of Commerce this past November.

The Department Needs to Implement Strategies for Ensuring Sound Management of Recovery Act Grants

We recently concluded an audit of Department-wide grants oversight and will release our report shortly. This audit identified a number of weaknesses in grants oversight at the Department. More effective oversight by the Department and its bureaus is critical in order to avoid many of the problems we have identified in our grant audits and investigations over the years: fraud, inadequately documented or unallowable costs charged to the grant, financial accounting irregularities, conflicts of interest, improper procurement procedures, noncompliance with grant terms and conditions, and failure to complete funded projects. We have questioned millions of dollars in federal costs and identified millions more to be put to better use.

- Our investigation of a NOAA grantee found the recipient had spent more than one-half of the $109,000 award on personal items and travel expenses.
- An investigation of an EDA grant to establish a revolving loan fund led to the conviction of four individuals for fraud, conspiracy, and money laundering after converting nearly $800,000 in grant funds to personal use.
- Another EDA RLF case involved grantees using award proceeds to make more than $900,000 in unauthorized loans and payments to benefit themselves and the companies they operated and controlled.
- We questioned $4.5 million in costs claimed by a grantee who repeatedly failed to comply with federal annual audit requirements set forth in the award. The Commerce oversight agency had continued to disburse funds even though the grantee was not filing its required financial audit reports.

In operating grant programs funded by the Recovery Act, a major challenge for the Department will be minimizing or eliminating the problems we have identified in our prior work and maximizing oversight strengths within the ambitious spending goals of the stimulus program. Recommendations we have made in our prior grant audits bear repeating as the Department prepares to implement these programs. The Department must ensure that grant administrators:

- Are sufficiently trained in pre-award screening techniques to identify high-risk proposals and grantees.
- Maintain documented analysis of a recipient's grants management and financial capabilities, and past performance in the award file.
- Fully document award activity, using information technology tools developed specifically for this purpose.
- Assign high-risk designations or special award conditions to grantees if pre-award screening or ongoing oversight determines that such a designation is warranted.
- Are fully versed in grant policies and kept informed of any changes to them.
- Ensure single audits are conducted for grantees receiving awards of more than $500,000, and review the resulting audit reports. The Single Audit Act requires these grantees to obtain this annual audit, prepared by an independent auditor, to ensure recipients have appropriate internal controls for safeguarding federal funds and are using funds in accordance with grant terms and conditions.

Part of the challenge of sound grants management lies in the Department's decentralized management structure: overall policy and procedures are set by the Department's Office of Acquisition Management, but day-to-day grants management is housed in three bureaus—NOAA, NIST, and EDA. Each has its own management system. NOAA and NIST manage the grant activities of other bureaus as well as their own (Figure 1). All grant programs will eventually migrate to NOAA's Grants Online system, but this consolidation is not scheduled to occur until 2011.

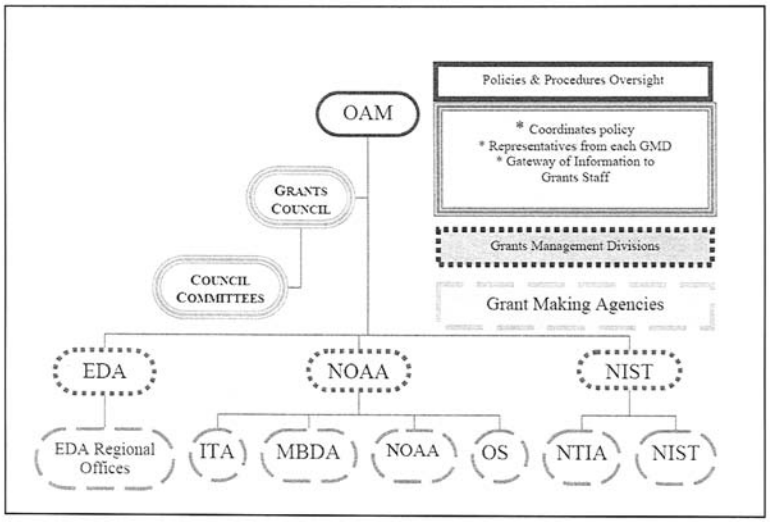

Figure 1. Department of Commerce Grants Management Structure

The strengths we have noted in the grants management operations are not across the board but apply generally to the individual bureaus. For example, NIST compares financial status reports against grantee withdrawals to verify the accuracy of the grantee's financial reporting, which is a strong internal control practice. NOAA uses the web-based Grants Online system as a management tracking tool for its grants activity. EDA has consolidated program and grants management functions at the regional office level, giving regional oversight staff the advantage of monitoring both program and administrative requirements in tandem.

We are taking a number of proactive steps to help the Department bolster its grants management and curtail the potential for fraud with respect to Recovery Act funding. We are instituting a strong fraud awareness training program and conducting briefings on best practices for competitive grant awards, with a focus on identifying and monitoring high-risk grantees. As part of these briefings, we will provide technical advice on incorporating internal controls and risk analysis into the grants management process.

Recovery Act Spending on Contracts and Procurements Will Require Improvements in Contract Formulation, Administration, and the Department's Acquisition Management Workforce

Acquisition and contract management has been a consistent watch list item for inspectors general, as related government spending has ballooned in recent years without a commensurate growth in the acquisition workforce or the higher-level skills needed to properly oversee complex procurements. Cost overruns, fraud, and a lack of oversight and accountability are common findings in IG audits and GAO reviews government-wide.

The accelerated spending called for under the Recovery Act will undoubtedly further tax an already overwhelmed acquisition workforce at Commerce and exacerbate contract management weaknesses. Our November 2008 report, *Top Management Challenges Facing the Department of Commerce,* described an acquisition infrastructure that does not have coherent policies to guide systems acquisition or effective oversight mechanisms. Hiring and retaining a skilled acquisition workforce has been difficult at the Department, as it has been for all federal agencies. The Department has a limited number of contracting specialists to meet its multi-billion-dollar workload. It has no reliable count of its program and project managers or contracting officer representatives—critical positions in the contracting oversight chain.

Our audits have found repeated instances in which

- the Department's lack of sufficient skilled contracting and project management professionals has resulted in poorly defined requirements for deliverables and inadequate contract management;
- contracts contained poorly structured incentive fees and performance metrics that were not well aligned with the goals of the contract; and
- communications between contracting officers and program personnel, including contracting officer representatives, were extremely ineffective.

As a result of these weaknesses, contracts have experienced significant cost and schedule overruns and performance shortfalls, contractors have been paid high fees for poor quality work, and the Department has at times failed to address important contract requirements—such as implementation of adequate IT security controls to protect sensitive government information.

Our recent audit of the Census Bureau's Field Data Collection Automation contract found that poorly defined requirements were a significant contributor to the problems encountered in developing the hand-held computers for automating key operations and the resulting $3 billion increase in estimated costs for conducting the 2010 census. Our audits of the Census contract and a satellite acquisition at NOAA found that contractors were receiving high award fees for projects that were experiencing serious performance shortfalls and large cost overruns.

Acquisition staff may be further challenged by the Administration's preference for using fixed-price contracts over "cost type" contracts, which have greatly increased in popularity in recent years. The President's policy memorandum on government contracting, issued on March 4, establishes a clear preference for fixed-price contracts without prohibiting cost-type contracts. The memorandum leaves contracting officers with the authority to use cost types when appropriate, but only after careful analysis leads to the exclusion of fixed-price options.

Fixed-price contracts are most effective when the cost of performing the contract is predictable. This requires, among other things, clear and well-defined requirements. The risk associated with fixed-price contracts is that when requirements are not well-defined or new development is called for, the actual cost of performing the contract will far exceed the contract price. As a result, the contractor will inevitably seek price adjustments thereby driving up the cost to the government. Cost-type contracts, on the other hand, are more appropriate for projects involving significant development and innovation, and where the requirements are less conducive to detailed specifications. The shift to a policy preference for fixed-price contracts will demand an acquisition workforce with the skills to conduct a rigorous analysis of the appropriate contract type.

The Department has taken several steps to address some of its contract and procurement weaknesses.

- It is working to complete revisions to its major systems acquisition procedures.
- It combined the Commerce IT Review Board and the Acquisition Review Board into a single Investment Review Board, which has scheduled reviews for programs that will receive Recovery Act funding.
- It has improved its certification program for contracting officer representatives, in response to our recommendation.

And notably, the Office of Acquisition Management recently issued *Implementation of the American Recovery and Reinvestment Act*—a quick guide for the acquisition workforce—and created a Risk Management and Oversight Plan, currently in draft, to highlight contracting and grant risks and help agency program leaders and acquisition staff prepare mitigation plans.

These are important improvements that the Department can use to ensure that contracts funded by the Act are properly structured and administered, promote contractor responsibility and accountability, produce good business deals for the Department, and create new jobs for the American people.

NOAA and NIST Face Unique Challenges in Managing Construction Procurements and Grants

I would like to briefly address the additional challenges to effective oversight and administration that NOAA and NIST face in using their stimulus funds for grants and contracts to build science facilities.

The overarching goal of any federally funded construction project is to complete the project on time, within budget, and free from fraud. This will require first and foremost that agencies scrub proposals and cost estimates up-front before committing federal funds. Construction projects, including those funded by the Department of Commerce, are also at risk of anti-competitive practices, substandard workmanship, defective materials, nonperformance, and corruption. Our audits and investigations of public works projects, for example, have identified significant instances of nonperformance, misuse of federal funds, and bribery of a local official.

- Our audit of a $6.7 million project to develop a technology park disclosed the grantee failed to carry out numerous responsibilities and did not provide the necessary engineering supervision. More than a year after the grant had expired, the park remained without water and other infrastructure and had no prospects for use.
- Our audit of a $6.44 million grant for construction of a 40,000 square-foot business incubator resulted in termination of the project after we found the grantee was on the brink of insolvency and had used grant funds to stay afloat.
- An audit of a $900,000 grant awarded for infrastructure improvements to a proposed industrial park questioned all claimed costs and recommended termination of the project. Violations included failure to ensure full and open competition in procuring materials and services, and allowing conflicts of interest.
- A subcontractor on a construction grant for a public works project was convicted of bribing a local official to obtain minority business certificates for use in obtaining contracts.

Full and open competition is fundamental to ensuring that the government obtains the best value. However, in some areas obtaining competitive bids can be difficult when the number of companies and suppliers qualified to bid on these projects is limited. Increased demand for contractors and suppliers creates a risk of bid-rigging and other anti-competitive practices. In such schemes, contractors ostensibly in competition may secretly collude, agreeing to share future projects so as to keep prices high.

These are just some of the potential problems NOAA and NIST grants and procurement specialists must be attuned to. Negotiating fair terms for construction projects and managing the work requires a distinctly different skill set from that needed to oversee research projects—the ability to evaluate architectural and engineering proposals, work schedules and labor rates, and assess whether proposed and actual materials costs are reasonable, to name a few. NOAA and NIST, as well as the other Commerce agencies, must carry out risk assessment as a fundamental part of its stewardship of Recovery Act funds. Such risk assessments must determine the agencies capacity to apply the necessary skills and expertise to these projects.

THE RECOVERY ACT IS REDEFINING "BUSINESS AS USUAL" IN GOVERNMENT OPERATIONS AND EXPANDING THE SCOPE OF IG OVERSIGHT

We have taken several important steps to implement an appropriate oversight framework that will allow us to track the various stimulus activities Commerce undertakes and its compliance with the Office of Management and Budget's accountability and transparency requirements. On March 2, we issued our *Initial Oversight Plan for the American Recovery and Reinvestment Act of 2009,* which laid out four key elements of that framework:

- Dedicated Recovery Act staffing.
- Targeted risk-based audit and investigative planning, and expedited reporting.
- Participation in Department steering committee and working groups.
- Fraud awareness training and timely responses to citizen complaints.

I would like to briefly discuss these elements and our progress in implementing them.

Dedicated Recovery Act Staffing. We are organizing and staffing OIG to provide oversight of stimulus spending while continuing to oversee departmental programs and operations consistent with our ongoing priority areas.

As a first step, we established within our Office of Audit and Evaluation a Recovery Act Task Force charged with coordinating our oversight of the funding received by the five Commerce bureaus. We have hired an audit expert in the area of risk management and internal controls to head the task force and assigned seasoned OIG staff as team leaders with responsibility for specific program and operational areas—one of those areas is science and research, with three additional teams—grants, procurements, and fraud prevention, also directly supporting science oversight.

Targeted Risk-Based Audit and Investigative Planning, and Expedited Reporting. The task force is developing a comprehensive audit and investigative oversight plan to guide our work and to track departmental and bureau compliance with legislative requirements and OMB guidelines for accountability and transparency. The bureaus are currently developing their detailed Recovery Program Plans, due to OMB by May 1, 2009, and making decisions on program design, internal controls, performance measurement, and reporting requirements, all of which will be critical in establishing accountability and transparency for their use of stimulus funds. We are working closely with the Department and bureaus to provide advice and recommendations on internal controls and best practices as they prepare these plans.

We have prepared a draft *Recovery Act Short-Term Oversight Plan* which we will give to Department and bureau officials shortly. This plan describes the outreach, advisory, and monitoring activities we will undertake during the initial 120 days of our oversight efforts.

We have also developed short-turnaround “flash” reports to provide quick, timely feedback to Congress, the Department, and the public regarding Commerce stimulus activities, with the goal of identifying potential and emerging program and financial risks and making recommendations to promptly address them.

Participation in Department steering committee and working groups. The Department has established a Recovery Act Implementation Team consisting of senior Commerce officials and headed by the Recovery Act Steering Committee. Our principal assistant inspector general for audit and evaluation participates on the Steering Committee in an advisory capacity so that we can share best practices and make recommendations up-front regarding internal controls and risk management for stimulus activities. Our task force is also providing technical assistance and advice to the working groups established by the steering committee and the bureaus.

Fraud awareness training and timely responses to citizen complaints. Our Office of Investigations has developed a Recovery Act fraud awareness briefing for the Department’s grant and procurement specialists, program officials, financial management staffs, grantees, and State and local oversight entities. The training focuses on Commerce programs that will use stimulus funding and Commerce-specific risks. We have also reconfigured our online hotline system to uniquely identify incoming Recovery Act complaints for expedited processing.

The Department of Justice is concurrently rolling out a national fraud awareness training program for the Recovery Act, and we have invited them be co-presenters at our briefings. The audiences for these training programs are those on the front line and therefore in the best position to prevent and deter fraud, waste and abuse and alert the inspector general about questionable or unusual activities.

A key piece of the training describes the Recovery Act’s expanded whistleblower protections for non-federal employees of firms receiving stimulus-funded grants or contracts, should they disclose information regarding the use of those funds that indicates:

- gross mismanagement or waste;
- substantial and specific danger to public health or safety;
- abuse of authority related to the implementation or use of covered funds; or
- violation of law, rule, or regulation.

Under the Act, employers are prohibited from discharging, demoting, or otherwise discriminating against employees for making such disclosures, and OIGs must investigate these complaints within 180 days, unless the complaint is deemed frivolous, does not relate to covered funds, or is already under consideration by another judicial or administrative body. Our reconfigured hotline system will help expedite these investigations to meet our legislative deadline.

SUMMARY OF OIG ACTIONS WITH REGARD TO RECOVERY ACT SCIENCE FUNDING

In closing, I would like to summarize the Subcommittee's questions and our answers with regard to science stimulus funding at Commerce:

1. How do we plan to monitor this funding to ensure it is spent promptly, in accordance with the Recovery Act's objectives, and in compliance with the law?

    • We continue to emphasize and reinforce that the program offices have a critical role in providing oversight of the projects and contracts they fund.
    • We are participating on the Department's Recovery Act Steering Committee and working groups to share best practices and make recommendations regarding internal controls and risk management.
    • We have created a Recovery Act Task Force consisting of multi-disciplinary teams of auditors and evaluators who will focus on the following program areas and activities:

        — Grants
        — Procurements, Acquisition, and Construction
        — Scientific and Technical Research
        — Broadband Technologies Opportunities Program
        — Digital Television
        — Fraud Awareness and Prevention
        — Transparency and Accountability

    The task force is developing a long-term oversight plan, will implement a short-term oversight plan to monitor the Department's initial Recovery Act activities, and has established expedited reporting products to promptly communicate our concerns and recommended solutions.

    • We have developed Recovery Act fraud awareness training and reconfigured our hotline system to identify and expedite our responses to related citizen complaints.

2. Based on our prior work, are there particular areas of Recovery Act funding that deserve special attention to ensure funds are put to best use?

    Our prior work has identified a number of weaknesses in the Department's oversight of grants and contracts. These activities bear very close watch. Given the particular susceptibility to fraud and misuse of funds associated with construction projects, NOAA and NIST stimulus-funded construction activities also require close scrutiny.

3. To conduct effective oversight, what professional skill areas do we need to increase and how quickly do we plan to fill these positions?

    Conducting effective oversight of Recovery Act funds will require increased staffing, including some specialized expertise. The funding provided to our office will permit us to hire a mix of permanent, temporary, and term employees, and contract staff to do this most effectively. We will also need to use all the flexibilities and authorities that the Office of Personnel Management will allow. A key flexibility, for example, would be to have the authority to rehire experienced retirees without affecting their retirement annuities.

    In addition to the risk management expert we have hired to head our task force, we plan to increase professional staffing in all the critical skill areas required for stimulus oversight-grant, contract, and performance audits and evaluations. We are pursuing options for increasing staff expertise in science and technology-related work, including satellite engineers, an expert in climate research supercomputer techniques, and specialists in fisheries habitat restoration to help monitor NOAA stimulus spending; and scientists and engineers to oversee NIST research into "smart grid" energy technology and interoperable digital health records management systems.

Mr. Chairman and Members of the Subcommittee, this concludes my statement. I would be happy to answer questions at this time.

Appendix: February 25, 2009

American Recovery and Reinvestment Act of 2009
Department of Commerce Funding

Agency	Amount	Purpose (From Joint Explanatory Statement)
EDA	**$150,000,000**	Leverage private investment, stimulate employment and increase incomes in economically distressed communities.
	$50,000,000	Economic Adjustment Assistance to help communities recover from sudden and severe economic dislocation and massive job losses due to corporate restructuring.
	$50,000,000	May be transferred to federally authorized, regional economic development commissions.
Census	**$1,000,000,000**	To hire additional personnel, provide required training, increase targeted media purchases, and improve management of other operational and programmatic risks.
	$250,000,000	Up to $250,000,000 shall be for partnership and outreach efforts to minority communities and hard-to-reach populations.
NTIA	**$4,700,000,000**	Broadband Technology Opportunities Program (TOP), to be available until September 30, 2010. For competitive grants to accelerate broadband deployment in unserved and underserved areas and to strategic institutions that are likely to create jobs or provide significant public benefits.
	$350,000,000	To establish the State Broadband Data and Development Grant program, as authorized by Public Law 110-385 and for the development and maintenance of a national broadband inventory map as authorized by division B of this Act.
	$200,000,000	For competitive grants for expanding public computer center capacity.
	$250,000,000	For competitive grants for innovative programs to encourage sustainable broadband adoption.
OIG	$10,000,000	To be transferred to the Department of Commerce Inspector General for audits and oversight of funds provided under this heading.
NTIA	**$650,000,000**	For additional implementation and administration of the digital-to-analog converter box coupon program, including additional coupons to meet new projected demands and consumer support, outreach and administration.
	$90,000,000	Of the amounts provided, up to $90,00,000 may be use for education, and outreach to vulnerable populations including one-on-one assistance for converter box installation.
NIST		
Scientific and Technical Research and Services	**$220,000,000**	For research, competitive grants, additional research fellowships and advanced research and measurement equipment and supplies.
	$20,000,000	Provided by transfer from the Health Information Technology (HIT) initiative within this Act. For HIT activities, NIST is directed to create and test standards related to health security and interoperability in conjunction with partners at the Department of Health and Human Services.
	$10,000,000	Provided to implement section 1305 of Public Law 110–140 Energy Independence and Security Act of 2007. SEC. 1305. SMART GRID INTEROPERABILITY FRAMEWORK. The Director of the National Institute of Standards and Technology shall have primary responsibility to coordinate the development of a framework that includes protocols and model standards for information management to achieve interoperability of smart grid devices and systems.
Construction of Research Facilities	**$360,000,000**	To address NIST's backlog of maintenance and renovation and for construction of new facilities and laboratories.
	$180,000,000	Of the amounts provided, $180,000,000 shall be for the competitive construction grant program for research science buildings, including fiscal year 2008 and 2009 competitions.
NOAA		
Operations, Research, and Facilities	**$230,000,000**	To address a backlog of research, restoration, navigation, conservation and management activities.
Procurement, Acquisition and Construction	**$600,000,000**	For construction and repair of NOAA facilities, ships and equipment, to improve weather forecasting and to support satellite development.
	$170,000,000	Of the amounts provided, $170,000,000 shall address critical gaps in climate modeling and establish climate data records for continuing research into the cause, effects and ways to mitigate climate change.
OIG	**$6,000,000**	To remain available until September 30, 2013.

BIOGRAPHY FOR TODD J. ZINSER

On December 26, 2007, Todd J. Zinser was sworn in as the fifth Inspector General of the U.S. Department of Commerce. As Inspector General, Mr. Zinser leads a team of auditors, evaluators, investigators, attorneys, and administrative staff responsible for promoting economy and efficiency and detecting and preventing fraud, waste, and abuse in the vast array of business, scientific, economic, and environmental programs administered by the Department and its 13 bureaus.

Mr. Zinser's appointment as Inspector General by President Bush follows his 24 years as a career civil servant. He began as an investigator for the U.S. Department of Labor in 1983. Mr. Zinser joined the Department of Transportation in 1991, serving as special agent in charge of OIG's New York regional Office of Investigations, Deputy Assistant Inspector General for Investigations, and Assistant Inspector General for Investigations. He was named Deputy Inspector General in 2001, with responsibility for day-to-day OIG operations and management of more than 400 auditors, investigators, and evaluators monitoring the activities funded by Transportation's roughly $60 billion budget.

Mr. Zinser has received numerous awards for superior performance and leadership throughout his career, including the Secretary of Transportation's 9–11 Medal and two Gold Medals—the first for his work with the Department's Hurricane Katrina Task Force (2006); the second for his involvement in Transportation's response to the collapse of the I–35W bridge in Minneapolis (2007). Also in 2007, he was awarded the Transportation IG's Bronze Medal for superior achievement as Deputy Inspector General.

Mr. Zinser holds a Bachelor's degree in Political Science from Northern Kentucky University and a Master's degree in Political Science from Miami University, Oxford, Ohio. He has also completed the Senior Managers in Government Program at Harvard's John F. Kennedy School of Government.

Chairman MILLER. Thank you, Mr. Zinser. Mr. Cross for five minutes.

STATEMENT OF MR. THOMAS C. CROSS, INTERIM INSPECTOR GENERAL, NATIONAL SCIENCE FOUNDATION

Mr. CROSS. Good afternoon, Chairman Miller, good afternoon, Ranking Member Broun, and Members of the Subcommittee. Thank you for the opportunity to testify today about how the NSF Office of Inspector General will perform its oversight responsibilities under the Recovery Act.

I would like to discuss three subjects with you today. First, the OIG's plan for monitoring NSF's recovery spending; second, important challenges facing NSF with regard to the Recovery Act; and finally, how my office will be addressing our current staffing needs.

We will pursue a strategy aimed not only at safeguarding Recovery Act funds against waste, fraud, and abuse, but also at helping assess whether those funds produce the results sought in the Act. We will develop an implementation plan for our Recovery Act oversight that includes preparing a thorough risk analysis, reviewing past OIG audit and investigative findings that may be relevant, contracting for audits and other reviews of the agency's financial accounting systems, conducting focused reviews of the agency's actions to implement its spending and risk management plans, and initiating detailed audits and proactive investigation reviews to identify and evaluate issues flagged in our risk assessments.

We have also launched an outreach effort aimed at both agency program managers and the public about OIG's role under the Recovery Act, and this also helps us gather information and insights that are useful in determining the issues on which we need to focus.

Given our independent oversight role, we cannot participate in agency decision-making, but our input at this juncture may help NSF avoid problems down the road. Like other IG offices, we prepare a list each year of what we consider the most significant challenges facing agency management, and there are several challenges that have particular relevance to the administration of the Recovery Act. Previous reviews have identified major research equipment and facilities construction expenditures and NSF's monitoring of previously made awards as high-risk activities. Actions that NSF has taken in recent years in response to past OIG recommendations have mitigated some of the problems that we identified. However, we still consider both as high-risk areas for purposes of the Recovery Act because of the large amounts of money at stake and the fact that a number of our recommendations remain unimplemented.

We understand NSF intends to use Recovery Act funds largely to support proposals that have already been submitted. It will be a challenge for NSF to implement the new requirements on awards that are based on earlier proposals which most likely did not envision or address the purposes or additional reporting requirements of the Act.

Another management challenge that raises concern is the adequacy of the NSF's workforce, as you heard earlier this morning. The administration of the Recovery Act funds represent a significant increase in NSF's workload over at least the next year-and-a-half, and we are concerned that the work involved in distributing and monitoring the results of the Recovery Act funding will severely strain NSF's grant/processing operations, its staff, and its information systems across the agency.

Further, a fundamental responsibility of my office is the promotion of research integrity. We devote significant investigative resources to both preventing and investigating research misconduct, and we are concerned that the large inflow of research dollars into an already highly competitive arena can only increase the opportunities for abuse.

Finally, we will also be watchful of award recipients whose financial systems may have difficulty handling a sizable influx of funds. We have identified a number of specific grant characteristics as fraud indicators that, based on our experience, may reflect a higher potential for abuse, and we are sharing these indicators with NSF along with practical guidance on combating fraud.

I was also asked by the Subcommittee to comment on our own staffing resources. Because the funding we received in the Act is temporary, we probably will not be able to use stimulus funding to hire additional permanent employees. Instead, we are looking into options for the temporary hiring of auditors and investigators, and we expect to use the bulk of our Recovery Act funding to retain contractors to conduct audits and provide forensic support for investigations.

We expect that the additional workload generated by the stimulus funds will be significant and extend beyond the funding period. We are considering some adjustments to our work methods, such as developing reviews that are shorter and more focused than traditional audits tend to be in order to provide more timely results. Our challenge will be to continue to provide the robust audits and investigations necessary to address fraud, waste, and abuse issues occurring in NSF's programs and activities, while also giving top priority to the special oversight requirements of the Recovery Act, and we look forward to meeting that challenge.

Chairman Miller, that concludes my testimony, and I would be happy to answer any questions.

[The prepared statement of Mr. Cross follows:]

PREPARED STATEMENT OF THOMAS C. CROSS

Good morning Chairman Miller, Ranking Member Broun, and Members of the Subcommittee. Thank you for the opportunity to testify today about how the National Science Foundation (NSF) Office of Inspector General (OIG) intends to perform its oversight responsibilities under the Recovery Act for the $3 billion in Recovery Act funds allocated to NSF. Discussions regarding how best to ensure the accountability of Recovery Act funds have been ongoing within the IG community, between our office and NSF, and within our own office for several weeks. Like the hearing today, these discussions are helping us to better prepare for the many challenges ahead.

To introduce myself, my name is Tim Cross and I was appointed Interim Inspector General last January after serving as the NSF Deputy Inspector General for the past eight years. Our office is unusual among the Designated Federal Entity OIGs in that we report to the National Science Board, a policy and oversight body, rather than to agency management. Over the years, this arms-length relationship from management has allowed OIG the freedom to pursue a vigorous audit agenda and provide the Congress and the Foundation with fully independent analyses and recommendations. NSF's mission to support education and basic research has also required that my office develop a strong investigative effort to ensure research integrity and to address instances of misconduct in research.

I would like to discuss three subjects with you today. First will be the OIG's plan for monitoring NSF's recovery spending. Second, I will describe some of the important challenges facing NSF with regard to the Recovery Act. Finally, I will discuss how my office will be addressing our current staffing needs.

Planning. Ensuring compliance with the many requirements of the Act poses a challenge for all the IG offices involved, and we have appointed a special team within our office to coordinate our planning of Recovery Act activities. The NSF OIG will pursue a strategy aimed not only at safeguarding Recovery Act funds against waste, fraud and abuse, but also at helping assess whether those funds produce the results sought in the Act. NSF has submitted its Recovery Act plan to OMB for approval, and once the agency provides this plan to our office, we will develop an implementation plan for our Recovery Act oversight that includes:

- Preparing a risk assessment based on the agency's spending plan and its own risk management plan;
- Assessing past OIG audit and investigative findings that are relevant to NSF's management of Recovery Act funds;
- Contracting for audits and other reviews of the capacity of the agency's financial accounting systems to track separately and report accurately on Recovery Act funds;
- Conducting focused reviews of the agency's actions to implement its spending and risk management plans at the earliest possible point, when corrective actions will be most beneficial; and
- Initiating detailed audits and proactive investigation reviews to identify and evaluate issues flagged in our risk assessments.

We have also launched an outreach effort aimed at educating both agency program managers anal the public about OIG's role under the Recovery Act. This effort also helps us gather information and insights that are useful in determining the issues on which we need to focus. OIG staff members are attending NSF planning sessions at all levels to improve our understanding of agency activities and to make our concerns known at an early stage. Given our independent oversight role, we cannot participate in agency decision-making, but our input at this juncture may help NSF avoid problems down the road. We have also been meeting with the IGs in other agencies that received Recovery Act funding to brainstorm approaches to oversight. As you know, the Act requires that OIGs examine issues raised by the public about the funds and post the results of their inquiries on the OIG websites, with a link to the Recovery Accountability and Transparency Board's website. Our office will ensure that Recovery Act-related investigations, audits, reviews, and information received from the public are handled in a manner that is both expeditious and thorough. We are also developing new procedures to address the Act's broad requirements for investigating whistleblower allegations. In general, we are able to respond to a question or tip from the public within hours of an e-mail or hotline call, and we will be giving Recovery Act inquiries priority attention.

Challenges. Like other IG offices, we prepare a list each year of what we consider the most significant challenges facing agency management. With regard to funding areas that deserve special consideration, there are several challenges that have particular relevance to the administration of the Recovery Act. Previous NSF OIG reviews have ,identified Major Research Equipment and Facilities Construction (MREFC) expenditures and NSF's monitoring of previously-made awards as high-risk activities. Actions that NSF has taken in recent years in response to past OIG recommendations have mitigated some of the problems that we identified. However, we still consider both as high-risk areas for purposes of the Recovery Act because of the large amounts of money at stake and the fact that a number of our recommendations remain unimplemented. We will watch both areas closely to ensure that Recovery Act funds are spent promptly and prudently, and that:

- The agency keeps track of the awards and their associated funding;
- The award outputs and outcomes are clearly identified and consistent with the intended economic stimulus goals of the Recovery Act; and
- Sub-awardees can accurately account for and report their spending activities to the prime awardee.

In addition, we understand that NSF intends to use Recovery Act funds largely to support proposals that have already been submitted. It will be a challenge for NSF to implement the new requirements on awards that are based on earlier proposals, which , most likely did not envision or address the economic stimulus purposes or additional reporting requirements of the Act.

Another management challenge that raises concern is the adequacy of NSF's workforce. Despite an increase in workload driven by an increasing number of research proposals received over the past ten years, agency staffing levels have remained relatively flat. Consequently, the NSF workforce has at times struggled to keep pace with the incoming workflow. The administration of Recovery Act funds represents a significant increase in NSF's workload over at least the next year-and-a-half, with no provision for funding additional staff or overhead. The agency is hoping that the infusion of new funds will allow the rate of approved proposals to increase from the current 20 percent to as much as 30 percent in the short-term, and we anticipate a concomitant increase in workload throughout the life of the two- to five-year standard awards. We are concerned that the work involved in distributing and monitoring the results of Recovery Act funding will severely strain NSF's grant-processing operations, staff, and information systems across the agency. Absent an increase in staffing resources, the additional workload will make compliance with the Act's transparency and accountability requirements considerably more difficult. This is an issue that we are discussing with NSF staff, as they seek ways to manage the workload strain.

Further, a fundamental responsibility of my office is the promotion of research integrity, and we are encouraged by recent presidential statements about its importance to the advancement of science and technology in this country. In concert with NSF's mission to support basic research, we devote significant investigative resources to both preventing and investigating research misconduct, which includes plagiarism in proposals or reports, falsifying research data, and fabricating data. We are concerned that the large inflow of research dollars into an already highly competitive arena, where issues of questionable research practices and inadequate training in the responsible conduct of research remain unresolved, can only increase the opportunities for abuse.

Finally, we will also be watchful of award recipients whose financial systems may have difficulty handling a sizable influx of funds. Institutions already under financial strain, for example, may be tempted to use the new funds for purposes other than those designated in the awards. We have identified a number of specific grant characteristics as "fraud indicators" that, based on our experience, may reflect a higher potential for abuse. These include indications of questionable cost-sharing claims by institutions receiving NSF awards, abuse of funds intended only for student support under a grant, duplicate submissions of proposals, and the diversion of grant funds to unrelated purposes. In addition to participating in NSF's planning and implementation teams, our investigators are sharing these indicators with NSF, along with practical guidance on combating fraud Through these efforts, we have developed a rigorous approach within our office for handling cases of grant fraud, while also keeping the agency well-informed on how to identify the warning signs and reduce or prevent its occurrence.

Staffing. I was also asked by the Subcommittee to comment on our own staffing resources, specifically whether we planned to add staff and what professional skills might be needed to perform our Recovery Act oversight responsibilities. The expected increase in workload over the next five years creates a critical need for additional audit and investigations capability. Because the funding we received in the Act is temporary, we probably will not be able to use stimulus funding to hire additional permanent employees.

Instead, we are looking into options for the temporary hiring of auditors and investigators, and we expect to use the bulk of our Recovery Act funding to retain contractors to conduct audits and provide forensic support to investigations. We also plan to contract with IT auditors to conduct technical reviews of specific NSF systems. However, with so many government organizations—IG offices and federal agencies alike—seeking contractor support as a result of the Act's requirements, we are concerned that it will be difficult to procure the professional assistance we need. In our FY 2010 budget request, we are seeking approval to add auditors and investigators, some of whom could conceivably be hired before the start of FY 2010 with Recovery Act funds. With an appropriation to back up such hires, we would not risk running out of staff funding when the Recovery Act money is gone. In any case, it seems clear that we will also be diverting some of our existing staff from audits and investigations they would normally handle to instead perform work that is necessary to ensure proper oversight of NSF's management of its stimulus funds.

Due to the intense public interest and enhanced accountability requirements associated with the Recovery Act, and because our work inherently focuses primarily on assessing completed projects and expenditures, we expect that the additional workload generated by the stimulus funds in the form of audits, investigations, outreach, and administration will be significant and extend beyond the funding period. We are considering some adjustments to our work methods, such as developing reviews that are shorter and more focused than traditional audits tend to be, in order to provide more timely results. We have to be mindful, however, that cutting corners poses intrinsic risks, and we must avoid any actions that could compromise the quality, credibility, or usefulness of our work. Our challenge will be to continue to provide the robust audits and investigations necessary to address fraud, waste, and abuse issues occurring in NSF's programs and activities, while also giving top priority to the special oversight requirements of the Recovery Act. We look forward to meeting that challenge.

Chairman Miller, this concludes my testimony. I again want to thank you for the opportunity to share my views. I will be happy to answer any questions.

BIOGRAPHY FOR THOMAS C. CROSS

Tim Cross has served as the Interim Inspector General at the National Science Foundation (NSF) since January 2009. For the previous eight years, he was the Deputy Inspector General, managing Office of Inspector General operations and special projects.

Previously, Mr. Cross was the Assistant Inspector General for Inspection and Evaluation at the Small Business Administration (SBA) from 1991 to 2000. He headed a division that assessed the performance of SBA programs and conducted analyses of related policy and management issues.

From 1986 to 1991, Mr. Cross served as Chief of the Program Coordination Division in a crisis management office at the Department of State. In this capacity, he was responsible for coordinating interagency activities with the intelligence community, evaluating crisis management functions, and maintaining a crisis data base.

From 1983 to 1986, Mr. Cross was Director of the Office of Policy and Management Analysis in the Criminal Division at the Department of Justice. He managed a staff that performed evaluations of law enforcement programs, intelligence analyses, planning for new Departmental initiatives, and policy analyses. He held various positions in the same office from 1979 to 1983, including Organized Crime Specialist and Associate Director. From 1978 to 1979, he was a drug enforcement program analyst in the Management Division at the Department of Justice.

Prior to his federal employment, Mr. Cross held positions with the Massachusetts State government, including Coordinator of Staff Education for the Department of Correction and Director of Community Services in a maximum-security State prison.

Mr. Cross earned a B.A. with honors in social sciences from Harvard University (1970), a Master's degree in criminology from the University of California, Berkeley (1972), and an M.B.A. from Stanford University (1977).

Chairman MILLER. Thank you, Mr. Cross. Ms. Norcross for five minutes.

STATEMENT OF MS. EILEEN NORCROSS, SENIOR RESEARCH FELLOW, MERCATUS CENTER, GEORGE MASON UNIVERSITY

Ms. NORCROSS. Mr. Chairman and Members of the Subcommittee, thank you for inviting me to testify today on how citizens and non-governmental entities can help monitor stimulus spending. I am a Senior Research Fellow at the Mercatus Center, a university-based research center that works with scholars, policy experts, and government officials to connect academic learning with real-world practice. Part of that research focuses on using technology to improve government transparency, including accessibility and usability of data for agencies, Congress, and citizens.

First, I would like to submit to the record a paper by my colleague, Jerry Brito on crowd sourcing, one of the tools I will discuss today.

The Committee knows how vital accountability is to the performance of the nearly $800 billion committed in the *American Recovery and Reinvestment Act.* We are entering unsettling economic territory regardless of any potential short-term stimulus effect. We face a budget deficit of $1.75 trillion in 2009. That is 12.3 percent of GDP, the highest deficit as a share of the economy since World War II.

Another effect of the recession and stimulus actions is the massive uncertainty it has created. Transparency is important for many reasons, including restoring credibility and certainty with the public. Following the money as it flows from agencies to states, localities, contractors, and grantees is a monumental, if not impossible, task for a centralized entity, no matter how many auditors and analysts government commits to the job. The Administration noted why in its memo on transparency and open government: knowledge is widely dispersed in society. Those in government charged with stimulus accountability are being asked to manage an unprecedented deluge of data. Funds are to be spent quickly while ensuring prudent management.

Fortunately, that work can be augmented at a low cost. The public, technically skilled and knowledgeable parties in the on-line transparency community can help fill that gap, but only if government provides the data. The data must be deep, structured, and standardized. With data made publicly accessible, there are literally no limits to how individuals can extract patterns, trends, using Internet tools and applications. One such tool is crowd sourcing.

Crowd sourcing allows a large group of people to make small, individual contributions to a project. Wikipedia, the on-line encyclopedia, is the most familiar example. Wikipedia is built on wikis, a kind of on-line collaborative notebook built by volunteers who add, edit, and enhance reference articles on any topic conceivable. The result is a dynamic resource more extensive and deep than what a limited number of editors could produce in a traditional organization. The Internet allows people to gather and analyze data in novel ways, to take apart impenetrable masses of data quickly to find patterns. This technique can be used to follow stimulus money. In fact, it is being used right now at StimulusWatch.org, a website I co-founded with Jerry Brito and two software developers, Kevin Dwyer and Peter Snyder.

The premise of StimulusWatch is simple. Using the U.S. Conference of Mayors' on-line wish list for projects cities would like to fund with stimulus money, in a manner of weeks the developers created a key word searchable database, allowing users to search projects, comment, and vote, and importantly contribute wikis or factual information on projects. In effect, StimulusWatch transformed a static, on-line list into a virtual town hall.

Since the launch in January, the response has been tremendous. In the first month we had two million unique visitors and many journalists using the site. Projects deemed low priority rose to the top within hours. A few weeks after the site's launch, a local paper in Natchez, Mississippi, clarified that a nature trail listed at $600 million was only supposed to cost $3.1. An error had been made, but it had been caught because so many eyes were scanning the data.

Other projects in transit and light rail quickly emerged as high priority, stimulating debate by local citizens. Many project descriptions were enhanced with factual information beyond what cities provided, in some cases clarifying what were initially viewed as wasteful projects.

StimulusWatch demonstrates how crowd sourcing can help monitor projects that are actually funded with stimulus dollars. But first, the public needs raw, project-level data. Though *Recovery.gov* has promised accountability to citizens through reporting, the provisions of the Act are not encouraging.

ARRA's reporting requirements are shallow and incomplete. Only prime, non-federal recipients and sub-awards made by prime recipients must be reported. The trail stops very high in the funding chain. Some recipients need not report. In many cases, that means reporting stops at the level of a city. The granular project level detail necessary for analysis and tracking may not be available.

Secondly, ARRA doesn't stipulate how data should be provided. There is no guarantee of complete data sets or structured formats such as XML. Why is this important? An example: it may be possible to account for stimulus spending in a narrative form and posted online. We may be left with millions of individual narratives, but it would be impossible to read them all and make sense of them. Putting this data in a structured format that can be used by developers can permit any number of possibilities for monitoring and measuring the stimulus impact and performance, meshing the data with interactive maps, economic or industry statistics in Congressional districts. But short of project-level data provided in a structured format, the task at hand is not only an impossibility but a wasted opportunity that will leave more questions about the efficacy of the stimulus unanswered and even greater uncertainty among the public.

Thank you, and I look forward to your questions.

[The prepared statement of Ms. Norcross follows:]

PREPARED STATEMENT OF EILEEN NORCROSS

Mr. Chairman and Members of the Committee:

Thank you for inviting me to testify on *"Follow the Money: Accountability and Transparency in Recovery Act Science Funding."* My research at Mercatus has included considering ways to improve the access, clarity, and usability of government data so agencies, Congress, and researchers and citizens can make better use of that data, while helping ensure greater accountability for government spending.

The Committee knows how vital transparency and accountability is to the progress and performance of the nearly $800 billion in funds committed as part of the *American Recovery and Reinvestment Act* (ARRA).

Following the stimulus money—as it branches out from agencies to State and local budgets, contractors, subcontractors, individual projects and transactions—is a monumental and, frankly, impossible task for a centralized entity, no matter how many auditors and analysts the government commits to the job. Simply put: information about how funding is ultimately spent is dispersed, and knowledge about how funds are used is local. A central entity cannot possibly marshal or even be alert to all of the possible transactions and dedications of stimulus dollars, or comprehensively assess how projects are performing.

Those in government charged with this important task are being asked to manage an unprecedented deluge of data that accompanies a funding commitment of this size. There is the added pressure and paradox of spending funds quickly, while ensuring prudent management. As the Professional Services Council stated, "without a government workforce sufficient to plan, deliver, and manage the contracts and grants that dispense these huge funds, it will be like constructing an office building on a foundation of sand."

Fortunately that workforce can be augmented. The public—individuals with local knowledge—aided by technology, can fill in the gap. To help government with the stimulus-monitoring effort, there are low-cost innovative solutions that embrace the best principles of government accountability, 21st century Internet technology, citizen, and community involvement. I would like to highlight one such approach today—crowdsourcing.

Crowdsourcing or "peer production" allows a large group of people to make small individual contributions to a project or product that would traditionally have been produced by a single individual or organization.[1]

The most familiar example of crowdsourcing is Wikipedia—the online community-oriented encyclopedia. A wiki is a kind of online collaborative notebook. Wikipedia is a reference built by volunteers who add, expand, enrich and edit reference articles on any topic conceivable.

The result is a vast, ever-evolving, but easy-to-use resource that is more extensive than what a limited number of editors could produce. Importantly, Wikipedia is dynamic, continually updated and monitored by users for content and accuracy.

This kind of informational dynamism, which permits ongoing content and data enrichment and improvement, has only become possible with Internet technology. By reducing the transaction costs between individuals, the Internet and continual software developments allow people to gather and analyze data in novel and creative ways—to take apart seemingly impenetrable masses of data and extract patterns and new meaning.

But it is only possible if government provides data according to a few basic principles, advanced by my colleague Jerry Brito.

Data must be structured, open, and searchable. In other words, it must be provided in useful formats, standard, web-friendly, machine-readable formats that can be aggregated, parsed, and sorted. A loose analogy is to think of this as data in a spreadsheet—with rows and columns that allow users to sort according to criteria and uncover trends and patterns.

This is in contrast to disclosing spending in reporting narrative. The information might all be there, but it doesn't allow a computer to analyze it. However, putting information in XML (Extensible Markup Language) would allow a user to search, for instance, all projects over $500,000 for a contractor in a particular state, or congressional district.

Providing data in this form allows users to innovate, building tools to analyze and improve upon the data, merging maps, economic statistics, industry information thereby enhancing reporting. This informs citizens, and also aids the government in the effort to gauge how federal funds are performing.

I will now turn to a concrete example of how this is working in practice.

What crowdsourcing can do for stimulus accountability

One of the great benefits of crowdsourcing is that it is low-cost and fast. The human capital is already in place—made up of volunteer programmers and good government activists in the online transparency community.

1) StimulusWatch.org

In early December I came across the online U.S. Conference of Mayors Ready-to-Go wish list of projects cities submitted detailing how they would like to spend potential stimulus funds.

The list had several virtues. Importantly it provided granular details of how federal funds might be spent on the local level. It was possible to sort by city, and federal funding type. Each project listed included valuable details: project dollar amounts, potential jobs created, and in most cases, brief project descriptions.

[1] Jerry Brito, *Hack, Mash & Peer: Crowdsourcing Government Transparency,* 9 *Columbia Science and Technology Law Review* 119 (2008), available at *http://www.stlr.org/html/volume9/brito.pdf*

However, there was a limited amount of information I could extract by myself not having local knowledge of all of the communities nor unlimited time. The data was meaningfully displayed, but the format was relatively rigid and did not allow for keyword searching.

I asked my colleague Jerry Brito if the list might be a good opportunity for crowdsourcing—to invite people with local knowledge to improve the content while also proving localities with feedback on the relative merit of individual projects.

Jerry, with the help of two volunteer software developers, Kevin Dwyer and Peter Snyder, screen-scraped the data from the Mayor's site and within a few weeks created *StimulusWatch.org*. The site uses the data reported by participating cities to the U.S. Conference of Mayors, while improving upon its usability by allowing visitors to vote and comment on individual projects and search projects by keyword.

One of the most important features of the site is that it allows individuals—citizens and city officials alike—to contribute wikis, or factual information, on individual projects, in many cases enhancing and clarifying the project descriptions initially provided by individual cities. In effect, *StimulusWatch.org* helped transform a static report into a kind of online national Town Hall.

We observed some interesting trends. First, the response was tremendous. In the first month we had two million unique visitors, and many journalists using the site. Users were actively commenting on projects and adding information.

Projects deemed low-priority—dog parks, for example, rose to the top within hours of the site's launch. An official in Natchez, Mississippi clarified in the local paper a few weeks after the site's launch that a nature trail project listed on the site as costing $600 million, was only supposed to cost $3.1 million—an error had been made, and it had been caught, because so many eyes were able to quickly parse the data.[2]

Other projects, in particular in transit and light rail, quickly emerged as high-priority, stimulating active and ongoing debate by local citizens. Many project descriptions were enhanced by people contributing factual information, in some cases, clarifying what were initially regarded as wasteful projects.

The result of *StimulusWatch.org* to date has been more than encouraging, it has functioned as a demonstration project—showing how the public can contribute and help the government keeps its commitment to accountability by ferreting out potential waste, while also becoming civically engaged, providing feedback to officials on how dollars are ultimately used to benefit the community.

2) Crowdsourcing and Stimulus Accountability

The online community is eager to help government in the task of monitoring stimulus funding. *Recovery.gov* has made a commitment to provide information to the public.

In order to meet the government's goals of transparency and accountability, certain details must be provided to the public. Specifically,

a) *Project-level details on how funds were spent.*

Individual should be able to drill down from contractor, to subcontractor, to the level of individual transaction, up to a cap of $25,000.

b) *Absent government provision of a database, raw data should be made available.*

The government does not have to build such a database to track spending, it only needs to require that grantees (states, localities, and grantees) provide raw data according to the principles mentioned-structured, open, and searchable, and then make that data available to the public. This will allow users to access, search, and analyze data for patterns and trends.

But before this is possible, the disclosure and transparency requirements in the American Recovery and Reinvestment Act must be strengthened. ARRA does not require data be provided in structured machine-readable formats. Guidance issued by the Office of Management and Budget does not remedy other outstanding issues.

The Recovery Accountability and Transparency Board must address four issues in how it requires and will publish data: detail in disclosure, standardization of information, aggregation and centralized access.

a) Detail and Depth in Disclosure

According to OMB's guidance,

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[2] "City did not ask for $600M for project" by Mary Hood, *Natchez Democrat,* February 7, 2009, *http://www.natchezdemocrat.com/news/2009/feb/07/city-did-not-ask-600m-project/*

"Reporting requirements only apply to the prime non-federal recipients of federal funding, and the sub-awards, (i.e., sub-grants, subcontracts, etc.) made by these prime recipients. They do not require each subsequent sub-recipient to also report. For instance, a grant could be given from the Federal Government to State A, which then gives a sub-grant to City B (within State A), which hires a contractor to construct a bridge, which then hires a subcontractor to supply the concrete. In this case, State A is the prime recipient and would be required to report the sub-grant to City B. However, City B does not have specific reporting obligations, nor does the contractor or subcontractor for the purposes of reporting on the *Recovery.gov* website." [3]

This, in effect, hobbles the accountability commitment of the Administration. The trail stops very high in the funding chain, making the ultimate destination of funds a mystery.

It is not sufficient to know HUD made a grant to New York, which then made a grant to New York City. We should know to whom the grant was ultimately made. This level of detail allows citizens with local knowledge to uncover if funds are being used in accordance with the law, revealing fraud and misuse.

Every dollar in the funding chain should be accounted for. Further, the reporting requirements do not stipulate how data should be provided. There is no guarantee that the complete data set of recipient reports will be provided, or that they will be provided in a useful format.[4]

b) Standardization

It is currently unclear how data will be provided. To continue the spreadsheet metaphor, we don't know what the columns and rows look like. The Act requires initial recipients to base their reporting on the *Federal Funding and Transparency Act.* Thus, we expect reports will contain, award grantee names, amounts, program source, description, city, and state. But we do not know what data elements will actually be published, or the format in which we can expect it.

It would be helpful to know what *Recovery.gov* intends to provide, and in what form. That way, software developers can begin work on applications. Ideally data should be in XML format.

c) Aggregation

When information is standardized (the what, who, when and where of data), then it is possible to aggregate it.

d) Centralized Access

Funding will be widely distributed, thus information will come from many sources. For the information to be useful, it must be searchable from central locations. *Recovery.gov* should function as a web search engine that houses every single reporting data set. That does not preclude individual agencies publishing spending data on their websites. An analogy is to think of reports as books, indexed in a card catalog. As long as we know where the book is housed, it is possible to find it. *Recovery.gov* doesn't have to have all of the data sets, just the key for finding them.

Conclusion

With the passage of ARRA, the Administration and Congress made a commitment to citizens that the government would ensure transparency and accountability for how stimulus funds were spent. That task is only possible with the involvement of citizens—interested, technically skilled, and knowledgeable parties from across the political spectrum who want to participate in and collaborate with their government.[5] That community needs to know what data will be provided, and how to build the tools needed to make this effort work.

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[3] Office of Management and Budget, *Initial Implementation Guidance for the American Recovery and Reinvestment Act of 2009,* Feb. 18, 2009, pages 14–15, available at *http://www.whitehouse.gov/omb/asset/aspex?Assetl=703*

[4] ARRA §1512 (c) requires stimulus fund recipients report to awarding agencies how they have spent funds, there is no requirement in the Act that reports be made available to the public.

[5] The Coalition for an Accountable Recovery, at *http://www.ombwatch.org/car*

The President's Memorandum on Transparency and Open Government cites three themes: transparency, participation, and collaboration.[6] The memo makes two important points developed in this testimony:

> "Knowledge is widely dispersed in society, and public officials benefit from having access to that dispersed knowledge."

> "Executive departments and agencies should use innovative tools, methods, and systems to cooperate among themselves across all levels of Government, and with non-profit organizations, businesses, and individuals in the private sector."

These are the operating principles upon which *Recovery.gov* should build its transparency and accountability effort. Linking citizens with detailed, structured, and standardized data will make it possible.

Thank you.

[6] President Barack Obama, Memorandum for the Heads of Executive Departments and Agencies on Transparency and Open Government, Jan. 21, 2009, available at *http://www.whitehouse.gov/the_press_office/TransparencyandOpenGovernment/*

The Columbia
SCIENCE AND TECHNOLOGY LAW REVIEW
www.stlr.org

HACK, MASH, & PEER: CROWDSOURCING GOVERNMENT TRANSPARENCY

Jerry Brito*

In order to hold government accountable for its actions, citizens must know what those actions are. To that end, they must insist that government act openly and transparently to the greatest extent possible. In the twenty-first century, this entails making its data available online and easy to access. If government data is made available online in useful and flexible formats, citizens will be able to utilize modern Internet tools to shed light on government activities. Such tools include mashups, which highlight hidden connections between different data sets, and crowdsourcing, which makes light work of sifting through mountains of data by focusing thousands of eyes on a particular set of data.

Today, however, the state of government's online offerings is very sad indeed. Some nominally publicly available information is not online at all, and the data that is online is often not in useful formats. Government should be encouraged to release public information online in a structured, open, and searchable manner. To the extent that government does not modernize, however, we should hope that private third parties build unofficial databases and make these available in a useful form to the public.

* Senior Research Fellow, Mercatus Center at George Mason University. The author would like to thank Chris White and Mark Adams for their research assistance, as well as Jerry Ellig, Jim Harper, Tim Lee, and Kyle McKenzie for their valuable comments on early drafts of this Article. You may contact the author at gbrito@gmu.edu.

INTRODUCTION

The federal government makes an overwhelming amount of data publicly available each year. Laws ranging from the Administrative Procedure Act[1] to the Paperwork Reduction Act[2] require these disclosures in the name of transparency and accountability. However, the data is often only nominally publicly available. First, much government data is not available online or even in electronic format. Second, the data that can be found online is often not available in an easily accessible or searchable format. If government information were made public online in standard open formats, the online masses could help ensure the transparency and accountability that is the reason for making information public in the first place.

Part I of this Article will show that government information that is nominally publicly available is in fact difficult to access either because it is not online or, if it is online, because it is not available in useful and flexible formats. Part II explores how independent third parties have improvised where government has failed and made public information available online in flexible formats. Finally, Part III offers some recommendations for the government to improve its online offerings. It also argues that until such improvement takes place, private parties can fill the breach.

I. PUBLICLY AVAILABLE GOVERNMENT INFORMATION

Democracy is founded on the principle that the moral authority of government is derived from the consent of the governed.[3] That consent is not very meaningful, however, unless it is informed.[4] When a government makes decisions in secret, opportunity for corruption increases and accountability to the people decreases. This is why government transparency should be a priority. When official meetings are open to citizens and the press, when government finances are open to public scrutiny, and when laws and the procedures for making them are open to discussion, the actions of government enjoy greater legitimacy.

Recent years have seen a renewed effort to increase government transparency in the United States. In the wake of the Jack Abramoff,[5] Duke Cunningham,[6] and William

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[1] Administrative Procedure Act §§ 3-4, 5 U.S.C. §§ 552-53 (2006).

[2] Paperwork Reduction Act, 44 U.S.C. §§ 3501-3520 (2006).

[3] *See* The Declaration of Independence para. 2 (U.S. 1776).

[4] The Framers, for example, required that Congress keep and publish a record of its activities. U.S. Const. art I, § 5, cl. 3 ("Each House shall keep a Journal of its Proceedings, and from time to time publish the same, excepting such Parts as may in their Judgment require Secrecy; and the Yeas and Nays of the Members of either House on any question shall, at the Desire of one fifth of those Present, be entered on the Journal.").

[5] *See generally* Susan Schmidt & James V. Grimaldi, *Abramoff Pleads Guilty to 3 Counts*, Wash. Post, Jan. 4, 2006, at A1 (detailing the Justice Department's "wide-ranging public

Jefferson[7] scandals, Congress has moved again to shed light on its own activities. In 2006, Senators Barack Obama and Tom Coburn introduced legislation requiring the full disclosure of all organizations receiving federal funds through an online database to be operated by the Office of Management and Budget (OMB).[8] The result was the Federal Funding Accountability and Transparency Act of 2006, which goes into full effect beginning January 1, 2008.[9] Additionally, House Democrats, led by Speaker Nancy Pelosi, pledged that after the 2006 congressional elections they would enact legislation to "restore accountability, honesty, and openness at all levels of government."[10] The result was the Honest Leadership and Open Government Act of 2007, which requires that information about earmarks be published on a public, searchable website 48 hours before a vote can be taken on the bill containing the earmarks.[11]

Laws encouraging government transparency and accountability have been a feature of the American system of government since the founding of the Republic. The Constitution, for example, requires that each house of Congress "keep a Journal of its Proceedings, and from time to time publish the same, excepting such Parts as may in their Judgment require Secrecy."[12] Today, the *Congressional Record* satisfies this requirement. With the advent of the regulatory state, the *Federal Register* was established to assemble a record of the actions of the new executive agencies.[13] The Administrative Procedure Act expanded the role of the publication by requiring agencies to publish not just their

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corruption investigation" centered on former lobbyist Jack Abramoff).

[6] *See* Charles R. Babcock & Jonathan Weisman, *Congressman Admits Taking Bribes, Resigns*, Wash. Post, Nov. 29, 2005, at A1.

[7] *See* Jerry Markon & Allan Lengel, *Lawmaker Indicted on Corruption Charges*, Wash. Post, June 5, 2007, at A1.

[8] Press Release, Senator Barack Obama, Obama, Coburn Introduce Bill Requiring Public Disclosure of All Recipients of Federal Funding (Apr. 7, 2006), *available at* http://obama.senate.gov/press/060407-coburn_introduc/.

[9] Federal Funding Accountability and Transparency Act of 2006, Pub. L. No. 109-282, 120 Stat. 1186.

[10] Office of the House Democratic Leader Nancy Pelosi, 109th Congress, A New Direction for America 21 (2006), *available at* http://www.speaker.gov/pdf/thebook.pdf.

[11] Honest Leadership and Open Government Act of 2007, Pub. L. No. 110-28, § 521, 121 Stat. 735, 760-64.

[12] U.S. Const. art I, § 5, cl. 3.

[13] Office of the Fed. Register, Nat'l Archives and Records Admin., A Brief History Commemorating the 70th Anniversary of the Publication of the First Issue of the Federal Register 2-4 (2006), *available at* http://www.archives.gov/federal-register/the-federal-register/history.pdf.

orders, but their proposed rules and other documents as well.[14] More recently, the Freedom of Information Act for the first time gave Americans the right to access the general records of federal agencies.[15]

A. Public Government Data is Often Not Online

Unfortunately, many of the statutory requirements for disclosure do not take Internet technology into account. For example, the 1978 Ethics in Government Act requires the disclosure of financial information–including the source, type, and amount of income–by many federal employees, elected officials, and candidates for office, including the President and Vice President, and members of Congress.[16] The Act further requires that all filings be available to the public, subject to certain limited exceptions.[17] One might imagine, then, that every representative or senator's information would be just a web search away, but one would be wrong.

Members of the House of Representatives must file their disclosures with the Clerk of the House of Representatives, while Senators must do the same with the Secretary of the Senate.[18] Each of these offices maintains a searchable electronic database of the filings.[19] However, to access these databases, citizens must go to Washington, DC, and visit those Capitol Hill offices during business hours.[20] There are no other means of searching the databases, something that presents a major barrier to widespread dissemination of nominally publicly available information. Making such a database available to the public online can likely be accomplished at a negligible marginal cost given that the Clerk of the House and the Secretary of the Senate already have websites on which the information could be posted.

Outside of Congress, the President and Vice President, candidates for those offices, and other executive officials (including all Senate-confirmed officials) must file

[14] *Id.* at 6; 5 U.S.C. § 553(b) (2006).

[15] Freedom of Information Act, 5 U.S.C. § 552 (2006).

[16] Ethics in Government Act of 1978 §§ 101-02, 5 U.S.C. app. 4 §§ 101-02 (2006).

[17] 5 U.S.C. app. 4 § 105 (2006).

[18] 5 U.S.C. app. 4 § 103(h)(1) (2006).

[19] The Open House Project, Sunlight Found., Congressional Information & the Internet: A Collaborative Examination of the House of Representatives and Internet Technology 45 (2007) [hereinafter Open House Report], *available at* http://www.theopenhouseproject.com/report/openhouseproject_may8_07.pdf.

[20] *Id.*; *see also* Rob Bluey, *Why Aren't These Documents Available Online?*, The Open House Project, Mar. 7, 2007, http://www.theopenhouseproject.com/2007/03/07/why-arent-these-documents-available-online/ (describing the process of accessing documents at the House Legislative Resource Center).

their financial disclosure with the Office of Government Ethics,[21] which is specifically charged with making the filings available to the public.[22] However, there is no searchable database of these records available to the public. Instead, one must fill out and submit a form listing the persons whose disclosure forms one would like to view, and these are then copied and mailed.[23] Public access to an electronic relational database with this sort of information would allow for far more interesting uses, such as querying to see which sources of income appear most frequently (or contribute the most income overall) in the disclosures.

B. Online Public Government Data is Difficult to Use

Even when public information is available online, it is often not available in an easily accessible form. If data is difficult to search for and find, the effect might be the same as if it were not online. Additionally, to allow users to exploit the full potential of the Internet–to subscribe to data streams and to mix and match data sources–data must be presented in a structured machine-readable format.

For example, the Federal Communications Commission (FCC) is an independent government agency with an active regulatory agenda that it manages via its online docket system.[24] In theory, users of the FCC website are able to see active rulemakings, search for and read FCC documents and public interest comments filed by interested parties, and file their own comments. In practice, the site seems to be an exercise in obscurantism.

The main area of the FCC's home page contains a listing of news releases, commissioner statements, and public notices relating to new or existing regulatory proceedings.[25] These items are linked to both PDF and Microsoft Word files of the documents despite the fact that someone reading the page will be using a web browser, an application that generally reads neither of those formats. Accessing these documents requires launching a new application; and linking to a document–for example, linking to a commissioner statement from a blog entry–is less straightforward than linking to a simple web page.[26] In most cases, the documents listed on the home page pertain to an

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[21] 5 U.S.C. app. 4 § 103(c) (2006).

[22] 5 U.S.C. app. 4 § 103(d) (2006).

[23] U.S. Office of Gov't Ethics, Request to Inspect or Receive Copies of SF 278 Executive Branch Personnel Public Financial Disclosure Reports or Other Covered Records - OGE Form 201 (2006), *available at* http://www.usoge.gov/pages/forms_pubs_otherdocs/fpo_files/forms/fr201_06.pdf.

[24] Federal Communications Commission, FCC Electronic Comment Filing System, http://www.fcc.gov/cgb/ecfs/ (last visited Oct. 10, 2007).

[25] *See* Federal Communications Commission, FCC Home Page, http://www.fcc.gov/ (last visited Oct. 10, 2007).

[26] The FCC Web site is fundamentally at odds with the ease of accessibility for which the

open regulatory proceeding, but there are no links to the docket where one could read public interest comments or other related documents.

The dockets containing proposed rules and other official FCC documents, as well as public comments, are available on the website through a search form.[27] There is neither an index of open proceedings nor indexes of documents within each proceeding docket. To obtain a listing of documents in a given docket, you must know the docket's number and search using that number. The resulting list is presented in chronological order with no way to sort by author, document length, or any other field. Additionally, there is no way of searching within dockets for specific keywords.[28] Even if there were a function that allowed one to search within documents, the results would be incomplete since many documents are posted as image files that are not easily parsed by computers and would not be returned in a search.[29] This applies both to comments submitted by the

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World Wide Web was created. In the original document proposing a World Wide Web, Tim Berners-Lee and Robert Calliau specifically rejected the notion of "forc[ing] users to use any particular word processor, or mark-up format." Tim Berners-Lee & Robert Calliau, WorldWideWeb: Proposal for a HyperText Project, http://www.w3.org/Proposal.html (last visited Oct. 10, 2007). The genius of the Web is that anything that can be expressed in text can be published as an HTML document that can be read by anyone with a browser and that, more importantly, can be easily linked to and referenced by other HTML documents. In contrast, the FCC site breaks the conceptual model of an interlinked web and forces those who would link to information on the FCC site to place warnings that the linked-to information is not a webpage. *See, e.g.*, Carlo Longino, *FCC Says Rural Telcos Have to Play Nice With VoIP*, Techdirt, Mar. 2, 2007, 15:18 PST, http://www.techdirt.com/articles/20070302/073711.shtml (alerting readers that a linked document on the FCC website is a PDF).

[27] Federal Communications Commission, Electronic Comment Filing System, http://fjallfoss.fcc.gov/prod/ecfs/comsrch_v2.cgi (last visited Oct. 10, 2007). A note at the bottom of this page states that it was last updated on Dec. 11, 2003. *Id.*

[28] *See id.*

[29] One of the main document types used by the FCC is Portable Document Format (PDF). PDFs can contain digital text that is subject to search (usually created by saving as a PDF document from a word processing application) or images of text that cannot be searched (usually created by simply scanning a printed document). *See* Adobe Systems Inc., Adobe Reader 7.0 for Windows and Macintosh 166 (2004), *available at* http://www.adobe.com/products/acrobat/pdfs/acrruserguide.pdf ("PDF documents that are created by scanning a printed page are inherently inaccessible because the document is an image, not text that can be tagged into a logical document structure or reading order."). The Department of Justice (DOJ) has taken note of this problem as it relates to the accessibility of websites for disabled users who rely on devices that depend on machine-readable text. In a 2004 report, the DOJ stated:

> A more significant problem involves agencies' use of inaccessible content on their sites. An agency may create a Web page that is easily navigated by people using a text-only browser but then include downloadable files that are inherently inaccessible. This problem occurs most frequently with two types of file content used by many

public[30] and FCC documents.[31] This is the case even though public comments are usually created in word processing applications, such as Microsoft Word, which produce machine-readable electronic documents.

How do these non-searchable image files of documents come to be? First, if a commenter opts not to submit their comment electronically and instead mails or sends by courier a physical copy of the document, the FCC scans the document as an image.[32] Second, even if a commenter is submitting a comment electronically, the commenter has the option to submit a non-searchable image file. The result, as one commentator put it, is that "[t]here is no incentive for filing parties to make their documents machine readable and they may prefer to make them difficult to use in order to increase the burden on opposing parties filing reply comments under short deadlines."[33]

Some agencies, such as the EPA, do not house their electronic dockets on their own websites. Instead they use Regulations.gov, a combined federal regulatory docket system managed by the Office of Management and Budget and part of President George W. Bush's "eRulemaking Initiative."[34] Acknowledging that "online access to comments

> components—files rendered by scanning to Adobe Acrobat's portable document format (pdf) and multimedia files.

Department of Justice, Information Technology and People with Disabilities: The Current State of Federal Accessibility § III.1 (2000), *available at* http://www.usdoj.gov/crt/508/report/content.htm (last visited Oct. 10, 2007). Revised DOJ guidance suggests that agencies may use PDF files as long as they take care to ensure that they are accessible. Department of Justice, Section 508 of the Rehabilitation Act: Accessibility for People with Disabilities in the Information Age (Results of 2001 Survey) § II, *available at* http://www.usdoj.gov/crt/508/report2/web.htm (last visited April 17, 2008).

[30] *See, e.g.*, Comments of Verizon Wireless to the FCC, In re: Auction of 700 MHz Band Licenses Scheduled for January 16, 2008 (Aug. 31, 2007), *available at* http://fjallfoss.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6519721231 (illustrating use of PDF documents for comments submitted to FCC).

[31] *See, e.g.*, Federal Communications Commission, Auction of 700 MHz Band Licenses Scheduled for January 16, 2008, Comment Sought on Competitive Bidding Procedures for Auction 73 (Aug 17, 2007), *available at* http://fjallfoss.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6519611785 (illustrating use of PDF documents for official FCC documents).

[32] This does not explain however why the FCC's own documents, such as the public notice cited in footnote 31, are also scanned as images. Nor does it explain why optical character recognition is not generally applied to scanned documents.

[33] Michael Marcus, *FCC Website: The good, the bad, and the ugly*, Spectrum Talk, May 16, 2006, 08:26 EDT, http://spectrumtalk.blogspot.com/2006_05_01_archive.html.

[34] Office of Management and Budget, Report to Congress on the Benefits of the President's E-Government Initiatives 4-5 (2007), *available at* http://www.whitehouse.gov/omb/egov/documents/FY07_Benefits_Report.pdf. While OMB is

about regulations, along with other supporting documents, is limited," the Bush initiative sought to ease matters by creating one website at which users could find, read, and comment on regulations.[35] The Regulations.gov site currently provides the ability to search and view all rulemaking documents published in the *Federal Register*, and to submit comments to some agencies on their open proceedings.[36] It also houses the complete dockets (i.e., all notices, technical reports, and public comments) of over thirty participating agencies, including the Environmental Protection Agency.[37] The initiative's objective is to eventually house all federal dockets in one unified "Federal Docket Management System."[38]

Unfortunately, the site leaves much to be desired.[39] Like the FCC's site, Regulations.gov does not offer a full text search of documents.[40] Users can only search by titles, authors, and other limited fields.[41] As one law librarian, Barbara Brandon of the University of Miami School of Law, explained this shortcoming:

> "If I wanted to find all comments made by the Natural Resources Defense Council in an EPA rulemaking docket, for example, I would put in their full name or 'NRDC' and the Web site might give me something like 30 hits showing their comments."
>
> However, what the search would not find, Brandon explained–and what is of particular interest to outside advocacy groups and researchers–are all the documents within a docket that happen to mention NRDC.

responsible for all of the President's e-government initiative, the EPA is the managing partner in charge of Regulations.gov. *Id.*

[35] *E-Government Reauthorization Act: Hearing on S. 2321 Before the S. Comm. on Homeland Security and Government Affairs*, 110th Cong. (2007) (statement of Karen Evans, Administrator of the Office of Electronic Government and Information Technology, OMB); *available at* http://hsgac.senate.gov/_files/121107Evans.pdf; *See also* Office of Management and Budget, Presidential Initiatives: E-Rulemaking, http://www.whitehouse.gov/omb/egov/c-3-1-er.html (last visited Oct. 10, 2007) (describing the EPA's eRulemaking Program).

[36] *See* Establishment of a New System of Records Notice for the Federal Docket Management System, 70 Fed. Reg. 15,086 (proposed Mar. 24, 2005) (effective May 3, 2005).

[37] *Id.*

[38] *Id.*

[39] *See* Ralph Lindeman, *Structural, Other Flaws Said to Impede Effectiveness of E-Rulemaking Web Site*, BNA Daily Report for Executives, Mar. 30, 2007, at C-5; Cindy Skrzycki, *Document Portal Sticks on Funding*, Wash. Post, Jan. 10, 2006, at D1.

[40] Lindeman, *supra* note 39.

[41] *Id.*

> "In other words, with a full text search, I would be able to see all the agency documents that cite NRDC's comments, which could tell me what the agency had to say about the comments," Brandon said. "I would also be able to see what other commenters said about NRDC's comments."[42]

Twenty-seven federal agencies have migrated their dockets to Regulations.gov, which according to OMB accounts for eighty-two percent of all federal regulations.[43] While this process toward centralization has been hailed as a success, it may in fact be a disaster. While efficient in theory, consolidation may be a step backward if the centralized database does more to obscure data than to make it easily accessible. A few days after Regulations.gov won an award from *Government Computer News*,[44] the Congressional Research Service (CRS) issued a report outlining serious questions regarding the site, including "the general navigability of the website, the consistency and completeness of the data, [and] whether the system allows users to adequately search existing dockets."[45] The report catalogues several attempts by CRS to find information using the site's navigation or search functions. These search attempts were unsuccessful and yielded thoroughly confusing results.[46]

C. The Promise of Structured Data

Neither the FCC website nor Regulations.gov offer access to their data in a structured format. What does this mean? The most common form of subscribable structured data is an RSS feed. RSS stands for "really simple syndication" and usually refers to a family of data formats that allow the automation and aggregation of data.[47] For example, the *New York Times* offers an RSS feed for its homepage,[48] as does the

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[42] *Id.*

[43] Rutrell Yasin, *Agency Award—Environmental Protection Agency*, Government Computer News, Oct. 8, 2007, *available at* http://www.gcn.com/print/26_26/45188-1.html.

[44] *Id.*

[45] Curtis W. Copeland, Congressional Research Service, *CRS Report for Congress: Electronic Rulemaking in the Federal Government* 35-39 (2007), *available at* http://www.opencrs.com/document/RL34210.

[46] *Id.*

[47] *See* Mark Pilgrim, *What is RSS*, O'Reilly XML.com, Dec. 18, 2002, http://www.xml.com/pub/a/2002/12/18/dive-into-xml.html.

[48] XML feed for items on the *New York Times* home page, http://www.nytimes.com/services/xml/rss/nyt/HomePage.xml (last visited Oct. 10, 2007).

Washington Post.[49] A user can subscribe to these feeds with a desktop application called a "feed reader"[50] or a web-based reader such as Google Reader.[51] Any time something is added to the home page of the newspaper, it is simultaneously published in that newspaper's RSS feed. When subscribers turn on their feed reader, it checks all the subscribed feeds for new items, which are then displayed. So, with one simple feed reader application, a user can keep track of dozens or hundreds of feeds without having to regularly visit the websites of the publisher, in this case the newspapers.

Imagine being able to subscribe to feeds from Regulations.gov or individual agency websites. Subscribe to the FCC's RSS feed and then never visit the site again just to check if new regulations have been proposed.[52] If a new regulation (or other document) is added your reader automatically alerts you.[53] But it could be even more useful. The *New York Times*, for example, offers a feed just for its automotive section.[54] Subscribe to it and you are notified only when new articles about cars are published and you never have to wade through all the other content the *Times* publishes. The *Times* also offers feeds for its food section, its "Europe news" section, and dozens more. There is no reason why the FCC could not similarly publish a feed for each of its bureaus to be subscribed to by persons interested just in wireless spectrum regulations or just cable regulations.

Giving individual users such capabilities would greatly increase transparency. More importantly, however, structured data formats such as RSS offer even greater potential for openness because they make data more accessible and flexible. Once a user is aware of a regulation they would like to track, why not allow them to "subscribe" to the regulation? Blogs are preeminent users of structured data and the vast majority offer RSS feeds to which you can subscribe. Subscribe to a dozen and whenever you turn on

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[49] XML feed for items on the *Washington Post* front page, http://feeds.washingtonpost.com/wp-dyn/rss/print/index_xml (last visited Oct. 10, 2007).

[50] *See* Ellen Finkelstein, Syndicating Web Sites with RSS Feed for Dummies 10-11 (2005).

[51] Google Reader, http://reader.google.com (last visited Oct. 10, 2007).

[52] There are scattered uses of RSS in government. The SEC for example provides RSS feeds for financial disclosure data that firms voluntarily submit in a structured format. *See* SEC XBRL RSS Feed Files, http://www.sec.gov/info/edgar/ednews/xbrlrss.htm (last visited Oct. 10, 2007). The Copyright Office uses RSS extensively for its publications, including its Federal Register notices. *See* Copyright Office Federal Register Notices, http://www.copyright.gov/fedreg (last visited Oct. 10, 2007).

[53] Regulations.gov does offer e-mail alerts. Regulations.gov User's Guide § 9, http://www.regulations.gov/fdmspublic/help/en/PublicHelpGuide/PublicHelpGuide.htm#9_Notifications.htm (last visited Oct. 10, 2007). The site will e-mail you each time a new document is added to a particular docket to which you subscribe. However, complete dockets including public comments are available only for a few participating agencies.

[54] XML feed for items on the automotive section of the *New York Times* website, http://www.nytimes.com/services/xml/rss/nyt/Automobiles.xml (last visited Oct. 10, 2007).

your reader, the latest postings from each blog are available for you to read. Additionally, most blogs allow readers to leave comments at the end of blog posts, and many allow readers to subscribe to those comments. For example, suppose you subscribe to an automotive blog that you read regularly using your feed reader. One day the blog features a post about the recall of a brand of tires that you own. You know a bit about the issue, so you post a comment to the blog and you then want to track responses to your comment and the general conversation that develops on the blog around the tire recall issue. So you subscribe to the RSS feed for that particular post's comments and each time you turn on your reader you get not just the latest posts to the blogs you follow, but the comments posted by readers to the blog posts you're tracking. There is no reason why a government website could not allow users to subscribe to regulatory dockets and be notified of all official actions and public interest comments filed in a particular docket.

The *New York Times* also offers a series of "Times Topics" web pages and companion RSS feeds.[55] These range from persons (Rupert Murdoch, Hillary Clinton) to countries (Sudan, Colombia) to organizations, general subjects, and issues (New York Yankees, Supreme Court, United States, cancer). Subscribe to the RSS feed for one of these keywords and your feed reader will display articles published relating to that keyword anywhere in the pages of the *Times*. Imagine if such keyword subscriptions were available from regulatory agencies. The EPA, for example, could offer topic subscriptions such as "pesticides," "superfund," or "Vermont," making it easier for citizens to engage in the topics that matter to them.

Finally, even if the government cannot predict every possibly useful topic, readily available technology today allows for RSS subscriptions to keyword searches. Google News, for example, allows users to make a regular web search and then to subscribe to the results.[56] Each time a new item using your search term appears anywhere on the web, you are alerted.

II. Making Government Data Available and Useful Online

Making government information available online would not only benefit individual users of government websites, it would also make it simpler for third parties to aggregate government data. By aggregating data, websites can present government information in innovative and useful ways. For example, federal spending data gathered from a government website could be presented by a third party as an interactive map that shows the locations of funding recipients.[57] Such applications make data exponentially

[55] *New York Times* Times Topics, http://topics.nytimes.com/top/reference/timestopics/ (last visited Oct. 10, 2007).

[56] Google News, Browse Google News Help—About Feeds, http://www.google.com/support/news/bin/answer.py?hl=en&answer=59255 (last visited Oct. 10, 2007).

[57] Sunlight Foundation, Earmark Map, http://sunlightlabs.com/earmarks/ (last visited Oct. 10, 2007).

more valuable. Government need not develop such innovative tools itself; as long as the data is made available online in a structured format, private parties will make good use of it.

As we have seen, "structured data" is a term of art. It means that information is presented in a format that allows computers to easily parse and manipulate it. While a static web page that lists a series of news stories or proposed regulations is not structured, the web page may have a companion XML file containing the same information. A structured XML file would allow a user to sort the data by ascending or descending date, alphabetically by headline or author, by number of words, and in many other ways that a static web page does not afford.

In 2007, a group of interested citizens collaboratively produced a report detailing how the House of Representatives could use Internet technology to better serve its constituents. In it they explained,

> The notion of structured data is not new to the federal government. The Census Bureau, for instance, has for years not only provided a Web interface for census statistics–that is, a page where users can find simple data such as population numbers–but also the complete set of numeric data files to be downloaded and imported into database and statistics programs. The benefit of a download of the data is that with the complete data set computers can help people delve more deeply into the data and put it in new forms, such as charts and maps, that would be too time consuming to create by hand. Another example is the Securities and Exchange Commission's practice of making investment filings available to the public in XML format through its EDGAR program. Likewise, the Federal Election Commission makes campaign contribution information available in a downloadable structured data format, allowing the public to absorb the information in a variety of ways.[58]

When the government makes data available in a structured format, it opens the doors to innovative and enlightening remixes of information known as mashups. Mashups are tools that can potentially be used by journalists, bloggers, and citizens–the Internet's intelligent crowds–to better scrutinize government's activities. When government does not make data available online, or makes it available but not in a structured format, third parties take it upon themselves to fill the void by implementing ingenious hacks.

A. Hacks

Because of how the popular press has used it, the word "hack" is often misunderstood to mean only illicit access to computer networks. In fact, in tech circles that is only one possible meaning. Usually the term means "a clever or quick fix to a computer program problem," and also, "a modification of a program or device to give the

[58] Open House Report, *supra* note 19 at 11 (citations omitted).

user access to features that were otherwise unavailable to them."[59] It is this latter definition that is relevant here.

A number of independent third parties have created hacks that make available online, in a structured format, data that the government has either not put online or not made easily accessible. For example, disclosure forms for members of Congress are available online from *The Washington Post*'s U.S. Congress Votes Database.[60] Using this database, a user can look up a page for any member of Congress. The page includes a photo, a short biographical sketch, voting record, and much more information, including links to the past two years' financial disclosure forms. Where does the *Post* get this data? For House members, the Office of the Clerk once a year makes available electronically all the disclosure forms on a CD-ROM.[61] The *Post* uses this data to populate its online database.[62] For Senators, however, the *Post* must acquire physical copies of the filings and then scan them in order to make electronic copies.[63] While government has failed to provide the data online and requires citizens to make a formal request for physical copies of these public documents, the *Washington Post's* hack offers easy online access.[64]

Another independent third party that is hacking government data to make it accessible and useful to the public is GovTrack.us, a website by linguistics graduate student Joshua Tauberer.[65] GovTrack.us attempts to overcome the poor formatting of legislative information made available by the government. By scouring disparate and obscure government sources of congressional data, the site is able to create a unified and structured information resource. As Tauberer explains:

> The site is possible because the government has been posting the relevant information online for a while, but in scattered locations. For instance, legislation is posted in one place and votes on the very same legislation in another. . . .
>
> Each day GovTrack screen-scrapes these sites to gather the new

[59] Wikipedia, Hack (technology), http://en.wikipedia.org/wiki/Hack_(technology) (last visited Oct. 10, 2007).

[60] The Washington Post, The U.S. Congress Votes Database, http://projects.washingtonpost.com/congress/ (last visited Oct. 10, 2007).

[61] E-mail from Derek Willis, Research Database Editor, *The Washington Post*, to Mark Adams, research assistant to the author (Sept. 8, 2007, 09:47 EST) (on file with author).

[62] *Id.*

[63] *Id.*

[64] Unfortunately, the database only extends to members of Congress and not all federal employees who are subject to financial disclosure requirements.

[65] GovTrack.us: Tracking the U.S. Congress, http://www.govtrack.us/ (last visited Oct. 10, 2007).

information. The information gets normalized and goes into XML files.[66]

What Tauberer is referring to are the Library of Congress's THOMAS online legislative database, and the House and Senate's practice of publishing daily roll call votes on their websites.[67] Individually, these data sources are certainly useful, but they do not come close to meeting the potential of modern technology.

For example, THOMAS is the go-to source for bills before Congress. The THOMAS website includes full text search of bills, their status, sponsors, committee reports, and other information.[68] However, pages on the THOMAS site use temporary web addresses that expire after a few minutes, making it difficult for users to bookmark, email, or otherwise share information.[69] Also, the legislative information offered by THOMAS is not available in a structured format. While one can find a list of all bills sponsored by a particular member of Congress on THOMAS, one cannot subscribe to a feed in order to be alerted whenever a particular member introduces new legislation.[70] Nor can one subscribe to a particular bill and be alerted to any actions related to it.

As we have seen, both the House and the Senate publish the results of daily roll call votes on their websites. The House publishes the data in a standard structured format known as XML. The Senate does not.[71] In neither case is it possible for a user to look up the voting record of a particular member of Congress. Both the House and the Senate present a web page for each bill considered and then list the names of all those voting yea, then all those voting nay, and finally those not voting.[72] To see a particular senator's complete voting record for the year, one would have to click on hundreds of pages and record whether the senator was listed as voting yes or no for each individual bill.

In contrast, Tauberer's GovTrack.us, as well as *The Washington Post*'s U.S. Congress Votes database, display complete voting records for individual members. Additionally, because GovTrack.us and U.S. Congress Votes present data in a structured

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[66] Joshua Tauberer, *GovTrack.us, Public Data, and the Semantic Web*, O'Reilly XML.com, Feb. 8, 2006, http://www.xml.com/pub/a/2006/02/08/govtrack-us-public-data-semantic-web.html.

[67] *Id.*

[68] The Library of Congress, About THOMAS, http://www.thomas.gov/home/abt_thom.html (last visited Feb. 23, 2008).

[69] Open House Report, *supra* note 19, at 10.

[70] *See generally* The Library of Congress, THOMAS Home, http://thomas.loc.gov (last visited Feb. 23, 2008) (see "Browse Bill by Sponsor" dropdown menu).

[71] *See, e.g.*, Office of the Clerk, U.S. House of Representatives, Final Vote Results for House Roll Call 864, http://clerk.house.gov/evs/2007/roll864.xml (last visited Feb. 23, 2008) (roll call vote data available in XML).

[72] *See id.*; *see also* U.S. Senate, U.S. Senate Roll Call Votes 110th Congress - 1st Session, http://www.senate.gov/legislative/LIS/roll_call_lists/roll_call_vote_cfm.cfm?congress=110&session=1&vote=00372 (last visited Feb. 23, 2008) (roll call vote data unavailable in XML).

format, one can subscribe to feeds for members, and be notified daily via e-mail or RSS as to how these members voted on bills.[73] Other features these sites provide include

- subscribing to a bill and being alerted to every change or action (amendments, related hearings, votes, etc.)[74]

- subscribing to a member and being alerted not just to votes, but also to bills introduced and speeches made by that member[75]

- statistical facts for individual members, including the percentage of votes missed and the number of times the member has voted with and against the majority of his party[76]

To make these features possible, GovTrack.us and *The Washington Post* had to hack the data provided by Congress into useful structured formats. Because the House already provides roll call vote data in a structured XML format, it is easy for the sites to download the information from the House site and parse it into their own databases.[77] Senate vote data and THOMAS legislative information, however, are not available in a structured format,[78] so they must instead be "screen-scraped."[79]

In essence, "screen-scraping" involves calling up the web page that displays the

[73] The Washington Post, The U.S. Congress Votes Database: RSS Feeds, http://projects.washingtonpost.com/congress/rss (last visited Feb. 23, 2008); GovTrack: How To Use Trackers, http://www.govtrack.us/users/aboutmonitors.xpd (last visited Oct. 10, 2007).

[74] The U.S. Congress Votes Database, *supra* at 73; GovTrack, *supra* at 73.

[75] The U.S. Congress Votes Database, *supra* at 73; *see* GovTrack, *supra* at 73.

[76] *See, e.g.*, The Washington Post, The U.S. Congress Votes Database: Rep. Neil Abercrombie, http://projects.washingtonpost.com/congress/members/a000014 (last visited Feb. 23, 2008) (illustrating the information available for individual members).

[77] E-mail from Derek Willis, Research Database Editor, *The Washington Post*, to Mark Adams, research assistant to the author (Sept. 8, 2007, 09:47 EST) (on file with author) ("You can do a View Source on the House vote and see the XML. We use a Python XML parser to do the work there. For the Senate, we do indeed screen-scrape the vote using pattern-matching (also called regular expressions)."); *see also* Tauberer, *supra* note 66 (describing the process used by GovTrack to create and manipulate XML).

[78] Tauberer, *supra* note 66; Willis, *supra* note 77.

[79] Wikipedia, Screen Scraping, http://en.wikipedia.org/wiki/Screen_scraping (last visited Feb. 25, 2008) ("Screen scraping is a technique in which a computer program extracts data from the display output of another program. . . . The key element that distinguishes screen scraping from regular parsing is that the output being scraped was intended for final display to a human user, rather than as input to another program, and is therefore usually neither documented nor structured for convenient parsing.").

type of data the user wishes to gather (for example, a senate roll call vote page), identifying the patterns apparent on the page (such as where the bill title and number are displayed and which boxes correspond to the yeas and nays), and then writing a computer script that will transfer data found in designated display positions to the appropriate fields in a database.[80] In many ways this is the digital equivalent of having to scan paper copies of documents because, while the original may well be electronic in this case, it is the final user display that is accessed and parsed into meaningful groupings. In short, it is an inefficient and often inexact method.

Websites such as GovTrack.us and the U.S. Congress Votes Database must nevertheless be commended for cleverly employing "screen scraping" in order to bring the public better access to public information. Government could make this costly maneuvering unnecessary by providing data in a structured format.

So why is it that the government very often does not provide online data in useful forms? In most cases it is likely the result of bureaucratic inertia. In others, however, it must be noted that those in government have no incentive, and often a disincentive, to make public information easily accessible.

Derek Willis, one of the creators of *The Washington Post*'s congressional database, discovered during the course of his research that the Senate had experimented with publishing XML files of vote data for past sessions on its website.[81] This discovery demonstrated that the Senate has the ability to make its votes available online in a structured format. Willis wrote to the Senate Webmaster asking if structured voting data was available for the current session and, if so, would this data be made public.[82] The telling response read in part:

> A few representative votes (only a few from the early congresses) were published out to the active site during some testing periods. I really need to remove them from the site.
>
> We are not authorized to publish the XML structured vote information. The Committee on Rules and Administration has authorized us to publish vote tally information in HTML format [not a structured format]. Senators prefer to be the ones to publish their own voting records. As you know, looking at a series of vote results by Senator or by subject does not tell the whole story. Senators have a right to present and comment on their votes to their constituents in the manner they prefer. This issue was reviewed again recently and the policy did not change.[83]

[80] Tauberer, *supra* note 66; Willis, *supra* note 77.

[81] E-mail from Derek Willis, Research Database Editor, *The Washington Post*, to Cheri Allen, Senate Webmaster (Nov. 1, 2007, 18:07 EST) (on file with author).

[82] *Id.*

[83] E-mail from Cheri Allen, Senate Webmaster, to Derek Willis, Research Database Editor, *The Washington Post* (Nov. 16, 2007, 15:42 EST) (on file with author).

Senators doubtlessly would "prefer to be the ones to publish their own voting records."[84] But jealous control over information by government is anathema to democracy. Looking at a series of votes by a senator does in fact tell the "whole story" of that senator's voting record, and despite what the Webmaster may say, senators do not have a "right" to present their votes to the public "in the manner they prefer."

Other independent websites that are hacking government data to make it more useful and accessible to the public include:

- **LOUIS**–The Library of Unified Information Sources is a search engine that indexes Congressional Reports, the *Congressional Record*, congressional hearings, the Federal Register, presidential documents, GAO reports, and congressional bills and resolutions. The site allows users to subscribe to a search query via RSS so that they are alerted each time a new document references their search terms.[85]

- **MetaVid**–While Congress often streams live video feeds of committee hearings and other proceedings, these videos are rarely archived and simply disappear into the ether once the broadcasted event concludes.[86] MetaVid is a site that captures and archives these videos and makes them available to the public.[87] By capturing closed-caption data from cable TV broadcasts, MetaVid is able to make videos searchable by keyword.

- **OpenSecrets.org**–This comprehensive website by the Center for Responsive Politics gives users access to several informative databases. First, it takes campaign finance data available electronically from the Federal Election Commission and creates a database that allows users to search contributions, donors, candidates, and committees. Beyond this, however, the site groups contributions by industry sector (insurance, education, tobacco, etc.). Second, the site provides online access to the financial disclosure forms of Congress members and many executive officers. The site parses the data in these forms to produce a database that reveals the most popular financial investments of the disclosing parties, the top and bottom earners, and other relevant figures. Third, the site gathers lobbyist registrations, as required by the Lobbying Disclosure Act of 1995, from the Senate website and creates a database that allows users to search this data by

[84] *Id.*

[85] Sunlight Foundation, LOUIS – the Library of Unified Information Sources, http://www.louisdb.org/ (last visited Feb. 23, 2008).

[86] Open House Report, *supra* note 19, at 51-54.

[87] About MetaVid, http://metavid.ucsc.edu/wiki/index.php/About (last visited Apr. 6, 2008).

client, lobbyist, industry, issue, agency, or bill.[88]

The most important contribution all these hacks make, however, may not be the accessibility they provide to individual users, but the fact that their hacked data is offered in a structured and open format. This allows yet other third parties to tap into the now useful data and create new applications. As Joshua Tauberer has explained, "Gathering the information in one place and in a common format gives rise to new ways of mixing the information together."[89]

B. Mashups

The value of structured data extends beyond the revolutionary accessibility it can provide individuals. Perhaps more importantly, it enables a class of applications known as "mashups" that combine two or more sets of data, resulting in a novel source of information.

The term "mashup" has its origins in music. The advent of digital editing technologies made it relatively simple for DJs and amateurs to take two or more different songs and mash them together to create novel creations.[90] The paradigmatic example of a music mashup may be Danger Mouse's highly acclaimed and highly illegal "The Grey Album," which mixed music from The Beatle's "The White Album" with vocals from rapper Jay-Z's "The Black Album."[91]

The term mashup now extends to applications that mix together disparate sets of data to create new and unique information.[92] For example, the popular free classified ad site CraigsList.com is an almost definitive source for rental housing listings in urban areas. However, the site lists ads in the order that users add them to the site. This means that, using the Washington D.C. metro area as an example, one listing could be for an apartment in the Adams Morgan neighborhood of the District and the very next ad would be for a house in Arlington, Virginia. This frustrated software engineer Paul Rademacher

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[88] *See* OpenSecrets.org, Money in Politics Data, http://www.opensecrets.org/ (last visited Feb. 23, 2008).

[89] Tauberer, *supra* note 66.

[90] *See generally* Wikipedia, Mashup (music), http://en.wikipedia.org/wiki/Mashup_(music) (last visited March 5, 2008) ("A mashup . . . or bootleg is a song or composition created from the combination of the music of one song with the a cappella from another.").

[91] *See* Wikipedia, The Grey Album, http://en.wikipedia.org/wiki/The_Grey_Album (last visited March 5, 2008) ("The album quickly became extremely popular and well-distributed over the internet because of the surrounding publicity. It also came to the attention of the critical establishment; it received a very positive write-up in the February 9, 2004 issue of *The New Yorker* and was named the best album of 2004 by *Entertainment Weekly*.").

[92] *See* Wikipedia, Mashup (web application hybrid), http://en.wikipedia.org/wiki/Mashup_(web_application_hybrid) (last visited Feb. 17, 2008).

when he was looking for a place to live in Silicon Valley in 2004.[93] So, he built HousingMaps.com, a mashup of the listings from CraigsList.com and Google Maps. This mashup allows users to bring up a map of the area in which they are interested (say five square blocks in a particular neighborhood). Then, pushpin icons will appear representing the properties available for rent in that area. Clicking on a HousingMaps.com pushpin brings up a bubble with the rental listing data including rooms, price, location, photos and a link to the actual listing.

What is amazing about a service like HousingMaps.com is that it is a new and unique information source that is richer and more useful than either craigslist or Google Maps alone. What makes this possible is Google's choice to make its maps application interface open for anyone to use and Craigslist's similar choice to make its data freely available in an open and structured format. These decisions to support openness and useful data formats allowed for an innovation that neither company could have predicted would emerge.

Indeed, when a site makes its data available in open formats, it cannot conceive of the many creative ways the data will be put to use.[94] Book Burro, for example, is a plug-in for the popular Firefox web browser that senses when you are looking at a page for a book (at Amazon.com, for example) and then fetches and displays data about the book's availability at local libraries, as well as prices at competing online stores.[95] Another example, Trendio, uses open application interfaces from Yahoo, Google, and Technorati to index articles emanating from over 3,000 news sources. It tracks the relative trends for words contained in those articles. The result is an index of trends in the media.[96]

Mashups built on open interfaces and structured data represent a great potential fount of information about the workings of government. Mashups produce varied and unexpected outcomes that could make government activities more transparent, and reveal patterns currently hidden in murky mountains of unstructured data. To get a sense of what is possible we can take a look at a leading transparency mashup called MAPLight.org.

The MAP in MAPLight.org stands for "money and politics," and the site's mission is to illuminate the connection between the two.[97] Founded by computer expert

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[93] Robert D. Hof, *Mix, Match, and Mutate*, BusinessWeek, Jul. 25, 2005, at 72, *available at* http://www.businessweek.com/magazine/content/05_30/b3944108_mz063.htm.

[94] For a catalog of the many mashups available on the Internet, *see* ProgrammableWeb – Mashups, APIs, and the Web as Platform, http://www.programmableweb.com (last visited Oct. 10, 2007).

[95] *See* Book Burro, http://bookburro.org (last visited March 5, 2008).

[96] *See, e.g.*, Trendio, About Trendio, http://www.trendio.com/blogs/jensen/?page_id=5 (last visited March 7, 2008) ("Trendio is the first current events stock exchange.").

[97] *See* MAPLight.org, About MAPLight.org, http://maplight.org/about (last visited Oct. 10, 2007).

Dan Newman,[98] the site mashes together congressional voting data from GovTrack.us and campaign finance information from OpenSecrets.org, in addition to information from other sources.[99] The result is a searchable database that highlights the connections between campaign contributions and how members of Congress vote.

Using the MAPLight database, users can look up a particular bill and see the interest groups, as well as the individuals and corporations, who support and oppose it. For example, one can look up H.R. 5252, the Communications Opportunity, Promotion, and Enhancement (COPE) Act of 2006 in the 109th Congress.[100] The groups listed supporting the bill included "Electronics manufacturing & services" and "Farm organizations and cooperatives," while groups listed opposing it included "Consumer groups" and "Online computer services." Drilling down, the Consumer Electronics Association and the National Grange are listed as supporters, while Common Cause and Google are listed in the opponent's column. By clicking on a "Votes" tab, the viewer is shown the last vote on the bill, including how much money the supporting and opposing groups contributed to the campaigns of legislators voting for and against the bill.[101] (See Figure 1.) For H.R. 5252, MAPLight shows that groups who supported the bill gave twice as much money to legislators who voted for the bill than they gave to those who opposed it.[102] Counterintuitively, MAPLight also shows that groups opposing the bill gave slightly more money to legislators voting for the bill.[103]

[98] *See generally* Joan Hamilton, *Politics Watchdog Follows the Money Online*, The Nation, June 11, 2007, http://www.thenation.com/doc/20070625/hamilton (last visited March 7, 2008) (profiling Dan Newman and his inspiration to create MAPLight.org).

[99] MAPLight.org, Data Sources, http://www.maplight.org/sources (last visited Oct 10, 2007).

[100] MAPLight.org, Supporters and Opponents of H.R. 5252, 109th Cong. (2006), http://www.maplight.org/map/us/bill/40340/default (last visited Oct. 10, 2007).

[101] MAPLight.org, Votes on H.R. 5252, 109th Cong. (2006), http://www.maplight.org/map/us/bill/40340/default/votes/vote-292477 (last visited Oct. 10, 2007).

[102] *Id.* (showing that groups who supported the bill gave an average of $7,192 to each legislator voting for the bill and an average of $3,742 to each legislator voting against it).

[103] *Id.* (showing that groups who opposed the bill gave an average of $5,420 to each legislator voting for the bill and an average of $4,604 to each legislator voting against it).

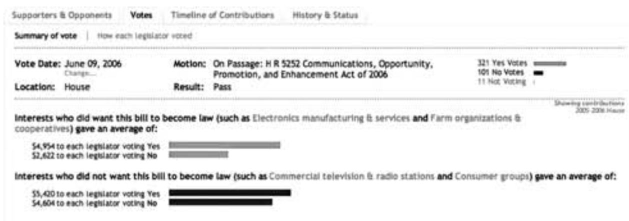

Figure 1 *– MAPLight.org page for the June 9, 2006 vote on H.R. 5252. For each vote on a bill, MAPLight.org shows the average amount of money contributed to legislators voting for and against the bill arranged by contributors' positions on the bill.*

MAPLight also allows users to look up individual members of Congress, in order to see how they voted on a particular bill and to see how much money they received from groups supporting and opposing the bill. More to the point, MAPLight offers a timeline of contributions and votes. Figure 2 displays a time line of contributions to Rep. Jim Moran (D–Va.) and votes on H.R. 5252.[104] The bars represent contributions by groups and individuals supporting the bill for a particular time period (in this case monthly), while flags represent votes taken on the bill.

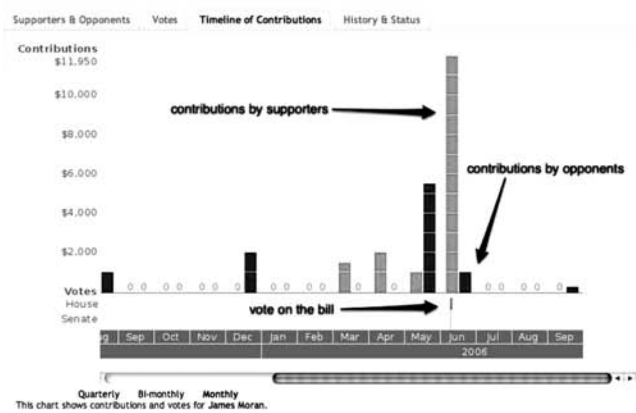

Figure 2 *– MAPLight.org timeline of contributions to Rep. Jim Moran before and after the June 9, 2006 vote on H.R. 5252. Bars representing contributions are color-coded green to indicate contributions by supporters of the bill, and red to indicate contributions by opponents.*

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[104] MAPLight.org, Timeline of Contributions to James Moran, http://www.maplight.org/map/us/bill/40340/default/timeline/380?scale=1 (last visited Oct. 10, 2007) (charting a timeline of contributions to Congressperson Moran against Moran's vote on H.R. 5252).

In Figure 2, the flag's color is green, to indicate Moran voted yes on the bill. Hovering the mouse cursor over the flag would display that the vote was taken on June 9th of 2006. Clicking on the bars for June leads to a list of contributions, shown in Figure 3. The webpage shows that Rep. Moran received $11,450 in contributions from either Planning Systems, Inc. or persons affiliated with that company, three days before the vote on the bill.[105]

Supporters & Opponents | Votes | **Timeline of Contributions** | History & Status

Contributions for June 2006 to James Moran

Organization of contributor	Interest Group of contributor	Position of organizations in the interest group	Amount	Date	Legislator (recipient)
PLANNING SYSTEMS INC	Electronics manufacturing & services	Support	$1,700	6/5/2006	Moran
PLANNING SYSTEMS INC	Electronics manufacturing & services	Support	$1,000	6/6/2006	Moran
PLANNING SYSTEMS INC	Electronics manufacturing & services	Support	$1,000	6/6/2006	Moran
PLANNING SYSTEMS INC	Electronics manufacturing & services	Support	$1,100	6/6/2006	Moran
PLANNING SYSTEMS INC	Electronics manufacturing & services	Support	$1,100	6/6/2006	Moran
PLANNING SYSTEMS INC	Electronics manufacturing & services	Support	$1,000	6/6/2006	Moran
PLANNING SYSTEMS INC	Electronics manufacturing & services	Support	$1,000	6/6/2006	Moran
PLANNING SYSTEMS INC	Electronics manufacturing & services	Support	$1,000	6/6/2006	Moran
PLANNING SYSTEMS INC	Electronics manufacturing & services	Support	$750	6/6/2006	Moran
PLANNING SYSTEMS INC	Electronics manufacturing & services	Support	$500	6/6/2006	Moran
PLANNING SYSTEMS INC	Electronics manufacturing & services	Support	$500	6/6/2006	Moran
PLANNING SYSTEMS INC	Electronics manufacturing & services	Support	$800	6/6/2006	Moran
EMMIS COMMUNICATIONS	Commercial television & radio stations	Oppose	$1,000	6/13/2006	Moran
NATIONAL FARMERS UNION	Farm organizations & cooperatives	Support	$500	6/23/2006	Moran

***Figure 3** – MAPLight.org detail view for contributions made to Rep. Jim Moran before and after the June 9, 2006 vote on H.R. 5252.*

This is not to suggest that anything improper occurred with regards to this particular bill, but rather is meant simply to highlight the power of an Internet application that can tap into congressional voting data and campaign finance data and mash them into a tool that citizens can use to illuminate potential connections. This is a new window into congressional actions that legislators did not previously need to consider. Such a mashup would not be possible without the structured data that government often fails to provide and that is being made accessible by hacks such as GovTrack.us and OpenSecrets.org.

Another mashup aimed at increasing government transparency is OpenCongress.org.[106] Among other things, this site takes bill and vote data from GovTrack.us and mashes it with data feeds from blogs and mainstream news sources; so that one can pull up a page for a bill or a legislator and see news stories and blog posts that mention the bill and/or legislator.

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[105] MAPLight.org, Timeline of Contributions to James Moran for June 2006, http://www.maplight.org/map/us/bill/40340/default/timeline/380-2006-6-6 (last visited Oct. 10, 2007).

[106] *See* Sunlight Foundation & Participatory Politics Foundation, OpenCongress, http://www.opencongress.org (last visited March7, 2008).

Current mashups, such as MAPlight.org and Opencongress.org, demonstrate the potential for future mashup applications. As long as the information is available in an open and structured format, developers will be able to mash together data sets in unpredictable ways. Such mashups can highlight patterns that would be otherwise imperceptible in the source data.

C. Crowdsourcing

If government data is successfully opened to public scrutiny online–either by official publication or by hacks–seemingly impenetrable mountains of data will be made available. Mashups can help ease the information overload by highlighting the most interesting connections among data sets, but human judgment is still necessary to determine the most relevant facts. Crowdsourcing[107] presents the key to sifting through the data made available by official disclosures, hacks, and mashups.

In early 2007, the scandal concerning eight U.S. Attorneys fired for allegedly political reasons, which some would say ultimately led to Attorney General Alberto Gonzalez's resignation, was beginning to simmer.[108] The Senate Judiciary Committee, which was investigating the matter, was locked in a confrontation with the Department of Justice (DOJ) and the White House over the release of e-mails and other documents related to the firings.[109]

The Justice Department finally relented and at 8:30 p.m. on Monday, March 19th, it delivered to Congress 3,000 pages of e-mails, memos, and notes related to the firings.[110] The Justice Department delivered only one set of the documents and they were not organized in any particular fashion.[111] Immediately, congressional staffers began scanning the paper documents, putting the pages on the Judiciary Committee's website.[112] They completed this task around 1 a.m. that night.[113]

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[107] The term "crowdsourcing" was coined by Jeff Howe in a *Wired* magazine article. Jeff Howe, *The Rise of Crowdsourcing*, Wired, June 2006, at 176, *available at* http://www.wired.com/wired/archive/14.06/crowds.html.

[108] *See* David Johnston, *Dismissed U.S. Attorneys Received Strong Evaluations*, N.Y. Times, Feb. 25, 2007, at A19.

[109] *See* Sheryl Gay Stolberg, *White House Delays Action in Inquiry on Attorneys*, N.Y. Times, Mar. 17, 2007, at A12.

[110] *See* Elizabeth Williamson, *Just 3,000 Pages Until Bedtime*, Wash. Post, Mar. 21, 2007, at A13.

[111] *Id.*

[112] *Id.*

[113] *Id.*

A cynic might say that this was a "document dump"[114] meant to obfuscate and lessen the impact of the disclosure. Reporters also stayed up late that night waiting on Capitol Hill and at their offices for the documents they would then have to plow through. According to one House staffer, congressional aides "felt that the late, paper-only release was done more to thwart the media than the committee."[115]

The media, however, was not thwarted; and the next morning's papers included articles detailing some of the e-mails among the documents.[116] The first with relevant analysis of the documents, however, were blogs. Most notable was TPMMuckraker.com, a site that had been following the scandal since its very beginning.[117] TPMMuckraker.com calls itself "a news blog dedicated to chronicling, explaining and reporting on public corruption, political scandal and abuses of the public trust of all sorts."[118] It was started by prominent liberal blogger Josh Marshall of TalkingPointsMemo.com.

On the evening of March 19th, Marshall and co-blogger Paul Kiel were readying themselves for the disclosure avalanche. On the blog that night, Kiel wrote, "Josh and I were just discussing how in the world we are ever going to make our way through 3,000 pages when it hit us: we don't have to. Our readers can help."[119]

In a 12:51 a.m. blog posting titled, "TPM Needs YOU to Comb Through Thousands of Pages," they asked their readers to take small chunks of the documents being made public on the Judiciary Committee's website, read them, and post a comment noting what pages they read and what they found.[120] Kiel wrote:

> And to make it efficient and comprehensible, we'll have a system.

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[114] Wikipedia, Document Dump, http://en.wikipedia.org/wiki/Document_dump (last visited Oct. 10, 2007) (defining document dump as "responding to an adversary's request for information by presenting the adversary with a large quantity of data that is transferred in a manner that indicates unfriendliness, hostility, or a legal conflict between the transmitter and the receiver of the information").

[115] Elizabeth Williamson, *Just 3,000 Pages Until Bedtime*, Wash. Post, Mar. 21, 2007, at A13.

[116] *See, e.g.*, David Johnston et al., *New E-Mail Gives Dismissal Detail*, N.Y. Times, Mar. 20, 2007, at A1 (reporting on the contents of several of the disclosed e-mails).

[117] *See, e.g.*, Justin Rood, *Questions, Concerns Swirl around Politics of Prosecutor's Forced Exit*, TPM Muckraker, Jan. 13, 2007, 08:38 EST, http://www.tpmmuckraker.com/archives/002335.php (reporting on the controversy in January of 2007).

[118] About TPM Muckraker, http://www.tpmmuckraker.com/about.php (last visited Oct. 10, 2007).

[119] Paul Kiel, *TPM Needs YOU to Comb Through Thousands of Pages*, TPM Muckraker, Mar. 20, 2007, 00:51 EDT, http://www.tpmmuckraker.com/archives/002809.php.

[120] *Id.*

> As you can see on the House Judiciary Committee's website, they've begun reproducing 50-page pdf files of the documents with a simple numbering system, 3-19-2007 DOJ-Released Documents 1-1, then 1-2, then 1-3, etc. So pick a pdf, any pdf and give it a look. If you find something interesting (or damning), then tell us about it in the comment thread below.
>
> Please begin your comment with the pdf number and please provide the page number of the pdf.
>
> . . . .
>
> If you want to be a trailblazer and read through a virgin pdf, then you should be able to see which pdfs haven't been looked at by scrolling through the comment thread. Have at it![121]

The site's readers responded immediately and began logging in their contributions. Comments ranged from descriptions of the documents, like, "1-6 Page 21. Margaret Chiara struggles to figure out the real reason for her dismissal in a Feb. 1 e-mail. Sad,"[122] to quotations of the most relevant e-mail messages.[123] By the next morning, almost all of the documents had been read at least once. Kiel had gone to bed after writing the blog post asking for help, and the next morning when he began work again at 7:30, the new user-created resource was waiting for him.[124]

"We have readers on the west coast and readers in Europe and some that are up all night I guess. . . . We had a couple of hundred comments by morning," Kiel says.[125] Kiel and an intern began reading all the reader comments and whenever they would come across an interesting finding, Kiel would pull the original document and write a story for the blog. He says, "You can see the day after the document dump I published five or six stories on what the [dumped] e-mails were saying, and I wouldn't have been able to do that if I was spending all my time reading through all the e-mails."[126]

Among the various reader discoveries was an 18-day gap in the emails that were included in the document dump.[127] This gap coincided with the time right before the U.S.

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[121] *Id.*

[122] Comment of TK to Paul Kiel, *TPM Needs YOU to Comb Through Thousands of Pages*, TPM Muckraker, Mar. 20, 2007, 01:14 EDT, http://www.tpmmuckraker.com/archives/002809.php.

[123] *See* Comment of JPV to Paul Kiel, *TPM Needs YOU to Comb Through Thousands of Pages*, TPM Muckraker, Mar. 20, 2007, 01:08 EDT, http://www.tpmmuckraker.com/archives/002809.php.

[124] Telephone Interview with Paul Kiel, Editor, TPMMuckraker.com (Aug. 10, 2007).

[125] *Id.*

[126] *Id.*

[127] Josh Marshall, *Untitled*, Talking Points Memo, Mar. 21, 2007, 03:05 EDT,

attorney firings. "Someone actually pointed that out in the comments," Kiel says, "and that's something I don't think I would have noticed otherwise."[128]

This is an example of what has become known as "crowdsourcing," or, in academic circles, "peer production."[129] The idea is to allow a large group of persons to create, by making small individual contributions, a good that would traditionally have been produced by a single individual or an organization.[130] Usually, the goods in question are cultural or informational products.[131] Wikipedia, the online community-written encyclopedia, is the most often cited example of successful crowdsourcing.[132] Thousands of volunteers labor for no monetary compensation to write basic reference articles for every topic under sun. The result is an encyclopedia that is much more extensive than anything a traditional organization with a limited number of writers and editors could produce.[133]

This sort of collaboration is possible because the Internet has dramatically reduced the transaction cost of interaction between individuals.[134] Persons engaged in collaborative projects such as Wikipedia are often motivated by incentives other than cash compensation, including gaining a positive reputation within a community, and the intrinsic joy of creation and participation.[135] Additionally, participation in non-compensated collaborative projects will often result in lucrative ancillary work.[136] For

http://www.talkingpointsmemo.com/archives/013171.php.

[128] Telephone Interview with Paul Kiel, Editor, TPMMuckraker.com (Aug. 10, 2007).

[129] The term 'peer production' was coined by Prof. Yochai Benkler in his seminal paper describing this new form of production. Yochai Benkler, *Coase's Penguin, Or, Linux and the Nature of the Firm*, 112 Yale L.J. 369 (2002).

[130] Don Tapscott & Anthony D. Williams, Wikinomics: How Mass Collaboration Changes Everything 67 (2006).

[131] *Id.* at 70 ("Peering works best when at least three conditions are present: 1) The object of production is information or culture, which keeps the cost of participation low for contributors . . . ."). Benkler's study of the peer production model is focused on the production of "information and culture." Benkler, Coase's Penguin, *supra* note 129, at 375-78.

[132] *See* Benkler, *supra* note 129, at 386-87, 440-43; Tapscott & Williams, *supra* note 130, at 65-67.

[133] Tapscott & Williams, *supra* note 130, at 71-72.

[134] Martin Kenney & James Curry, *Beyond Transaction Costs: E-commerce and the Power of the Internet Dataspace* 8 (Berkeley E-conomy Project Working Paper No. 18, 2000), *available at* http://e-conomy.berkeley.edu/publications/wp/internet_and_geography.pdf.

[135] Benkler, *supra* note 129, at 423-43.

[136] Benkler, *supra* note 129, at 372, 424-25 & 433; Tapscott & Williams, *supra* note 130, at 83-85.

example, IBM eliminated its traditional proprietary operating system and server development and instead assigned its engineers to contribute to the freely distributed Linux operating system and Apache server platform.[137] The company's revenue comes from the selling hardware that runs open source software, as well as expert support services.[138]

Another celebrated instance of crowdsourcing is the story of Goldcorp. In 1999, the small Toronto-based mining company was on the verge of bankruptcy, having seemingly exhausted its once lucrative gold mine. The company's new CEO, Rob McEwen, was frustrated that the company's in-house geologists could not find the location of gold on the mine nor estimate its value. So he did something that was unthinkable in the mineral extraction business: he published all of the company's proprietary geological data about the mine on the web. The company offered over half a million dollars in prize money to those who could find the gold. Word about the "Goldcorp Challenge" spread quickly and soon hundreds of amateur and professional geologists, academics and retirees, were sifting through the data in ways the in-house geologists could not match. Other areas of expertise were also brought to bear on the problem as mathematicians, physicists, and others tried their hand.

Participants in the challenge identified 55 target areas of the mine that were previously untried by the company. Eighty percent of those newly identified targets yielded substantial amounts of gold and resulted in the company's turnaround.

> McEwen estimates the collaborative process shaved two to three years off their exploration time.
>
> Today Goldcorp is reaping the fruits of its open source approach to exploration. Not only did the contest yield copious quantities of gold, it catapulted his underperforming $100 million company into a $9 billion juggernaut while transforming a backward mining site in Northern Ontario into one of the most innovative and profitable properties in the industry.[139]

The Goldcorp Challenge is much like TPM Muckraker's challenge to its readers. Both sought to sift large quantities of data in order to find valuable nuggets hidden within. Both departed from traditional approaches that rely on managed professionals such as geologists and journalists respectively. In both cases many hands made for light work.

What is different about the TPM Muckraker story is the source of the data. In that case, it was government information that was made public. The Justice Department did not release its emails and memos in electronic format as it could have. Instead they released the documents as paper printouts, which cannot easily be shared electronically. Even after congressional staffers scanned the documents into electronic files, they were

[137] Tapscott & Williams, *supra* note 130, at 77-83.

[138] *Id.*

[139] *Id.* at 9.

images and not text documents that could be searched.[140] Despite these hurdles, however, enough volunteers working simultaneously on discrete chunks of the data could find and highlight all the relevant portions.

While there were only 1,452 daily newspapers in the United States as of 2005,[141] there are now about 70 million blogs in operation, and about 120,000 new blogs come online each day.[142] The vast majority of these blogs no doubt serve to inform and entertain a small circle of friends and relatives.[143] Nevertheless, tens of thousands aspire to engage in journalism and some have been successful.[144] What this affords is a massive pool of ready and willing citizen journalists the likes of which traditional media has never assembled. This strength in numbers can allow the new technologies of transparency to be put to fruitful use despite the quantity of data available.

In his seminal essay, *The Cathedral and the Bazaar*, Eric S. Raymond contrasts the open source method of software development–in essence peer production or crowdsourcing–to the traditional hierarchical model.[145] In the former, a large number of developers contribute simultaneously to the formulation and testing of software code, while central organization and a small number of developers typify the latter. He explains that one of the key differences is the number of eyes sifting through code looking for problems and solutions. He proposes what he calls "Linus' Law": "Given enough eyeballs, all bugs are shallow."[146] Raymond writes,

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[140] *See supra* notes 29-31 and accompanying text.

[141] Newspaper Association of America, The Source: Newspapers by the Numbers 22 (2006), http://www.naa.org/thesource/the_source_newspapers_by_the_numbers.pdf.

[142] Scott Gant, We're All Journalists Now: The Transformation of the Press and Reshaping of the Law in the Internet Age 25 (2007); David Sifry, *The State of the Live Web, April 2007*, Sifry's Alerts, Apr. 5, 2007, 02:02 PDT,
http://www.sifry.com/alerts/archives/2007/04/the_state_of_th.html.

[143] Gant, supra note 142, at 25-26.

[144] As Scott Gant notes,

> The growing importance of blogging as a source of news and opinion is evident not just from the number of blogs and their readers. It is also evident from polling conducted during January and February 2007, which found 30 percent of respondents view blogging as an important source of news and information (the figure was above 40 percent for those ages 18-29), while more than 55 percent identify it as important to the future of journalism (65 percent of those ages 18-29).

Id. at 26.

[145] Eric S. Raymond, The Cathedral and the Bazaar: Musings on Linux and Open Source By An Accidental Revolutionary 21-22 (rev. 2001), *available at*
http://catb.org/~esr/writings/cathedral-bazaar/cathedral-bazaar/ar01s04.html.

[146] *Id.* at 30.

> In Linus' Law, I think, lies the core difference underlying the cathedral-builder and bazaar styles. In the cathedral-builder view of programming, bugs and development problems are tricky, insidious, deep phenomena. It may take months of scrutiny by a dedicated few to develop confidence that you've winkled them all out. Thus the long release intervals, and the inevitable disappointment when long-awaited releases are not perfect.
>
> In the bazaar view, on the other hand, you assume that bugs are generally shallow phenomena–or, at least, that they turn shallow pretty quick when exposed to a thousand eager co-developers pounding on every single new release. Accordingly you release often in order to get more corrections, and as a beneficial side effect you have less to lose if an occasional botch gets out the door.[147]

Given enough eyeballs, corruption and waste are similarly shallow problems. In the cathedral-builder view of journalism, corruption is hidden from a relatively small number of practitioners by the inaccessibility of government data and the sheer volume of it. In the bazaar view, a vast number of eyes, aided by hacks and mashups, make the amount of data less daunting. The number of eyeballs comes not just from bloggers aiming to do journalism (although they are likely the most dedicated) but also from average citizens contributing to interactive sites.

These interactive websites have begun to leverage what James Surowiecki calls the "wisdom of the crowds" to shed light on government data.[148] For example, WahingtonWatch.com gathers data on bills pending before Congress and mashes them with Congressional Budget Office estimates on the cost of each bill in order to present average cost of bills per family or individual. Aside from presenting this information, the site allows users to contribute by registering their support for or opposition to bills and by posting comments about bills. More importantly, the site is also a wiki for pending legislation. Each bill's page contains a detailed summary of the bill, the bill's status, and points in favor and against, all of which can be edited or added to by anyone. Congresspedia.com is a similar community-written wiki that also includes biographical pages for members of Congress.

These sites are community-created collection buckets for the interesting and essential bits of information that surface from the gigabytes of unsorted government data. While permanent and systematic, such sites are similar to the ad hoc comments thread begun by Marshall and Kiel at TPM Muckraker. They allow users to contribute as much or as little of their time as they would like. Their work is made available to the public, including bloggers and journalists who are "higher up the food chain," and who will

[147] *Id.* at 31.

[148] In his book of the same name, Surowiecki puts forth the thesis that large groups of people are usually as good as, or better than, experts at solving problems and predicting the future. James Surowiecki, The Wisdom of Crowds: Why the Many Are Smarter Than the Few and How Collective Wisdom Shapes Business, Economies, Societies and Nations (2004).

reward useful information with attention.[149] Also, because users of such community sites will self-select to contribute to subjects about which they are well informed, or in which they have a personal interest or stake, they will keep each other honest, expose all sides of an issue, and hopefully improve the quality of the peer-produced outcome.[150]

The community dissection of the DOJ data dump at TPM Muckraker's behest is an example of success for what can be called the "quick-sifting" crowdsourcing model. On the other hand, transparency-focused community sites are still in their infancy. They have not produced extensive analyses of every, or even most, bills pending in Congress. That said, Wikipedia demonstrates that the "resource-building" model can be effective.

III. Recommendations

As we have seen, Internet technologies have the potential to greatly improve transparency by making government data more accessible and by fostering communities that can identify and highlight relevant information. For this to work, however, certain foundational elements need to be in place. Ideally, government would provide the necessary informational building blocks. After all, it is the source of the data and it could ensure its completeness and accuracy.[151] Government has the power to enact reforms to

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[149] Telephone Interview with Paul Kiel, Editor, TPMMuckraker.com (Aug. 10, 2007) (explaining that the TPM Muckraker was monitored by more mainstream journalists covering the story). As noted above, a contributor to the TPM Muckraker comments thread was first to spot the 18-day gap in e-mails handed over by DOJ to Congress. *See supra* note 128 and accompanying text. Subsequently, several news stories reported the fact. *E.g.* Eric Lipton and David Johnston, *Democrats See a 'Document Gap' in Dismissals*, N.Y. Times, Mar. 22, 2007, at A1 ("From Nov. 16 to Dec. 7, there are only a handful of e-mail messages, a fact that Talking Points Memo, a Web site that has been following the furor with microscopic attention, pointed out Wednesday morning.")

[150] Wikipedia, for example, allows a user to track recent changes to all articles or to particular articles. This ensures that interested users can easily spot mistakes and vandalism. One study by IBM researchers found that "[t]he site is subject to frequent vandalism and inaccuracy, just as skeptics might suspect—but the active Wikipedia community rapidly and effectively repairs most damage. Indeed, one type of malicious edit we examined is typically repaired within two minutes." Viégas et al., *Studying Cooperation and Conflict Between Authors with History Flow Visualizations*, 6 CHI Letters 575, 575-76 (2004), *available at* http://alumni.media.mit.edu/~fviegas/papers/history_flow.pdf.

[151] As the Open House Report notes,

> The only freely available source for downloading structured legislative data is created and maintained by GovTrack.us, a private, independent effort. GovTrack's database is the source for the information behind other public Web sites, such as OpenCongress.org, and as a result any errors in the original database have a wide impact. Common errors include delayed bill records, outdated cosponsor lists and incomplete committee membership listings. The errors, gaps and delays stem from the automated way in which the independent databases are reconstructed from the scattered, unstructured information

make the data it produces easily open to the public. If it does not do this, however, the private sector should fill the breach.

A. Defining the Foundation

The first building block of a foundation on which Internet technologies can help improve transparency is the idea that, to the greatest extent feasible, government data should be made public. As we have seen, however, data can be made *technically* available to the public, but generally out of its reach. Data should instead be made *meaningfully* publicly available and in today's day and age this means it should be made available online. Government, however, continues to lag.

For example, the Freedom of Information Act (FOIA) recognized that short of a few exceptions (including for national security and personal privacy) all government data should be available to the public.[152] Of course, under the Act a citizen must file a request for information, and a response can take months or years.[153] The 1996 E-FOIA amendments to the Act were aimed at giving meaning to the notion of publicly available information. The reform required government agencies to publish on their websites the most often requested documents.[154] Not only would doing so increase transparency, but by putting online documents that would likely be requested again, agencies would save resources spent on complying with FOIA requests. Also, while FOIA already mandated that opinions and orders, statements of policy, and staff manuals be made available for public inspection, the E-FOIA Amendments added the requirement that they be available online.[155]

The results, however, have been poor. A 2007 survey of 149 agency websites by the National Security Archive at George Washington University "found massive non-compliance with E-FOIA."[156] Only a fifth of the agencies reviewed made available on

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> that is available now. An authoritative structured database directly from Congress would provide a current, complete, accurate and reliable basis for these applications.

Open House Report, *supra* note 19, at 13.

[152] Freedom of Information Act, 5 U.S.C. § 552 (2006).

[153] *See* Nat'l Sec. Archive, *A FOIA Request Celebrates Its 17th Birthday: A Report on Federal Agency FOIA Backlog: Oldest Unanswered Freedom of Information Act Requests Were Filed in 1989* (2006), *available at* http://www.gwu.edu/~nsarchiv/NSAEBB/NSAEBB182/executive_summary.pdf.

[154] 5 U.S.C. § 552(a)(2)(D) (2006).

[155] 5 U.S.C. § 552(a)(2).

[156] Nat'l Sec. Archive, *File Not Found: 10 Years After E-FOIA, Most Federal Agencies Are Delinquent* 1 (2007), http://www.gwu.edu/~nsarchiv/NSAEBB/NSAEBB216/e-foia_audit_report.pdf.

their websites all the data required by FOIA.[157] According to the report, 41 percent of agencies had not posted their most requested documents as FOIA mandates.[158]

There is no excuse for government's failure not to put data online. Almost all data today is created electronically using word processors and other computer applications. Because documents enter the world digitally, the initial step of online publication (i.e., digital formatting) is complete. The next steps, which include designing and implementing useful websites to host the data, should also come at minimal cost since most agencies already have online presences. The rest of the world has come to understand that electronic dissemination of data presents efficiencies and savings over paper, and government should be no different.

The second building block needed for a solid foundation of government data is the idea that information should not just be made available online, but that online resources must also be useful. This means putting data online in structured, open, and searchable formats.

Structured, as we have seen, means that the data is presented in a machine-readable format that makes it easy for individuals to subscribe to discrete data feeds, and for others to use the data in their own creations–that is, as the source data for a community site such as WashingtonWatch.com or mashups like MAPLight.org.

Open means that the digital formats chosen should be non-proprietary and widely accepted. Open formats are often created and maintained by independent standards organizations and are free of copyright restrictions on their use. For example, MP3 is an open audio file format, while RealMedia and Apple QuickTime are proprietary.

There are several reasons to prefer open formats. One is that proprietary formats can often only be opened and viewed reliably with proprietary software. For example, opening Word, Excel, or PowerPoint documents, requires Microsoft Office (which retails between $100 and $300).[159] One could use a free alternative, such as OpenOffice, to manipulate these document types, but compatibility is not perfect.[160] This is a result of the closed nature of the Microsoft formats, which must be reverse engineered. Open formats, on the other hand, are generally international standards in the public domain that can be freely used by anyone.

Another reason to prefer open formats is that if the owner of a proprietary format chooses not to develop a reader or player for their format for a particular computer operating system, users of that system will not be able to access information encoded in that format. For example, the popular iTunes Music Store sells music in a proprietary audio file called protected AAC. If you buy a song from iTunes that is encoded in this format, it will play on Windows and Macintosh computers because Apple has developed

[157] *Id.* at 7.

[158] *Id.* at 1.

[159] Microsoft, however, does make available a free viewer application for its Office suite documents, but not for all computing platforms, including Linux.

[160] Edward Mendelson, *Review of OpenOffice.org 2.3*, PC Magazine, Sept. 28, 2007, http://www.pcmag.com/article2/0,1895,2190711,00.asp.

the iTunes player for both those platforms. It will not play on computers running Linux, however, because Apple has chosen not to develop iTunes for that operating system. Similarly, protected AACs will only play on iPods because Apple has also chosen not to license the format to other digital music player manufacturers. That is a perfectly legitimate choice for a company to make about its products, but government information should be made available to the largest number of persons possible and at the lowest cost.

Finally, searchable means what it sounds like. The data made available should be full-text searchable to the greatest extent feasible.[161] This should not be an issue if the data is kept in a digital text format once it is created. To the extent that paper documents are scanned into digital files, optical character recognition should be applied to produce searchable text.

B. Laying the Foundation de Jure

A foundation that allows Internet technologies to be leveraged to increase transparency requires government data to be made available online in a structured, open, and searchable format. The most obvious route to this goal is legislation that mandates online disclosure. Any such legislation, however, must take care to ensure that it lays all parts of the foundation.

An example of such pathbreaking legislation is the recently enacted Federal Funding Accountability and Transparency Act of 2006, which requires the online disclosure of all organizations receiving federal funds.[162] It is targeted at legislative earmarks, which Congress uses to direct federal money to specific persons or projects.[163] The Act mandates that OMB establish a searchable website that catalogs each funding award along with relevant information, including the Congressional district in which the money is spent.[164] Its drafters astutely defined the term "searchable website" in the Act and included in its meaning the ability for users to search awards by a number of useful fields.[165] This requirement means that all text will have to be machine-readable and fully searchable. The definition of "searchable website" also requires that the data produced by

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[161] *See* Cary Coglianese, *E-Rulemaking: Information Technology and Regulatory Policy* 15-18 (Harvard University John F. Kennedy School of Government Center for Business and Government Regulatory Policy Program, Report No. RPP-05, 2004), *available at* http://www.hks.harvard.edu/m-rcbg/rpp/erulemaking/papers_reports/E_Rulemaking_Report2004.pdf.

[162] Federal Funding Accountability and Transparency Act of 2006, Pub. L. No. 109-282, 120 Stat. 1186 (2006).

[163] Press Release, Senator Barack Obama, Senate Passes Coburn-Obama Bill to Create Internet Database of Federal Spending (Sept. 8, 2006), *available at* http://obama.senate.gov/press/060908-senate_passes_c/.

[164] Federal Funding Accountability and Transparency Act § 2(b)(1).

[165] *Id.* §§ 2(a)(3)(A)-(C).

searches be downloadable.[166] Additionally, the Act requires that the spending data be contained within the centralized site; mere links to data on other government websites will not suffice to comply with the Act.[167] Both of these requirements imply, although they do not make it explicit, that the website's data must be offered in a structured format. How the site is implemented by OMB will ultimately determine how useful it will be to individuals and how easily third parties will be able to re-use and remix the data available there.[168]

In contrast, the E-Government Act of 2002 sought to use "information technology to increase access, accountability, and transparency" at regulatory agencies.[169] To that end it mandated that agencies make available their regulatory dockets online.[170] As noted in Part I.B, *supra*, public access to the regulatory dockets of federal agencies leaves much to be desired. However, agencies are in likely compliance with the Act because it only requires that docket data be made "publicly available online to the extent practicable as determined by the agency in consultation with the Director [of OMB.]"[171] First, the term "to the extent practicable" is arguably an exception that swallows the rule. More to the point, however, is the fact that a requirement that data be "available online," as we have seen, is not the same as easily accessible, searchable, or available in a useful format.

Legislation aiming to make data usefully available online must be specific about what it requires. When it comes to online disclosure, more than a general statement of policy may be necessary. For example, H.R. 170 currently pending before the House would require the financial disclosure statements currently not available online to be made available "on the Internet in a format that is searchable and sortable."[172] That phrasing implies a structured format and it is used throughout the bill. The bill would, for example, amend the section of the U.S. Code that deals with the FEC's obligation to post campaign finance filings online "by inserting 'in a format that is searchable and sortable' after 'Internet.'"[173] The obvious intention is to make the data available already available online accessible in a structured format, which is a great improvement to disclosure requirements that make only passing mention of the Internet. However, this type of language might be improved by more specificity, such as "searchable and sortable and available for download in a structured and open format, such as XML." Such a construction would not limit the choices of a developer, but would give clearer guidance

[166] *Id.* § 2(a)(3)(D).

[167] *Id.* § 2(c)(2).

[168] Welcome to USASpending.gov, http://www.usaspending.gov/ (last visited Mar. 4, 2008).

[169] E-Government Act of 2002, Pub. L. No. 107-347, § 206, 116 Stat. 2899, 2915-16 (2002).

[170] *Id.* § 206(d).

[171] *Id.*

[172] Sunlight Act of 2007, H.R. 170, 110th Cong. § 3 (2007).

[173] *Id.* § 6.

about what is expected.

One argument against requiring government agencies to make data available online in useful formats is that, as we have seen, the market is already providing these information goods. That is, third parties like GovTrack.us are successfully hacking the data and providing it to the public in useful formats, so why should government take on this role?

There are three main reasons why dissemination of raw data in useful formats is a government role. First, government holds the digital originals of the data and can ensure the integrity and quality of the data made available online. The screen-scraping process used by hackers to gather government data is much like the hand copying of texts by medieval monks; while generally accurate, occasional errors are introduced nonetheless. Copies of documents made available by government, on the other hand, can be completely accurate. Hacked databases such as GovTrack.us are the source of information for mashups, "and as a result any errors in the original database have a wide impact."[174]

Second, while exact figures are difficult to estimate, the marginal cost to the government of presenting its data in a useful format is certainly less than the cost incurred by third parties to devise and maintain clever hacks to siphon otherwise difficult-to-access government data. Finally, not all desirable government data can be hacked and made available by third parties. The major obstacle is that the government has not made some data available online. Online availability is a foundational piece that can only be addressed by government, and to the extent it makes new information available online, as we have just seen, it makes most sense for it to do so in useful formats.

Making government information available online is an activity now being performed by the market that can conceivably be carried out more efficiently by government. However, it is in making raw data available in useful formats that government has a comparative advantage. Rather than simply making data available for third-party use, government might be tempted to incorporate into its offerings tools to sort and analyze data much like mashups or crowdsourced projects have done. To the extent that making such tools available precludes or substitutes raw data, government should show restraint. Rather than offering simply "one best way" to utilize data, government should allow myriad third parties develop innovative tools that utilize the data.

C. *Laying the Foundation de Facto*

If the government, for whatever reason, fails to make its data publicly available online in useful forms, concerned citizens should fill the breach both in order to increase transparency and to cajole the government to take action. GovTrack.us and OpenSecrets.org are examples of independent third parties addressing a need for congressional and campaign finance data. There are many other parts of the government,

[174] Open House Report, *supra* note 19, at 13.

including the dozens of executive branch agencies and independent regulatory commissions, that third parties can help make more transparent. When citizens take it upon themselves to place government data online in a useful manner, they not only help keep government accountable, they can induce change in government practices.

Carl Malamud is an early pioneer of making government information available online and a good example of how citizens can effect change. Malamud is an economist who has developed software for the Federal Reserve and who started a company to offer regular audio broadcasts over the Internet.[175] Malamud launched Internet Multicasting Service, a non-profit organization that assisted the Securities and Exchange Commission (SEC) with making data available to the public over the Internet.[176]

At that time, the SEC did not provide free access to the corporate filings it collected. Instead, the SEC's database, the Electronic Data Gathering Analysis and Retrieval system (EDGAR), was operated under contract with information wholesaler Mead Data, which provided data feeds to data retailers who in turn sold access to the public.[177] "Under this system, a retail information provider, like Mead Data's own Nexis service, charge[d] about $15 for each S.E.C. document, plus a connection charge of $39 an hour and a printing charge of about $1 a page."[178] As one can imagine, customers were largely restricted to Wall Street Firms.

In January 1994, Malamud began to purchase the SEC's wholesale data and made it available on his website free of charge to anyone.[179] The service included corporate annual reports, 10-K filings, proxy statements, and other data valuable to investors, journalists, and others.[180] Unlike the data provided by commercial retailers, Malamud's website posted data with a 24-hour lag and did not contain any value-added analysis or other services.[181] Later that year in December, Malamud expanded his free offerings by adding large portions of the Patent and Trademark Office's (PTO) patent and trademark database, including full text of all patents and text and images from the trademark database.[182]

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175 John Markoff, *Plan Opens More Data to Public*, N.Y. Times, Oct. 22, 1993, at D1.

176 *Id.*

177 *Id.*

178 *Id.*

179 *See* Peter H. Lewis, *Internet Users Get Access To S.E.C. Filings Fee-Free*, N.Y. Times, Jan. 17, 1994, at D2 (Malamud paid $78,000 a year for data tapes).

180 *Id.*

181 *Id.* In 1995 Malamud began offering same-day services thanks to an anonymous donation. Associated Press, *Same-Day Internet Access to S.E.C. Filings*, N.Y. Times, May 1, 1995, at D5.

182 John Markoff, *Group to Widen Access To Federal Data Bases*, N.Y. Times, Dec. 23, 1994, at D2.

Malamud, however, believed that it was government's province to provide its data for free to the public, especially since the recently passed Paperwork Reduction Act mandated that agencies make public information available electronically.[183] On August 11, 1995, Malamud announced on his website that it would discontinue its free access to government data on October 1st. As Malamud later recounted,

> Our goal, however, wasn't to be in the database business. Our goal was to have the SEC serve their own data on the Internet. After we built up our user base, I decided it was time to force the issue. That's when the fireworks began. When users visited our EDGAR system in August 1995, they got an interesting message:
>
> This Service Will Terminate in 60 Days
> Click Here For More Information
>
> Click here they did! One of the lessons I've learned from building Internet services is that when people get something for free, they want their money's worth.[184]

The SEC at first resisted.[185] Eventually, however, it relented and the agency took over Malamud's service as the core of an online EDGAR system.[186] The public uproar apparently caught SEC commissioners off guard and they took on the responsibility of making data available before the October deadline.[187] According to Malamud, "The commissioners of the SEC had clearly not been aware of the issue, but there is nothing like pieces in the *Wall Street Journal* and 15,000 messages to the Chairman to raise the profile of an issue."[188]

Malamud had similar plans for his patent and trademark database. In 1998, he wrote to Vice President Al Gore and Commerce Secretary William Daley (who oversaw the PTO), announcing that unless the PTO began offering its databases online, he would

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183 Associated Press, *An Internet Access to S.E.C. Filings to End Oct. 1*, N.Y. Times, Aug. 12, 1995, at D1. *See also* Paperwork Reduction Act, 44 U.S.C. § 3506(d) (2006) (stating agency responsibilities regarding information dissemination).

184 Carl Malamud, *The Importance of Being EDGAR*, Mappa.Mundi Magazine, Sept. 15, 1999, http://www.mundi.net/cartography/EDGAR.

185 *Id.*; Associated Press, *supra* note 181.

186 Malamud, *supra* note 184; see *also S.E.C. Seeks to Keep Free Internet Service*, N.Y. Times, Aug. 16, 1995, at D7.

187 Malamud, *supra* note 184.

188 *Id.*

create a free robust database online.[189] In the intervening years since Malamud put the database online in 1994, the PTO had not been as accommodating as the SEC, largely because the agency is self-financed by user fees, a large portion of which came from requests for paper copies of patent and trademark information.[190] As the Commissioner for Patents told the *New York Times*, "If he can [put the patent and trademark database online] we'd be out all $20 million we now receive in fees . . . Why would anyone want paper?"[191]

The strategy to overcome government's resistance was a familiar one. "I'm going to buy the trademark data and will build the user base as big as I can in a year,"[192] Malamud said at the time. "At the end of the year, I'll pull the rug out from the users and give them Al Gore's E-mail address."[193] The gambit worked and less than two months later the Clinton administration announced that it would put the full patents database online.[194]

It is interesting to note that Malamud's motivations were not just to increase transparency, but also to unleash the creative forces that today result in mashups. According to a 1998 article in the *New York Times*, "His hope is that by making the entire patent data base available to any college student who has managed to acquire 100 gigabytes of disk storage capacity he will touch off an explosion of creative ways in which to plumb the nation's science and technology storehouse."[195]

More recently, Malamud has tried to cajole congressional leaders to make video of their proceedings online indefinitely. While Congress often streams live video feeds of committee hearings and other proceedings, these videos are not often archived and they simply disappear into the ether once the broadcasted event concludes. The result is that "a lot of significant public business is seen only by the people who happen to be in the room: lobbyists plus a smattering of tourists."[196] Malamud has begun to record congressional video streams and put them online at the Internet Archive and Google

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[189] Letter from Carl Malamud, President, Internet Multicasting Service, to Al Gore, Vice President of the United States (Apr. 27, 1998) (on file with author), *available at* http://public.resource.org/letter.html.

[190] John Markoff, *U.S. is Urged to Offer More Data on Line*, N.Y. Times, May 4, 1998, at D6.

[191] *Id.*

[192] *Id.*

[193] *Id.*

[194] John Markoff, *U.S. to Release Patent Data on a World Wide Web Site*, N.Y. Times, Jun. 25, 1998, at D2.

[195] Markoff, *supra* note 190.

[196] James Fallows, *Another Win for Carl Malamud*, TheAtlantic.com, Mar. 9, 2007, http://www.theatlantic.com/doc/200703u/c-span.

Video to demonstrate that there is nothing technical stopping Congress from archiving its videos itself.[197] In March of 2007, Malamud wrote a letter to House Speaker Nancy Pelosi detailing the need for congressional video and how the House could go about implementing an online archive.[198]

With any luck we will see more such independent efforts to bring light to information that the government has kept offline and in the dark. Making data public in useful forms not only increases transparency and allows creative uses of data, but also puts pressure on government to make the data available itself.

CONCLUSION

To hold government accountable for its actions, citizens must know what those actions are. To that end, they must insist that government act openly and transparently to the greatest extent possible. In the twenty-first century, this entails making its data available online and easy to access. If government data is made available online in useful and flexible formats, citizens will be able to utilize modern Internet tools to shed light on government activities. Such tools include mashups, which highlight hidden connections between different data sets, and crowdsourcing, which makes light work of sifting through mountains of data by focusing thousands of eyes on a particular set of data.

Today, however, the state of government's online offerings is very sad indeed. Some nominally publicly available information is not online at all, and the data that is online is often not in useful formats. Government should be encouraged to release public information online in a structured, open, and searchable manner. To the extent that government does not modernize, however, we should hope that private third parties build unofficial databases and make these available in a useful form to the public.

[197] *See* Internet Archive videos submitted by Carl Malamud, http://www.archive.org/search.php?query=hooptedoodle (last visited Mar. 6, 2008); *see also* Kelly McCormack, *Web Pioneer Urges House to Upgrade Video Quality*, The Hill, Mar. 23, 2007, at 7, *available at* http://thehill.com/leading-the-news/web-pioneer-urges-house-to-upgrade-video-quality-2007-03-22.html (describing Malamud's efforts to upload videos to an Internet video archive and Google Video).

[198] Letter from Carl Malamud, Senior Fellow, Center for American Progress, to Nancy Pelosi, Speaker of the House of Representatives of the United States (Mar. 13, 2007) (on file with author), *available at* http://public.resource.org/dear_speaker.html.

BIOGRAPHY FOR EILEEN NORCROSS

Eileen Norcross is a Senior Research Fellow with the Social Change Project at the Mercatus Center at George Mason University. Previously, she was a Senior Research Fellow with the Government Accountability Project from January 2003 to July 2008.

Her research areas include the U.S. Budget, the use of performance budgeting in the Federal Government, tax and fiscal policy, and community and economic development.

Before joining Mercatus, Ms. Norcross was the 2001–2002 Warren Brookes Fellow in Journalism at the Competitive Enterprise Institute in Washington, D.C. While there, she focused on trade, regulatory, and tax policies affecting the European Union and the United States.

Before coming to Washington, Ms. Norcross worked for KPMG as a consultant with their transfer pricing division and as a research analyst with Thompson Financial Securities Data where she researched mergers and acquisitions for domestic and international transactions.

A native of New Jersey, Ms. Norcross earned her Master's in Economics from Rutgers University in 1996. A member of Phi Beta Kappa, she graduated *summa cum laude* from Rutgers University in 1993 with a Bachelor of Arts degree in Economics and U.S. History.

Chairman MILLER. Thank you, Ms. Norcross. Ms. Dalton, five minutes.

STATEMENT OF MS. PATRICIA DALTON, MANAGING DIRECTOR, NATURAL RESOURCES AND ENVIRONMENT DIVISION, U.S. GOVERNMENT ACCOUNTABILITY OFFICE

Ms. DALTON. Thank you, Mr. Chairman, Mr. Broun. I am pleased to be here today to discuss GAO's plans for carrying out our oversight roles related to the science funding under the Recovery Act. Today I want to discuss those responsibilities and plans that we have under way to oversee these funds as well as the risks and particular funding areas in R&D that deserve special attention to ensure that the funds are best used.

The Recovery Act provides over $21 billion in additional spending at Energy, Commerce, NSF, and NASA for research and development-related activities. These range from fundamental research to demonstration projects to purchases of equipment, to the building of new facilities.

The accountability community will play an important role in reviewing the use of Recovery Act funds. In addition to GAO, the community includes the IGs, the State auditors, local government auditors, and the Recovery Accountability and Transparency Board.

Because of the scope of this work, we at GAO have reached out to the broader accountability community to coordinate our respective roles, planned approaches, and timelines. Through a coordinated approach, we feel that we can maximize our overall effectiveness.

The Recovery Act directs GAO specifically to provide bi-monthly reviews and reporting on selected states and localities' use of funds. We have already begun the first review, which will examine 16 states, the District of Columbia, and selected localities. These states represent 65 percent of the U.S. population and approximately two-thirds of the money going through the State governments under the Recovery Act program. Our first report will be issued in about a month.

Over the next few years we will be able to provide an ongoing longitudinal analysis of the use of Recovery Act funds at the State and local level. We will look at other states as necessary.

At the federal level, in consultation with the Congress and in coordination with the IGs, we will also be targeting at-risk programs for review. We will also incorporate reviews of stimulus funding in our ongoing reviews-based programs.

In recent years, the accountability community has produced a wide variety of best practice and related guides in areas such as grant and contract management that can assist agencies in ensuring they have the needed internal controls in place from the outset. Up-front safeguards are critical to the successful program implementation. It is important to have the controls built in at the beginning so that we can hopefully prevent downstream problems.

We at GAO are currently assessing programs for key risk factors. They include whether it is a new program under the Recovery Act, a significantly expanded program, there is a new delivery mechanism, or a program has known problems. A number of programs receiving science funding have one or more of these risk factors. For example, $6 billion is being provided for loan guarantees at the Department of Energy. That is a significant expansion of a new program that has had some start-up problems. At NASA, when we examine projects with life cycle costs exceeding $250 million, 10 out of 13 projects have very serious implementation problems in terms of cost and budget and cost and schedule growth.

In summary, to make the most effective and efficient use of resources, we will work together with the IGs to leverage our strengths and avoid duplication of effort wherever possible. We have moved quickly to begin our oversight work with our initial assessment of State funding currently under way as well as our program risk assessment.

Thank you, Mr. Chairman.

[The prepared statement of Ms. Dalton follows:]

PREPARED STATEMENT OF PATRICIA DALTON

GAO's Role in Helping to Ensure Accountability and Transparency for Science Funding

Chairman Miller, Ranking Member Broun, and Members of the Subcommittee:

I am pleased to be here today to discuss our plans for carrying out our oversight roles related to science funding provided by the *American Recovery and Reinvestment Act of 2009* (Recovery Act).[1] I will also provide an overview of prior GAO work that identifies several programs that deserve special attention from agency managers and from the Inspectors General (IG) at the Department of Energy, the Department of Commerce, the National Science Foundation (NSF), and the National Aeronautics and Space Administration (NASA) to ensure that additional science funds these agencies will receive under the Recovery Act are put to the best uses. The Congress and the Administration have fashioned a significant response to what is generally reported to be the Nation's most serious economic crisis since the Great Depression. The Recovery Act's combined spending and tax provisions are estimated to cost $787 billion, including more than $21 billion in additional spending at Energy, Commerce, NSF, and NASA for research and development (R&D) related ac-

[1] Pub. L. No. 111–5 (Feb. 17, 2009).

tivities, including supporting fundamental research, demonstrating and deploying of advanced energy technologies, purchasing scientific instrumentation and equipment, and constructing or modernizing research facilities. (See Appendix I.)

The accountability community will play an important role in reviewing the use of Recovery Act funds. In addition to GAO, the community includes the IGs, State auditors, local government auditors, and the Recovery Accountability and Transparency Board. The Recovery Act has identified the following specific responsibilities for GAO, the IGs, and the Recovery Accountability and Transparency Board:

- GAO is charged with reviewing the use of funds by selected states and localities and commenting on funding recipients' estimates of the number of jobs created and retained as a result of the funding. We also have several other reporting responsibilities.[2]
- IGs across government are expected to audit the efforts of federal agencies' operations and programs related to the Recovery Act, both individually within their particular entities and collectively, as many of them are members of the Recovery Accountability and Transparency Board.
- The Recovery Accountability and Transparency Board is intended to help prevent waste, fraud, and abuse by reviewing contracts and grants to ensure they meet applicable standards, follow competition requirements, and are overseen by sufficient numbers of trained acquisition and grants personnel. The Board has a range of authorities and is charged with reporting to the President and the Congress any potential problems requiring immediate attention in addition to reporting quarterly and annually.

My statement today discusses (1) our responsibilities under the Recovery Act to provide bimonthly reviews of selected States' and localities' use of funds; (2) particular R&D funding areas that deserve special attention to ensure that funds are best used; and (3) our plans for carrying out our responsibilities under the Recovery Act.

Our Responsibilities Under the Recovery Act and Our Plans to Evaluate At-Risk Programs

The Recovery Act directs GAO to provide bimonthly reviews and reporting on selected States' and localities' use of funds. We have initiated work on the first review, which will examine 16 states, the District of Columbia, and selected localities. Specifically, we axe examining how these states and localities are using the Act's funds and whether they are, among other things, (1) preserving and creating jobs and promoting economic recovery; (2) assisting those most impacted by the recession; (3) investing in transportation, environmental protection, and other infrastructure that will provide long-term economic benefits; and (4) stabilizing State and local government budgets in order to minimize and avoid reductions in essential services and counterproductive State and local tax increases. We will track the following 16 states, and the District of Columbia, over the next few years to provide an ongoing longitudinal analysis of the use of funds under the Recovery Act: Arizona, California, Colorado, Florida, Georgia, Iowa, Illinois, Massachusetts, Michigan, Mississippi, New Jersey, New York, North Carolina, Ohio, Pennsylvania, and Texas. These states contain about 65 percent of the U.S. population and are estimated to receive about two-thirds of the intergovernmental grants funds available through the Recovery Act.

Because of the scope of this work, we have reached out to the broader accountability community to coordinate our respective roles, planned approaches, and timelines. Soon after the Act was passed, the acting Comptroller General reached out to the IG community and, with Ms. Phyllis Fong, the Chairman of the Council of Inspectors General on Integrity and Efficiency, hosted an initial coordination meeting on February 25, 2009, with the Inspectors General or their representatives from 17 agencies. It was a very productive discussion in which we outlined coordination approaches going forward. The acting Comptroller General also talked with Mr. Earl Devaney soon after the President appointed him as Chairman of the Board on February 23, 2009, to ensure effective coordination of our respective efforts.

In consultation with the Congress in exercising our general statutory authority to evaluate the results of government programs and activities, we will target at-risk programs for review. We will also incorporate reviews of stimulus funding whenever we are examining base programs. There are many implementation challenges to ensuring adequate accountability and efficient and effective implementation of the Re-

[2] See GAO, *American Recovery and Reinvestment Act: GAO's Role in Helping to Ensure Accountability and Transparency,* GAO–09–453T (Washington, D.C.: March 5, 2009).

covery Act. Experience tells us that the risk for fraud, waste, and abuse grows when billions of dollars are going out quickly, eligibility requirements are being established or changed, new programs are being created, or a mix of these characteristics. This suggests the need for a risk-based approach to target for attention on specific programs and funding structures early based on known strengths, vulnerabilities, and weaknesses, such as a track record of improper payments or contracting problems. We currently are assessing all of the programs receiving Recovery Act funds for key risk factors, including new programs, significant growth, new delivery mechanisms, and known problems. In recent years, the accountability community has produced a wide variety of best practice and related guides that can assist agencies in ensuring they have the needed internal controls in place from the outset. These best practices and related guides cover such areas as fraud prevention, contract management, and grants accountability.

R&D Funding Areas that Deserve Special Attention

Our prior work has identified several areas that deserve special attention from management and the IG's office to ensure that funds are put to best use. The following examples highlight problems associated with (1) a new program—Energy's innovative technology loan guarantee program—which does not have established management and internal control activities, (2) an existing program that cannot readily determine whether private entities would fund a project without the federal funds, (3) an existing program that awards a large amount of matching funds to demonstrate or deploy advanced technologies but cannot ensure that industrial partners will complete the project, axed (4) an existing program with a history of cost overruns and schedule slippage for its major projects.

- The Recovery Act made $6 billion available to Energy to support $60 billion in new loan guarantees under its innovative technology loan guarantee program. However, our July 2008 report entitled *Department of Energy: New Loan Guarantee Program Should Complete Activities Necessary for Effective and Accountable Program Management* (GAO–08–750) found that DOE was not well positioned to manage the loan guarantee program effectively and maintain accountability because it had not completed a number of key management and internal control activities. To improve the implementation of the loan guarantee program and to help mitigate risk to the Federal Government and American taxpayers, we recommended that DOE take several steps, including (1) completing detailed internal loan selection policies and procedures that lay out roles and responsibilities and criteria and requirements for conducting and documenting analyses and decision making, (2) amending application guidance to include more specificity on the content of independent engineering reports and on the development of project cost estimates to provide the level of detail needed to better assess overall project feasibility, and (3) further developing and defining performance measures and metrics to monitor and evaluate program efficiency, effectiveness, and outcomes. We are currently engaged in an ongoing engagement to determine the current state of the loan guarantee program and what progress DOE has made since our last report.
- The Recovery Act made $3.5 billion available to Energy to fund R&D on renewable energy and fossil energy. However our December 2008 report entitled *Research and Development: DOE Could Enhance the Project Selection Process for Government Oil and Natural Gas Research* (GAO–09–186) found that DOE does not formally assess whether industry would undertake oil and gas R&D without federal funding. To better ensure that DOE selects oil and gas R&D projects that industry is unlikely to pursue, we recommended that DOE's project selection process include a formal assessment of the likelihood that the R&D would not have occurred without federal funding. Our review of similar federal programs has found that agencies may be unable to ensure that their funding is not duplicating existing or planned research that would be conducted in the same period in the absence of federal financial assistance. In addition, our work has questioned a R&D program's ability to obligate a large influx of appropriations because the review, selection, and approval of individual project proposals from the private sector can be lengthy and requires substantially more scientific peer review panels to assess the technical merits of each proposal and staff with expertise in making grant awards.
- The Recovery Act made $2.32 billion available to Energy to jointly fund private sector projects demonstrating clean coal and carbon capture and sequestration technologies. However, our June 2001 testimony entitled *Fossil Fuel R&D: Lessons Learned in the Clean Coal Technology Program* (GAO–01–

854T) and a series of prior reports on the program found that many demonstration projects had experienced delays, cost overruns, bankruptcies, and performance problems. We identified several lessons learned for improving DOE's selection and oversight processes. As a result of the projects' problems, the Congress since 1995 has rescinded or reprogrammed almost $900 million of the funds appropriated for the Clean Coal Technology Program. More recently, our February 2009 report entitled *Clean Coal: DOE's Decision to Restructure FutureGen Should Be Based on a Comprehensive Analysis of Costs, Benefits, and Risks* (GAO–09–248) found that DOE did not base its decision to restructure FutureGen on a comprehensive analysis of factors, such as the associated costs, benefits, and risks. We recommended that, before implementing significant changes to FutureGen or before obligating additional funds for such purposes, DOE prepare a comprehensive analysis that compares the relative costs, benefits, and risks of a range of options that includes (1) the original FutureGen program, (2) incremental changes to the original program, and (3) the restructured FutureGen program.

- The Recovery Act provided a total of $1 billion to NASA, including $400 million for exploration. However, our March 2009 report entitled *NASA: Assessments of Selected Large-Scale Projects* (GAO–09–306SP) noted that NASA plans to invest billions of dollars in the coming years in science and exploration space flight initiatives. Our examination of NASA projects with life cycle costs exceeding $250 million found that 10 of 13 that had entered the implementation phase had experienced significant cost and/or schedule growth—on average, development costs had increased by 13 percent and launch had been delayed by 11 months. NASA has acted to adopt practices that would better ensure that programs proceed based on a sound business case that addresses technology maturity, design stability, complexity of heritage technology, contractor performance and development partner performance. In particular, NASA has undertaken an array of initiatives aimed at improving program management, cost estimating, and contractor oversight. However, until these practices become integrated into NASA's culture, it is unclear monies will be well-spent and the achievement of NASA's mission will be maximized.

Our Plans for Carrying Out Our Oversight Responsibilities

To make the most effective and efficient use of our resources, we plan to fulfill our Recovery Act responsibilities related to science funding by working together with the IGs to leverage our strengths and avoid duplication of effort wherever possible. In consultation with the Congress, we will also target at-risk programs that receive Recovery Act science funding for review under our general audit authorities, and we will expand our work on base programs to examine any related stimulus funding.

In summary, GAO welcomes the responsibility that the Congress has placed on us to assist it in the oversight, accountability, and transparency of the Recovery Act. We will continue to coordinate closely with the rest of the accountability community. We also are committed to completing our Recovery Act work on the timetable envisioned by the Act and will keep the Congress fully informed as our plans evolve.

Mr. Chairman, Representative Broun, and Members of the Subcommittee this concludes my statement. I would be pleased to respond to any questions you may have.

Staff Acknowledgments

Key contributors to this testimony were Richard Cheston (Assistant Director), Karen Keegan, and Stuart Ryba.

Appendix I: Recovery Act Funding for R&D-Related Activities

Dollars in millions

	Appropriations
Department of Energy	
Energy Efficiency and Renewable Energy	**$4,500**
Advanced Battery Manufacturing grants: to provide manufacturing facility funding awards for U.S.-produced advanced battery systems and vehicle batteries, including advanced lithium ion batteries, hybrid electrical systems, component manufacturers, and software designers.	$2,000
Biomass research, development, demonstration, and deployment	$800
Geothermal research, development, demonstration, and deployment	$400
R&D to increase information and communications technology efficiency and improve standards	$50
Other research, development, demonstration, and deployment	$1,250
Fossil Energy	**$3,400**
Fossil Energy R&D	$1,000
Clean Coal Power Initiative: Round III competition	$800
Competitive solicitation for industrial carbon capture and energy efficiency improvement projects, including a small allocation for innovative concepts for beneficial carbon dioxide reuse	$1,520
Competitive solicitation for site characterization activities in geologic formations	$50
Geologic sequestration training and research grants	$20
Program direction	$10
Science	**$1,600**
Advanced Research Projects Agency – Energy	**$400**
Innovative Technology Loan Guarantee Program	**$6,000**
To pay the costs of guarantees made under section 1705 of the Energy Policy Act of 2005 for renewable technologies and transmission technologies. Funds are available until expended. Conferees expect that these funds will support more than $60 billion in loans for these projects.	$5,965
Administrative expenses in carrying out the guaranteed loan program	$25
Funds transferred to and available for administrative expenses for the Advanced Technology Vehicles Manufacturing Loan Program.	$10
Department of Commerce	
National Institute of Standards and Technology	**$610**
Scientific and Technical Research and Services: to support research, competitive grants, additional research fellowships, advanced research and measurement equipment and supplies.	$220
Construction of Research Facilities: to address the maintenance backlog and for construction of new facilities and laboratories. Specifically, $180 million is for the competitive construction grant program for research science buildings, including fiscal years 2008 and 2009 competitions.	$360
Transfer of Funds from Health Information Technology: to create and test standards related to health security and interoperability.	$20
Collaborative efforts to develop a comprehensive framework for a national smart grid	$10

Dollars in millions	
	Appropriations
National Oceanic and Atmospheric Administration	**$830**
Operations, Research and Facilities: to address a backlog of research, restoration, navigation, conservation, and management activities.[a]	$230
Procurement, Acquisition and Construction: for construction and repair of facilities, ships and equipment; to improve weather forecasting; and to support satellite development. Specifically, $170 million is to address critical gaps in climate modeling and establish climate data records for continuing research into the cause, effects, and ways to mitigate climate change.	$600
National Science Foundation	**$3,000**
Research and Related Activities: Specifically, $300 million is solely for the Major Research Instrumentation program and $200 million is for academic research facilities modernization.	$2,500
Education and Human Resources	$100
Major Research Equipment and Facilities Construction	$400
National Aeronautics and Space Administration	**$1,000**
Science: Funds are included to accelerate the development of the tier 1 set of Earth science climate research missions and to increase NASA's supercomputing capabilities.	$400
Aeronautics: Funds are available for system-level research, development, and demonstration activities related to aviation safety, environmental impact mitigation, and the Next Generation Air Transportation System.	$150
Exploration	$400
Cross agency support: NASA is to give highest priority to restore NASA-owned facilities damaged from hurricanes and other natural disasters that occurred in 2008.	50
Total	**$21,340**

Source: Conference Report for the American Recovery and Reinvestment Act of 2009, House Report 111-16 (Washington, D.C., Feb. 12, 2009).

Note: R&D-related activities include demonstrating and deploying of advanced energy technologies, purchasing scientific instrumentation and equipment, and constructing or modernizing research facilities.

[a]Up to $170 million of these funds may be available for coastal and marine habitat restoration, according to the National Oceanic and Atmospheric Administration.

BIOGRAPHY FOR PATRICIA DALTON

Patricia Dalton became Managing Director of the Government Accountability Office's Natural Resources and Environment Team in June 2008. The Natural Resources and Environment Team is responsible for GAO's work in agriculture and food safety, energy, the environment, federal land stewardship, U.S. and international nuclear security, and water resources and science and technology. Before assuming her current responsibilities, Ms. Dalton was Managing Director of GAO's Physical Infrastructure Team, where she directed work in transportation, telecommunications, federal property, and the Postal Service. She was also a Director in GAO's Strategic Issues Team, where she was responsible for GAO's work related to government management issues, particularly performance management and the *Government Performance and Results Act,* and organization structure and design. She also was responsible for work related to the decennial census and the Census Bureau, intergovernmental relations, and tools of government. Before joining GAO in 2001, Ms. Dalton was the Deputy Inspector General for the U.S. Department of Labor for seven years. She received her appointment to the Senior Executive Service in 1993 from the U.S. Department of Army, where she served as Director of Audit Policy, Planning and Resources, Army Audit Agency. Ms. Dalton is a Certified Public Accountant. She holds an MBA from the University of Massachusetts, and a BA from the College of the Holy Cross.

DISCUSSION

Chairman MILLER. We will now have questions. I would anticipate one round. Do you have more than that?

Mr. BROUN. No, that is fine. I know you have a hearing that you need to go to, and that is fine.

Chairman MILLER. Mr. Friedman and Mr. Zinser, the statute provides that the two of you sit on the Recovery Accountability and Transparency Board. The Board will meet for the first time on March 27. What will you take to the Board, what concerns, what recommendations?

Mr. FRIEDMAN. There are 10 IGs on the Board, as you know, and I think—I of course am not the Chairman of the Board. Mr. Earl

Devaney—who is the sitting IG, I guess, at the Department of the Interior but is temporarily in this capacity—will be chairing it. So I don't precisely know what the agenda will be for that date. My expectation is, number one, that we have a responsibility under the statute to operate *Recovery.gov*, and that will probably consume a good deal of our time at that meeting.

Secondly I anticipate that we will be talking about the progress that we have made in proactively providing oversight at our respective agencies and determining if there are cross-cutting issues that could be applied throughout the IG community and certainly throughout the accountability community in a broader context.

So those are the three—and probably findings to date, you know, specific to our agencies but which may have application again across the board. So I anticipate that will be the primary focus of the meeting, but I am not setting the agenda so I don't know for sure.

Chairman MILLER. Mr. Zinser, any concerns?

Mr. ZINSER. Yes, sir. I think there will be a lot of issues surrounding technical problems with *Recovery.gov* and reporting requirements on the agencies and how they are going to fulfill those reporting requirements. I also think that a cross-cutting issue, both for the oversight groups as well as the agencies themselves, and it was discussed here several times this morning, is workforce issues, about how we staff both the oversight agencies and the agencies that are spending these monies. Do we have the right people in the workforce to do it?

Chairman MILLER. Okay. Mr. Cross, if I could bring you in, too, and ask the question of the three IGs. I know that most of the witnesses and perhaps all the witnesses touched on whether agency contract and grant management resources are sufficient or really ready to manage the extra workload. Do you believe they are sufficient? Are they ready for what is coming at them? And if not, what needs to be done?

Mr. CROSS. I think at NSF they are making strides in that direction. They didn't get any additional funding for workforce ameliorations. The workload is going to be there with essentially the same staff. Given that fact, you have to look for ways to make that productivity more efficient, and they are doing that in terms of beefing up their IT, doing some cross-training, bringing in more support staff, that kind of thing, also looking at all the different possibilities with OPM for bringing people in on a temporary basis. So I think that's the thrust. They still have some new territory to tread in terms of the reports and the information they need to generate in terms of figuring out how to do undeclines as they call them, where you're taking formerly declined proposals and revisiting those for future funding. There are some new games in play here that people need to figure out, and I know they have got a lot of staff and managers looking at those issues and we will be watching to see how they work them.

Chairman MILLER. Mr. Zinser, Mr. Friedman?

Mr. ZINSER. I think at the Department of Commerce, it is mixed. I think some agencies are prepared for contracting but perhaps not grants and vice-versa. I know for example that a broadband technology program is going to require an increase in grants management personnel, and the agency or the Department has three different agencies that administer grants and I don't think they have settled on what agency is going to administer the grants under the broadband program. That is just one example, but whoever does is going to have to increase that workforce substantially.

Mr. FRIEDMAN. It is a superb question, Mr. Chairman, and obviously it is one of the biggest problems that we feel the Department of Energy faces. As you may be aware, the Department of Energy perhaps is the most contractor-dependent agency in the civilian sector. Virtually everything is done by contract, grant, cooperative agreement, a whole series of contractual and financial instruments. And actually, we wrote to the Deputy Secretary expressing our concern in 2007, and we have just updated that. We will be issuing a report on that in the not-too-distant future. They have made some progress, but given the influx of huge amounts of fresh dollars that are going to be flowing into the procurement system broadly defined, it is one of the most significant challenges that the Department faces and one that we have reported on regularly.

Chairman MILLER. Ms. Dalton, do you have any thoughts on that?

Ms. DALTON. Well, I would agree with the Inspector Generals that it is kind of a mixed bag. Some agencies and programs have more experience in terms of grants and contract management, but I think across the board we are going to have a capacity issue because there has been so much money that is going into these programs, and the agencies are going to have to be looking at what is the best way to implement the programs, where can I get the resources and the expertise, and in training the people that they do have to manage these programs and the grants and the contracts and following best practices in terms of setting clear expectations for each of the grants and contracts and monitoring them.

Mr. FRIEDMAN. Can I add one thing, Mr. Chairman, to my answer?

Chairman MILLER. Sure.

Mr. FRIEDMAN. First of all, in the interest of being fair and balanced, which I want to be, the Department's procurement officials are aggressively trying to retain and recruit. For example, their retirement eligibility rate is quite high, so they are making aggressive efforts to try to retain and recruit the skilled workforce that they need to handle the influx of additional cash. So I want to be fair to them as well. They are making Herculean efforts to try to meet their responsibilities.

Chairman MILLER. My time is expired. Dr. Broun.

Mr. BROUN. Thank you, Mr. Chairman. I assume you all were here in my previous line of questions with the first panel. I wasn't convinced by the answers that I got, and I see you guys as street cops; and I see what you need to do is operate as street cops, and I know a street cop, when something is out of place, out of character, they start scratching and digging and looking into things. And they also look into the people who they know have already committed crimes or accused of committing crimes, and we already know that there are entities out there such as ACORN who are an organization under investigation in I think it is like 17 or 18 states for criminal activity. I am extremely concerned about the census and the possibility of the Department of Commerce contracting with entities like ACORN. And I just would like a yes or no answer. Can you all assure me that you will utilize available data—and I understand maybe it is the GAO that has a list of entities who are under criminal investigations. Will you all let the agencies know that you are going to look very strongly to make sure that criminal entities, or criminally accused entities, are not given contracts to carry out projects that—so that the American people can be absolutely sure that there is not any of this shifty, shady groups that are doing the people's business? Please, start with Mr. Friedman.

Mr. FRIEDMAN. Well, Dr. Broun, I am not sure I can give you the satisfactory answer that you perhaps desire. We face these sorts of challenges every day because we have 200 to 300 potential criminal investigations ongoing at any given time dealing with the Department of Energy or Department of Energy-related entities. So it is a problem we face.

What I can tell you is the following. When you have a criminal investigation, and we understand that a contract or a grant has to be awarded to that entity—assuming that it will not compromise the investigation, assuming we will not compromise grand jury information, assuming that we appropriately coordinate with the Department of Justice, we will inform the Department's program managers of the ongoing investigation, and ultimately they will have to make the decision as to whether they will proceed with the contract of the procurement or not. Now, I know nothing about the ACORN investigation other than what I have seen in the media, so I am not familiar with that. I will tell you as well that, and I know this is obvious, that the mere fact that there is a criminal investigation, and I am not defending anyone here, should not necessarily lead anyone to conclude that ultimately there will be a charge resulting from the investigation.

So it is a very tricky, difficult area, but I have tried to explain the steps that we go through to make sure that management, who ultimately awards the contracts, is aware that there is an investigation, and they will have to make the ultimate judgment on that.

Mr. BROUN. Mr. Zinser.

Mr. ZINSER. Sir, I think you are going to find that ACORN is working with the census bureau on their partnership efforts. I don't know——

Mr. BROUN. That is what——

Mr. ZINSER.—that they are getting any money, sir, but I think that they are working with the census. But I think what you have to do is identify those ACORN groups that are under investigation and see whether they are actually working with the census, and then if the census has some criteria that they can use in terms of the groups that they are associating with, you know, they have to make those decisions. But we would certainly be willing to help you get answers from the Department or the census bureau about where that is occurring.

Mr. BROUN. Well, I would appreciate that, and I am extremely concerned about this because of the integrity and the importance of the census. Just in the sake of time, I will just let Mr. Cross answer that and Ms. Dalton, too, in writing. And Ms. Norcross, if you would have any ideas about that, I would appreciate your thoughts.

But Ms. Norcross, in your testimony you have mentioned a number of recommendations for *Recovery.gov*. How early will these recommendations need to be adopted before more reporting starts to flow into the website?

Ms. NORCROSS. The sooner the better. There is no time to waste. People right now are waiting to know how data is going to be displayed so they can start building websites and monitoring data. In anticipation, even if the Administration just lets people know how they intend to display the data, that would be a help.

Mr. BROUN. Thank you so much. Mr. Chairman, my time is expired so I will yield back.

Chairman MILLER. Thank you. Mr. Zinser, as to the 2010 census, if you just do what you did in 2000, I will be perfectly happy. If it ain't broke——

Mr. BROUN. Chairman, would you yield a moment?

Chairman MILLER. Yes, Dr. Broun.

Mr. BROUN. I would like to do the same thing. I certainly don't want to use statistical sampling in the census. People need to be counted. Real people need to be counted, and that is my concern. I just don't want any election stolen. As a scientist, I want to see real data and I would like to see right over wrong, and statistical sampling to me is a way of interjecting a tremendous amount of potential for fraud and abuse. So, thank you.

Chairman MILLER. I do not want to defend the position of wrong over right. I was not speaking to the methodology. I am not sure it is necessary that you actually touch each nose to do a nose count. But that ends our testimony today. Thank you very much. Under the rules of the Committee, the record will remain open for two weeks for additional statements from the Members and for any follow-up questions or answers, and I think at least one or two of the witnesses mentioned that they would provide further answers in writing. And with that, the witnesses are excused, the hearing is now adjourned.

[Whereupon, at 12:50 p.m., the Subcommittee was adjourned.]

Appendix 1:

Answers to Post-Hearing Questions

ANSWERS TO POST-HEARING QUESTIONS

Responses by Cora Marrett, Acting Deputy Director, National Science Foundation

Questions submitted by Chairman Brad Miller

Q1. You heard the concerns expressed by the Subcommittee and by the Inspector General that the Foundation's grants management staff was working at full capacity even before the enactment of the Recovery Act. You testified that by revisiting existing proposals already reviewed, the Foundation can expedite the award of funds with the available staff. However, there remains the requirement to monitor the performance of these additional grants, which is likely to be a nontrivial increase in workload. Are you still confident no increase is needed in the Foundation's capacity for this function?

A1. NSF recognizes and is honored by the responsibilities brought by the Recovery Act. As I noted in my testimony, there will be major challenges associated with the increased workload, as the agency will be processing roughly 50 percent more awards than expected in FY 2009. Given that the Recovery Act did not increase funding for administrative activities, NSF staff and management will be monitoring the workload and reprioritizing and redeploying resources as appropriate.

Q2. Should the Foundation's assumption about grant management staff prove incorrect, what plan is in place to detect and address the deficiencies?

A2. The NSF Chief Financial Officer is on NSF's Recovery Act Steering Committee and will provide regular updates on grants management workload. Should any issues arise, the Steering Committee will address how best to enhance and/or redeploy resources. Now that the FY 2009 omnibus appropriation has been enacted, NSF has an additional 25 FTE that may be deployed and we have submitted a request to OPM for a dual compensation waiver far re-employed annuitants. This, in combination with continual evaluation of necessary resources by managers, will help to prepare NSF to manage federal funding. Continued and thoughtful reinforcement of NSF staff is needed to ensure appropriate monitoring, administration, oversight, accountability, and stewardship of the federal funds.

Q3. The Subcommittee is concerned that a too rigid adherence to a specific level of point scores assigned by reviewers may lead to sub-optimal award distributions as measured by intellectual promise. What level of discretion will program officers have in identifying grant applications already received by the Foundation that were worthy of funding but, due to insufficient funds, were not previously funded?

A3. A hallmark of NSF's merit review process is the discretion that resides with program officers. The NSF program officer reviews proposals and analyzes the input received from the external reviewers. Reviewer ratings are provided only as assistance to the program officer. In addition to the external reviews, program officers consider several factors in developing a portfolio of funded projects.

For example, these factors might include different approaches to significant research and education questions; potential (with perhaps high risk) for transformational advances in a field; capacity building in a new and promising research area; or achievement of special program objectives. In addition; decisions on a given proposal are made considering both other current proposals and previously funded projects. After scientific, technical and programmatic review and consideration of appropriate factors, the program officer makes an award/decline recommendation to the division director.

In order to accommodate situations where programs had proposals that were worthy of funding but they were not able to support them due to insufficient funds, the Foundation has developed functionality for reversal of a previous declination decision. The reversal of the decision must be based on both the high quality of the reviews received on the initial submission and the lack of available funding at the time the original decision was made.

Q4. How is the Foundation coordinating distribution of Recovery Act resources with the Foundation's regular appropriations to maximize the value of both in achieving the Act's goals and the President's priorities?

A4. The Foundation is considering all available FY 2003 funds, both those from the Recovery Act and those provided through the omnibus appropriation, as it develops its FY 2009 award portfolio.

NSF will utilize the majority of the Recovery Act funds to support highly-rated proposals that would otherwise be declined due to lack of available funding. NSF has many proposals already in hand that meet this criterion. NSF will prioritize funding of new principal investigators and high-risk, high-return research with Recovery Act funding. This is in keeping with the goals of the legislation—to increase economic efficiency by spurring technological advances in science and health and to jump-start the economy. Support will also be provided for critical infrastructure needs, with an emphasis on deferred maintenance and enhancements for existing research facilities. NSF expects that the science and engineering communities are poised to immediately expend funds that will advance discovery and innovation, and enhance the economy.

Along with the funds provided in the Recovery Act, NSF will utilize funds provided through its regular FY 2009 appropriation to advance the frontiers of science and engineering, including support for addressing urgent national priorities, such as energy, environment, and climate change.

Questions submitted by Representative Paul C. Broun

Q1. One of the selling points of the stimulus bill was that action was needed immediately. How long will it take you to spend all of the money directed to your agencies?

A1. NSF plans to obligate the majority of its Recovery Act funding by the end of FY 2009 and will carefully monitor the expenditure of funds. Of the $3.002 billion provided to NSF, over two-thirds will be used to fund highly-rated proposals that have already been received but would otherwise be declined due to lack of available funding. NSF will ensure that Recovery Act funds are awarded in a timely manner while maintaining its commitment to its established merit review process.

NSF expects that some or all of the funds for the following programs may need to be carried forward into FY 2010:

- The Science Master's Program in the Education and Human Resources Account. NSF is currently developing plans to establish this program.
- The Academic Research Infrastructure (ARI) program in the Research and Related Activities Account. There will be multiple categories for ARI proposals, dependent on the size of the proposal budget. NSF expects to make the majority of ARI awards (those that are less than or equal to $2 million) in January 2010. The remaining awards are expected to be made no later than April 2010.
- The Major Research Instrumentation (MRI) program. NSF intends to utilize approximately $100 million of the $300 million provided in the Recovery Act for MRI to support MRI proposals already in hand. These awards will be made during FY 2009. The remaining $200 million will be used for a new MRI solicitation to be issued in spring 2009. NSF expects to make most of these MRI awards by the end of the 2009 calendar year.

NSF expects to obligate funds for the three projects that will be supported through the Major Research Equipment and Facilities Construction (MREFC) account—Ocean Observatories Initiative (OOI), Alaska Region Research Vessel (ARRV), and Advanced Technology Solar Telescope (ATST)—either late in FY 2009 or early in FY 2010 so that construction can begin expeditiously.

In addition, it may be necessary to carry forward into FY 2010 a small amount of funding within the Research and Related Activities (R&RA) account. Proposals that have been reviewed but not awarded by September 30, 2009 and awards to organizations that have not previously received NSF funding are examples of instances that might require the carry forward of Recovery Act funds.

Funds provided to the NSF Office of Inspector General (OIG) are expected to be carried forward into FY 2010.

All NSF awards made with Recovery Act funds will be "standard" grants, which means that the awardee receives all funds at the time of award rather than receiving funds over multiple years. The average award duration for NSF research grants is approximately three years. Therefore, NSF expects that the majority of Recovery Act funds will be spent by awardees within the next three years. Research grant awardees typically spend the majority of funding in the second year of their award.

Q2. Current OMB guidance only requires that money be tracked to two layers down. For example, a state and a city would have to report data, but not the contractor or the subcontractor. Do you intend to require additional reporting beyond OMB guidance?

A2. At this time, NSF does not intend to require institutions that receive Recovery Act funding to report beyond the requirements established by OMB. The OMB guidance clearly states that "the prime recipient is responsible for reporting on their use of funds as well as any sub-awards they make." Further. "in limited circumstances, recovery will go from a federal agency to a state, and then to a local government or other local organization. In these cases, the current reporting model will not track funds to subsequent recipients beyond these local governments or other organization."

NSF agrees and requires that prime recipients report on their use of funds as well as any sub-awards they make. Per our General Grant Conditions (GC–1), we state "The grantee remains responsible for maintaining the necessary documentation on all sub-awards and making it available to NSF upon request. The grantee shall include sub-award activities in the annual and final project reports that are submitted to NSF."

NSF already requires extensive technical and financial reporting for all assistance awards. These reports provide NSF program officers and administrative offices with information on the progress of supported projects and the way these funds are used. Awardee institutions are required to submit annual project reports as well as a final project report. Quarterly financial reports on the status of funds received from NSF are also required through submission of a Federal Financial Report (FFR).

It should be noted that NSF awards very limited funding to State and local governments. Most NSF awards are made to research institutions.

Q3. Do you believe two layers of accountability are enough?

A3. As described above, this particular concern is not of great impact to most NSF-funded organizations. In addition, NSF believes that it has adequate and appropriate policies and procedures in place to ensure awardees are held accountable for all funds awarded, inclusive of Recovery Act funding. Our general Grant Condition provisions hold all parties expending funds originating from the Federal Government responsible for expending funds in compliance with applicable federal and agency-specific requirements.

Q4. Please list the top three risks at your agency associated with stimulus funding.

A4.

1. Risk of Non-compliance with Recovery Act Requirements: The most significant risk to the Foundation emanates from the fact that, although the Recovery Act appropriation represents an increase to the NSF budget of almost 50 percent, no additional administrative funding for staff or other resources was provided. Our regularly-appropriated resources will be used to ensure compliance with the Recovery Act mandates, in addition to our normal management and administrative activities.

The Act requires the agency to provide additional information that was not considered when setting the agency's administrative FY 2009 budget. Some examples include:

- Weekly Status Updates on Recovery Act Funding
- Monthly Financial Reports
- Award Transaction Data Feeds
- Agency Recovery Plan
- Recovery Program Plans

2. Risk of Systematic Flaws and/or Breakdowns: Additionally, there are risks inherent in implementing any new program responsibly, on an expedited time line. The Recovery Act requires additional reporting, on data not currently collected in recipient and agency systems. The tracking and reporting requirements have required both agencies and recipients to modify accounting and award systems in short order. Due to the expeditious nature of the Act, the time spent testing these modifications has been limited.

3. Risk of Administrators Not Hawing Sufficient Knowledge: There will be continuing education needed across multiple sectors in the recipient and federal awarding communities. Again, due to the expeditious nature of the Act, both agency and recipient administrators may encounter limitations as they try to keep up-to-date on Recovery Act guidance, which is currently in Interim Final status. Recovery Act recipient reporting data elements are not yet final.

Q5. What contracts at your agency are "mission critical"? That is, if the specific contract were to experience cast-overruns, schedule decays, or performance problems would it affect the mission of the agency?

A5. With regard to Recovery Act funds, the National Science Foundation will not award any contracts that are mission critical.

Q6. The DOE IG identified contract administration as "one of the mast significant management challenges facing the Department" Please discuss the current status of your agency's ability to issue contracts and manage grants.

A6. Currently, NSF is well positioned to award and administer its current portfolio inclusive of the additional Recovery Act funding. NSF employs highly qualified and experienced staff to execute the critical responsibilities of grant and contract management. These professionals include grant and contract specialists, cost analysts, policy analysts, financial staff, and program officers who are vital to monitoring and administering the performance of awards to ensure appropriate monitoring, administration, oversight, accountability, and stewardship of federal funds. Although staffing resources are certainly a concern considering the increased workload, at this particular juncture, we are confident that the existing staffing level is sufficient to adequately award and manage the dollars within our agency's budget.

Q7. Do you have adequate resources?

A7. NSF is aware of the need for continuous evaluation of resources required to successfully manage the increased responsibilities associated with the Recovery Act. To this end, NSF has put a Recovery Act steering committee in place to face the expected challenges by using all available resources as well as employing appropriate management oversight and flexibility to meet unforeseen challenges. The NSF CFO is on the Recovery Act steering committee and will provide regular updates on the awards management workload. NSF was allocated an additional 25 FTE in the FY 2009 omnibus appropriation, and a request for waiver of reemployed annuitants has been prepared for submission to OPM. Should any resource issues arise, the steering committee will address how best to enhance and/or redeploy resources to ensure that the NSF award portfolio receives adequate resources.

Q8. Are your employees adequately trained?

A8. NSF makes every effort to ensure that all employees are adequately trained. We believe that the combination of experience and training of our current employees along with our outstanding record of recruiting and retaining qualified professional and administrative staff serves us well as we implement the requirements of the Recovery Act.

Q9. Do you have adequate staff levels?

A9. NSF's current staffing levels are adequate at this time. NSF is committed to fulfilling its responsibilities under the Recovery Act and it is our intention to move forward expeditiously with all award and administrative activities using staff resources that are currently available.

Q10. What can Congress do to help?

A10. NSF appreciates Congress' strong support in recent years far the agency's stewardship responsibilities. Enactment of the full FY 2310 Request of $318 million for Agency Operations and Award Management—currently pending before Congress—will be vital to NSF fulfilling its responsibilities under the Recovery Act.

Q11. Understanding that coordination is sometimes necessary, IGs should not be used as an agency's internal auditor. What in-house auditing and program evaluation capabilities do your agencies have?

A11. The NSF IG reports directly to the National Science Board (NSB), as opposed to the head of the agency, the Director of NSF. This organizational structure is intended to maintain the IG's independence in performing both internal and external audits and reviews. Audit guidelines preclude auditors from making decisions an behalf of management.

NSF has clearly established these distinct roles and responsibilities in its structure and NSF's appropriation clearly sets forth distinct funding for the IG audit function (not to be commingled with NSF administrative funding for audits and other evaluations).

That being said, NSF realizes that sound financial management enables the Foundation to pursue critical investments in science and engineering research and education that ultimately ensure the Nation's security, prosperity, and well being. Over the past eight years NSF has, with the encouragement of the IG, continuously refined and enhanced its post-award oversight process. To that point; NSF senior management, and notably through the leadership of the Chief Financial Officer, has made post-award administration one of the agency's highest priorities. We are confident that, through the strategic analysis of need and the application of extensive staff and contracting resources, the Foundation is now postured with one of the most comprehensive programs of awardee monitoring and business assistance programs in the Federal Government.

Through a combined set of activities, on-site visits, desk review, and/or transactional testing, we are ensuring that the entire high risk award universe receives past award review. We believe that the extraordinary measures NSF has taken to conceive and implement the Award Monitoring and Business Assistance program are having a positive impact on those institutions visited, desk reviewed and tested and are mitigating the risk of potential misuse of funds. We have been very careful in designing this program that we complement, rather than supplant, the auditing responsibilities of the Office of the Inspector General (OIG). Should we, in the course of the Foundation's post-award oversight activities find matters that require OIG audit or investigative scrutiny, we will refer them to the OIG.

Q12. Have your agencies ever tasked IG to conduct work on your behalf?

A12. Annually, the Office of the Inspector General solicits from the Director of the NSF, recommendations for external audits to be performed of our recipient institutions. These are considered by the OIG, along with the results of their independent assessment of the NSF awardee and award portfolio. The OIG makes its determination as to what institutions will be audited. As described above, the OIG is independent from agency management.

Q13. How has the Internet portal www.grants.gov *operated recently?*

A13. Overall questions on the operations of the *Grants.gov* portal are best directed to the managing partner, the Department of Health and Human Services, as they have program management responsibilities, on behalf of the Federal Government, for this initiative. As such, they would collect, maintain, and analyze performance data for *Grants.gov.*

Consistent with OMB Guidance, NSF has been posting all of our funding opportunities, and associated application packages, to *Grants.gov.* Analysis of submission data consistently demonstrates that applicants for NSF awards, in large numbers and percentages, continue to use NSF's own system, FastLane, as the default solution when submitting research proposals to the Foundation. Less than three percent of NSF's total proposals are submitted through *Grants.gov.*

Q14. What is the Federal Government doing to ensure its operation and effectiveness?

A14. The Office of Management and Budget established the Grants Executive Board (GEB), comprised of the major grants making agencies, as an advisory body to the *Grants.gov* initiative and to the HHS managed *Grants.gov* program management office. Among the GEB responsibilities are:

- The review and approval of the annual funding algorithm that supports the *Grants.gov* operational budget
- Ensuring the timely execution of memoranda of understanding, and associated funding transfers that support the *Grants.gov* operational cost
- Review and approval of the HHS-prepared *Grants.gov* business case
- Ensuring that respective agencies comply in all of the OMB issued guidance concerning *Grants.gov* participation and support
- Provision of policy and operation input, review of documents, and additional staff support to *Grants.gov* tactical matters
- Consistent communications to respective applicant/awardee communities concerning *Grants.gov*
- Advice to OMB on the initiative's direction.

Q15. What impact would the crashing of this site have on the ability to issue grants?

A15. The impact is agency-specific. There will be no impact of *Grants.gov* issues on NSF's ability to issue grants. The Foundation's FastLane system well pre-dates *Grants.gov* "Find" and "Apply," so we have not been subject to such restrictions. NSF is able to accept directly its full complement of proposals, both regular submissions and those additional proposals anticipated through the Recovery Act. We will use our legacy FastLane capabilities for proposal submission and acceptance.

In 2006, NSF was also selected by OMB to provide grants management services beyond the *Grants.gov* "Find" and "Apply" services for the broad research community, using modernized FastLane services in partnership with other research agencies. This "next generation 'FastLane'" system, called *Research.gov,* provides a menu of service offerings for 2,200 research institutions in partnership with NASA and Department of Defense science agencies. In light of the recent issues with *Grants.gov,* we are currently exploring the feasibility of including a new *Research.gov* "Application Preparation and Submission" service as an alternative to *Grants.gov* for the research community (only) and for research agencies that may be interested in using the service to support their research constituents.

Q16. I am concerned that the "Buy American" provisions in the Stimulus legislation could add significant costs to and restrict agency flexibility in spending for science-related construction and facilities. How will this provision be implemented with respect to construction of scientific buildings, facilities, and major research equipment and how will you work to ensure the restrictions do not result in cost overruns and delays?

NOTE: the language specifically states: SEC. 1605. USE OF AMERICAN IRON, STEEL, AND MANUFACTURED GOODS. (a) None of the funds appropriated or otherwise made available by this Act may be used for a project for the construction, alteration, maintenance, or repair of a public building or public work unless all of the iron, steel, and manufactured goods used in the project are produced in the United States.

A16. NSF is working with the Office of Management and Budget and the Office of the U.S. Trade Representative to develop an NSF-specific implementation strategy in response to the Section 1605 of the Act and will provide it to the Committee as soon as possible.

Q17. BACKGROUND: The stimulus package provides $200 million for the Academic Research Facilities Modernization Program, which is a grant-making program to allow eligible research entities to repair, renovate, or replace obsolete laboratories and research facilities. This statute was enacted over 20 years ago and has not even been used by NSF since the mid-nineties. My question is threefold:

Q17a. Why has this program not recently been put to use?

A17a. The decision to halt the Academic Research Infrastructure (ARI) program in the latter 1990s (a) rested on the premise that investing in the modernization of individual institution's research facilities was of a lower priority than supporting shared-use, large-scale facilities which are accessed by the broader the scientific and engineering research community and (b) was consistent with the National Performance Review's recommendation that facilities modernization might reasonably be accommodated by institutions, states, and the private sector.

Q17b. Given that NSF has not utilized the program in many years, is it even feasible that you have mechanisms in place to formulate guidelines and appropriately award grants within the timeframe provided in the stimulus package? If so, how do you plan to accomplish this?

A17b. Mechanisms and Guidelines. NSF's Office of Integrative Activities (OIA) will oversee the ARI program and coordinate Foundation-wide efforts. The process is analogous to the current Major Research Instrumentation program. OIA staffing has been augmented to meet the added responsibility of managing ARI; (a senior program director has been seconded to OIA to manage the program and additional staff support is being secured). An internal office team and a cross-Foundation working group, including program officers with experience with infrastructure programs, have been established to implement the program. The guidelines for the 2009 ARI program have been updated to reflect the requirements for conducting 21st century research as well as to conform to current, federal construction-related policies.

Timeline. NSF will fund all ARI awards within the allowable stimulus package timeframe (i.e., no later than September 30, 2010).

May 2009	ARI solicitation issued
May-August	Outreach to research community and public
July	Letters of Intent due
Late August – Early September	Full proposals due
Late October-Early January 2010	Review panels and site visits
January-April 2010	Awards made

Q18. It is my understanding that these funds will not to used for any new construction—only repair and renovation. Can you please confirm this?

A18. The NSF 2009 ARI program will not fund any new construction. It may accept a proposal for the reconstruction of a research facility. Consistent with previous ARI solicitations, the 2009 ARI will support projects to repair, renovate, or in exceptional cases, replace existing research facilities. If an institution were to demonstrate that it was more cost-effective to raze and then rebuild a research facility or research training facility, rather than to try to repair or renovate the existing structure, then the program would accept a proposal for replacement.

ANSWERS TO POST-HEARING QUESTIONS

Responses by Ronald R. Spoehel, Chief Financial Officer, National Aeronautics and Space Administration

Questions submitted by Chairman Brad Miller

Q1. The Recovery Act directs that the funding available in the Science account be provided for supercomputing capability and to bring forward the planning activities for the first of the Earth Science Decadal Survey missions at NASA. How do you anticipate breaking down the funding to fulfill that direction?

A1. The NASA spending plan for use of Recovery Act funding, including the Science program plan, has been submitted to the Committees on Appropriations. NASA has posted its Recovery Act Program Plans on both the Agency's website and on the government-wide website and will update the information as may be appropriate following consultation with the Committees on the spending plan.

Q2. In developing the plan for using Recovery Act resources, is an effort being made to contribute to meeting the longer-term missions of the Agency? For example, can the Recovery Act funds be used for technology development to support the Europa mission NASA hopes to conduct with the European Space Agency in the next decade?

A2. Every effort is being made to use Recovery funds to further the Agency's programmatic goals, as well as stimulate economic activity. With respect to specific spending plans, the NASA spending plan for use of Recovery Act funding, including the Science program plan, has been submitted to the Committees on Appropriations.

Q3. The Recovery Act states that funds are to be awarded primarily using competitive procedures and with a preference for fixed-price contracts. NASA, however, regularly employs cost-type and incentive contracts in its business. How do you expect to meet the law's direction when issuing contracts using Recovery Act funds?

A3. Consistent with the Federal Acquisition Regulation (FAR), it is NASA's policy to utilize fixed price contracts when requirements are relatively certain which permits costs to be estimated with sufficient accuracy for pricing. When issuing contacts with Recovery Act funds, NASA will utilize competitive procedures and fixed-price contracts to the maximum extent practicable. We also anticipate using Recovery Act funds on contracts that are non-competitive and other than firm fixed-price, as NASA mission requirements often contain uncertainties that do not permit costs to be estimated with sufficient accuracy to use a fixed-price contract. In those cases, NASA will comply with all requirements of the Recovery Act, including those which require the publication of the rationale for using other than a competitive and fixed-price contract as part of the award notice.

Q4. In his March 20th memorandum, the President established a process for communications with outside sources relating to Recovery Act activities. What steps has the agency taken to implement the internal controls needed to assure compliance with the President's direction?

A4. NASA has taken a variety of steps to effectively and efficiently implement the Recovery Act, including almost daily tag up meetings with key officials involved in Recovery Act activities. NASA has distributed the President's Memorandum and the Office of Management and Budget Interim Guidance on Communications with Registered Lobbyists About Recovery Act Funds within the Agency and provided appropriate guidance as to their requirements. In addition, NASA is currently preparing further guidance tailored for even broader dissemination in the near future.

Questions submitted by Representative Paul C. Broun

Q1. One of the selling points of the stimulus bill was that action was needed immediately. How long will it take you to spend all of the money directed to your agencies?

A1. NASA's Program Plans have been developed, have been finalized with OMB, include publicly information available on expenditure estimates, and were filed with OMB on May 15th.

Q2. Current OMB guidance only requires that money be tracked to two layers down. For example, a state and a city would have to report data, but not the contractor *or the subcontractor. Do you intend to require additional reporting beyond OMB guidance?*

A2. Federal Acquisition Regulation (FAR) interim rules relating to required recipient reporting have been developed and approved. NASA will comply with these rules and use our standard reporting procedures for contracts and grants. These procedures should be sufficient with some modifications, as necessary, to capture the required two layers for contract and grant reporting. For NASA activities, two levels of reporting would typically include the prime contractor and subcontractor.

Q3. Do you believe two layers of accountability are enough?

A3. Yes.

Q4. Please list the top three risks at your agency associated with stimulus funding.

A4. Almost all NASA Recovery funds were appropriated for ongoing operations, so programmatic risks are relatively small. The challenges to the agency associated with Recovery funding relate to the special requirements for procurement and resource management processes and control of these funds, the tension in the Act between speed of implementation and process control, and the many reporting requirements—some of which are still being defined.

Q5. What contracts at your agency are "mission critical"? That is, if the specific contract were to experience cost-overruns, schedule delays, or performance problems would it affect the mission of the agency?

A5. Any individual contract is critical to its specific program, such that overruns, delays or performance problems would likely affect that program's commitments, and potentially other activities within the program's portfolio. No single contract is large enough that it could put the mission of the Agency at risk.

Q6. The Department of Energy's Inspector General identified contract administration as "one of the most significant management challenges facing the Department." Please discuss the current status of your agency's ability to issue contracts and manage grants.

a. Do you have adequate resources?

b. Are your employees adequately trained?

c. Do have adequate staff levels?

d. What can Congress do to help?

A6. NASA believes that it has a well-trained, experienced workforce, capable of diligently administering the Recovery Act contracts. The NASA employees' management and technical expertise will help ensure that the money is spent as intended and that the process is transparent with full accountability to the American public.

While our current staff is adequate for the job of awarding Recovery Act contracts and grants, with an anticipated increase in contract support activities, including reporting and oversight, we will be continuously assessing our posture and make reassignments and changes in resource allocation and staff assignments as needed.

NASA has an aggressive training program for acquisition personnel. In addition to core classes which serve as a mandatory framework to bring developmental training to contracting professionals, NASA provides its workforce with supplemental training on topics that will improve our administration of Recovery Act contracts. Recent examples include special training on cost and pricing techniques, and fraud awareness.

Congress' continued support for hiring flexibilities will permit agencies to hire qualified procurement personnel in an expedited fashion.

Q7. Understanding that coordination is sometimes necessary, IGs should not be used as an agency's in-house auditor. What in-house auditing and program evaluation capabilities do your agencies have?

A7. NASA has robust capabilities for in-house auditing and program evaluation. The NASA Office of Internal Controls and Management Systems (OICMS) serves as the in-house auditor for NASA Headquarters. With contractor support, OICMS performs in-house audits of Headquarters organizations on a three-year cycle. OICMS reviews of actions related to the use of Recovery Act funds will be conducted on a regular basis. The NASA Office of the Chief Financial Officer also has a Quality Assurance Division that, among its activities, provides and oversees internal controls and OMB A–123 Appendix A audits; Improper Payment Information Act and, as needed, associated recovery audits; and financial statement audit planning and coordination. NASA Centers have in-house audit staffs to perform audits of key processes and controls at the Centers. They, too, will review Recovery Act implementation and operation at NASA on a regular basis. Additionally, NASA's Office of Program Assessment and Evaluation (PA&E) serves as an independent assessment organization that provides objective, transparent, and multidisciplinary analysis on all aspects of NASA programs and institutions. PA&E is responsible for evaluating NASA programs, projects and institutions for cost effectiveness, quality, and performance in achieving strategic objectives. OICMS also performs quality assurance reviews over NASA's compliance with FMFIA and the guidance contained in OMB A–123 as it pertains to performing self assessments of controls in place to mitigate key risks faced by the Agency.

Beyond its in-house audit capabilities, NASA uses multiple methods, processes, and entities for monitoring and evaluating its performance. These same processes and procedures will be used for activities funded under the Recovery Act. NASA's programs are assessed for relevance, quality, and performance. A relevance review assures alignment with national priorities; alignment with the NASA Strategic Plan; impact on related fields of research or technology; and alignment with "customer" (users of NASA data, research results, etc.) needs. Determining quality is generally prospective and assures "best value" for an investment, using peer review processes. Performance reviews evaluate whether a program is on track to meet its baseline performance commitments (cost, schedule, science/technical deliverable).

Reviews are conducted internal and external to the Agency. External evaluations are performed by entities such as the NASA Advisory Council (NAC) and the National Research Council to assess NASA's program content and direction. Additional independent reviews are commissioned by the NASA Administrator or responsible mission organization to review programs for relevance and quality, as well as performance. Reviews are rigorous and methodical and focused on the program's methods, results, and findings by others in the field with requisite expertise, and independence.

Responsibility for program and project management and their control mechanisms (NASA Procedural Requirements (NPR) 7120 series)*, institutional management (NPR 8500 series)*, and financial management (NPR 9010 and 9120 series)*, occurs at all management levels of the Agency. NASA's management monitors different aspects of program or institutional performance, at the highest Agency levels, and uses a rigorous structure of program and management reviews for Agency-level decisions. To continue through each phase of development, programs must demonstrate, on an on-going basis and at key life cycle junctures, an ability to manage in a manner that produces identifiable results, and must document performance against previously defined commitments including multi-year outputs, annual performance goals, milestones and other metrics, as appropriate.

NASA internally monitors performance through monthly and quarterly reviews, at each management level. At the senior management level, program reviews, accompanied by an independent (internal) assessment, occur across all mission areas (aeronautics, science, space operations and exploration systems), with an in-depth review each quarter rotating among the mission organizations. Senior management also reviews institutional data (finance, human capital, acquisition, infrastructure), and aggregated Agency measures and metrics, e.g., safety, cross-cutting technical and non-technical issues. The data reviewed, and the accompanying analysis, allows the Agency to focus on, and proactively address, issues that could lead to not achieving desired performance goals.

*The *NASA Online Directives Information System Library* ensures access by NASA employees and contractors to the most current documentation.

Q8. Have your agencies ever tasked IG to conduct work on your behalf?

A8. NASA does not task the IG to conduct in-house audits on management's behalf.

Q9. How has the Internet portal www.grants.gov *operated recently?*

A9. Over the past year, both NASA internal users and external grant proposers have experienced technical issues and difficulties associated with the "Apply" functionality within the *Grants.gov* application.

Q10. What is the Federal Government doing to ensure its operation and effectiveness?

A10. NASA fully supports the overall purpose and intent of *Grants.gov* and continues to contribute funding to support the maintenance and operations of the Internet portal. On March 19, 2009, NASA received approval from OMB exempting the Agency from use of the "Apply" functionality within *Grants.gov* and authorizing the Agency to exclusively use NASA's proposal data system, NASA Solicitation and Proposal Integrated Review and Evaluation System (NSPIRES), (*http://nspires.nasaprs.com*) for the receipt of all grant proposals. This measure was taken to help relieve the stress on the *Grants.gov* Internet portal based on projected increased demands resulting from the *American Recovery and Reinvestment Act of 2009.*

Q11. What impact would the crashing of this site have on the ability to issue grants?

A11. In the event the *Grants.gov* Internet portal were to crash, NASA would be able to temporarily provide a backup posting process using existing Agency resources. This may create some public confusion until NASA could educate the public regarding the temporary posting URL. In addition, any existing announcement of opportunities on *Grants.gov* would be lost and would require re-posting on NASA's NSPIRES Internet portal. Otherwise, the Agency's ability to receive, evaluate, process, and issue grants would experience little disruption.

Q12. I am concerned that the "Buy American" provisions in the Stimulus legislation could add significant costs to and restrict agency flexibility in spending for science-related construction and facilities. How will this provision be implemented with respect to construction of scientific buildings, facilities, and major research equipment and how will you work to ensure the restrictions do not result in cost overruns and delays?

NOTE: the language specifically states: SEC. 1605. USE OF AMERICAN IRON, STEEL, AND MANUFACTURED GOODS. (a) None of the funds appropriated or otherwise made available by this Act may be used for a project for the construction, alteration, maintenance, or repair of a public building or public work unless all of the iron, steel, and manufactured goods used in the project are produced in the United States.

A12. The Federal Acquisition Regulation (FAR) Council has made changes to the Federal Acquisition Regulation which implements the 'Buy American' provisions of the Recovery Act, and NASA will comply with the regulations in issuing and administering construction contracts with Recovery Act Funds. NASA will include clauses in accordance with the regulations in all appropriate contracts which will require that contractors provide domestic iron, steel, and manufactured goods in performing the contract.

NASA will mitigate the impact the restrictions may have on cost overruns or delays by utilizing, as appropriate, the exceptions in the Federal Acquisition Regulation which permit waiver of the 'Buy American' requirement when the product is unavailable domestically, only available at an unreasonable cost, or when domestic item use is inconsistent with the public interest. Established approval protocols will be followed to ensure that waiver decisions are supported and well-documented, and that they are consistent with the intent of the Recovery Act.

ANSWERS TO POST-HEARING QUESTIONS

Responses by Ellen Herbst, Senior Advisor for Recovery Implementation, U.S. Department of Commerce

Questions submitted by Chairman Brad Miller

Q1. NIST receives funding from the Recovery Act to prepare standards for two areas where the Administration intends to make significant investments—health information technologies and monitoring and control technology for the electrical grid. How is NIST cooperating with both the Department of Health and Human Services and the Department of Energy to complete development of the standards so that they inform the expenditure in these areas?

A1. In the area of health information technology (IT), the National Institute of Standards and Technology (NIST) interacts regularly with the Department of Health and Human Services' Office of the National Coordinator for Health Information Technology (ONC). The Recovery Act funding will accelerate efforts to develop and deploy electronic health records and a nationwide health care information infrastructure. Specifically, NIST's efforts will target two critical areas: standards harmonization and the development of a technology testing and evaluation infrastructure. This builds on the formal collaboration NIST has had with ONC since 2005, through which NIST provides expertise in IT standards, testing for conformance to standards, pilot implementation of standards-based technologies, security, and certification processes.

In the area of monitoring and control technology for the electric grid (Smart Grid), NIST is working closely with the Office of Electricity Delivery and Energy Reliability in coordinating the development of Smart Grid standards. NIST participates in the Department of Energy (DOE) Interagency Smart Grid Task Force and has organized six expert working groups addressing standards issues under the umbrella of the DOE-sponsored GridWise Architecture Council. NIST is also working with DOE in developing an interagency agreement defining how the $10 million of Recovery Act funding directed to NIST will be used to establish a Smart Grid Interoperability Standards Panel by the end of 2009 to provide ongoing coordination and oversight of the implementation of the Smart Grid standards roadmap now under development.

Q2. Your testimony described changes in the agency's acquisition management process, stating that projects less than $75 million will now receive only "paper reviews" instead of discussion at the Department Investment Review Board. Projects over $75 million or declared "major investments" are to be handled by a process that is "currently under refinement." In the tug-of-war between speed of award and oversight, this sounds very much like oversight letting go of the rope. Please explain why these changes don't represent backsliding from the accountability requirements of the Recovery Act?

A2. The Department of Commerce has a two-prong oversight approach to Departmental acquisitions. For those programs with a life cycle cost exceeding $75 million, the program and associated acquisitions must be reviewed by the Investment Review Board (IRB) to address management and oversight of the program and planned acquisition strategies for acquisitions planned to be processed in support of the program. The Deputy Secretary has the authority to designate other programs that do not meet the life cycle cost threshold for IRB review as well. All Recovery Act programs, regardless of whether the program will be executed internally, through acquisitions or through grants, or some combination thereof, have been designated as "major investments." Thus, a more stringent review process is in place for all Recovery Act acquisitions.

The IRB focuses on all aspects of the program (management, risk, security, systems architecture, acquisition strategies, etc.). Prior to the meeting of the IRB, the Office of Acquisition Management (OAM) conducts a comprehensive review of the acquisition plan, the proposed statement of work, other specific portions of the proposed solicitation/contract (schedule of items/services to be provided, deliverables, award/incentive fee/term plans, evaluation criteria, proposal instructions) to ensure, generally, all Federal Acquisition Regulations and Commerce Acquisition Regulations and policies are being adhered to, and specifically, to ensure compliance with all provisions of the Recovery Act as it relates to acquisitions. Prior to review by the IRB, the Office of General Counsel (OGC) and the Office of Small and Disadvantaged Business Utilization (OSDBU) must concur with the proposed strategy.

For acquisitions that do not meet the threshold or specific designation as a major investment, OAM has eliminated a formal, once-a-month meeting to review acquisition plans and strategies. The same process of reviewing acquisition plans, statements of work, evaluation criteria and other associated documents still occurs. The concurrence of the OGC and OSDBU is still required.

These Department-level procedures are in addition to the individual bureau's internal review processes and are separate from the Acquisition Management Reviews (AMR) that are being instituted with this new review policy. Those reviews will focus on the work products (contracts, supporting files) for compliance with law, regulation and policy and for completeness. All Recovery Act acquisitions will undergo a post-award AMR to focus on decision documentation and effective oversight and management of the contract once the award has been made.

Q3. How are NIST and NOAA coordinating distribution of Recovery Act resources and their regular appropriations to maximize the value of both in achieving the Act's goals and the President's priorities?

A3. Both the National Oceanic and Atmospheric Administration (NOAA) and NIST have placed a high priority on coordinating reviews and internal clearances required to move forward with the obligation of funds under the Recovery Act. In determining the allocation of Recovery Act funding, NIST and NOAA management took into careful consideration the resources that were being provided by the FY 2009 Omnibus appropriation as they made decisions in allocating resources in the Recovery Act. Investment decisions for Recovery Act funds have focused on activities promoting near-term recovery by creating and preserving jobs. The funding will also provide longer-term sustained economic growth by supporting important science and research activities in critical national priority areas.

NIST's Recovery Act funding supports the procurement of state-of-the-art scientific equipment that will greatly benefit NIST's measurement research. Additionally, Recovery Act funding for fellowships, Postdoctoral researchers and research contracts will augment NIST's ability to conduct its mission, while meeting the goals of the Recovery Act. The FY 2009 Omnibus appropriation provides additional resources for Scientific and Technical Research and Services (STRS) that invest in longer term research programs that support NIST's mission to promote U.S. innovation and industrial competitiveness by advancing measurement science, standards and technology in ways that enhance economic security and improve our quality of life. NIST management coordinated the use of funds from the Recovery Act and FY 2009 Omnibus appropriation for construction to best meet NIST's facilities construction and renovation needs. Furthermore, the Recovery Act funding targeted at construction provided a timely and expedient mechanism to achieve the goals laid out in the Recovery Act of providing economic stimulus, creating jobs, and introducing funds to the national economy.

NOAA is also emphasizing coordinated distribution of these funds to maximize their value in achieving the President's priorities. For those facility construction investments funded with resources jointly under the Recovery Act and the FY 2009 Omnibus appropriation, NOAA is ensuring close coordination of the investment planning efforts to effectively achieve the intended results of the Recovery Act and regular appropriations, both in terms of job creations and stabilization, and in terms of facility construction, replacement and repair necessary to maintain and improve NOAA mission performance.

Q4. In his March 20th memorandum, the President established a process for communications with outside sources relating to Recovery Act activities. What steps has the Department taken to implement the internal controls needed to assure compliance with the President's direction?

A4. The Department of Commerce has communicated the President's memo widely throughout the Department. We have issued interim detailed guidance for reporting contacts with registered lobbyists. We have discussed rigorous compliance requirements with our leadership and will continue to emphasize these requirements to all employees affected by this requirement. We are preparing training which will be available to all employees through our online training system to support compliance.

Questions submitted by Representative Paul C. Broun

Q1. One of the selling points of the stimulus bill was that action was needed immediately. How long will it take you to spend all of the money directed to your agencies?

A1. We are confident we will meet the legislative requirement to obligate all programmatic Recovery Act funds by September 30, 2010. The Department of Commerce did not receive block or formula grant funds. The $7.9 billion in Recovery Act funding for DOC will be expended through competitive grants and acquisitions as well as support for the Decennial Census. We anticipate obligating funds throughout the balance of FY09 and throughout FY10 with the exception of the Office of the Inspector General (OIG). The OIG funding is authorized through 2013.

Q2. Current OMB guidance only requires that money be tracked to two layers down. For example, a state and a city would have to report data, but not the contractor or the subcontractor.

Do you intend to require additional reporting beyond OMB guidance?

A2. At this time, we do not have plans to require additional reporting beyond the OMB guidance.

Q3. Do you believe two layers of accountability are enough?

A3. Yes, we believe two layers of reporting are sufficient.

Q4. Please list the top risks at your agency associated with stimulus funding.

A4. In the Department's planning and risk management activities and utilizing OMB guidance on risk identification, three areas have been identified as top risks associated with stimulus funding.

1) Administering the Broadband Technology Opportunities Program (BTOP). STOP received the largest share of the DOC ARRA funds ($4.7 billion of the total $7.9 billion that DOC received). Based on the amount of funding as a percentage of total funding, and because BTOP is a brand new program, DOC has focused particular management oversight on this program.
2) Administering the increased volume of funding and transactions associated with Recovery Act funding. The $7.9 billion of Recovery Act funding represents approximately one annual appropriation for the entire Department of Commerce. The volume of funds, transactions and activities require increased risk management activities to adequately oversee their administration.
3) Staffing requirements, particularly for contract and grants professionals. DOC is actively working with the Office of Personnel Management to use all hiring flexibilities and options available, including direct hire authority; rehired annuitant waivers and job fairs. Additionally, DOC will, where appropriate, utilize existing resources through detail assignments to meet Recovery Act staffing needs.

Q5. What contracts at your agency are "mission critical?" That is, if the specific contract were to experience cost-overruns, schedule delays, or performance problems would it affect the mission of the agency?

A5. NIST: The only contracts that could be considered "mission critical" would be the contracts associated with the Building 1 Extension construction project in Boulder, CO. NIST has put in management safeguards for this as well as all NIST construction projects to mitigate the potential of cost overruns or scheduling delays.

Census: All Decennial contracts are considered critical to the Census Bureau's mission. Accordingly, these contracts are continuously monitored to identify problems early and mitigate the risk of cost-overruns, schedule delays and/or performance problems. When issues arise in these areas the Census Bureau takes immediate action to minimize the impact to our Decennial Programs.

NOAA: All contracts that are entered into by NOAA are in direct support of our missions and functions. They are the result of a process that has distilled all NOAA requirements into our highest mission priorities for contract funding. We work very hard to make sure that contract challenges do not affect direct mission accomplishment by having appropriate work around actions to provide direct support should there be delays, overruns, or performance issues. Due to their inherent complexity, NOAA's satellite programs are our highest risk contract activities, with the greatest potential impact to our weather prediction and climate research and services missions. However, ARRA funding for NOAA's satellite program will be used to mitigate both cost and schedule risk for the National Polar-orbiting Operational Environmental Satellite System (NPOESS) program.

NTIA: The National Telecommunications and Information Administration (NTIA) has contracted with IBM to provide administrative services for the TV Converter Box Coupon Program, which received Recovery Act funds to continue to educate the public about the transition and issue converter box coupons to households wishing to keep using their analog sets after all broadcasters stop analog broadcasting on June 12, 2009. IBM performs critical program functions with respect to coupon distribution and redemption. NTIA provides extensive oversight of this performance-based contract to ensure that the contractor performs within budget and according to service levels and milestones agreed upon in the contract.

Q6. The DOE IG identified contract administration as "one of the most significant management challenges facing the Department." Please discuss the current status of your agency's ability to issue contracts and manage grants.

a. Do you have adequate resources?

b. Are your employees adequately trained?

c. Do have adequate staff levels?

d. What can Congress do to help?

A6. The Department, and its subordinate bureaus, have identified additional staff resources needed and are taking full advantage of all hiring flexibilities to recruit and/or acquire the needed resources. This includes participation in hiring fairs, rehiring annuitants, contracting for appropriate support and re-assigning appropriate staff to handle Recovery Act acquisitions and grants.

DOC has a cadre of experienced, well-trained acquisition and grants specialists for executing this work. Recruiting efforts are focused on acquiring well-trained and experienced individuals to meet the increased workload. Where appropriate, more skilled and/or experienced staff or hires will focus on Recovery Act acquisitions/grants and those with less training or experience will handle the more routine acquisitions/grants.

The Department will continue to work to ensure proper management and oversight of its contracting. We look forward to working with Congress on this issue.

Q7. Understanding that coordination is sometimes necessary, IGs should not be used as an agency's internal auditor.

What in-house auditing and program evaluation capabilities do your agencies have?

A7. The Department of Commerce coordinates its in-house auditing and program evaluation capabilities with its external auditors.

The Department of Commerce has a Senior Management Council (SMC) that provides leadership and oversight for internal control assessments under OMB Circular A–123, Management's Responsibility for Internal Control. The SMC is co-chaired by the Deputy Chief Financial Officer and the Director, Office of Management and Organization, and is composed of all bureau Chief Financial Officers, the Chief Information Officer, and the heads of Human Resources, Acquisition Management, Budget and Administrative Services offices. The Department also has a Senior Assessment Team (SAT) which is responsible for conducting day-to-day A–123 activities, including review, documentation, and testing of internal controls. The SAT is composed of representatives from bureaus and offices that have a material impact on the Department's financial reporting. To the greatest extent possible, the SAT will be leveraged to assess the additional risk posed for financial reporting requirements by the receipt and administration of Recovery Act funds and will be used to test Recovery Act transactions.

Q8. Have your agencies ever tasked IG to conduct work on your behalf?

A8. We have not asked the IG to do something for us that would ordinarily be considered a bureau or Department administrative function. We have of course referred matters to the OIG that fall within the OIG purview of "waste, fraud and abuse."

Q9. How has the Internet portal www.grants.gov *operated recently?*

A9. NOAA had the first competitive grant program under the Recovery Act with a closing date of April 6, 2009. So far, applicants report that they are able to submit applications through the *Grants.gov* portal. We are continuing to monitor and will report through the Grants Executive Board issues that are being brought to our attention. We have encouraged applicants to use *Grants.gov* but to allow themselves sufficient time to submit a paper application if needed.

Q10. What is the Federal Government doing to ensure its operation and effectiveness?

A10. The Grants Executive Board, in partnership with General Services Administration and Department of Health and Human Services is actively working to resolve the capacity problems that exists with *Grants.gov* with a goal of "right sizing" the capacity to handle not just routine grant applications but also Recovery Act grant applications.

Q11. What impact would the crashing of this site have on the ability to issue grants?

A11. We believe this contingency to be remote. *Grants.gov* has successfully handled the first round of grant applications for NOAA where over 600 applications were received with few problems.

However, if there were no electronic means to receive applications, DOC would need to revert to paper-based processes, which are more time-consuming and labor-intensive than electronic processes. While paper applications can be "input" into Grants Online, it is a time-consuming process that is subject to human error.

Q12. I am concerned that the "Buy American" provisions in the Stimulus legislation could add significant costs to and restrict agency flexibility in spending for science-related construction and facilities.

How will this provision be implemented with respect to construction of scientific buildings, facilities, and major research equipment and how will you work to ensure the restrictions do not result in cost overruns and delays?

NOTE: the language specifically states: SEC. 1605. USE OF AMERICAN IRON, STEEL, AND MANUFACTURED GOODS. (a) None of the funds appropriated or otherwise made available. by this Act may be used for a project for the construction, alteration, maintenance, or repair of a public building or public work unless all of the iron, steel, and manufactured goods used in the project are produced in the United States.

A12. This provision will be implemented by incorporating the provisions of Federal Acquisition Regulation (FAR) Sub-part 25.6 and including FAR Clauses 52.225–21, 22, 23 or 24 in all contract solicitations and contracts. We will work to ensure the restrictions do not result in cost overruns and delays by carefully coordinating with the acquisition team to determine the availability, quantity, quality and cost of domestic construction material needed for the specific projects. The appropriate level of acquisition planning and contract administration will mitigate the risk of construction delays and cost overruns.

Q13. I am concerned that the funding for "external construction grants" at NIST—$180 million for a program that was not authorized or reviewed by this committee and whose origin was simply a single line in an appropriation bill.

This program appears to be a particularly high oversight risk—does the Department plan to take any special action to ensure funding for this program is spent wisely and in a manner that advances NIST's mission?

A13. The Recovery Act appropriated $180 million to NIST "for a competitive construction grant program for research science buildings." Consistent with the legislation, NIST intends to award the grant funds on a competitive basis. NIST will comply with all federal guidelines to ensure maximum competition, fair treatment of proposals received, and that funding is spent wisely. NIST will also closely adhere to the additional oversight requirements of the Recovery Act and OMB Recovery Act guidance.

Q14. In your testimony you indicate that the "Recovery Act" was intended to jump-start the economy and create millions of jobs; yet you mention several activities that will be funded by the stimulus that do not seem to do either.

For instance, how many jobs do you expect the $170 million for climate modeling activities to create?

A14. The Recovery Act funds for climate modeling will be used to acquire two large-scale supercomputing systems, including associated networking and storage needs, and to perform modifications to data center space to house these systems. These funds will also be used for technical and support activities needed for a systematic, comprehensive and sustainable Climate Data Record Program. These activities will create, or maintain, short-term jobs amongst the construction, facility engineering and management, software development and systems engineering sectors. In addition, it is estimated the economy will benefit from a host of indirect jobs that the acquisition will affect (e.g., manufacturing, shipping, and storage of supercomputers and facilities equipment).

Q15. How many jobs will the $20 million for research on electronic medical records at NIST create?

A15. DOC recognizes that the Recovery Act funding carries with it the additional criteria of creating jobs and stimulating economic activity along with advancing the underlying program goals. We expect that as we receive grant applications and contract bids, we will develop an understanding of what the potential recipients believe the jobs creation potential of their proposals will be. In addition, the recipients of these grants and contracts will be required to report on the jobs created through this funding.

Q16. How many jobs do you expect the $200 million to upgrade computers at libraries and community colleges to create?

A16. The purpose of the Broadband Technology Opportunities Program is to stimulate demand for broadband, economic growth, and job creation. NTIA will structure this program to accomplish these purposes. As NTIA evaluates any grant application, whether it proposes to expand computer center capacity to community colleges and public libraries, or offer broadband to unserved and under-served communities, the agency will consider the extent to which the applicant proposes to create new jobs. In this regard, the agency will consider the local employment opportunities presented by the actual project—such as the procurement and installation of computers—as well as the long-term employment opportunities presented by bringing state-of-the-art computing systems to local communities and thereby enabling such communities to witness the transformative power of broadband.

Q17. The Recovery Act includes $1 billion for the 2010 Decennial Census. Your agency performs a decennial census every ten years, correct?

Given the fact that the Census is expected, allocated and, appropriated every 10 years, why would it be necessary to provide additional funds for it in a stimulus bill that was designed to create jobs that would otherwise not exist?

A17. The U.S. Census Bureau counts America's population every 10 years. The $1 billion provided in the Recovery Act will help the Census Bureau conduct a more accurate census in. 2010 and will create jobs.

Consistent with direction in the Recovery Act, the Census Bureau will use Recovery Act funds to recruit over 2,000 partnership specialists, partnership assistants and other partnership support staff. This will quadruple the partnership staff funded through the regular appropriations process. This program is instrumental in helping to improve the mail out/mail back response rate. Higher mail back response rates result in a more accurate and less expensive census. The additional partnership staff will be hired in areas of the country that are most difficult to count, including areas with large numbers of recent immigrants, race and ethnic minorities, dense urban neighborhoods, rural and tribal areas.

The Census Bureau will be increasing media buys from the current media contractor. Increasing media buys will provide more exposure for the upcoming census. A major focus of increased advertising and other promotions will be in the minority-based areas that have historically lower than average mail back response rates.

Recovery Act funds will also be used to increase Coverage Follow-Up (CFU). In this operation, the Census Bureau will contact households that may have made errors on the census form in reporting the number of persons in the household. The Census Bureau will hire an additional 1,250 temporary telephone interviewers to conduct this operation, who will work from commercial call centers.

The balance of Census Bureau Recovery Act funds will focus on funding early census operations, including staffing 494 local census offices throughout the country, group quarters data collection efforts (e.g., college dormitories, prisons, etc.), update/leave (i.e., leave a form and update the address list for the respondent to mail back in areas with non-traditional addresses), and update/enumerate (i.e., update the address list and conduct the enumeration interview in areas we believe it is more efficient to get the enumeration in person).

Q18. In your testimony, you mention "streamlined processes" that have been established to get money out the door and into the community.

What types of barriers do you face either in regulations or laws that would make this more difficult? (Davis-Bacon, Federal bidding practices, environmental regulations, etc.)

A18. We are committed to complying with all requirements. We have not identified any of the existing laws or regulations as particularly burdensome in implementing the Recovery Act.

Q19. It has been widely reported that ACORN is one of the organizations that may be awarded contracts to assist in producing the 2010 decennial census. As you *know, the Federal Government relies on the Census for allocation of seats in the House of Representatives as well as determinations on all areas of federal funding. Given the number of federal investigations and criminal charges that have been brought against ACORN and a number of its employees, do you feel confident there will be no misuse of taxpayer dollars and that they can provide scientifically reliable and accurate data?*

A19. The Census Bureau is not contracting with ACORN to assist in conducting the 2010 Census, nor with any other national or local partner. No data is being requested or received from ACORN or any other organization that partners with the Census Bureau. ACORN is among the hundreds of national organizations that have signed up as a partner with the Census Bureau to promote participation in the 2010 Decennial Census. These organizations will assure members of the communities they serve that participation in the census is safe, and beneficial to local communities. ACORN will not have any role in hiring or collecting census data.

Q20. The Recovery Act included $430 million for NOAA acquisition, construction and repair of ships, facilities, equipment and satellite instruments.

How has the $430 million been divided up?

A20.

- $7.4 million for accelerating improvements (Dual Polarization capabilities) to the Nation's NEXRAD Doppler weather radar system
- $9 million for accelerating NOAA/National Weather Service, Alaska Region (Weather Forecast Office) construction projects in Barrow and Nome, Alaska
- $74 million to accelerate climate sensor development and risk mitigation for the National Polar-orbiting Operational Environmental Satellite System (NPOESS) program
- $78 million to complete the construction of a Fisheries Survey Vessel
- $261.6 million has been allocated for NOAA facility construction and repairs:
    - $142 million for construction of the Main Facility of the NOAA Pacific Regional Center on Ford Island, Pearl Harbor, Hawaii;
    - $102 million for construction of the replacement facility for the NOAA Southwest Fisheries Science Center in La Jolla, California;
    - $9 million for construction of the replacement facility for the NOAA Fairbanks Satellite Operations Facility in Fairbanks, Alaska;
    - $8.6 million to address high priority NOAA facility repair projects.

Q21. How much will be going to the NPOESS and GOES–R programs?

A21. NOAA has allocated $74 million for accelerating satellite development. $48 million will be used for climate sensor development, specifically, to complete procurement activities for the Clouds and the Earth's Radiant Energy System (CERES) FM–6 and to continue development and production of the Total Solar Irradiance Sensor (TSIS) for NPOESS C–1. The remaining $26 million will accelerate funding for NPOESS. Funds will allow NOAA to perform critical NPOESS development activities and address risk mitigation within the program.

Q22. How do these satellite programs compare with construction and repair of NOAA ships and other facilities in competing for this funding?

A22. The projects selected are capital infrastructure investments that are needed to sustain NOAA's mission. Facility and ship maintenance is required to ensure the health and safety of our employees, while satellite observations are required for weather forecasting for the Nation. These projects have been ongoing, and have previously been included in NOAA's budget requests. Thus, investments in both capital infrastructure and satellite programs support NOAA's mission.

Q23. In the Recovery Act, $170 million was set aside for climate modeling. It is my understanding that President Bush's FY09 budget request for the Office of Oceanic and Atmospheric Research was about $382 million. This includes operating and procurement funding for all of NOAA research labs, the Sea Grant College Program, the Undersea Research Program AND the NOAA Climate Program Office, the office under which climate modeling is conducted. The set aside seems to be a substantial amount compared with the funding of the entire Program Office in years past. Furthermore, we have learned that other organizations that conduct world-class climate modeling, like the National Center for Atmospheric Research, sets aside $5 million from their budget every year, so *that every four years they can make a substantial upgrade to their computing capacity.*

Please explain exactly how this $170 million will be spent in a responsible manner if similar facilities can do the same level of upgrades for less than one-quarter of this amount.

A23. NOAA's global climate models are among the best in the world and played a premier role in the last Intergovernmental Panel on Climate Change (IPCC). Currently, the high performance computing (HPC) available to the Nation's climate scientists allows global climate models to resolve climate research questions down to the scale of continents. Additional research HPC capacity for climate would be targeted toward using currently available higher resolution models to meet stakeholder demand for regional to local scale climate information. The additional HPC would also be used to produce more comprehensive climate outlooks with advanced models that improve treatments of processes critical to our understanding of climate change, such as aerosols and clouds. These advanced models would also include processes that are missing in today's models, such as ice sheet melting that is crucial to address sea-level rise. Another example of what advanced models would include are complex biogeochemical cycles that can be applied to answer questions about the carbon cycle and interaction of climate and ecosystems, such as the effects of ocean acidification.

NOAA will use money from the Recovery Act to acquire two large-scale supercomputing systems and associated networking and storage in support of advanced environmental modeling to address critical gaps in climate modeling and climate data records. Recovery Act money will also be utilized to modify data center space to house these systems; NOAA estimates that construction and outfitting will be complete and the systems will be in place by mid-to-late FY10.

Below is the proposed spending plan for the High Performance Computing funding.

	ARRA Funding
Site A – Climate Research Focus	
Site Prep/Compute (Buy) - 450 TeraFlops	35,963
Disk (Buy)	13,100
HPC Maintenance	19,710
Facilities Lease	2,250
Utilities	2,333
Site B - Climate & Weather Forecasts	
Site Prep/Compute (Buy) - 300 TeraFlops	34,041
Disk (Buy)	12,400
HPC Maintenance	11,903
Facilities Lease	4,000
Utilities	2,800
Network, Post-Processing, Security	
Network	9,500
Climate Post-Processing	12,000
IT Security	3,500
Program Management/Engineering	1,500
Climate Date Records Development	5,000
Total	**170,000**

ANSWERS TO POST-HEARING QUESTIONS

Responses by Matthew Rogers, Senior Advisor, U.S. Department of Energy

Questions submitted by Chairman Brad Miller

Q1. The Inspector General has now released the report on the Department's acquisition workforce he described during the hearing. It states that, despite the effort the Department has devoted to closing gaps, sustaining the emphasis will be difficult. Further, the Department will see an increased need for project directors and contracting officer representatives as Recovery Act activities increase. How will you incorporate the Inspector General's recommendations into the Department's effort to shore up its acquisition management function?

A1. The Department has long focused attention on both the size and qualifications of its acquisition workforce. With respect to the Inspector General's recommendations, the Office of Human Capital Management is gathering information in accordance with 5 CFR 337.201 to support a Secretarial approval of Direct Hire Authority to facilitate hiring of contract specialists and federal project directors, among other segments of the acquisition workforce. In addition, in August 2008, the Department received approval from the Office of Personnel Management to waive reduction in the annuity of federal retirees if necessary to re-hire qualified individuals to augment the acquisition workforce. This allows us the ability to quickly bring individuals on-board with the necessary experience and skill to support the Department's immediate contract and financial assistance support needs. If Direct Hire Authority is considered to be appropriate and is approved, such authority will permit the Department to bring applicants on more quickly and will enable DOE to compete more effectively for scarce acquisition resources against other federal agencies that currently have Direct Hire Authority. DOE can also make use of the special Recovery Act authority that provides for certain excepted service appointments.

In addition to these workforce initiatives, the Department is leveraging internal resources by shifting workload and resources from offices that are not receiving substantial Recovery Act funding to offices that have received substantial amounts of Recovery Act funding. The Department will use existing personnel vehicles to ensure proper alignment of funding and staffing. In essence, the Department is adopting a virtually mobile workforce model by leveraging its resources and using technology to allow employees to assist other organizations without traveling to that site.

As part of the Department's initiative to institutionalize strong contract and project management practices, DOE has identified impediments to performance, outlined in the Department's Root Cause Analysis Corrective Action Plan, dated July 2008. One impediment that was identified is an inadequate number of federal contracting and project management personnel with appropriate skills to plan, direct and oversee project execution. As part of the effort to identify solutions to inadequate staffing, an algorithm, based on bench-marking with other federal agencies, was developed to facilitate identification of the right staff size for a given project. This algorithm will help identify gaps in current project staffing and inform future staffing decisions.

Complementary to this effort is the Department's conduct of an annual Gap Analysis Study to assess current and future skill gaps. The results of this annual study will serve to drive the Department's strategies for acquisition workforce development, training, and recruitment.

Q2. The President has made the expansion of renewable energy a cornerstone of his energy policy. If we are to get the full benefit of that new source of supply, the transmission grid will need updates to compensate for the variability in output that can be expected from the solar and wind generators. The Department receives Recovery Act funds to advance both of these goals; how are these resources being managed to match grid improvements to the expansion of renewable supply sources?

A2. The Department anticipates applying Recovery Act funding to support a variety of smart grid technologies through a merit-based, competitive solicitation process. The term "smart grid" encompasses a portfolio of approaches to integrate information technologies and computer-based controls more fully into the planning and operations of the electric power system. These systems can be used to enable greater levels of renewable power generation.

For example, phasor measurement units can be deployed in the electric transmission system to collect detailed information about the status of the grid. These systems can be used to monitor the variable generation from wind energy systems due to changes in the weather and can provide the ability to offset dips in generation with other resources.

Advanced metering infrastructure (AMI) involves a two-way communications network and smart grid devices installed at the customer level. AMI devices such as smart meters enable participation in demand response programs such as dynamic pricing, which can be used by utilities to lower demand during peak periods or during those times when variable resources are not available. Smart meters can also be used to make it easier for customers to install and operate rooftop photovoltaic arrays and account for the two-way flow of power into the home and back into the grid.

The Recovery Act will also support energy storage demonstrations projects. Energy storage will address the effects of increased renewables on the grid in a variety of ways. Ancillary services provided by fast storage, such as flywheels and batteries, will accommodate the additional need for frequency regulation. These technologies have minimal carbon footprint and are twice as effective as regulation by fossil fuel generators. Large battery systems in the tens of megawatts (MW) range will aid in smoothing wind and mitigating ramps. Compressed air energy storage projects will be able to store hundreds of MW diurnally. This can greatly enhance the utilization of renewable energy in areas such as California and Texas where wind is anti-correlated. Projects in all these areas will be solicited in a competitive process.

The Recovery Act also provides funding for an assessment of electricity-related resources and interconnection-level grid planning. These funds will be used to support collaborative analyses (by federal, State, industry and Non-Governmental Organization (NGO) representatives) of a broad range of electricity futures and their associated transmission requirements. These analyses will also take into account major uncertainties that could affect transmission requirements, such as the prospects for offshore wind development, cost reductions for photovoltaic devices, and improved batteries for plug-in hybrid electric vehicles.

Q3. The Department transferred $10 million to the National Institute of Standards and Technology for standards development work related to the electrical grid upgrades. Will the Department wait to make awards for grid projects employing Recovery Act funds until these standards are available? If not, how does the Department address the risk that projects will invest in incompatible technologies as a result?

A3. The Department is working with the National Institute of Standards and Technology (NIST) to accelerate the development of standards for the smart grid. Next steps involve the development of a roadmap to identify the high value technology interfaces where standards agreement can significantly reduce costs and unleash innovation.

While final, fully agreed upon and mature standards could enable deployments to proceed more efficiently, the best way to proceed is for deployments and standards development to move forward in parallel. The large extent of our electric system means that standards for automation are needed in many areas, and indeed, many applicable standards already exist. But this is a landscape in motion. Given the rapid change in technology and the emerging value to consumers, the economy, and the environment that characterize these early stages of market entry for smart grid, co-development is a reasonable path forward. The Department therefore does not see the need to delay implementation of the Recovery Act for smart grid activities. As part of the smart grid project solicitation process, the Department plans to require applicants to address how inter-operability considerations will be applied and updated with any changes in standards.

Q4. In his March 20 memorandum, the President established a process for communications with outside sources relating to Recovery Act activities. What steps has the Department taken to implement the internal controls needed to assure compliance with the President's direction?

A4. After the President issued the March 20th memorandum, the Office of General Counsel briefed the Recovery Act leadership principals from every program and every major function and outlined the communication process as it relates to outside sources and Recovery Act funding. In addition, the programs sent out guidance to the field offices explaining acceptable and unacceptable communication practices. Secretary Chu also issued a department-wide advisory on this topic. The Department is committed to complying with the President's direction and maintaining integrity in the distribution of Recovery Act funds.

Questions submitted by Representative Paul C. Broun

Q1. One of the selling points of the stimulus bill was that action was needed immediately. How long will it take you to spend all of the money directed to your agencies?

A1. The Department intends to have all funds obligated by September 30, 2010. Some investments will be spent after September 2011, but these will generally be large projects that will start in 2009 or 2010 but require a longer timeframe for full completion.

Q2a. Current OMB, guidance only requires that money be tracked to two layers down. For example, a state and a city would have to report data, but not the contractor or the subcontractor. Do you intend to require additional reporting beyond OMB guidance?

A2a. The Department of Energy will comply with all reporting requirements in the "Updated Implementing Guidance for the American Recovery and Reinvestment Act of 2009" issued by OMB on April 3, 2009. Our current internal reporting requirements and data tracking activities include contracting and grants information that is directly fed to *Recovery.gov* from *USASpending.gov* and the Federal Business Opportunities (*FBO.gov*) websites. In addition to that data, we will gather data that is reported by the recipients of Recovery Act funds directly to *Recovery.gov,* both of which have the potential to go beyond the State and city levels.

Q2b. Do you believe two layers of accountability are enough?

A2b. The Department recognizes the importance of accountability in managing Recovery Act funds and believes consistency in adhering to levels of reporting established by OMB is critical. To comply with OMB guidance, the Department will utilize a variety of methods to ensure the funds are spent effectively and efficiently. These methods include tracking funds execution, implementing risk mitigation strategies, assessing performance, and conducting site visits. These types of actions taken together with levels of reporting are important considerations and must be assessed as a whole.

Q3. Please list the top three risks at your agency associated with stimulus funding.

A3. As the Department distributes and manages Recovery Act funds, we face some challenges in contract management, grant administration, and human capital. To address concerns in contract management and grant administration, we have developed strong oversight strategies, provided programs with guidance, upgraded process controls, and engaged in risk mitigation planning. Given the reporting requirements of the Recovery Act, we recognize the need to significantly improve oversight activities and we are currently developing plans to monitor award recipients, validate reported outcomes, and conduct site visits. To address the human resource challenges, the Department's Office of Procurement and Assistance Management is aggressively recruiting additional contracting specialists and will avail itself of opportunities to increase staffing through direct hire authority, temporary reassignment of personnel from other programs, and temporary hires.

Q4. What contracts at your agency are "mission critical?" That is, if the specific contract were to experience cost-overruns, schedule delays, or performance problems would it affect the mission of the agency?

A4. The Department of Energy has disparate missions which involve high-level energy research and development, weapons production and stockpile management, and environmental remediation, restoration, and site closure. DOE obligates approximately 85 percent of its annual budget for executing the functions and activities associated with these programs to its management and operating and other major site and facility management contracts. These contractors manage and operate DOE-owned scientific, engineering, and production facilities, and environmental cleanup sites in direct accomplishment of DOE's missions. Currently, these contractors have approximately 100,000 employees as compared to DOE's approximately 14,000 federal employees. These management and operations contracts are considered the most critical contracts supporting the Department's missions.

Q5. The DOE IG identified contract administration as "one of the most significant management challenges facing the Department." Please discuss the current status of your agency's ability to issue contracts and manage grants.

Q5a. Do you have adequate resources?

A5a. The Department, like most federal agencies, is addressing the challenges of supporting existing acquisition and financial assistance requirements together with the significant increase in pre-award and post-award workload resulting from the Recovery Act. The Department's strategy for meeting these needs is both short- and long-term. Consistent with the objectives of the Recovery Act to expedite the obligation of funds, the Department is supplementing its high impact acquisition workforce with acquisition and program personnel assigned to areas that are not directly or significantly impacted by the Recovery Act. DOE is also leveraging existing information management systems to speed the solicitation, evaluation, and award of Recovery Act procurement and financial assistance instruments, and to provide post-award administration. As necessary and appropriate, the Department is also supplementing its existing acquisition workforce with temporary contractor support. To ensure that appropriate federal personnel are in place to manage and oversee the disbursement of Recovery Act funding, the Department has identified essential staffing needs, in both acquisition and program organizations and is pursuing expedited hiring strategies, including Direct-Hire authority and use of the Department of Veterans Affairs' Veterans and Disability Program and the Reemployed Annuitant program.

Q5b. Are your employees adequately trained?

A5b. The Department has one of the most comprehensive acquisition, and financial assistance training and certification programs for both its acquisition and project management workforce. While some competency gaps continue to exist, they are moderate to small gaps. Multiple training classes were delivered in fiscal year 2008 and are being delivered in fiscal year 2009 to specifically address those gaps. In addition, the certification program for financial assistance specialists was recently revised to increase mandatory minimum training and experience requirements and to establish certification requirements for Technical Project Officers who oversee the technical aspects of financial assistance projects and activities.

Q5c. Do you have adequate staff levels?

A5c. The Department has a short-term (one-year) gap of 31 GS–1102s (contract specialists). While progress has been made in closing the Department's resource gaps, market conditions present a challenge. The Department is competing with other federal agencies for a limited pool of qualified acquisition professionals. Competition is fierce, particularly in the Washington, DC, metropolitan area, both from other federal agencies and from the private sector. The Department is using and/or pursuing a number of tools to effectively recruit and hire qualified individuals to fill current and future staffing needs, including Direct-Hire Authority, the Department of Veterans Affairs' Veterans and Disability Program, and the Re-employed Annuitant Program.

Q5d. What can Congress do to help?

A5d. The Department is currently limited to spending no more than 0.5 percent of its Recovery Act funding on management and oversight of the programs, projects, and activities funded in that Act, a situation we face alone among agencies funded in the Act. That limitation seriously constrains our ability to carry out the Recovery Act, by sharply limiting the number of additional personnel we can hire to manage and support these, added programs. Replacing that restriction with the limited transfer authority which the explanatory statement accompanying the Act indicates was intended would go a long way in assisting the Department to carry out the Recovery Act more effectively.

Q6a. Understanding that coordination is sometimes necessary, IGs should not be used as an agency's internal auditor. What in-house auditing and program evaluation capabilities do your agencies have?

A6a. The Department recognizes the Office of Inspector General is required to exercise independence during audits and reviews. Within the Office of the Chief Financial Officer, the Office of Internal Review is tasked with performing internal assessments of critical financial management activities. In addition to performing cyclical assessments of Departmental operations and maintaining a capability for ad hoc assessments, the Office of Internal Review coordinates a corporate management control program to evaluate internal control systems on an on-going basis. After the Recovery Act was passed, the Office of Internal Review took a lead role in conducting and facilitating Department-wide risk assessments to identify existing or potential vulnerabilities within our programs. The Office of the Chief Financial Officer's Office of Program Analysis and Evaluation also maintains a robust program evaluation capability and has taken concrete actions to ensure corporate planning and evaluation of projects are well managed and effective. These organizations are also leaders in establishing internal controls guidance, developing documentation standards, and coordinating external reporting requirements, outcome validation, and early issues identification.

Q6b. Have your agencies ever tasked IG to conduct work on your behalf?

A6b. Since the Department of Energy received an unprecedented level of funding from the Recovery Act, the Department requested that the Office of Inspector General provide grant fraud training to headquarters and field offices. In addition, we asked the Office of Inspector General to prioritize the first round of their Recovery Act reviews on programs that received substantial funding increases and/or are associated with high risks.

Q7a. How has the Internet portal www.grants.gov *operated recently?*

A7a. The Department of Energy's users have experienced significant problems with the *grants.gov* system, including lack of advance notice by the Department of Health and Human Services (HHS) of systems changes and problems logging onto the system. The applicant community has also experienced problems in submitting applications due to delays by HHS in implementing software changes to the system.

Q7b. What is the Federal Government doing to ensure its operation and effectiveness?

A7b. The Office of Management and Budget (OMB) is working with the Department of Health and Human Services to resolve performance issues of the system. In the meantime, OMB has requested that agencies, including DOE, find alternative systems to receive and manage financial assistance applications for Recovery Act projects and activities.

Accordingly, while *Grants.gov* remains a viable tool for the posting of Funding Opportunity Announcements, DOE is not using *Grants.gov* to collect and retrieve proposals for financial assistance actions, including those relating to Recovery Act projects and activities. Alternatively, DOE is using FedConnect, a commercial system, and DOE's Industry Interactive Procurement System (IIPS), an in-house system, for receiving applications.

Q7c. What impact would the crashing of this site have on the ability to issue grants?

A7c. The impact on the Department of Energy would be minimal since we are currently using alternative approaches for receiving applications for DOE financial assistance opportunities.

Q8. I am concerned that the "Buy American" provisions in the Stimulus legislation could add significant costs to and restrict agency flexibility in spending for science-related construction and facilities.

How will this provision be implemented with respect to construction of scientific buildings, facilities, and major research equipment and how will you work to ensure the restrictions do not result in cost overruns and delays?

NOTE: the language specifically states: SEC. 1605. USE OF AMERICAN IRON, STEEL, AND MANUFACTURED GOODS. (a) None of the funds appropriated or otherwise made available by this Act may be used for a project for the construction, alteration, maintenance, or repair of a public building or public work unless all of the iron, steel, and manufactured goods used in the project are produced in the United States.

A8. Our goal in implementing the Recovery Act is to stimulate the economy through jump-starting job creation by accelerating planned conventional construction projects and the procurement of major items of equipment. We are evaluating whether the Buy American provision has significant impacts on a project-by-project basis. The primary area of concern is scientific equipment and instrumentation within construction projects already underway. After we better understand the provision's impacts on our projects, we may consider using one of the Buy American exception provisions; but to date we have not made any exception requests.

Q9. Mr. Rogers: GAO's testimony mentions four specific examples that highlight risks at science agencies—three of which are at DOE.

How do you plan on addressing their concerns?

A9. Loan Guarantee Program

GAO recommended that the Loan Guarantee Program (LGP) complete internal loan selection policies and procedures, amend application guidance for more specificity, and further define performance metrics to measure outcomes. The LGP has finalized a policies and procedures document.

The Department's generic loan application guidance document states that the determination of the technical merit of the project will be influenced by the quality of the independent engineering reports, including the credentials of the consultants, scope of the undertaking, and strength of the opinions provided. Due to the unique nature of each project, the Department will provide more detailed requirements for the required independent engineering reports during its preliminarily review of application submissions. The Department notes that two independent engineering reports will be separately prepared by two independent engineering firms. This information will then be reviewed and analyzed for a third time by the LGP's underwriting team. On the basis of the detailed reports and multiple reviews, the Department will determine whether the application process should move forward or if applicants require additional guidance.

The Department has developed an initial draft set of performance measures and metrics for the loan guarantee program. The Department will continue to refine these measures with the aim of completing the effort by the time of the fiscal year 2010 budget submission.

Research and Development Selection Process for Oil and Natural Gas Projects

The Office of Fossil Energy fully supports GAO's recommendation to modify the Department's oil and natural gas research and development selection process. Specifically, the Department agrees with GAO's recommendation to avoid activities that industry would conduct without federal funding. The FY 2010 budgets propose to terminate DOE's mandatory and discretionary oil and gas R&D, except for methane hydrates, which has a long-termer, higher-risk focus. In FY 2009 the Department is including an evaluation criterion in all oil and gas R&D solicitations to formally assess whether industry would undertake the research without federal funding. The Department is compiling information on industry's current and planned research activities to help reviewers make this evaluation and requires that proposers specifically address this criterion in their application.

Coal Technology Program

The Office of Fossil Energy has taken significant steps in working with the National Energy Technology Laboratory (NETL) to address GAO's concerns dealing with a variety of project and program challenges in jointly funding private sector projects demonstrating clean coal and carbon capture and sequestration technologies. These actions include improved project management practices such as the establishment of the NETL Federal Project Management Center and project manager certification training. The Department is considering evaluation of the Center and the additional training on project management. In addition, recent Funding Opportunity Announcements have been released with specific time limits on the length of negotiations in order to facilitate closure on the terms of a cooperative agreement. The Department is considering more rigorous cost-effectiveness criteria to address GAO's concerns for project selection. The Department is implementing GAO's recommendation to require a 50 percent private sector cost-share (in cash, as opposed to projected revenues from electricity sale) and full-funding prior to award (vs. incremental funding). While many demonstration projects have unique risks that are challenging to mitigate, the Office of Fossil Energy has worked hard to address these risks and continues to take appropriate actions to limit their effects.

ANSWERS TO POST-HEARING QUESTIONS

Responses by Todd J. Zinser, Inspector General, U.S. Department of Commerce

Questions submitted by Chairman Brad Miller

Q1. What indicators will your office use to determine if the training provided to Department contract and grant management staff is resulting in earlier detection of fraud or other problems?

A1. The training we provide has a number of purposes which help to strengthen our fraud awareness and detection programs across the Department. The relationships we develop during these training sessions with the program offices help facilitate open communications which can result in more timely inquiries and notices to our investigation team when unusual trends are identified. When calls are received, they are logged in a tracking system, which will allow us to link those contacts back to our outreach and training efforts.

Q2. Is the current presentation of Recovery Act information on the Department's web site adequate to meet the Act's requirement for transparency? If not, what improvements would you suggest?

A2. We have reviewed the Department's Recovery Act web site and the requirements established by the Office of Management and Budget in its Recovery Act Guidelines for recovery related web pages, and discussed the content and implementation of the web site with Department officials. Based on our review, we found that the Department's Recovery Act web site (*http://www.commerce.gov/recovery*) conforms with OMB's requirements, including providing a prominent link to *Recovery.gov* and a link to the Office of Inspector General's web site. Although reporting by agencies is still evolving and stimulus funds have just begun to be disbursed, we expect the Department's Recovery Act web site will continue to meet the Act's requirement for transparency by posting major communications, funding notifications, and financial and activity reports. This site is intended to expand and evolve as additional information becomes available, so we will continue to assess whether it is meeting accountability and transparency standards and advise the Department of any concerns we might have as they arise.

Q3. The Act gives you the responsibility to protect ". . . employee[s] of any non-federal employer receiving covered funds . . ." who provide information concerning waste, fraud, and abuse of Recovery Act funds. How do you intend to ensure your responses to whistleblower complaints are made within the mandated 180-day review period? Under what circumstances will you choose to discontinue or not to conduct a whistleblower's requested investigation? How will you protect such whistleblowers from retaliation?

A3. We intend to make whistleblower complaints under the Recovery Act, a top priority when they are received. Our Office of Investigations has been tasked with this responsibility. We will meet the statutorily mandated 180-day review period for these complaints through a tracking system we have designed and implemented. The system provides for a focal point to log dates of receipt of complaints, status, and due dates for follow-up and disposition. The tracking system will be monitored on a regular basis to ensure that we remain aware of statutory timeframes.

The Act requires that we investigate unless we find that the complaint is frivolous, it does not relate to covered funds, or another federal or State judicial or administrative proceeding has previously been invoked to resolve the compliant. This will require an initial determination by our office in that regard. If we determine that a complaint does not meet the requirements for an investigation we will close the compliant. The Act mandates that Inspectors General list all such complaints in their semi-annual reports to Congress. Additionally, the Act specifically provides for final remedies for the protection of a whistleblower through a report issued by the IG to the Head of the Department. In the event that the OIG report establishes a fording of probable cause that retaliation has occurred, the burden of proof will shift to the employer to prove that they did not retaliate. It will then be up to the Secretary to adjudicate the matter and apply remedies provided under the stature. These include: 1. Order the employer to take affirmative action to abate the reprisal; 2. Order the employer to reinstate the employee and provide him/her with appropriate compensation; or 3. Order the employer to pay the complainant's costs reasonably incurred in bringing the complaint.

While these remedies are good, the Department should consider including a standard provision in all contracts and grants awarded under the Recovery Act, stating that a finding by the Department of whistleblower reprisal by a contractor or financial assistance recipient may result in termination of funding under the respective contract or financial assistance award. We intend to discuss this recommendation with the Department as another means of strengthening whistleblower protection.

Questions submitted by Representative Paul C. Broun

Q1. Please list the top three risks at your agency associated with stimulus funding.

A1. Our top three stimulus funding risks are as follows:

1. **Meeting the Act's Aggressive Spending Timeline:** The Recovery Act requires funds to be spent quickly, giving bureaus little time to staff up and gear operations to accommodate the new and expanded programs, grants, and contracts that this funding will support. This aggressive spending timeline significantly increases the risks for fraud and waste in both stimulus-funded activities and the Department's traditionally funded operations. This applies across the government—not just to the Department of Commerce.
2. **Shoring Up Grants and Contracts Management:** The Recovery Act's emphasis on grants and contract spending puts additional pressure on weak management and administrative operations that we have identified in OIG work over the years, particularly with regard to three aspects of the Department's grant and contract management and operations:
   - A decentralized grants management structure, which consists of three separate management systems operated by three different bureaus—each managing a subset of Commerce grant activity according to policies established at the Department level;
   - The shortage of qualified contracting specialists, technical specialists, and subject matter experts—particularly in light of the anticipated shift from cost-type contracts, which are predominantly used today, to fixed-price contracts, which require different knowledge and skill sets; and,
   - The significant dollars dedicated to funding construction grants and contracts, two areas that are inherently risky and historically difficult to manage effectively.
3. **Fraud Potential:** Under the Recovery Act the Department of Commerce received a significant amount of funding, almost double that which is routinely received on an annual basis. Regardless of the strength of the existing internal controls, anytime there is an influx of money of this magnitude, there is an increased potential for fraud. For example, Internet scams linked to Recovery Act funding have already been identified. While Congress provided certain safeguards in the Act, continued diligence by OIGs and agencies will be essential to mitigate this increased risk of fraud.

Q2. What contracts at your agency are "mission critical"? That is, if the specific contract were to experience cost overruns, schedule delays, or performance problems, would it affect the mission of the agency?

A2. We have not conducted an audit to determine all the mission critical contracts in the Department, but we have discussed with Departmental officials that each bureau should engage in such an exercise to identify its mission critical controls. Those we have identified are as follows:

Contracts for the 2010 decennial census, NOAA satellites, and digital/broadband expansion support key mission-critical operations for the Department of Commerce. These contracts, costing billions of dollars, support programs that are essential to determining Congressional representation, allocating federal and State funding for community improvements, public health, education, and transportation, and public safety and security. Failure to execute these contracts effectively would seriously impact its mission.

2010 census contracts

Deadlines for the delivery of decennial counts—which are used for apportionment, to redraw congressional districts, and to distribute hundreds of billions of dollars in federal funds—are set by law. The Census Bureau is facing significant challenges in preparing for the 2010 decennial as a result of problems with its plan for automating its major operations, which had to be significantly scaled back late in the decade. Four contracts, representing approximately $2.2 billion, are critical to the bureau's ability to conduct a successful census.

- Field Data Collection Automation (FDCA) contract for hand-held computers and related systems and automation support for decennial field operations.
- Decennial Response Integration System (DRIS) contract for integration of all data responses, including mail-back forms and non-response follow-up.
- Decennial Access and Dissemination System II contract for data tabulation and dissemination services.
- 2010 Communication Campaign contract for integrated communications that includes a mix of public relations, partnership materials, grassroots marketing, special events and more to help ensure that all people are reached in the most efficient and effective manner.

NOAA contracts

Two NOAA satellite systems currently in development are critical to the Nation's ability to provide continuous long- and short-term weather and environmental data: the National Polar-orbiting Operational Environmental Satellite System (NPOESS) and the Geostationary Operational Environmental Satellite R–Series (GOES–R). Both of these systems have experienced significant cost overruns and schedule delays. They are intended to replace aging satellites that are nearing the end of their life cycles, and must be deployed in time to avoid a gap in critical satellite coverage.

Digital/broadband conversion

The National Telecommunications and Information Administration's (NTIA) $1 billion contract to prepare consumers for the switch to all-digital programming and the management support contract the agency expects to award in support of the $4.7 billion broadband program are also mission-critical initiatives for the Department.

Q3. Where do you believe your office should concentrate its time and resources—focusing on high-risk programs or on the most expensive programs?

A3. Our work on Recovery Act oversight is risk-based. As part of the Recovery Act, the Department's bureaus themselves will be assessing the risk within their programs and developing plans and operating procedures to adequately address these risks. As part of our oversight, we will be reviewing the draft plans and providing feedback to ensure that the bureaus have implemented adequate preventive, detective and monitoring controls over Recovery Act programs. While our risk assessment results are preliminary, we believe the Broadband program represents the highest risk to the Department.

Q4. Despite campaign promises by the President to not issue signing statements, and to ensure whistleblower protections, the President recently issued a signing statement that said the following:

"Sections 714(1) and 714(2) in Division D prohibit the use of appropriations to pay the salary of any federal officer or employee who interferes with or prohibits certain communications between federal employees and Members of Congress. I do not interpret this provision to detract from my authority to direct the heads of certain executive departments to supervise, control, and correct employees' communications with the Congress in cases where such communications would be unlawful or would reveal information that is properly privileged or otherwise confidential."

How do you reconcile the President's campaign promise with his recent signing statement?

- *If you believe that these statements are consistent, do you believe they have a chilling effect on whistleblowers?*
- *What affect will this have on your ability to uncover waste, fraud, and abuse?*

A4. The IG Act and Departmental orders provide clear authority for the IG to receive whistleblower complaints, complete investigations, and protect the identity of whistleblowers regardless of the nature of the information provided in their complaints.

As part of our Recovery Act efforts we are conducting fraud awareness briefings, which include a discussion of whistleblower protections under the *Whistleblower Protection Act* and the Recovery Act. In that regard, we do not think that the President's signing statement will affect our ability to protect the identity of whistleblowers or to uncover fraud, waste, and abuse.

Q5. The stimulus bill contains $350 million for the IG community and GAO to provide oversight:

- *What entity will provide oversight of how these funds are spent?*
- *How can the taxpayers be sure that the IG community and the GAO are spending this money wisely?*

A5. OMB's *Updated Implementing Guidance for the Recovery Act* establishes an independent requirement for OIGs to report monthly on their total Recovery Act spending. It is our understanding that these reports will be posted to *Recovery.gov,* and we will include in our reporting the office's Recovery Act activities. Stimulus funding provided to the OIG will be spent primarily on personnel and travel to conduct oversight, and potentially to hire specialized contract support. One measure of how we spend these funds will be the work products that we produce and publish on our Recovery Act web page. Congress is, however, the entity that is in the best position to provide oversight to the IG community.

Q6. Are you concerned that the Recovery Accountability and Transparency (RAAT) Board will create a new level of bureaucracy and ultimately undermine your independence?

- *Does the RAAT Board, or anyone in the Administration, have the ability to terminate your investigations?*
- *What steps are you required to take in order to maintain an investigation if directed to terminate one?*

A6. I serve as a member of the Recovery Accountability and Transparency Board with 10 other Inspectors General, including the Board's Chairman. The RAAT Board has discussed this issue and cannot envision a case where the Board would consider asking an inspector general to terminate an investigation. Based on these discussions, we do not anticipate this circumstance arising.

Q7. Understanding that coordination is sometimes necessary, IGs should not be used as an agency's internal auditor.

- *Have you ever been asked by an agency to do work?*
- *What was your response?*

A7. We have, on occasion, initiated work at the request of the Secretary. For example, in the past year we conducted work in response to a request from the Secretary regarding the Decennial Census.

Commerce agencies are familiar with the authority, responsibilities, and duties accorded to the OIG under the *Inspector General Act,* including our mandate for maintaining independence. There are times, however, when our interactions with Department officials to prevent and detect fraud, waste, and abuse may result in an audit or investigation. We are often called on by program managers and grants officers to provide assistance when they suspect misuse of funds or other program irregularities. In these instances, we conduct a preliminary analysis to determine whether additional follow-up work is warranted and take the appropriate next step based on our findings.

Q8. What lessons can be learned from other initiatives (like the Reconstruction in Iraq, Katrina Relief, or the Troubled Asset Relief Program) that attempted to balance expediency with accountability? Are these lessons currently being included in your oversight plans?

A8. The Department of Commerce received emergency funding to assist recovery efforts in the aftermath of Hurricanes Katrina and Rita in 2005 and Andrew in 1992. Though the size of these allocations and the scope of spending were significantly smaller than Commerce's Recovery Act funds and programming, the Department nonetheless was faced with some similar challenges: establishing strong internal controls to safeguard funds, accelerating the awards process, keeping contractors and grantees accountable, and ensuring programs meet their objectives.

Our oversight of the Department's use of hurricane-related funds found that Commerce took steps to ensure that contracts and grants were awarded quickly and appropriately, and that funded projects were sound in concept and responsive to the economic recovery needs of the area. But we identified weaknesses in grantees' reporting and in departmental oversight of their performance. We found that conducting site visits was critical to effectively monitoring the progress of funded projects, many of which involved construction and a range of economic development activities—common focuses for Recovery Act funding.

This work also reinforced the recognition that balancing expedience with accountability requires vigilant attention to maintaining comprehensive systems of internal controls; robust mechanisms for developing accurate budget estimates and tracking project costs; sufficient staff in terms of both skill and number to oversee contractor performance; and timely, systematic contractor and recipient reporting. These lessons learned are being included in our oversight plans for Recovery Act spending.

Q9. Mr. Zinser: I am particularly concerned with the part of your written testimony in which you state that a recently completed audit of NOAA satellite acquisition contracts found that contractors were receiving high award fees for projects that were experiencing serious performance shortfalls and large cost overruns. Will you please expand on your audit findings and explain to the Committee why contractors are being rewarded for failing?

- *How will the sudden influx of funding from the Recovery Act and the Omnibus Appropriations bill affect the success (or failure) of these satellite acquisition programs?*

A9. Our September 2006 audit report, *Poor Oversight and Ineffective Incentives Leave NPOESS Program Well Over Budget and Behind Schedule,* found that the prime contractor (Northrup Grumman) had received more than $123 million in award fees—*84 percent* of the available fee pool—for the first six award periods of the NPOESS contract, despite ongoing, significant delays and cost overruns. We found that the contract's award fee plan did not sufficiently tie fee amounts to critical, high-risk tasks; that program officials were awarding interim fees even though the contractor was missing key milestones, and that the contract allowed for unearned fees to be "rolled over" to subsequent fee periods to give the contractor additional chances to earn them. Our report provided recommendations for correcting these problems.

The practice of awarding high fees to contractors for programs that are failing, behind schedule, and over budget is a systemic problem throughout the government. Other OIGs, as well as GAO, have reported these abuses. As a result, federal agencies, including the Department of Commerce, as well as the Office Federal Procurement Policy (OFPP) are reviewing award-fee policies and practices and are issuing new guidance to ensure award-fee contracts truly promote and reward excellent performance.

Sustained funding for NOAA's satellite programs is critical. The development and launch of these satellites, which will modernize the government's environmental monitoring capabilities, are high risk programs that will be at even greater risk if there are any gaps in satellite funding. Continued congressional support for these programs is, therefore, critical. It is imperative that NOAA, NASA and the Air Force address the management and technical issues with the NPOESS satellite program, however, in our view it is equally important that the program receives sustained funding.

ANSWERS TO POST-HEARING QUESTIONS

Responses by Thomas C. Cross, Interim Inspector General, National Science Foundation

Questions submitted by Chairman Brad Miller

Q1. Your testimony regarding the capability of the Foundation's grants management staff expressed a concern about their ability to deal with the increased workload expected from the Recovery Act. How can you monitor performance in those offices to detect if a workload problem is occurring?

A1. Any time an agency receives a significant amount of new funding without a concomitant increase in funding for the administrative costs associated with managing and overseeing programs, there is an increased risk of fraud and abuse. With the Recovery Act, NSF will increase the amount of funding available to the scientific community by $3 billion, nearly half of NSF's regular annual appropriation. However, NSF did not receive any additional funding in its salaries and expenses appropriation. We are already working to monitor how NSF will mitigate this potential risk. First, we are reviewing the processes through which NSF intends to award the bulk of these funds. By using already-existing programs and processes, to the extent possible, NSF can potentially mitigate the impact on its staff. Second, as NSF begins making awards and then moves into the post-award monitoring phase, we will continue to monitor NSF's processes and identify those areas that may be in need of improvement. Finally, through ongoing communications with NSF staff at all levels, we can identify potential workload problems before they occur and assess NSF's actions to reduce those problems.

Q2. What indicators will your office use to determine if the training you provided to Foundation contract and grant management staff is resulting in earlier detection of fraud or other problems?

A2. We believe that the training and resources we have provided to the agency about uncovering grant fraud, combined with the additional information required of recipients of Recovery Act funds, will ultimately yield more referrals to our investigators than what would otherwise be the case. Although we maintain statistics on hotline contacts, in the past they have not been categorized according to source. We are reconsidering this policy to better track how we obtain our referrals. An increase in referrals from the agency would be an indication of the effectiveness of the training, and an increase in queries or other communications concerning potential fraud would show an improved awareness of fraud issues by agency personnel.

Q3. Is the current presentation of Recovery Act information on the Foundation's web site adequate to meet the Act's requirement for transparency? If not, what improvements would you suggest?

A3. The OIG is currently reviewing the NSF's web site presentation of the Recovery Act and expects to provide suggestions to improve the transparency and accountability to the public. NSF is generally following the common Recovery Act web page formats set forth in the Office of Management and Budget's implementation guidance. In addition, the Foundation's web page incorporates some of the best practices suggested in the guidance. For example, the Foundation has placed the Recovery web page link at a prominent place on the NSF home page and has made an effort to ensure that as much content as possible is accessible to a wide audience, including persons with disabilities. Because the Recovery web page will mostly likely be the primary means for NSF to inform and communicate with the public and the research community about Recovery Act activities, we are taking the time to review the web site more closely to help ensure that it will disseminate information effectively.

Q4. The Act gives you the responsibility to protect ". . . employee[s] of any non-federal employer receiving covered funds . . ." who provide information concerning waste, fraud and abuse of Recovery Act funds How do you intend to ensure your responses to whistleblower complaints are made within the mandated 180-day review period? Under what circumstances will you choose to discontinue or not to conduct a whistleblower's requested investigation? How will you protect such whistleblowers from retaliation?

A4. With OIG resources already stretched and the anticipation of a significant increase in allegations of fraud, waste, and abuse of Recovery Act funds, we recognize that meeting these time requirements will be a challenge. However, we have taken a proactive approach by educating our staff on the specific whistleblower responsibilities we have under the Act and emphasizing the new time requirements.

We will incorporate additional milestones specific for Recovery Act cases into our existing electronic case management tracking system and monitor them closely to ensure that we adhere to them. We also are planning to hire additional staff to handle the anticipated increase in whistleblower and other cases.

Allegations that we receive concerning Recovery Act funding will be thoroughly reviewed and evaluated. In the case of a whistleblower complaint, the initial review will include determining if the funds in question or the alleged retaliation involves Recovery Act funds. We will also evaluate the substance of the matter and the supporting evidence to determine its merits and whether a full investigation is warranted. Decisions to discontinue an investigation are based on the evidence identified during the investigation and are reviewed by management to ensure the decision is consistent with the IG community's *Quality Standards for Investigations.*

In the case of whistleblowers who allege retaliation, the identity of the complainant has already been compromised, and the best protection we can provide is a timely and thorough investigation to provide them a remedy if appropriate. When a whistleblower submits a confidential allegation to our office, on the other hand, our standard practice is to protect him or her from retaliation, as in the case of anyone who reports fraud, waste, or abuse. It is the office policy not to identify the source of allegations, and we have procedures to provide complainants with Confidential Source status, when requested, to further protect their identity.

One step that we have already initiated is to educate through our outreach program the recipients of Recovery Act funds of the requirements they must comply with, including the section covering whistleblowers. By ensuring that recipients are aware that this protection covers State and local government employees, as well as contractors, and that the Act requires our office to investigate any allegations of retaliation, we reinforce the serious consequences of retaliation. Additionally, completing timely, thorough investigations and referring our results to the Agency for action, when appropriate, serve as a further deterrent.

Questions submitted by Representative Paul C. Broun

Q1. Please list the top three risks at your agency associated with stimulus funding.

A1. First, while NSF received $3 billion in additional funding, nearly half of its regular annual appropriation, it did not receive any additional funding for its administrative activities. Consequently, NSF faces the risks associated with spending these funds appropriately, within a very demanding timeframe, without an increase in staffing. Second, over the past several years, we have identified the management of large-facility projects as one of NSF's top challenges. Through the Recovery Act, NSF received an additional $400 million in its Major Research Equipment and Facility Construction appropriation for these large science-infrastructure projects. NSF will continue to be challenged to properly oversee these complex efforts. Finally, NSF's mission of supporting basic science and engineering research and education, where outcomes are less tangible in the short-term, is unique among federal agencies. With respect to stimulus funding, NSF will be challenged to identify, track, and report on how it will meet the goals of the Recovery Act in a way that provides meaningful information to the public on NSF's unique role. This will also require increased agency effort to monitor a large volume of new grants awarded over a relatively short period of time to ensure that the associated funding is accurately accounted for and expended properly.

Q2. What contracts at your agency are "mission critical?" That is, if the specific contract were to experience cost-overruns, schedule delays, or performance problems would it affect the mission of the agency?

A2. As you are aware, NSF's mission generally is to support all fields of science and engineering primarily through providing grants for research and education. Unlike many other federal agencies, NSF does not conduct its own research or operate its own laboratories. Thus, NSF's achievement of its mission is not dependent upon a handful of contracts, rather it is dependent upon a community of thousands of researchers in all scientific disciplines.

However, there is one area of NSF's activities to which this question is particularly germane. NSF has a more direct role in its management of the United States Antarctic Program (USAP), which is administered under the agency's largest single contract. In addition to funding research, NSF provides scientists with logistics, operational, and laboratory support in Antarctica. This includes a year-round inland research station at the South Pole; two year-round coastal research stations with extensive laboratory and computing capabilities; summer research camps; ice-breaking research ships; U.S. Air Force and Air National Guard air transports; a fleet of ski-equipped LC–130 airplanes; Twin Otter airplanes; helicopters; U.S. Coast Guard and commercial icebreakers for channel breaking; treaty inspection missions; a variety of over-snow vehicles; and automated, unmanned weather and geophysical observatories. NSF provides the bulk of these services through a contract, currently with Raytheon Polar Services Company, and is currently conducting a competition for its renewal. For USAP, this contract is clearly "mission critical."

Q3. Where do you believe your office should concentrate its time and resources—focusing on high risk programs, or on the most expensive programs?

A3. Our office will use its process for identifying the highest-risk programs as the primary means for allocating OIG time and resources. It should be noted, however, that many of the most expensive programs will be assessed as high-risk based in part on the amount of funding involved. To identify high-risk programs, we will evaluate factors such as significant past audit and investigation findings, current program management challenges, complexity of the program and related activities, issues of substantial concern to the Congress and Administration that impact the program, NSF's own risk assessments, and the dollar value of the program. Programs that have significant risk factors in other areas, such as institutions that have been repeatedly faulted for mishandling of NSF funds, will also be a priority for OIG. Our established risk-based approach—including consideration of program expense—will enable our office to target Recovery Act programs that potentially pose the greatest problems in terms of ineffectiveness, inefficiency, fraud, waste and abuse.

Q4. Despite campaign promises by the President to not issue signing statements, and to ensure whistleblower protections, the President recently issued a signing statement that said the following:

"Sections 714(1) and 714(2) in Division D prohibit the use of appropriations to pay the salary of any federal officer or employee who interferes with or prohibits certain communications between federal employees and Members of Congress. I do not interpret this provision to detract from my authority to direct the heads of executive departments to supervise, control, and correct employees' communications with the Congress in cases where such communications would be unlawful or would reveal information that is properly privileged or otherwise confidential."

How do you reconcile the President's campaign promise with his recent signing statement? If you believe that these statements are consistent, do you believe they have a chilling effect on whistleblowers? What affect will this have on your ability to uncover waste, fraud, and abuse?

A4. We do not believe that the President's statement will have any effect on our ability to uncover waste, fraud and abuse. Given the independent status of an OIG, we also believe the statement is unlikely to deter whistleblowers from approaching our office.

Q5. The stimulus bill contains $350 million for the IG community and GAO to provide oversight. What entity will provide oversight of how these funds are spent? How can the taxpayers be sure that the IG community and the GAO are spending this money wisely?

A5. OIGs are subject to oversight by Congress, OMB, and the new CIGIE. Moreover, specifically in the case of Recovery Act funding, the Recovery Accountability and Transparency (RAT) Board will provide coordination and general oversight of related OIG activities and expenditures. If inappropriate or illegal behavior within an OIG is at issue, the Integrity Committee of the CIGIE has shown in recent years that it is capable of policing the OIG community for OIG senior staff that might be engaged in improper conduct.

With regard to whether or not the money is spent wisely, the IG community is largely operating in a fish bowl. Under the Act's requirements for transparency, OIGs must report their activities and expenditures related to the Recovery Act on a monthly basis. Taxpayers will be able to decide for themselves, by seeing the products issued and the expenditures made, whether or not OIG money is being spent prudently. Our office posted its first Recovery Act report for the month of March on our web site on April 8.

Q6. Are you concerned that the Recovery Accountability and Transparency (RAT) Board will create a new level of bureaucracy and ultimately undermine your independence?

A6. For those of us who administer, receive and oversee Recovery Act funds, the Act requires an unprecedented measure of transparency and accountability. It is apparent that the procedures followed in the past by agencies and their OIGs will not be sufficient to accomplish the goals of the legislation. We therefore view the Board not as an impediment to getting things done, but as supporting the efforts of the community to establish and effectively coordinate oversight in response to the heightened standards in the Recovery Act.

Our communications with the Board so far have been reassuring in that regard. It has indicated that it will work to coordinate efforts of OIGs when appropriate, disseminate best practices, and otherwise be as supportive as possible. We are satisfied that the protections of our independence included in the Recovery Act are adequate. We also take comfort in the fact that the Board is comprised entirely of agency Inspectors General.

Q7. Does the RAT Board, or anyone in the Administration, have the ability to terminate your investigations?

A7. No. The Board may request that we refrain from an investigation, but the Recovery Act states that each IG makes the final decision on audits and investigations.

Q8. What steps are you required to take in order to maintain an investigation if directed to terminate one?

A8. We are required to respond within 30 days to the Board, the agency, and the Congress, with our reasons for rejecting the Board's request.

Q9. Understanding that coordination is sometimes necessary, IGs should not be used as an agency's internal auditor. Have you ever been tasked by an agency to do work? What was your response?

A9. Every year, the NSF OIG goes through an annual audit planning process to determine the most significant areas on which to focus our audit efforts. As part of this process, the OIG solicits information and audit ideas from both the National Science Board (NSB) and the NSF. The agency typically identifies institutions or particular awards that they believe present a significant risk to NSF and federal funds. After a thorough review, we choose audits to conduct based on our own risk assessment, and they may include audit ideas brought to the OIG by NSF or the NSB. By requesting input from the agency, we are able to focus our work on substantive matters without compromising our independence.

In addition, the NSB or NSF may make requests for audits anytime during the year. For example, approximately two years ago at the request of the NSB, the OIG conducted a review of the Joint Statement of Understanding entered into between the NSB Chairman and the Governor of Hawaii. To ensure independence during an agency-requested audit, the OIG is solely responsible for determining the scope, planning, execution, and the reporting of audit results. If the agency requests a review that supports its management function, but OIG decides not to perform it because it is not a priority for our oversight function, the agency may expend its own funds to have the review performed by a contractor.

Q10. What lessons can be learned from other initiatives (like the Reconstruction in Iraq, Katrina Relief, or the Troubled Asset Relief Program) that attempted to balance expediency with accountability? Are these lessons currently being included in your oversight plans?

A10. Although NSF played only a minor role in Katrina relief, we are aware that the IG community successfully coordinated its efforts to an unprecedented degree to assure appropriate oversight of the Gulf Coast recovery funds. IG Phyllis K. Fong, Chair of the CIGIE, recently outlined a number of key lessons learned by the IG community during the Hurricane Katrina relief efforts in her testimony before the Senate Committee on Homeland Security and Government Affairs on March 5, 2009. From NSF's perspective, the most relevant lessons pertain to: 1) the efficacy of risk management activities; 2) interagency data sharing and; 3) staffing.

Risk management activities are of critical importance because not all programs (or grants) are created equal when it comes to risk, and they therefore require different levels of oversight. Interagency data sharing refers to the difficulty of sharing data or conducting matches of computer databases across agencies due to federal privacy laws. From an accountability perspective, we know through first-hand experience that it is not easy to determine whether a grant applicant has received duplicate funding from another federal agency for doing the same work. Staffing concerns arose during the Katrina relief oversight effort, as OIGs had to improvise to ensure proper oversight of both Katrina and their agencies' normal activities.

Both risk management and staffing issues figure prominently in our oversight planning. To date, we have shared numerous resources related to risk with NSF; participated on their implementation planning teams, in large part to advise them on risk management issues; and are currently reviewing past audit findings for their relevance to the implementation of Recovery Act funding. With regard to staffing, we are mindful of the need to provide active oversight to both Recovery Act funds and NSF's regular appropriation. Once we see NSF's agency plan, we will develop our own spending plan to ensure that resources are effectively allocated between these two imperatives. We are already preparing to hire at least two more full-time staff by the end of the fiscal year, and we have submitted a request to OPM for authority to hire retired annuitants.

Q11. Mr. Cross: In your testimony, you indicate you have launched an "outreach effort" to educate agency managers and the public about your role under the Recovery Act How have you reached out to the public and what types of issues have you focused your outreach efforts on? How do you expect the public to be made aware of the use of funds by NSF and how will they communicate concerns to you?

A11. We maintain a multi-pronged outreach effort to reach personnel within NSF and the research community, including both principal investigators and institution officials/research administrators.

Within NSF, we have established a liaison program, whereby a team from OIG, generally composed of one investigator and one auditor, is assigned to every directorate and office. Our liaisons meet with their NSF counterparts in both formal and informal settings providing briefings; attending staff meetings; and providing outreach resources and OIG material, such as Semiannual Reports and Audit Plans. We regularly present to NSF's Program Managers. We also maintain a presence on NSF's Announce Channel, a system of television monitors throughout the agency on which important information is shared. Our Announce presentations include the NSF Hotline information. We are in the process of producing a new presentation alerting agency personnel to the requirements for whistleblower allegations under the Recovery Act. We have an internal (within NSF) web page, from which NSF personnel can access OIG resources, including presentations, audits, Semiannual Reports, and material addressing fraud and research misconduct.

Regarding our outreach to the research community, we maintain effective lines of communication through presentations, workshops, briefings, meetings, and site visits. We routinely present to members of groups like the Society of Research Administrators International and National Council of University Research Administrators, who have the best vantage point from which to identify fraud or waste in the expenditure of NSF grant funds. We also regularly participate in NSF Regional Grants Workshops, which are forums for new faculty, researchers, and administrators. At the last such conference, our staff provided our recently completed brochure entitled *A Guide to NSF OIG and The American Recovery and Reinvestment Act (ARRA) of 2009.* This handout explained the Recovery Act, identified the NSF OIG priorities regarding the Act, addressed the whistleblower protections under the Act, and provided contact information regarding misuse of stimulus funds. Finally, we routinely present to groups involved in applying for or administering NSF awards or performing supported research. We always include information for contacting us to report concerns. We are incorporating Recovery Act-related topics into all such presentations.

We publicize our address, telephone numbers, telephone hotline, e-mail hotline, and web-based hotline. It is our intention that all parties involved in the research enterprise—from NSF program personnel to research administrators to principal investigators and their collaborators—will know how to communicate with us and bring information to our attention.

Q12. Mr. Cross: In your testimony, you indicate that your work generally focuses on completed projects and expenditures; however, with the stimulus funding the goal is to prevent the waste of taxpayer dollars before the money is committed I understand your office will prepare an implementation plan for Recovery Act oversight once the agencies approved plan is returned from OMB. But other than training activities you mentioned, will your office have any role prior to the money being committed to specific projects or research?

A12. While NSF has not yet provided the OIG with its spending plan or submitted its agency-wide recovery plan to OMB, we believe it is critical that we start work as early as possible to help ensure Recovery Act funds are spent appropriately and expeditiously. We have already started real-time reviews that will enable us to more quickly respond to potential areas of concern. We plan to conduct these reviews while NSF develops its plans, policies, and procedures in order to provide timely feedback to NSF. This timely feedback will allow NSF to take corrective actions and prevent problems before they arise.

Because NSF will rely in large part on its existing policies, procedures, systems, and processes, our first review will focus on whether they are adequate to ensure that its awardees understand and are accomplishing the goals of the Recovery Act, accounting properly for ARRA funds, and reporting accurately and in a timely manner on ARRA funds and activities. By verifying that NSF has sound systems in place, we can help ensure NSF meets the Recovery Act's expectations for transparency and accountability.

Q13. Mr. Cross: Since the goal of the stimulus is to create jobs, has anyone in your office been tasked with verifying the number of jobs a specific grant or project actually will create or created? Are you aware of anyone in the agency that will be verifying that?

A13. Chairman Devaney of the Recovery Accountability and Transparency Board recently told an IG working group on which we participate that the Council of Economic Advisors is discussing how to define "jobs created" and "jobs saved" with regard to the Recovery Act. Once it has determined standard definitions to be applied government-wide, we are expecting the administration to provide the agencies and OIGs with guidance on this key issue. At that time, we will determine what approach is appropriate. In the meantime, we have been discussing with NSF issues surrounding how to capture the data and validate it. We are aware that the agency has had some preliminary internal discussions about this subject, but it has not yet determined how to verify jobs or other measurable economic benefits that are generated by Recovery Act funds.

ANSWERS TO POST-HEARING QUESTIONS

Responses by Patricia Dalton, Managing Director, Natural Resources and Environment Division, U.S. Government Accountability Office

Questions submitted by Chairman Brad Miller

Q1. Are you satisfied with the progress DOE has made in implementing the recommendations in your reports for improving its loan guarantee programs, and that it is ready to properly handle these projects? Are you confident that DOE is prepared to appropriately evaluate and manage the higher-risk projects Secretary Chu wishes to pursue?

A1. DOE has taken several actions in response to the recommendations in our July 2008 report.[1] We recently began to evaluate these actions as part of our annual mandated review of the program. However, because we have not completed that evaluation, we are not in a position to say whether we are confident that DOE has taken adequate steps to ensure that the program will be well managed. The *American Recovery and Reinvestment Act of 2009* (Recovery Act) changed the program by providing $6 billion to pay the subsidy costs of loan guarantees for projects that can be started quickly and associated administrative expenses of up to $25 million. At the same time, Secretary Chu directed the program to expedite the issuance of loan guarantees. As a result, DOE is continuing to develop the program while also accelerating its implementation, which may present challenges and additional risks. We will evaluate and report on these apparent increased risks as part of our ongoing review.

Q2. What improvements would you recommend for agency systems submitting data to Recovery.gov *to meet accountability and transparency requirements?*

A2. We are currently in the process of issuing our first report under the Recovery Act. The focus of this report is the steps the 16 states and selected localities are taking to comply with federal requirements and efficiently and effectively use the influx of the Act's funds. Because the IGs are expected to audit federal agencies' operations and programs related to the Recovery Act, we have not directly examined federal agency systems that submit data to the *Recovery.gov* web site. However, we plan to examine accountability and transparency issues, including *Recovery.gov* web site information, as an element of our bimonthly reviews.

Q3. Is the current presentation of Recovery Act information on the agency's web site adequate to meet the Act's requirement for transparency? If not, what improvements would you suggest?

A3. Transparency issues related to information on the *Recovery.gov* web site will be an important element of our bimonthly Recovery Act reviews. Our first Recovery Act report is focused on the steps the 16 states and selected localities are taking to comply with federal requirements and efficiently and effectively use the influx of the Act's funds. [GAO9]Our subsequent reviews will examine the states' use of Recovery Act funds, including the level of detail of their submissions, and whether web site information is accurate, well-organized, understandable, and complete.

Questions submitted by Representative Paul C. Broun

Q1. Please list the top three risks at your agency associated with stimulus funding.

A1. Our prior work has identified several areas that deserve special attention from federal agency management and the IG's office to ensure that funds are put to best use. Specifically, we are concerned about risks for (1) new programs that do not have established management and internal control activities; (2) existing programs that do not have adequate staff to distribute and oversee a significant infusion of funds; and (3) fraud, waste, and abuse because billions of dollars are going out quickly and eligibility requirements are being established or changed.

Q2. To all panelists, what contracts at your agency are "mission critical?" That is, if the specific contract were to experience cost-overruns, schedule delays, or performance problems would it affect the mission of the agency?

[1] GAO, *Department of Energy: New Loan Guarantee Program Should Complete Activities Necessary for Effective and Accountable Program Management,* GAO–08–750 (Washington, D.C.: July 2008).

A2. This question can better be answered by the departmental IGs because the Recovery Act has directed the IGs to review the federal agencies' related operations and programs and GAO to review the use of funds by states and localities. In addition, the Recovery Accountability and Transparency Board will help prevent waste, fraud, and abuse by reviewing contracts and grants to ensure they meet applicable standards, follow competition requirements, and are overseen by sufficient numbers of trained acquisition and grants personnel.

Q3. Where do you believe your office should concentrate its time and resources—focusing on high risk programs, or on the most expensive programs?

A3. We are particularly concerned about high-risk programs because of the potential for fraud or waste that results in little, if any, benefit to the taxpayers. Experience tells us that this risk grows when billions of dollars are going out quickly and eligibility requirements are being established or changed. Accordingly, we plan to focus on new programs that lack established policies and procedures for ensuring the proper use of Recovery Act funds and existing programs with known vulnerabilities that are receiving a significant infusion of funds.

Q4. Despite campaign promises by the President to not issue signing statements, and to ensure whistleblower protections, the President recently issued a signing statement that said the following:

"Sections 714(1) and 714(2) in Division D prohibit the use of appropriations to pay the salary of any federal officer or employee who interferes with or prohibits certain communications between federal employees and Members of Congress. I do not interpret this provision to detract from my authority to direct the heads of executive departments to supervise, control, and correct employees' communications with the Congress in cases where such communications would be unlawful or would reveal information that is properly privileged or otherwise confidential."

How do you reconcile the President's campaign promise with his recent signing statement?

- *If you believe that these statements are consistent, do you believe they have a chilling effect on whistleblowers?*
- *What effect will this have on your ability to uncover waste, fraud, and abuse?*

A4. While the consistency of the President's campaign promises with the quoted signing statement is beyond the scope of GAO's work, we can tell you that our ability to uncover waste, fraud, and abuse is unaffected by the President's signing statement. GAO has independent authority to access information needed for our work under both our organic statute and the Recovery Act.

Under our organic statute, GAO has authority to access information needed for the effective and efficient performance of GAO reviews and evaluations. Subject to certain limited exceptions, all agencies must provide the Comptroller General access to information he requires about the duties, powers, activities, organization and financial transactions of that agency.[2] Under section 902 of the Recovery Act, GAO has additional authority to examine the records of contractors or their subcontractors pertinent to contracts they are awarded from funds made available by the Act. GAO may also interview officers and employees of such contractors or their subcontractors as well as officers or employees of any State or local government agency administering the contract, regarding such transactions.

Q5. To all panelists, the stimulus bill contains $350 million for the IG community and GAO to provide oversight.

- *What entity will provide oversight of how these funds are spent?*
- *How can the taxpayers be sure that the IG community and the GAO are spending this money wisely?*

A5. The Recovery Act delineates an important set of responsibilities for the accountability community to ensure that the Act's $787 billion maximizes the benefits to the taxpayers. GAO is charged with reviewing the use of funds by selected states and localities, and IGs will audit federal agencies' operations and programs. To make the most effective use of the accountability community's limited funds and, in particular, to avoid duplication of effort, GAO has outreached to each of the federal IGs and will continue to coordinate with them in the next years as we review Recovery Act activities. We believe that many eyes can best ensure that all of the

[2] 31 U.S.C. §§ 716(a), (d).

Recovery Act funds are used efficiently and effectively. This includes continued oversight by Congressional committees, including the Subcommittee on Investigations and Oversight. In addition, the House Committee on Oversight and Government Reform has oversight responsibility over the Government Accountability Office. GAO also has its own Inspector General, recently established as a statutory office rather than an administratively created one by the *GAO Act of 2008,* who could be requested to investigate GAO's usage of stimulus funds.

Q6. Are you concerned that the Recovery Accountability and Transparency (RAT) Board will create a new level of bureaucracy and ultimately undermine your independence?

- *Does the RAT Board, or anyone in the Administration, have the ability to terminate your investigations?*
- *What steps are you required to take in order to maintain an investigation if directed to terminate one?*

A6. GAO is not concerned that the Recovery Accountability and Transparency Board will undermine our independence. The Board does not have the ability to terminate our investigations. It must coordinate its investigations with the Comptroller General pursuant to section 1528 of the *American Recovery and Reinvestment Act.* Furthermore, no one in the administration may terminate our investigations because GAO is an independent legislative agency.

Q7. Understanding that coordination is sometimes necessary, IGs should not be used as an agency's internal auditor.

- *Have you ever been tasked by an agency to do work?*
- *What was your response?*

A7. This question is not relevant to GAO because it is a Congressional agency.

Q8. What lessons can be learned from other initiatives (like the Reconstruction in Iraq, Katrina Relief, or the Troubled Asset Relief Program) that attempted to balance expediency with accountability?

- *Are these lessons currently being included in your oversight plans?*

A8. A key lesson learned from our work on disaster relief after Hurricanes Katrina and Rita is that agencies sometimes do not focus on the importance of preventive controls, including (1) validating data used in decision making against other government or third-party sources; (2) inspecting whenever possible to confirm information prior to payment; (3) conducting system edit checks to identify problems before payments are made; and (4) training staff on fraud awareness. In addition, we testified in February 2009 that businesses and individuals that have been excluded for egregious offenses ranging from national security violations to tax fraud have improperly received federal contracts and other funds.[3] Also in February 2009, the National Procurement Fraud Task Force published a white paper that identified best practices and made recommendations for agencies to consider in preventing fraud, waste, and abuse in grants they administer.[4] These recommendations included enhanced certifications, increased training, improved communications with grant recipients, increased information sharing concerning potential fraud, and rigorous oversight of how grant dollars are spent after they are awarded. Our audit approach includes verification that states and localities are implementing preventive controls.

Q9. Given that three of your four high-risk programs are in DOE, how confident are you that they can manage the creation of a new agency, ARPA–E?

A9. ARPA–E has several similarities with DOE's innovative technology loan guarantee program, one of the four programs that I identified as needing special attention. Specifically, we are concerned that because ARPA–E is new, DOE has not completed a number of key management and internal control activities. As a result, DOE may not be well positioned to manage the $400 million in Recovery Act funds to ensure that they are effectively and efficiently used with controls to prevent fraud or waste.

[3] GAO, *Excluded Parties List System: Suspended and Debarred Businesses and Individuals Improperly Receive Federal Funds,* GAO–09–419T (Washington, D.C.: Feb. 26, 2009).

[4] National Procurement Fraud Task Force, Grant Fraud Committee, *A Guide to Grant Oversight and Best Practices for Combating Grant Fraud* (Washington, D.C.: Feb. 2009).

Q10. The Secretary of Energy recently stated that he would reinstate FutureGen with some modifications. Please explain the risks of going forward with FutureGen as originally planned by DOE.

A10. Our February 2009 report found that the former Secretary of Energy restructured the original FutureGen project primarily because of concerns that DOE was contractually responsible to pay 74 percent of the project's rapidly rising costs.[5] Specifically, we found that the FutureGen project was projected to grow from $950 million (in 2004 dollars) to about $1.3 billion (in 2005 dollars)—an increase of about $370 million, or 39 percent. However, because the former Secretary of Energy's decision was not based on a systematic and comprehensive comparison of the costs, benefits, and risks of the original FutureGen versus the restructured FutureGen, we recommended that, before implementing significant changes to FutureGen or before obligating additional funds for such purposes, DOE prepare a comprehensive analysis that compares the relative costs, benefits, and risks of a range of options that includes (1) the original FutureGen program, (2) incremental changes to the original program, and (3) the restructured FutureGen program.

Q11. The Stimulus bill requires GAO to provide bimonthly reports of states and localities use of funds.

- *How was the decision made to conduct reviews on only 16 entities at a time?*
- *Are you worried that this is insufficient?*

A11. We decided to follow 16 states and the District of Columbia over the next few years in order to provide an ongoing longitudinal analysis of the use of funds under the Recovery Act. We selected these 16 states on the basis of outlay projections, percentage of the U.S. population represented, unemployment rates and changes, and a mix of states' poverty levels, geographic coverage and representation of both urban and rural areas. They contain about 65 percent of the U.S. population and are estimated to receive about two-thirds of the intergovernmental grants funds available through the Recovery Act. The states are Arizona, California, Colorado, Florida, Georgia, Iowa, Illinois, Massachusetts, Michigan, Mississippi, New Jersey, New York, North Carolina, Ohio, Pennsylvania, and Texas. We will also sample localities within these states to provide a perspective on the use of Recovery Act funds at a local level.

In addition, we will review the recipient reports from all 50 states as part of our responsibilities to review these filings. These recipient reports are to include information on funds received, the amount of recovery funds obligated or expended to projects or activities, and the projects or activities for which funds were obligated or expended. Depending on our assessments, we may visit states other than the 16 core group to review targeted areas.

Q12. Given the recent scandals with companies misusing recovery funds to bestow bonuses to employees, and the lack of oversight that allowed such actions to take place, would it be beneficial for Congress to "flex" its oversight responsibilities by significantly increasing the number of hearings and other legislative tools to keep a closer eye on agencies?

- *Or do you feel that a stepped up effort by GAO and the Inspector General offices of the different departments will be able to keep such mismanagement of funding to a minimum?*

A12. We believe that Congressional oversight hearings have the salutary effect of encouraging all parties involved—federal agencies, State and local governments, and the auditors—to redouble their efforts to ensure that federal funds are effectively and efficiently spent in compliance with laws and regulations.

[5] GAO, *Clean Coal: DOE's Decision to Restructure FutureGen Should Be Based on a Comprehensive Analysis of Costs, Benefits, and Risks,* GAO–09–248 (Washington, D.C.: Feb. 2009).

Appendix 2:

Additional Material for the Record

NASA PLAN FOR IMPROVEMENT

IN THE

GAO HIGH-RISK AREA

OF

CONTRACT MANAGEMENT

October 31, 2007

Updated through January 31, 2008

High Risk Area: NASA Contract Management

Planning Document

OMB Contact:	Patricia Corrigan Office of Federal Procurement Policy (202-395-6805)
NASA Owner:	Shana Dale Deputy Administrator (202-358-1020)
NASA Lead Executive:	Richard Keegan Director, Office of Program and Institutional Integration (202-358-0765)
NASA Contact:	Rita Svarcas Analyst, Office of Program and Institutional Integration (202-358-0464)
GAO Contact:	Cristina Chaplain (202-512-4859)
Reference GAO Report:	GAO-07-310, High-Risk Series: An Update, January 2007, http://www.gao.gov/new.items/d07310.pdf

Scope
This Corrective Action Plan, hereinafter referred to as the "Plan," encompasses NASA's policies and processes concerning program/project management and related surveillance of contractors through appropriate insight and oversight, including cost estimating, cost reporting, and life-cycle cost performance management tools such as earned value management.

Overall Approach
Develop an Agency-wide coordinated approach to improve NASA's program/project management, particularly on how best to assure the mitigation of potential issues in acquisition decisions and better monitor contractor performance, including--

- Life-cycle cost management estimating and analysis;
- Business processes for obtaining, recording, and analyzing contractor cost and performance data; and
- Internal assessment processes that analyze the root causal factors for performance issues.

Process
NASA will--

1. Formulate initiatives and goals that address each of five identified focus areas (see Tables 1 and 2);
2. Identify milestones for meeting goals for the initiatives;
3. Integrate the activities of the initiatives, managing their interdependencies, and ensuring synergy of these complementary efforts;
4. Develop metrics that will be used to measure improved performance;
5. Secure concurrence from OMB and GAO on goals, milestones, and metrics; and
6. Monitor progress through frequent intra-Agency communication (including quarterly update reports to the Agency-level POC, quarterly integrated team meetings with quarterly updates to senior management, and quarterly updates through the internal control system), coordination with GAO twice a year, and periodic briefings, pursuant to the OMB update briefing schedule.

Responsible Organizations
The Deputy Administrator is ultimately responsible for the development and successful execution of this Plan. On behalf of the Deputy Administrator, the Director of the Office of Program and Institutional Integration (OPII) is the assigned Agency-level lead executive responsible for overseeing the initiatives cited in this Plan and for ensuring cross-organizational integration. Each of the seven initiatives comprising this Plan identifies a senior-level executive who is individually responsible for implementing that initiative, including the required periodic reporting, measurements, and metrics. Many of the initiatives also identify supporting organizations which will participate in the necessary cross-functional activities encompassed in the initiatives. For Initiative C, the Director of OPII is identified as the Sponsoring Executive for this complex initiative; OPII will play an active advocate role in terms of obtaining and maintaining broad executive-level support and ensuring balanced resolution of any conflicts. These seven initiatives describe transformational activities that will become part of the way the Agency does business. Thus, implementation will be Agency-wide, involving the integration of efforts of Mission Directorates, Mission Support Offices, and Centers. The NASA Integrated Enterprise Management Program (IEMP), within the Office of the NASA Chief Information Officer, will provide Agency-wide business system support to implement these initiatives.

Goal
NASA's goal under this Plan is to improve the effectiveness of its program/project management across the board, including monitoring and analyzing contractor performance; life-cycle cost/schedule management practices; cost estimating practices; and associated business processes.

Metrics
An initial set of metrics has been identified to track results that indicate the impact of the initiatives encompassed in this Plan. Those metrics are set forth within each initiative (the Appendices to this Plan). NASA will update the initial set of metrics periodically, as appropriate, commensurate with progress made within each initiative. The initial set of metrics incorporates both output and outcome metrics, including integrative metrics, in

light of the cross-functional and interrelated nature of the identified focus areas and initiatives.

Initiatives
Details regarding each of the seven initiatives within this Plan are attached as appendices, including a description of the initiative, the focus area(s) to which it contributes, the lead executive, the supporting organization(s), expected outcomes, accomplishments, milestones, impediments and challenges, and initial metrics.

The subject initiatives address the focus areas, as shown in Table 2, and are logically interrelated as follows:

- Initiative A, Program/Project Requirements and Implementation Practices, addresses requirements and implementation practices of program/projects;
- Initiative B, Agency Strategic Acquisition Approach, heightens linkage between program/project planning and Agency strategic considerations;
- Initiative C, Contractor Cost Performance Monitoring, seeks to improve the availability of contractor data to support performance monitoring of programs/projects;
- Initiative D, Project Management Training and Development, improves training and development of program/project managers, particularly with regard to oversight;
- Initiative E, Improve Life-Cycle Cost/Schedule Management Processes, targets cost estimating processes used to establish baselines against which program/project performance is measured and strengthens program/project management and oversight processes and reporting;
- Initiative F, IEMP Process Improvement, seeks to improve the way business systems work together, so that program/project management and oversight tools can be optimized; and
- Initiative G, Procurement Processes and Policies, strengthens policy in areas relevant to procurement processes.

Thus, the initiatives will synergistically advance the effectiveness of NASA's program/project management, pursuant to the overall goal of this Plan, to the extent possible. As is described in this Plan, NASA intends to take responsible actions to improve its program/project management and to minimize cost/schedule growth. Given the nature of the Agency's mission, however, it is not reasonable to expect that cost/schedule growth can be entirely controlled. NASA conducts one-of-a-kind, technically advanced, complex, multiyear, inherently high-risk programs and projects. Performing this work within the Federal environment of budget uncertainties and funding disruptions (such as Continuing Resolutions) greatly increases the level of difficulty for Agency program/project management. This situation must be acknowledged and considered in gauging the effectiveness of NASA's program and project management.

Methodology for Evaluation
As was noted above, each initiative identifies the Agency senior-level lead executive who is responsible for achieving the identified goals through successful completion of the milestones and accomplishment of the metrics. Each such point of contact will track progress of the initiative and will provide status reports and information to OPII at least quarterly, and more frequently upon request. Supporting organizations have also been identified where applicable, and the managers of those organizations will work closely with the lead executive in completing the milestones. Each assigned lead executive will expeditiously report any issues or changes to OPII. The initiative leads and supporting organizations form a High-Risk Team. OPII will sponsor Team meetings quarterly, and more frequently as necessary, to discuss progress and ensure appropriate integration. OPII will be responsible for informing the Deputy Administrator of progress, as well as issues, on a regular basis, not less frequently than quarterly.

Remarks: January 31, 2008
In this document, the baseline CAP (dated October 31, 2007) is updated to reflect the status of NASA's High-Risk initiatives through the CAP's first quarter (which ended January 31, 2008), in preparation for the OMB-GAO-NASA High Risk Status meeting scheduled for March 26, 2008.

This update's actions/targets track to the proposed actions/targets listed in the October 2007 CAP. Completed corrective actions clearly indicate completion dates. Schedule slippage is indicated and explained.

There are no changes to the originally-identified responsible individuals and their point of contact information at this time.

During the past year, NASA has made significant progress in addressing the long-standing GAO High-Risk Area of NASA Contract Management. The following comments are provided at a summary level to assist OMB in completing a NASA-GAO-OMB High Risk Scorecard assessing NASA's corrective action plan implementation during the period of November 2007 through January 2008.

Leadership Commitment: *Satisfactorily Addressed.*
NASA's Corrective Action Plan was approved and issued by the Agency's Deputy Administrator, Shana Dale. During this first quarter of implementation, NASA leadership has actively demonstrated its commitment and support for this effort. Most recently, the High-Risk CAP was the topic of the January 29, 2008, session of the Mission Support Implementation Weekly (MSIW) meeting, chaired by the Deputy Administrator. The MSIW presents an opportunity for senior-level NASA managers to come together and discuss strategic issues. Following this session, The Deputy Administrator posted an entry on her InsideNASA blog (http://wiki.nasa.gov/cm/blog/Shana's-Blog) explaining the High-Risk strategy and stating her commitment to resolve the High-Risk issues.

Capacity: ***Satisfactorily Addressed***
Since finalization of the Corrective Action Plan, numerous cross-Agency teams and sub-teams have been formed and are actively involved in the CAP activities. Although resources are tight across the Agency, the high priority of this effort is well-recognized. CAP efforts have benefited from senior managers' commitment and support. Mission Directorate and Center managers have been responsive to calls for program/project office involvement.

Corrective Action Plan Quality: ***Satisfactorily Addressed***
This element was achieved through issuance of NASA's CAP on October 31, 2007. The CAP clearly identifies the areas in need of corrective action and outlines initiatives to address these areas. GAO has noted that the CAP "…targets problems and issues that our reports have found are contributing to high risk in contract management." The high quality of the initial CAP will be sustained through issuance of clear and informative updates, such as this document.

Validation: ***Satisfactorily Addressed***
The first-quarter accomplishments identified in this update document are each concretely verifiable. The responsible NASA organizations are retaining the associated records, and have provided update documentation to the OPII integrator of this effort. The combination of cross-functional team approaches, accountable lead executives, integration across the initiatives, and senior management attention serve to ensure the relevance and value of CAP actions.

Demonstrated Progress: ***Satisfactorily Addressed***
Milestone status is provided in this update document. NASA has met many of its first-quarter milestones. For each of those milestones that were not met, an explanation is provided herein and a plan is in place to address the issues that precluded timely accomplishment of the milestone.

NASA is committed to making necessary improvements in the area of Contract Management through implementation of this Plan. This document demonstrates that the agency's focused and purposeful CAP activities are already well underway.

FOCUS AREAS (Derived Requirements)

1. **PROGRAM/PROJECT MANAGEMENT**
   1.1. NASA shall perform effective program/project management and contractor oversight.
   1.2. NASA shall emphasize product performance, cost controls, and program outcomes.
   1.3. NASA systems for contractor cost reporting shall provide the program/project community the information needed to monitor contractor performance.
   1.4. NASA systems for contractor cost reporting shall provide the program/project community with cost information that enables them to compare budgeted and actual cost for the work performed on the contract.
   1.5. NASA systems for contractor cost reporting shall provide the data, tools, and analytical skills needed to alert program/project managers of potential cost overruns and schedule delays and take corrective action before discrepancies occur.

2. **COST REPORTING PROCESS**
   2.1. NASA shall re-engineer contractor cost reporting processes.
   2.2. The NASA financial management system shall provide accurate and reliable information on contract spending.
   2.3. NASA shall obtain from its contractors the financial data and performance information needed to assess progress on its contracts. NASA systems for contractor cost reporting shall provide cost information that program/project managers and cost estimators need in order to develop credible estimates and compare budgeted and actual cost with the work performed on the contract.

3. **COST ESTIMATING AND ANALYSIS**
   3.1. NASA shall instill a disciplined cost-estimating process in project development efforts.
   3.2. NASA's system for contractor cost reporting shall provide such information to cost estimators that will enable them to compare budgeted and actual cost with the work performed on the contract.
   3.3. NASA's system for contractor cost reporting shall provide such information to cost estimators that will enable them to develop credible estimates.
   3.4. NASA shall provide its staff with the full complement of analytical tools needed to perform life-cycle cost performance analyses, including earned value management.
   3.5. NASA shall train its staff to perform cost analyses, including earned value management.

4. **STANDARD BUSINESS PROCESSES**
   NASA shall define its standard business processes, which may include re-engineering existing processes.

5. **MANAGEMENT OF FINANCIAL MANAGEMENT SYSTEM**
   5.1. NASA shall develop a concept of operations for its financial management system.
   5.2. NASA shall implement the disciplined processes necessary to manage its financial management system project.

Table 1: Focus Areas

INITIATIVES ASSOCIATED WITH FOCUS AREAS

INITIATIVE	*Lead Executive*	1. Program/ Project Management	2. Cost Reporting Process	3. Cost Estimating And Analysis	4. Standard Business Processes	5. Management Of Financial Management System
A. Program/Project Requirements and Implementation Practices	*Chief Engineer*	X		X	X	
B. Agency Strategic Acquisition Approach	*Director, OPII*	X			X	
C. Contractor Cost Performance Monitoring	*Chief Engineer*	X	X	X	X	
D. Project Management Training and Development	*Chief Engineer*	X	X	X	X	
E. Improve Life-Cycle Cost/Schedule Management Processes	*Associate Administrator for Program Analysis and Evaluation*	X	X	X	X	
F. IEMP Process Improvement	*Chief Information Officer*	X			X	X
G. Procurement Processes and Policies	*Assistant Administrator for Procurement*				X	

Table 2: Initiatives Associated with Focus Areas

INITIATIVES ASSOCIATED WITH FOCUS AREAS

INITIATIVE	*Lead Executive*	1. Program/ Project Management	2. Cost Reporting Process	3. Cost Estimating And Analysis	4. Standard Business Processes	5. Management Of Financial Management System
A. Program/Project Requirements and Implementation Practices	*Chief Engineer*	X		X	X	
B. Agency Strategic Acquisition Approach	*Director, OPII*	X			X	
C. Contractor Cost Performance Monitoring	*Chief Engineer*	X	X	X	X	
D. Project Management Training and Development	*Chief Engineer*	X	X	X	X	
E. Improve Life-Cycle Cost/Schedule Management Processes	*Associate Administrator for Program Analysis and Evaluation*	X	X	X	X	
F. IEMP Process Improvement	*Chief Information Officer*	X			X	X
G. Procurement Processes and Policies	*Assistant Administrator for Procurement*				X	

Table 2: Initiatives Associated with Focus Areas

Appendices

INITIATIVES

A. Program/Project Requirements and Implementation Practices
   A1. Revise and Implement Program/Project Management Requirements
   A2. Improve Management Oversight of Project Cost, Schedule, and Technical Performance--State of the Agency Reporting

B. Agency Strategic Acquisition Approach

C. Contractor Cost Performance Monitoring

D. Project Management Training and Development

E. Improve Life-Cycle Cost/Schedule Management Processes
   E1. Cost Estimation
   E2. Data Collection: Reporting CADRe
   E3. Cost/Schedule Performance Assessments and Reporting

F. IEMP Process Improvement
   F1. Business Concept of Operations (ConOps)
   F2. Business System Gap Analysis

G. Procurement Processes and Policies

Appendix A

PROGRAM/PROJECT REQUIREMENTS AND IMPLEMENTATION PRACTICES

Focus Areas: Program/Project Management, Cost Estimating and Analysis, and Standard Business Processes.

Lead Executive: Michael G. Ryschkewitsch, Chief Engineer

Supporting Organization(s): all Mission Directorates, Mission Support Offices, and Centers

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INITIATIVE A1: Revise and Implement Program/Project Management Requirements

Description
This initiative addresses the ongoing reassessment and revision of Program/Project Management requirements for Space Flight Programs/Projects, Institutional Infrastructure and Information Technology Programs/Projects, and Research and Technology Development. This effort will better define the management review and approval process for establishing cost, schedule, and technical baselines. It is directly related to the implementation of the Agency's governance model, established by the NASA Administrator in 2005. The new governance model required reorganization of both Headquarters and Center reporting relationships and functions, as described below.

In the NASA governance model, Mission Directorates have programmatic authority, and Centers have technical authority. Figure I-1 (below) from NASA Policy Directive (NPD) 1000.0, Strategic Management and Governance Handbook, August 2005, identifies the three management councils that were established to oversee and coordinate Agency planning and operations. This NPD has two primary aims:

(1) To set forth the principles by which NASA will strategically manage the Agency and describe the means for doing so; and

(2) To identify the specific requirements that drive NASA's strategic planning process, leading to products such as the Strategic Plan and the Annual Performance and Accountability Report.

The Strategic Management Council (SMC) is chaired by the Administrator and determines NASA's vision and strategic direction and assesses the Agency's progress. The Operations Management Council (OMC) is chaired by the Deputy Administrator and reviews and approves institutional plans. The Program Management Council (PMC) is chaired by the Associate Administrator and is responsible for reviewing program/project formulation performance, recommending approval, and overseeing implementation of programs and Category 1 projects according to Agency commitments, priorities, and policies.

Figure I-1, NASA's new governance model is based on three management councils.

The Agency's mission is executed by four Mission Directorates--the Aeronautics Research Mission Directorate (ARMD), the Exploration Systems Mission Directorate (ESMD), the Science Mission Directorate (SMD), and the Space Operations Mission Directorate (SOMD).

To further the implementation of this new governance structure, revisions to program and project management requirements have been initiated in major policy documents. Those requirements will now focus on the three major management areas of the Agency's activity:

- NASA Procedural Requirements (NPR) 7120.5D, NASA Space Flight Program and Project Management Requirements
- NPR 7120.7, NASA Institutional Infrastructure and Information Technology Program and Project Management Requirements (still in Draft)
- NPR 7120.8, NASA Research and Technology Development Management Requirements (finalized in February 2008)

The revisions will provide a common process flow for all programs and projects. Although emphasizing commonality, they will be tailored appropriately to each of the three identified management areas and their respective program/project environments. They will establish a disciplined review structure for development, assessment, and control of technical requirements and implementation plans (including cost and schedule). As a baseline, there will be five key execution elements:

- Key Decision Points (KDP)
- Required independent reviews

  - Entry and success criteria identified
  - Standing Review Board provides input to PMC after each review
  - Independent Cost Estimate required
- Required life-cycle KDP gate products
  - Performance Measurement Baseline
  - Integrated Baseline Reviews
  - Life-Cycle Cost Estimate
  - NASA Federal Acquisition Regulation (FAR) Supplement establishes contractor requirements
- PMC and Center Management Council role in life-cycle process
- Decision authority role as gatekeeper

Implementation of the program/project management requirements is the responsibility of the Mission Directorates and Centers, subject to the applicable requirements document revisions. Summarized below are the key elements of the program and project management requirements:

- Control Practices
- Configuration and Control Process
- Training Program
- Waiver Process
- Management Practices
  - Initiation and approval of programs and projects
  - Planning, costing, scheduling, and controlling the integrated baseline
  - Earned Value Management
  - Management reporting
  - Dissenting opinions processes
  - Reviews and Key Decision Points
  - Technical Authority
- Engineering Practices
  - Design and build documentation
  - Risk management
  - Software management
  - Human factors, health, and safety
- Safety and Mission Assurance Practices
- Compliance Traceability

Thus, in consonance with associated Focus Areas, this initiative will improve program/project management, cost estimating and assessment, and standardization of business practices. It is most closely interrelated with Initiative B (since the new strategic acquisition meetings are included in this new regulation set); Initiative C (emphasizing data needs for cost monitoring); Initiative D (through which program/project managers are trained); Initiatives E1/E2 (improving cost estimates); and Initiative E3 (management oversight of performance).

Expected Outcomes

- Strengthening a standard of uniformity in NASA program/project management.
- Clarifying the flow down of programmatic and management process requirements.
- Clarifying accountability, including roles and responsibilities of key personnel.

Accomplishments

March 2007	Effective date of NPR 7120.5D, NASA Space Flight Program and Project Management Requirements
May-July 2007	Rollout of NPR 7120.5D policy to JSC, LaRC, and MSFC
September 2007	Rollout of NPR 7120.5D policy to ARC, DFRC, GRC, and JPL
September 2007	Issued Mission Directorate and Center NPR 7120.5D implementation evaluation criteria
January 2008	Rollout of NPR 7120.5D policy to HQ and three remaining NASA Centers – KSC, SSC, GSFC. This milestone was initially scheduled for completion in December 2007. The visit to the final Center, SSC, was delayed until early January, 2008, due to travel and scheduling complications.
February 2008	Issue NPR 7120.8, NASA Research and Technology Project Management Requirements. Update: This milestone was initially scheduled for completion in December 2007. Completion was delayed in December 2007 while going through the NASA policy document coordination process. An action was generated at that time and is now closed. The document was finalized in February 2008.

Actions Required to Complete

The Office of the Chief Engineer (OCE) will complete the preparation of program/project management policy requirements and assess Mission Directorate and Center implementation.

June 2008	Issue NPR 7120.7, NASA Institutional Infrastructure and Information Technology Program and Project Management Requirements. January 2008 Update: This milestone was initially scheduled for completion in March 2008. The document is currently undergoing internal coordination which will lead to senior management review. In light of issues that have arisen during the coordination process, the due date is extended to June 2008.
May 2008	Mission Directorate and Center visits and survey their implementation of NPR 7120.5D. Such surveys will be a future ongoing activity. January 2008 Update: This milestone was initially scheduled for completion in April 2008. Current plans are to survey the first Center in the April/May 2008 timeframe. The updated due date of May 2008 allows for the possibility of slight schedule slippage past April.

Impediments/Challenges

- Providing the needed training and education for institutional and project personnel. In this January 2008 update document, related training is addressed under Initiative D and is proceeding satisfactorily.
- Updating Center- and program-specific processes and practices to align with NPR 7120.5D revisions. Note for January 2008 update: insight into Center and program progress in this area will be obtained through the planned implementation surveys.

Metrics

At each initial Mission Directorate and Center visit, OCE will develop and document a baseline of compliance to NPR 7120.5D. Gaps will be identified, and mitigation plans will be required with the goal of reducing and ultimately eliminating the gaps. On future visits, the number of gaps at each Center will be noted, and this metric will be used to identify trends over time. OCE will provide this information to OPII for the purpose of monitoring progress against this Plan. Appropriate baselines and targets will be identified as this activity progresses.

INITIATIVE A2: Improve Management Oversight of Project Cost, Schedule, and Technical Performance–State of the Agency Reporting

Description

This initiative addresses the ongoing effort to establish a program of rigorous, independent assessment of program/project technical, cost, schedule, and programmatic performance, against established baselines by NASA's senior management. This is a fundamental improvement to management oversight of program/project status. NASA has initiated an independent performance assessment of key programs and projects within each mission-specific area. This impact assessment and action planning also provide a cross-organizational assessment of issues seen common to the specific mission area reviews, which the Agency leverages in a systemic manner. These efforts provide the basis of knowledge for key programs and projects that can lead to predictive performance management.

Both the NPR 7120.5D review structure and the "State of the Agency" process, addressed in this initiative, build upon layers of extensive program/project reviews and oversight occurring at the Program/Project, Mission Directorate, and Center levels. Focused management attention at each of these levels is essential to successful program/project performance.

For State of the Agency reporting, criteria have been developed for cost, schedule, technical, and programmatic performance (i.e., criteria on reported Earned Value Management data). The program and project offices prepare monthly status reports--Figure 2 presents a highly summarized monthly worksheet, illustrating the four rating criteria. The program and project offices report monthly results to independent evaluators representing the Offices of Chief Engineer, Program Analysis and Evaluation (PA&E), and Safety and Mission Assurance (OSMA). These reviewers assess and develop a consensus on program and project technical, cost, schedule, and programmatic performance. Using the technical, cost, schedule, and programmatic ratings, the evaluators then develop the project rating for reporting quarterly to the Program Management Council (PMC). The Mission Directorates present the issues and planned actions to correct unsatisfactory performance.

In addition, the reviewers also evaluate the program/project information to identify crosscutting technical or nontechnical issues that may have broader implications to Agency performance. This information can then be leveraged in a systematic way.

Additionally, this State of the Agency information is planned to provide the cost and schedule basis for major program performance reporting to the Office of Management and Budget, and to Congress as required by the section 103(b) of the National Aeronautics and Space Administration Authorization Act of 2005 (P.L. 109-155). This module of State of the Agency is currently under development as a part of Initiative E within this document.

The State of the Agency process is now in place for all key programs and projects. Its current form and format are most suitable for programs/projects in the formulation or development phase. As it evolves, the State of the Agency process will be adjusted as necessary to improve its suitability for reporting status and predicting threshold issues on the Agency's operational programs, such as the Space Shuttle and International Space Station, as well as Research and Technology programs.

Projects	TECH	COST	SCHED	PROG	COMMENTS
Alpha	Y	Y	Y	G	Requirements push-back with weight and contract cost risk. Mass allocation and acoustic loads impact risks.
Beta	Y	G	Y	G	Mass allocation, including maintaining performance while improving operability. XXX schedule risk.
Delta	Y	G	G	G	Immature requirements.
Gamma	Y	Y	Y	Y	Requirements uncertainty. Operations support schedule for Alpha. Mods impacts to cost.
Epsilon	G	G	Y	G	Co-manifested payload risk. Schedule slack below recommended to October 31 launch
Omega	Y	Y	Y	G	Schedule risk. Input behind need date.

Figure 2, Sample Monthly Project Technical/Cost/Schedule Worksheet.

Expected Outcomes

- Leading indicator to management of technical, cost, schedule, and programmatic performance issues;
- Independent assessment of projects and programs;
- Consistent methodology for review and performance assessment;
- Provide the technical, cost, schedule, and programmatic basis for external reporting; and
- Feedback to programs, projects, and Mission Directorates.

Accomplishments

June 2006	State of the Agency process chartered by PMC
August 2006	Evaluation criteria established and first program/project review held
Monthly	Project technical, cost, schedule, and programmatic performance data collected
Monthly	Through ongoing monthly reviews, discovery of both technical and non-technical cross-cutting issues and ensuing action plans
Quarterly	Each program and project reviewed with PMC (except for a limited number that are reviewed biannually)

Actions Required to Complete

State of the Agency process has been implemented and will continue to improve in line with additional initiatives identified in this Plan. January 2008 update: The State of the Agency has been renamed the Baseline Performance Review (BPR), which takes place on a monthly basis. The process was significantly enhanced in the November/December

2007 timeframe to add multiple new features, including standard financial reports and tracking of institutional metrics and contract growth and risk factors that can contribute to eventual project cost and schedule growth. The changes have focused the meetings and have made them more interactive. As a result, Agency managers can more effectively penetrate issues surrounding the programs and projects. The additions to the process have been produced in conjunction with the work on Initiative E of this CAP, and will provide some leading indicators of cost and schedule growth that will aid with achieving the goals of that initiative as well.

Impediments/Challenges

- Timely collection and assessment of the program/project data
- Financial system reporting and data accuracy are key to this effort

Metrics

The Agency's goal is that projects that are predicted to breach internal NASA cost and/or schedule thresholds (which are lower than Congressional cost and/or schedule thresholds), as a minimum, will be highlighted to senior management during the State of the Agency portion of the monthly PMC meeting in order to allow pre-emptive action(s), if any, to be taken to minimize breaching a Congressional cost and/or schedule threshold. This is an integrative outcome metric which is linked to Initiative E3. The specific target for this metric is zero instances of noncompliance over three consecutive State of the Agency reports (which occur quarterly). Noncompliance is defined as any instance in which a project breaches internal NASA cost and/or schedule thresholds without having predicted such breach and without having previously highlighted such prediction to senior management during the State of the Agency portion of a monthly PMC meeting. Noncompliance will be determined through OCE analysis of project cost/schedule projections and State of the Agency submissions. OCE will report the number of noncompliances quarterly to the Associate Administrator for senior management attention and to the Office of Program and Institutional Integration (OPII) for purposes of monitoring progress against this Plan.

Appendix B

AGENCY STRATEGIC ACQUISITION APPROACH

Focus Areas: Program/Project Management and Standard Business Processes

Lead Executive: Richard Keegan, Director, Office of Program and Institutional Integration

Supporting Organization(s): Offices of the Chief Engineer, Program Analysis and Evaluation, Procurement, and Chief Financial Officer

Description
This initiative introduces two senior-level leadership forums for the purpose of ensuring that the Agency acquisition process is better integrated with the strategic planning and budgeting process. The new forums are the Acquisition Strategy Planning meeting (ASP) and the Acquisition Strategy Meeting (ASM). The ASP and the ASM will precede the previously established Procurement Strategy Meeting (PSM).

Expected Outcomes
This new approach toward acquisition planning will strengthen, standardize, and formalize the process for developing key program/project strategies. The ASP and the ASM will provide a formal opportunity for senior leaders to ensure early on that individual program/project planning is congruent with higher level Agency strategies and commitments. This construct will form the initial fundamental program/project framework consistent with the Agency mission portfolio, forming the foundation for program/project life-cycle cost and performance management.

Accomplishments
- Policy revisions completed:

August 2006	Effective date of NASA FAR Supplement, Procurement Notice 04-16, "Acquisition Planning Changes: Procurement Strategy Meeting and Master Buy Plan Submission"
March 2007	Effective date of NPR 7120.5D, Space Flight Program and Project Management Requirements (as noted under Initiative A1)

- ASP/ASM/PSM meetings held:

April 2007	ASP held regarding Agency Information Technology Strategy
June 2007	ASP held regarding Agency mission portfolio, with emphasis on workforce

PSMs routinely held, including--

January 2007	Tracking and Data Relay Satellite System
February 2007	Ares V Core Stage RS-68B Engine Acquisition
February 2007	Ares I Instrument Unit Production Acquisition

April 2007	Constellation Space Suit System:
May 2007	GOES-R

Actions Required to Complete

March 2008	Hold another ASP, document lessons learned, and take any necessary actions to improve the process. January 2008 Update: an ASP was held in November 2007. ASP discussions identified numerous actions which are currently underway. This milestone is on track for timely completion.
March 2008	Hold an ASM, document lessons learned, and take any necessary actions to improve the process. January 2008 Update: at the time this milestone was established, it was anticipated that a particular ASM would be programmatically appropriate by March 2008. At this time, the responsible Mission Directorate is refining its requirements definition and associated strategies in order to ensure that the ASM will be productive. The organization is actively preparing for an ASM, including scheduling a series of "pre-ASM" strategy sessions, but it appears that the ASM itself may not take place by the end of March 2008. The milestone date will be updated if necessary when the ASM is scheduled.
December 2008	Revise applicable policy documents accordingly. Finalize revisions to the 7120 series. These revisions will be tracked under Initiative A, Program/Project Management Requirements and Implementation Practices. This action encompasses other (non-7120) policy documents, such as the NASA Financial Management Requirements.

Impediments/Challenges

- The new meetings may be seen to negatively impact program/project schedules.
- Decisions that are optimal for the Agency may not be optimal for a given program/project.
- The approach calls for more communication and cooperation between Mission Directorates and the Mission Support Offices.

Metric

Note how and whether ASP and ASM decisions are factored into the budget process and into program/project planning. Document the impact of such decisions as compared to the intent of the initiative (i.e., improved integration of the Agency acquisition process with the strategic planning and budgeting process and greater congruence of individual program/project planning with higher level Agency strategies and commitments). The associated ASP/ASM summary records will be prepared by OPII within 120 days of each ASP and ASM meeting. OPII will provide a synopsis of results to the Deputy Administrator semiannually for senior management attention and will use the information to monitor progress against this Plan.

Appendix C

CONTRACTOR COST PERFORMANCE MONITORING

Focus Areas: Program/Project Management, Cost Reporting Process, Cost Estimating and Analysis, Standard Business Processes.

Sponsoring Executive: Richard Keegan, Director, Office of Program and Institutional Integration (OPII)

Lead Executive: Michael G. Ryschkewitsch, Chief Engineer

Supporting Organization(s): Offices of the Chief Financial Officer; Procurement; Safety and Mission Assurance; Program Analysis and Evaluation; Integrated Enterprise Management Program within the Office of the Chief Information Officer; NASA Shared Services Center; Mission Directorates; Mission Support Offices

Description
This effort will review, analyze, and potentially reengineer NASA's contractor cost reporting performance monitoring process to ensure that needed data elements are available for effective contract management, performance monitoring, and Agency financial management. Examples of review topics include work-breakdown-structure (WBS) alignment with cost reporting and contract line item structure, and reconciliation of cost-related deliverables and systems. This is a substantive integrative cross-functional initiative that will involve multiple organizations and functions.

Expected Outcomes
As a result of this effort, NASA will be able to obtain from its contractors the financial data and performance information needed to assess progress on its contracts and the data needed for effective Agency financial management through a streamlined and integrated process. This information will also be used to enhance Agency procurement, cost estimation, and overall cost management processes.

Accomplishments
As a precursor to this overarching initiative, NASA has recently enhanced the contractor cost reporting process via NASA Form 533M, Financial Management Report, to properly account for the acquisition of capitalized Plant, Property and Equipment (PP&E) assets. This has entailed the following actions to date:

- Identified required revisions to Agency-wide policy/process documents
    - NPR 7120.5D, described in Initiative A1, now establishes the requirement for Project Managers to determine Alternative Future Use for capitalizable assets and, in consultation with the Office of the Chief Financial Officer (OCFO), to identify capital acquisitions from project inception.

- New Capital Purchase coverage has been incorporated in the Financial Management Requirements (FMR), Volume 6, Chapter 4, Plant, Property and Equipment (PP&E).
- NPR 7120.8, for research and technology projects, described in Initiative A1, will establish the requirement for Project Managers to determine alternative future use for assets that can be capitalized and to identify capital acquisitions from project inception.

- Provided Business Process Requirements for the IEMP Integrated Asset Management PP&E Module.
- Cross-functional meetings have been held (including representatives from the Offices of the CFO, Program and Institutional Integration, Chief Engineer, Program Analysis and Evaluation, Procurement, the logistics function within the Office of Institutions and Management, and the Mission Directorates) to discuss associated potential changes to the contractor cost reports (NF533M) and the WBS structure as well as to integrate changes to property management practices.
- An IEMP System Change Request has been submitted in order to have a capital asset indicator added to both the SAP and Meta Data Manager (MdM) data systems, which will allow for flagging of costs from inception.
- Management/Business System Integration Group (M/BSIG) approved issuance of contractor cost requirements to IEMP and to OPII.

December 2007	Team leader is appointed by OCE. January 2008 Update: This milestone was originally scheduled for November 2007. OCE sought to appoint a Center employee with operational field experience to this role. Additional time was needed to finalize the assignment.
January 2008	Team leader confirms Team membership and holds first of a sequence of team meetings. Team includes appropriate representatives from Mission Directorates, Center Program Management, Chief Engineer, Chief Safety and Mission Assurance, Procurement, IT Systems, OCFO, and other needed representatives who have the knowledge and experience needed for the reengineering effort. OPII will provide executive-level endorsement of this Team. January 2008 Update: This milestone was originally scheduled for November 2007. Completion was delayed due to the delay in appointing the team leader. The Kick-Off meeting took place in January 2008, with appropriate representation from the stakeholders.

Impediments/Challenges

- Appropriate representation on the team that will be implementing this initiative is essential. The representatives need to both be knowledgeable and have the authority to speak for their communities. January 2008 Update: senior management was involved in successfully recruiting and assigning the team members as well as the team leader. The technical and functional communities are well supported on the current team.

- Competing priorities of team members may impact the quality of the analysis, the effectiveness of the resulting process, and the timeliness of project completion. January 2008 Update: a continuing challenge is anticipated in this respect. The team leader is taking appropriate actions to mitigate the impact of competing priorities, with the assistance and support of senior management.
- Implementing the revised (reengineered) integrated process will be complex.

Actions Required to Complete

March 2008	Team establishes charter and scope document. January 2008 Update: this milestone was originally scheduled for December 2007. The team charter and scope document has been drafted and is currently being edited by the team. Elements of the detailed plan (see next milestone) will be incorporated into the charter. Formulation-phase activities and two significant reviews with the initiative's customers will be defined and scheduled in the Charter.
March 2008	Team establishes detailed plan for the effort, which includes the following team activities: using requirements defined and examined through ongoing initiatives, identify contract cost elements that are necessary for effective contract management, contract performance monitoring, and Agency financial management; and conduct a gap analysis by determining whether the identified contract cost elements are already reported to NASA by contractors, identifying any data that is currently unnecessarily reported, and determining the contract cost elements that are necessary but not already being reported. The plan also includes initial metrics. This Initiative is updated accordingly. January 2008 update: the team is currently incorporating the detailed plan for the initiative's formulation phase into the charter. The detailed plan for the initiative's implementation phase will emerge as the effort approaches a preliminary design. These activities will be based on the project events outlined in NPR 7120.D and NPR 7123.1A, as tailored to reflect the unique challenges of this initiative. The team is currently defining the potential timing and content of a System Requirements Review and preliminary process/system design.
April 2008	In anticipation of meeting the September 2008 milestone, Team holds a midterm progress review, which includes Agency senior managers as appropriate.
September 2008	Team completes its set of recommendations for a reengineered contractor cost reporting process.
March 2009	Recommendations have been analyzed by technical systems, legal, procurement, and M/BSIG, and most practical solutions (including

	consideration of reporting methods and data systems) have been identified.
June 2009	All necessary briefings have been completed and management approvals obtained.
July 2009	Contractual policy changes are made to ensure that the new contract cost data are submitted to NASA via the required reporting vehicle and timeframe.
December 2009	Policies and processes changed; employees and contractors trained; business tools changes accomplished; and reengineered process implemented.

Metric

Leadership of this Team is currently transitioning from the Office of the Chief Financial Officer to the Office of the Chief Engineer; applicable metrics will be determined and identified in an update to this Plan. NASA anticipates that these metrics will document the specific process improvements achieved and the beneficial changes to data access accomplished under this initiative. January 2008 update: The team anticipates determining baseline performance of current processes as well as determining key performance parameters for the to-be (future state) system functions.

Appendix D

PROJECT MANAGEMENT TRAINING AND DEVELOPMENT

Focus Areas: Program/Project Management, Cost Reporting Process, Cost Estimating and Analysis, Standard Business Processes.

Lead Executive: Michael G. Ryschkewitsch, Chief Engineer

Supporting Organization(s): Mission Directorates, Mission Support Organizations, Centers

Description
This initiative addresses the ongoing effort to enhance the NASA Academy of Program/Project Engineering Leadership (APPEL) curriculum with additional emphasis on project planning, scheduling, Earned Value Management (EVM), and performance analysis through experienced-based training courses. The enhanced courses will offer a blend of foundational concepts, best practices, and practical lessons-learned that are taught through lecture, group discussion, problem solving, and case studies.

APPEL's Program/Project Management curriculum is intended to prepare program/project managers for the challenges of leadership. As the Agency's mission focus changes, the program/project management training curriculum is changing both the Core Curriculum and in-depth courses. In furtherance of this Plan's goal, all training initiatives will be realigned to emphasize the importance of managing projects within the cost, schedule, and technical baselines. Strategies and tools will be introduced to the learners to enable them to improve all aspects of mission success. APPEL will conduct follow-up assessments to determine the effectiveness and application of learning objectives to meet this goal. Based on the results of those assessments, APPEL will make adjustments to the course material and teaching techniques to maximize the effectiveness of these potential culture-changing encounters with the project teams.

The Program/Project Management core curriculum has been revised into the following four learning segments:

- Foundations of Aerospace at NASA
  - Overview of NASA: vision, mission, governance model
  - Aeronautics and astronautics concepts
  - Teamwork and communication skills
  - Agency organization and programs
- Project Management and Systems Engineering
  - Project Management and Systems Engineering overview
  - Requirements definition
  - Acquisition
  - Systems definition, realization, and evaluation
  - Operations

    - Risk management
    - Planning, scheduling and budgeting, control and assessment
  - Advanced Project Management and Systems Engineering
    - Successes and failures in real-life projects
    - Designing for and dealing with complexity
    - Leadership approaches and techniques
  - Executive Program
    - Examination of executive decisions and challenges related to previous NASA programs and projects
    - Key risk management factors and best practice framework
    - Strategic thinking and leadership skills

APPEL's in-depth course curriculum for program/project management has also changed, in concert with the issues addressed in this Plan. Targeted courses in project scheduling, earned value management, and performance analysis have been added to the curriculum. These courses, delivered at introductory and advanced levels, focus on improving the skills and proficiency of not only the project manager but also of key team members. By participating in one- to two- day progressively more advanced training courses, attendees can obtain the maximum benefit from the course material while having the minimum impact on project operations.

APPEL has also implemented the highly successful Project Management (PM) Challenge. This two-day conference for NASA project managers and their teams focuses on the importance of program, project, and engineering management to mission success. It examines current trends in project management while offering cutting-edge training sessions on best practices, innovative case studies, compelling discussion panels, and lessons-learned from projects both within and outside of the Agency.

Expected Outcomes
The outcomes of these training initiatives are a project management workforce that understands ways to better manage complex projects through greater use of sound practices in scope management, schedule/cost/technical performance management, communications management, procurement management, and risk management. These outcomes further enhance the opportunities for NASA to successfully execute its programs and projects within cost and schedule constraints.

Accomplishments

- APPEL completed a program/project management curriculum assessment in August 2006, resulting in a revitalized curriculum. The following courses are now available as offerings in the APPEL curriculum:
    - Core Curriculum
        - Foundations of Aerospace
        - Project Management and Systems Engineering
        - Advanced Project Management and Systems Engineering
        - Executive Program
    - In-Depth Curriculum
        - Earned Value Management Overview
        - Understanding Earned Value Management
        - Understanding Project Scheduling
        - Beyond Earned Value Management Basics
        - Beyond Scheduling Basics
        - Advanced Earned Value Topics
        - The NASA Budget Process
        - Integrating EVM with Acquisition
- Planning, Scheduling, Budgeting and Control courses, including Earned Value Management, have been successfully delivered to over 1,200 participants throughout the Agency.
- APPEL project management courses have been designated as "PMI (Project Management Institute) Registered Education Provider" courses, allowing participants to earn Professional Development Units (PDU) for completion.
- NASA completed four highly successful PM Challenge conferences with 3,800 participants.

November 2007	Prepare briefing for the PMC and the Program and Project Management Board on the Core Curriculum and In-Depth Courses. January 2008 Update: The intent of this milestone is to engage senior leadership in the development of NASA personnel with the knowledge and skills needed for effective contract and financial management. Given that goal, the Director of the Academy of Program/ Project and Engineering Leadership (APPEL) has held a series of briefings on the APPEL program with NASA leaders. APPEL's strategy for informing senior leaders about the program and receiving their approval or agreement to act has been to participate with them in small strategy sessions. Meetings have been held on the current program with the Administrator, Deputy Administrator and most recently in January 2008 with the Associate Administrator. In addition, the APPEL Director is scheduled to speak on February 26, 2008 at NASA's Program Management (PM) Challenge event on: "OMB and GAO Project Management Certification Requirements Response and Implementation." The PM Challenge has almost 1200 people

	registered, including many of NASA's most senior managers and in particular the program/project leadership of the Agency. Given this overall communications strategy, presentations to the PMC or Project Management Board are not considered necessary, and this milestone is considered closed in light of ongoing activities.
Ongoing	Continue course offerings, assuring access and availability to all Centers. January 2008 Update: NASA has continued to expand offerings of courses related to contract/financial/project management, introducing three new courses since November 2007. This milestone is considered completed in light of these ongoing activities.
November 2007	In OCE communications vehicles, such as ASK Magazine, ASK OCE and Web sites, publish requests for practitioners to adopt best practices regarding project management practices for performance measure baseline control, scheduling, and performance measurement and evaluation, and to share related experiences and lessons learned within OCE publications, the Masters Forum, and the PM Challenge. January 2008 Update: NASA APPEL asks practitioners to share engineering and project management knowledge and best practices. Such messages are embedded in the APPEL Website and *ASK Magazine* (published three to four times a year). The APPEL Director verbally requested people to participate in such efforts at the October 2007 Knowledge Sharing Masters Forum. Similar messages were incorporated into the January 2008 inaugural issue of Ask the Academy, an online communication of the Office of the Chief Engineer. Sharing knowledge and best practices is core to the mission of NASA's Academy of Program/ Project and Engineering Leadership (APPEL).The Academy plans to continue to encourage these activities and to focus attention on the critical areas of contract, financial, and project management. This milestone is completed.

Actions Required to Complete

July 2008	In accordance with OMB's Federal Acquisition Certification (FAC) for Program/Project Managers, NASA is establishing the APPEL Technical Leadership Institute (TLI) as a mechanism that provides Agency recognition (certification) for professional development of program and project managers at successive career levels. NASA has analyzed and aligned its experience, competencies, and training experience with those outlined under Federal certification requirements and will identify and begin tracking the number of designated Program/Project Managers by November 2007. January 2008 Update: This milestone was originally scheduled for November 2007. Its completion date is

	extended to July 2008 in light of the complexity of the effort. Current status is as follows. NASA's APPEL presented plans for NASA's Technical Leadership Institute to representatives from all NASA Centers on November 13-14, 2007 to engage them in the implementation process. In January 2008, APPEL developed a preliminary list of program/project managers of major projects to serve as a basis to identify and begin tracking designated program/project managers in accordance with OMB's Federal Acquisition Certification (FAC) for Program/Project Managers. The preliminary list is now being reviewed and validated. Constructing the list of designated program/project managers is a rather complex process that involves senior managers in several NASA departments who will view potential participants from multiple perspectives (e.g. current project assignments and size of projects) in order to meet FAC and NASA criteria. It may also involve validating information within Centers and Mission Directorates. This is a very high priority and personnel are working to complete it.
March 2008	Complete development of new Executive Program course materials

Impediments/Challenges
- Limited time availability of program/project managers and team members.
- Maintaining funding for instructors through APPEL.

Metrics
The following measures will be undertaken to assure that the revised and more focused NASA training curriculum, as well as other related learning and developmental activities, is having the expected outcomes of improving program/project consistency in achieving budget and schedule commitments and building expertise in project management practices for baseline control, scheduling, performance measurement and evaluation. The metrics will be maintained by OCE and will be provided to OPII quarterly for the purpose of monitoring progress against this Plan.

1. Core Curriculum and In-Depth Courses related to key focus topics: this initiative targets a 15-percent increase in total number of participants. This target is based on actual attendance over the past FY for the NASA Program/Project Management population; the historical attendance from each Center; projected needs of the Agency; and the career development budget for the Academy. This would be an increase from 814 participants in FY 2007 to 939 participants in FY 2008.
   January 2008 Update: Currently ahead of target. Total FY2008 attendance through January 2008 was 483: 76 in October and another 407 since the CAP was finalized (that is, from November through January).
2. The APPEL Curriculum Manager, working with Mission Directorate representatives, will identify project team member training deficiencies and prepare a schedule of training offerings by April 2008. Training attendance will be monitored, and appropriate metrics will be established. The role of NASA practitioners will drive identification of the training population, as well as the identified performance level of

the practitioners in the NASA Technical Leadership Institute (TLI) in terms of identified competencies and desired capabilities. NASA APPEL conducts a semi-annual curriculum review that ensures alignment to Agency requirements, objectives, and priorities. These semiannual reviews will capture key aspects of this Plan's initiatives for incorporation into the curriculum, for example, the cost estimating policy changes identified in Initiative E. TLI requirements were analyzed and compared to the FAC PPM requirements, and the NASA program was found to meet or exceed all requirements in terms of curriculum and levels of performance. Training metrics will be defined qualitatively and quantitatively in multiple formats (paper-based, Web surveys, interviews, observations, and reviews), encompassing customer service feedback during and immediately following career development activities; Center-based management and curriculum reviews; Individual Development Plan (IDP) and Professional Development Portfolio (PDP) reviews, and Program Reviews that analyze return on investment.
January 2008 Update: The needs analysis to identify deficiencies is to begin in February 2008. A semi-annual curriculum review was performed in November 2007, and the subsequent review will be scheduled after the needs analysis. This item is on track.

3. Senior management emphasis on project and contract management will be demonstrated through issuance of the following publications with target numbers as follows:
   A. ASK Magazine articles/stories targeted on project planning, performance monitoring, analysis, and reporting. Target: 2 or more in FY 2008
   B. Case Studies. Target: 1 or more in FY 2008
   C. ASK OCE. Target: 1 article per quarter in FY 2008
   D. APPEL Web site and NASA Engineering Network. Target: 1 story bi-monthly

   January 2008 Update: This activity is on track. For Item A, there were two stories in the Fall Issue. For Item B, a case study is under development. For Item C, the January Ask the Academy, posted on the APPEL website, had four related stories including a message from the APPEL Director. For Item D, the website story is in place.
4. For the Masters Forum, this initiative targets a 10-percent increase in NASA's participation based on actual attendance over the past FY for the NASA PPM population; the historical attendance from each Center; projected needs of the Agency; and the career development budget for the Academy, which would be an increase from 91 in FY 2007 to 100 in FY 2008.
   January 2008 Update: Participation in the October FY2008 Masters Forum was 8 shy of the targeted 50. APPEL will increase attendance targets for the Spring Forum, and Center Forums are also planned. This activity is on target.

Appendix E

IMPROVING LIFE-CYCLE COST/SCHEDULE MANAGEMENT PROCESSES

Focus Areas: Program/Project Management, Cost Reporting Process, Cost Estimating and Analysis, Standard Business Processes.

Lead Executive: Scott Pace, Associate Administrator for Program Analysis and Evaluation

Supporting Organization(s): Offices of the Chief Engineer, Program and Institutional Integration, Mission Directorates, Procurement, Chief Financial Officer

Description

NASA policy requires life-cycle cost management of all its space flight and supporting institutional programs and projects and uses this to set budget requests and portfolio investment decisions. The Agency has recently been the recipient of Congressional legislation and White House requirements that shape this policy. These new requirements on the Agency also consist of tracking development contracts greater than $50M for cost growth on projects still in formulation. NASA must establish a more complete set of processes, policies, and tools in order to achieve more effective life-cycle cost management, including contract cost and schedule management. The integrated approach that NASA will take, including the recent efforts to perform better life-cycle cost and schedule management of its programs and projects, follows.

NASA programs generally integrate discrete projects and have a life-cycle cost that is mostly equivalent to the summation of all its projects. (Although there may be additional funding for technology development, program/project management, reserves, corporate and Center overheads, a large portion of the funding is within the projects.) Hence, life-cycle cost/schedule management is usually performed at the project level. There are some exceptions when a program is a single project such as the International Space Station, the Hubble Space Telescope, or the James Webb Space Telescope. The majority of NASA's budget is in, and thus the focus of this reporting is on, space flight projects and their supporting institutional systems. Further, NASA conducts the development of these projects with a mix of in-house and contracted expertise, both of which factor into the estimating and then tracking of growth in cost and schedule of a project.

This section describes a set of activities that are designed to lead to more effective life-cycle cost and schedule management, which requires the following:

- Good life-cycle cost-estimating policy and processes. (Sets good baselines.)
- Instituting tracking and trending methodologies and using "best practice" tools to predict when the life-cycle estimate changes. (Proactively predicts baseline drift and violation of that baseline.)

- Effective risk identification, and planning for the costs to mitigate and deal with these risks if they manifest. (Manages threats to life-cycle cost/schedule changes.)
- Clear reporting requirements and responsibilities. (Assures accountability.)
- Making budget planning and allocation decisions based on predicted life-cycle cost/schedules and the performance toward these. Budget allocations may be decided by external stakeholders, based on their understanding of the Agency's performance among other considerations such as political, policy, and market factors.

NASA has been working to address process and policy gaps regarding several of the above areas and is planning to take further actions toward that end. These activities are described as a series of initiatives in the subsections below. (NASA's effort is in concert with the GAO Cost Assessment Guide.) These initiatives describe cost estimating, tracking, and reporting processes and policies that have been or will be introduced into NASA program/project management and performance management processes. Since these initiatives must be integrated to produce results, some of the metrics used to assess their effectiveness are also integrative.

NASA is instituting the following initiatives to ensure that more realistic cost estimates are prepared:

- Budget estimates based on the reconciliation of the project-generated estimates with Independent Probabilistic Life-Cycle Cost Estimates (IPCE) that assure life-cycle costs are planned to a 70-percent confidence level;
- Continuous cost risk management requirements;
- Collection and dissemination of planned and actual project descriptions, technical cost driver data, schedules, and costs through a document known as the Cost Analysis Data Requirement (CADRe);
- Focused education, coordination, and concentrated training on reasons for cost and schedule growth, as well as continued investment in state-of-the-art estimating techniques and tools; and
- Investment in alternate cost-estimating methods and tools.

NASA is also planning the following three initiatives to better measure performance and lay the foundation for better control of cost and schedule as programs and projects proceed through the various phases of development and implementation:

- Institution of regular cost and schedule tracking and reporting processes at the various Management Councils through the State of the Agency process, to serve as the leading indication of Congressional and OMB baseline breach reporting;
- Quarterly and/or annual baseline and updates-to-baseline reporting to Congress and OMB on key programs and projects; and
- Key policies are being revisited on standardization of yearly cost-accounting differences in the estimation and tracking of life-cycle costs/schedules, reserve strategies, and rebaselining.

The following subsections describe the ways these initiatives impact this Plan's Focus Areas.

INITIATIVE E1 Improved Cost Estimation

Lead Executive: Scott Pace, Associate Administrator for Program Analysis and Evaluation

Supporting Organization(s): Office of the Chief Engineer, Mission Directorates

Description

NASA policy requires life-cycle cost management of all its space flight and supporting institutional programs and projects. Toward that end, NASA's risk management policy requires that project managers (PM) identify, quantify and manage risks. By doing so, PMs will be more cognizant of the project risks and will, therefore, be in a better position to develop meaningful mitigation action plans and to continuously manage those risks. The risk posture of a program or project is an important factor in producing a credible cost and schedule estimate. Further, new policy at NASA requires that IPCE be developed and that these estimates must be reconciled with PM estimates to formulate a budget that is based upon a 70-percent probability that the final number will be less than or equal to the submitted budget number. To do this, the Agency must fully embrace cost-risk analysis and have the proper tools and procedures to do so. This is a fundamental change to the way NASA has previously done business in this area.

Prior to this policy shift, PMs were required to identify significant risks and possible consequence but were not required to quantify those risks and to indicate the Unallocated Future Expenses (UFE) were sufficient to cover those risks. When this new policy is fully enacted, PMs must not only identify potential risk but must also quantify those risks, submit estimates that reflect a reasonable probability of completion, and justify the need for program and project UFEs through those estimates. This policy will be an on-going requirement for the NASA budget formulation process and program/project planning.

In order to develop credible IPCEs, estimators and cost analysts need reliable state-of-the-art tools. NASA currently uses a variety of well-known parametric tools to develop its IPCEs. However, these tools need continued support to keep abreast of the latest cost-estimating methods and data. As of this writing, these tools are able to provide probabilistic life-cycle cost estimates, but they are insensitive to timing issues, which are a key element of good estimation. In short, they lack the maturity to allow estimators to develop a combined cost and schedule probable cost estimate, so that analysts may provide year-by-year probabilistic estimates.

The initiatives to better estimate costs and schedule and provide reports also require coordination, education, and training. Managers need to understand the root cause of cost and schedule growth, and they must be consulted on steps to deliver the project on time and within the requested budget resources. They also need to understand the estimating, reconciling, and reporting requirements and processes.

Expected Outcomes
- More realistic cost estimates with sufficient Unallocated Future Reserves to cover the identified risks.
- Tools that will allow cost estimators to provide credible probabilistic cost estimates that are time sensitive.
- Both internal and external stakeholders who will better understand the potential risks for cost and schedule growth and realistic mitigation actions.
- Increased likelihood of, and frequency with which, projects are delivered at or before planned dates and at or under the estimated budget.

Accomplishments
- Drafted update to NPR 8000.4, Risk Management Procedural Requirements.
- Drafted text for an upcoming update to NPD 7120.4, Program/Project Management, which will finalize the requirement to submit budgets that reflect a 70-percent confidence level.
- Developed IPCE policy through the Strategic Management Council and issued FY 2009 Strategic Planning Guidance for budget formulation that directed projects to budget to the 70-percent confidence level of the reconciled IPCE.
- Identified weaknesses of available cost and schedule estimation models and of current IPCE tools through several cost community workshops.
- Developed draft training plan on various acceptable methods to develop IPCE and reconcile with project estimates.

November 2007	Finalize IPCE training plan. January 2008 Update: This milestone was originally scheduled for October 2007 and was completed in November 2007. The training will be performed during spring of 2008. Training has been completed for GSFC and JPL. GRC, KSC, and HQ are planned to be trained by the end of February, with the remaining Centers to follow.
November 2007	Identify the remaining well-known reasons for cost and schedule growth through a cost-analysis symposium and a one-day cost and schedule growth summit. January 2008 Update: The symposium and summits were held, and this milestone was completed in November 2007 through a briefing to the Associate Administrator. Follow-up analyses are now underway.
December 2007	Finalize and codify the current new draft policies into NASA risk management and program/project management policy documents. January 2008 Update: This milestone was completed in December 2007, when the proposed new policies on cost estimating and risk management were provided to the responsible organizations (the Office of the Chief Engineer and the Office of Safety and Mission Assurance) for incorporation in subsequent issuances.

Actions Required to Complete

March 2008	Train the cost-estimating community and NASA space flight project staffs at all Centers using a focused wave approach.

September 2008 Complete and test new IPCE cost risk management tools.

Impediments/Challenges
- Reliable IPCE results – a training challenge.
- Competing priorities and limited resources.

Metric
- The percentage of projects that the PMC approves to proceed into phases B or C in which PA&E deems a credible probabilistic life-cycle cost estimate was presented and will be tracked to document progress in this area. PA&E will track this metric and will provide results to OPII on a regular basis for the purpose of monitoring progress against this Plan. Baselines and time-phased targets are not yet identified. NASA anticipates that a baseline will be available by October 2008, and targets will be set subsequently.
- The percentage of projects that the APMC approves to proceed into phases B or C, which PA&E deems do not possess any "cost or schedule growth characteristics" (as defined by PA&E through the activities of this initiative), will be tracked to document progress in this area. PA&E will track this metric and will provide results to OPII on a regular basis for the purpose of monitoring progress against this Plan. Baselines and time-phased targets are not yet identified. NASA anticipates that a baseline will be available by October 2008, and targets will be set subsequently.

INITIATIVE E2 Improved Data Collection: Reporting CADRe

Lead Executive: Scott Pace, Associate Administrator for Program Analysis and Evaluation

Supporting Organization(s): Office of the Chief Engineer, Mission Directorates

Description
NPR 7120.5 requires project managers to submit planned and actual descriptive, technical, and cost information at Key Decision Points (KDPs) A, B, C, D & E through the CADRe, a document that consists of three separate templates. Part A describes the project; Part B, a spreadsheet, requests key technical data (including software) that drives costs; and Part C, also a spreadsheet, includes planned and actual cost data by the PM's Work Breakdown Structure (WBS) and a standard WBS. PMs may place the CADRe on contracts or may request (in the Request for Proposals) that the information be made available on an as-needed basis. Currently, NASA is utilizing support contractors to develop the CADRe from PM-supplied data, and then the PMs approve the CADRes. The developed and collected CADRes (past and future) will be placed into a Web-based repository so that the NASA cost community may use the information to develop improved cost estimates.

Expected Outcomes
- Exception reporting may reduce cost and schedule overruns.
- Historical cost data will improve the quality of estimates because they will be based on historical actuals.
- NASA will have a better record of the reasons for cost and schedule growth and will be in a better position to take corrective management actions.

Accomplishments
- Drafted and agreed upon standard CADRe templates for unmanned missions.
- Drafted standard CADRe templates for crewed missions.
- Sponsored development and completion of 35 CADRe events.
- Planned and scheduled completion of remaining CADRe events over the next two fiscal years.

January 2008	Agreed upon standard CADRe template for manned missions. This milestone is completed.
December 2007	Completed 50 CADRes (cumulative). This milestone is completed.

Actions Required to Complete

Complete development of 150 CADRe events by the following dates:

December 2008	Complete 100 CADRes (cumulative)
December 2009	Complete 150 CADRes (cumulative)

July 2008	Develop "One NASA Cost Estimating" (ONCE) training course.
September 2008	Complete development and deployment of a Web-based system, ONCE, to make CADRes widely available.
September 2008	Develop procedures to verify when project cost estimates at starts of KDP D and E exceed the 15-percent baseline thresholds.

Impediments/Challenges
- Obtaining cooperation with project managers to provide requisite data to develop the CADRe.
- Ensuring that the PM requests the CADRe data within Requests for Proposals and that the data are provided at the CADRe level of detail. This is a significant challenge because NASA's contracting officers may be pressed to delete the requirement in an effort to save money.
- Obtaining sufficient resources to independently verify threshold estimates.

Metrics

Upon implementation of CADRe through the milestones identified in this initiative, a survey will be conducted to measure the percent of cost-estimating users who think the CADRe data meet their estimating needs. PA&E will manage this survey and will provide results and analysis to OPII for the purpose of monitoring progress against this Plan. Target scores are not yet identified. The survey is planned for completion in the summer of 2008.

INITIATIVE E3 **Improved Cost/Schedule Performance Assessments and Reporting**

Lead Executive: Scott Pace, Associate Administrator for Program Analysis and Evaluation

Supporting Organization(s): Offices of the Chief Engineer, Program and Institutional Integration, Chief Financial Officer, Procurement, and Mission Directorates

Description
NASA has been the recipient of new cost and schedule tracking and reporting requirements from both Congress and OMB. The requirements from Congress are identified in section 103(b) of the National Aeronautics and Space Administration Authorization Act of 2005 (P.L. 109-155). The OMB requirements are identified through related correspondence. NASA also has an additional set of requirements through the White House Budget and Performance Integration (BPI) Initiative Scorecard, the BPI Program Assessment Rating Tool (PART) reviews of the Agency's programs, and the NASA Annual Performance Plan. Further, through governing policies on programs and projects, NASA has requirements for setting cost and schedule integrated baselines and their control. The most stringent of these requirements are on programs and projects with an estimated life-cycle cost greater than $250M that have authority to proceed into development or have a large development contract while still in formulation phase.

In light of all these related requirements, NASA is attempting to make this a single internal and external assessment and reporting process, with controlled frequency of updates and common data to meet all requirements. To date, the tracking has not been standardized and has not been on a common frequency at the Agency level. There has been tracking and reporting in various mission areas, with variation on what is estimated, tracked, reported, and the methodologies for doing so. Further, there is incomplete procedure and process in several areas of life-cycle cost and schedule management. The new processes, methodologies, and procedural requirements will be codified into NASA policies for program/project management and Agency-level performance management.

Expected Outcomes
- Greater clarity on the expectations on program/project managers for cost/schedule control, enabling better management processes and performance.
- Standard processes on life-cycle management to allow for common measures of performance across the NASA missions, to highlight where management attention is most warranted and to enable effective management solutions through the identification of systemic performance issues.
- Predictive indication of cost/schedule performance issues that allow management to address them in a more efficient manner.
- Increased accountability to, and increased credibility with, the Congress and OMB.

Accomplishments

- Redesign of NASA's Integrated Budget and Performance Document to provide baseline reports and annual updates to the Congress for "major programs", i.e. projects that have a life-cycle cost greater than $250M that have authority to proceed into the development life-cycle phase.
- Baseline or annual update reports delivered to the Congress with the fiscal year 2008 President's Budget Request on 15 of NASA's largest projects.
- Negotiation of requirements with OMB for cost tracking and reporting on major programs with authority to proceed into development and projects under formulation with development contracts.
- Developed a draft life-cycle, cost-tracking methodology that identifies which systems of record are to be used and identified business rules for producing the annual and monthly tracking and reports.
- Developed draft formats for quarterly tracking.
- Developed initial life-cycle cost/schedule tracking methodology, processes, and tracking and reporting formats. Agreed to by all internal organizations as well as OMB. This process has seen at least a quarter of reporting.

Actions Required to Complete

- Final life-cycle cost/schedule tracking methodology, processes, and tracking and reporting formats developed and agreed to by all internal organizations, OMB, and Congress.

March 2008	Identify all requirements from OMB/Congress. January 2008 Update: This milestone was originally scheduled to be complete in December 2007. Completion has been delayed and is now rescheduled because the NASA FY 2008 Appropriation included numerous new requirements for cost, schedule and contract reporting, including an additional engagement with GAO. The appropriation was not signed until late December and it is taking some time to sort through the details of the requirements and the implications on the current processes. NASA plans to meet the June 2009 completion date for this sub-initiative, albeit some interim milestones may slip due to these factors. The effort is underway, and a new data call on contract growth, award fee and status of planned acquisitions has already been implemented to address multiple current requirements and the new requirements from the FY 2008 Appropriation.
April 2008	Implement cost and schedule tracking and reporting process

- Revisions of NASA policy, including the NPR 7120 series, on reserve strategy, baseline control and cost estimation (note that this is in conjunction with Initiative E1 of this section and is to be completed per that planned schedule).
- Demonstrate life-cycle cost/schedule tracking and reporting integrated with State of the Agency processes

April 2008	Data needs and quarterly tracking/reporting formats integrated into State of the Agency - Programs and Projects process

- Process conduct and continual improvements

June 2008	Produce first series of baseline and quarterly reports to OMB and/or Congress under the final methodologies and processes
June 2009	Complete several quarters of reporting and reassess policy and process effectiveness

Impediments/Challenges
None

Metric
The following metrics will apply to the set of projects that are subjected to reporting to OMB and Congress. The metrics are designed to assure that the new "single assessment and reporting process" is fully implemented by the Agency and that this process is used to--

a. Anticipate when a Congressional or OMB growth threshold may be reached;
b. Allow senior managers to take appropriate action before a breach is reached; and
c. Contribute, in concert with the other Initiatives within this Plan, to a potential reduction in cost and schedule growth of NASA's projects.

The "single assessment and reporting process" will be run in parallel to the State of the Agency process for some time before it is integrated with it; some elements of these metrics will be duplicated between this Initiative and Initiative A2.

- By December 31, 2008, the Agency goal is that one hundred percent of projects subject to external cost/schedule reporting will comply with the new NASA methodologies, processes, and formats as designed to meet the reporting requirements of the OMB and Congress.
- By December 31, 2009, the Agency goal is that 100 percent of projects subject to external cost/schedule reporting will provide quantifiable and substantiated data to be integrated into the State of the Agency--Programs and Projects process.
- The integrative outcome metric identified in Initiative A2 will measure progress against this initiative as well. The Agency goal is that projects that are predicted to breach internal NASA cost and/or schedule thresholds (which are lower than Congressional cost and/or schedule thresholds), as a minimum, will be highlighted to senior management during the State of the Agency portion of the monthly PMC meeting in order to allow pre-emptive action(s), if any, to be taken to minimize breaching a Congressional cost and/or schedule threshold. Associated with that metric, the following measures will also be tracked as integrative outcome metrics:
    - Percent of <u>life-cycle cost growth</u>, as measured from the baseline value agreed to by the appropriate NASA decision authority at KDP-C. (This measurement will be by project and is intended to identify trends through time by fiscal year quarters.) January 2008 Update: Measurement has been made against this metric.
    - Percent of <u>development cost growth</u>, as measured from the baseline value agreed to by the appropriate NASA decision authority at KDP-C. (This measurement will be by project and is intended to identify trends through

time by fiscal year quarters.) January 2008 Update: Measurement has been made against this metric.

- Percent of schedule growth, as measured from the key milestone baseline value agreed to by the appropriate NASA decision authority at KDP-C. (This measurement will be by project and is intended to identify trends through time by fiscal year quarters.) January 2008 Update: Measurement has been made against this metric.
- Percent of contract cost growth, as measured from the baseline contract value as awarded. (This measurement will be by project and is intended to identify trends through time by fiscal year quarters.) January 2008 Update: Measurement has been made against this metric.
- Less than 10-percent cumulative average life-cycle cost growth as compared to the baselines for all projects subjected to this reporting, weighted by budget allocation. (This measurement is intended to identify trends through time on an annual basis.) January 2008 Update: Measurement has been made against this metric. The metric was not met, as there were several projects that saw growth above 10% on life cycle cost in FY 2007, the last year of measurement.
- Percentage of life-cycle and development cost and schedule growth of existing and future projects, as compared to cost and schedule growth on past projects. (This is to identify trends through time, on an annual basis.) January 2008 Update: This metric was baselined in December 2007.

PA&E reports these metrics to OMB and Congress on a regular basis and will also provide them to OPII for purposes of monitoring progress against this Plan.

Appendix F

IEMP PROCESS IMPROVEMENT

Background Information
IEMP continues to assess and improve its management processes. Recent IEMP management improvements include the following:

- Implemented improved requirements management and testing processes. These processes ensure requirements are tracked, traceable to "parents" and "children" with no "orphans," and tied to testing processes to ensure adequate verification and validation.
- Enhanced performance metrics related to tracking system defects.
- Implemented a rigorous IEMP risk-mitigation strategy that tracks cost, schedule, and technical risk and provides cost/risk integration for the mitigation of high-risk items.
- Implemented quantitative entry and exit criteria for moving from one phase of an IEMP project to another. This process reduces programmatic risk by ensuring projects complete all essential tasks associated with one life-cycle phase prior to receiving authority to proceed into the next phase.
- Aligned IEMP with the Office of the Chief Information Officer (OCIO). This realignment provides IEMP with the organizational infrastructure and authority offered by the OCIO and also supports enhanced cross-functional system integration and delivery.
- Established an IEMP PMC to provide independent programmatic oversight of IEMP.
- Established the Management/Business Systems Integration Group (M/BSIG) which is comprised of senior representatives from both the mission directorates and mission support offices. The M/BSIG is the Agency organization responsible for assessing and prioritizing the implementation of future business system requirements. The cross-functional nature of this body assures the implementation of strategic business system decisions as opposed to functionally based decisions.

Although significant improvements have been made to business system management, two IEMP process improvement activities are still in process, and these two activities are addressed in this Plan:

- Development of an Agency-wide Business System Concept of Operations (ConOps), and
- Identification of business system gaps.

INITIATIVE F1 Business Concept of Operations (ConOps)

Focus Areas: Standard Business Processes and Management of Financial Management Systems

Lead Executive: Jonathan Pettus, Chief Information Officer

Supporting Organization(s): Offices of the Chief Financial Officer, Procurement, Institutions and Management, Chief Engineer, Human Capital Management, Mission Directorates, NASA Shared Services Center, and Center Representatives

Description
This initiative entails development of a ConOps that describes the desired operational state of NASA's Agency-wide business management systems. The ConOps will address the business system needs of both the programmatic and institutional communities.

- The ConOps document will be described from an end-user's perspective. It is not intended to be a requirements document or a systems specification. It will provide a framework to focus future business management systems initiatives by defining the system boundaries, defining the major system components, and describing high-level, Agency-wide processes.
- Detailed processes will only be developed and systems modified once the Agency makes a strategic investment decision to address gaps between the "as is" and "to be" state.

January 2008 Update: NASA has held numerous workshops with the information providers, users, and customers to document the "as is" – the current state. The team is on target to complete the ConOps document in September 2008.

Expected Outcomes
The ConOps will--

- Provide a description of the system characteristics from an operational perspective.
- Facilitate understanding of the overall system goals with users (including recipients of the products of the system, where applicable), buyers, implementers, architects, testers, and managers.
- Form an overall basis for long-range operations planning and provide guidance for development and/or update of subsequent system definition documents such as the system specification and the interface specification.
- Describe the user organization and mission from an integrated user/system point of view.

Establishing this foundation will improve the Agency's ability to make strategic and tactical decisions regarding Agency-wide business systems which in turn will ultimately improve the availability of management information necessary for mission success.

Accomplishments

July 2006	Completed framework document, "NASA Concept of Operations – Business Process & Enabling Technology"

July 2006	Completed "starter pack," "NASA Concept of Operations – Business Process & Enabling Technology"
May 2007	Hired permanent IEMP Integration Manager responsible for developing ConOps
July 2007	Completed Project Management Business System Gap Identification
November 2007	Identified ConOps Stakeholders. This milestone is completed.
November 2007	Chartered ConOps Team. This milestone is completed.

Actions Required to Complete

March 2008	Confirm ConOps Scope. January 2008 Update: The initial ConOps scope was completed in November 2007, which was the original milestone date. However, through a series of discussions with senior staff, the ConOps team is currently evaluating the need to expand the scope to include several additional mission support functions. Decisions regarding expansion in scope will be finalized by March 2008.
May 2008	Develop Draft ConOps
July 2008	Refine Draft ConOps
August 2008	Perform Formal Document Review
September 2008	Baseline ConOps

Impediments/Challenges

- Appropriate representation of implementer and user communities is essential to development of the ConOps document. The representatives need to be both knowledgeable and have the authority to speak for their communities.
- Competing priorities of team members may impact both the quality of the document and the delivery schedule.
- End-to-end business processes are not well documented. It is important to understand the "as is" state when defining the desired future state.
- "Target state" enterprise process boundaries are unclear.
- Success requires explicit senior management's continuous endorsement.
- ConOps document is an iterative process, not a static document. Routine maintenance will be required.

Metric

The ConOps will be approved and integrated with the overall Enterprise Architecture and Agency IT Portfolio Management processes. OCIO will accomplish and document such integration and will provide such documentation to OPII for purposes of monitoring progress against this Plan.

INITIATIVE F2 Business System Gap Analysis

Focus Areas: Management of Financial Management Systems

Lead Executive: Jonathan Pettus, Chief Information Officer

Supporting Organization(s): Representative projects including HyBolt, Orion, GOES-N, International Space Station, James Webb Space Telescope, Management/Business System Integration Group.

Description

Perform a Gap Analysis to identify and characterize where NASA's business and management systems are not meeting the information needs of the Project Management community Agency-wide.

- The scope of the Gap Analysis is to identify and characterize where NASA's business and management systems are not meeting the information needs of the Agency.
- The depth of the Gap Analysis includes gaps associated with the data, processes, applications, and the human aspects of the associated systems.

Expected Outcomes

The Gap Analysis will identify how well the Agency's management and business systems are meeting the needs, goals, and objectives of the project management community. Gaps will be subsequently assessed and prioritized for future system modifications.

Accomplishments

January 2007	Acting Integration Manager assigned
January 2007	Management/Business Systems Integration Group chartered
February 2007	Plan for conducting data gap analysis completed
March 2007	Received Authority to Proceed
April 2007	Representative projects identified
May 2007	Gap Analysis Team identified and trained
July 2007	Gap identification completed
October 2007	Prioritize project management business system gaps, along with other identified Agency business system gaps. January 2008 Update: The initial due date for this milestone was January 2008, and the activity was completed in October 2007.

Actions Required to Complete

November 2008	Submit business system enhancement proposal(s) to the FY 2011 budget process

Impediments/Challenges

- Data gaps will be defined by a set of representative projects. Collectively, these projects must represent the NASA portfolio.
- Knowledgeable project team members must be available to support the gap-identification process.

- Several projects are large and have geographically dispersed teams; therefore, adequately identifying all needs, given the depth and breadth of the representative projects, may be difficult.
- It is important to not only identify the needs of the customers but also determine supplier gaps that may impede the supplier's ability to support the customer.
- Focus of gap analysis on project management needs may not uncover mission support gaps.
- Results of this gap-identification activity will be incorporated into a pool that includes mission support organizations. The prioritization process will be accomplished by the M/BSIG. Top priorities may or may not be scheduled for immediate implementation, depending on funding and resource availability.

Metric
The Agency will maintain an annual prioritized list of its top five business system gaps. Creating and maintaining such a list will constitute a successful outcome of this initiative. OCIO will provide the annual list to OPII for purposes of monitoring progress against this Plan. January 2008 Update: Corrective actions are currently being developed for the gaps that were prioritized in October 2007. This metric is on track.

Appendix G

PROCUREMENT PROCESSES AND POLICIES

Focus Area: Standard Business Processes

Lead Executive: William McNally, Assistant Administrator for Procurement

Supporting Organization(s): OCIO/IEMP, Mission Directorates, and Center representatives

Description
A number of improvements have recently been made to various procurement processes and policies; others are in progress. The following six specific improvements are noted in this Plan because they are relevant to its goals and objectives and will serve to strengthen Agency performance with regard to contract management.

- **Deployment of an Agency-wide standard contract writing application**
  In order to standardize procurement practices across the Agency, the Office of Procurement and IEMP deployed the Contract Management Module (CMM) Agency-wide in November 2006. CMM is a comprehensive integrated tool which interfaces with NASA's core financial system and supports contract/grant writing, limited contract/grant administration, procurement workload management, and data reporting/management for NASA. As any new system involves continuous process improvement, the implementation continues to be supported with regularly scheduled Center management and user meetings. Since deployment, IEMP, the Office of Procurement, and the Centers have focused on stabilizing the system and the underlying business processes. Those efforts have proven successful as the number of Help Desk calls and service/enhancement requests have declined. Data collected before the system was stabilized would not have proven useful in determining the degree of procurement process standardization being driven by the tool; therefore, a decision was made to delay data collection until the next version release of CMM. A more detailed discussion of planned metric collection and usage is provided at the end of this section.
  The use of CMM will bring more commonality to contract structures and provisions, including project management mechanisms addressed elsewhere in this Plan, such as cost-reporting requirements. The numerous procurement processes standardized across the Agency by CMM include--
  - Receipt of Purchase Request and Commitments (PRC)
  - Solicitation formulation
  - Solicitation amendment
  - Contractor Representations and Certifications
  - Preaward contractor screening
  - Contract formation
  - Contract modification

- Delivery/Task Order issuance
- Termination, and
- Contract closeout.

- **Establishment of Earned Value Management (EVM) procurement policy**
  Effective and appropriate use of EVM will be key to improving NASA contract management. This Plan's initiatives address EVM training, the application of EVM in tracking project performance, and optimization of EVM reporting among the suite of contract cost-reporting tools. NASA has a designated Program Executive for EVM (PE/EVM) in the Office of the Chief Engineer who manages and coordinates all EVM policy issues and ensures that EVM training is available as needed for program/project management personnel. The PE/EVM also leads a working group that includes the EVM lead at each NASA Center, representatives from the Mission Directorates, and select Mission Support Offices, as required. Center leads also provide real time EVM guidance and advice to managers at the project level. NASA procurement regulations were recently revised, specifically to support and enable use of EVM. As a result, the NASA FAR Supplement (NFS) now provides the following information:
  - Dollar-value thresholds for EVM, i.e., $20 million for use of Earned Value Management System (EVMS) and $50 million for requiring EVMS recognition
  - The Defense Contract Management Agency (DCMA) will be consulted in determining the adequacy of proposed EVMS plans
  - Clear guidance that the use of preaward Integrated Baseline Reviews (IBR) is limited to the second or subsequent phases of a phased acquisition (see NFS 1817.73). When a preaward IBR is contemplated, the contracting officer shall include the instructions with respect to the schedule and conduct of the IBR in the proposal request.
  - EVM is not required on contracts for nondevelopmental engineering support services, steady state operations, basic and applied research, and routine services such as janitorial services or grounds maintenance services. In these cases, application of EVM is at the discretion of the program/project manager.

  As a result of the revised NFS guidance, Procurement Strategy Meetings now reflect the planned inclusion of EVM requirements when applicable. Training on effective and appropriate EVM use has been emphasized by providing a presentation on contract EVM requirements at the most recent Agency-wide Procurement Training Conference, and an EVM instruction module has been included in the senior-level procurement training course (CON 353) provided to NASA procurement personnel. NASA assesses Center compliance with all levels of procurement policy guidance (Federal, Agency, and Center) through the Office of Procurement's survey and self-assessment program. This program validates Center compliance with policy guidance, tracks Center implementation of key Agency initiatives, identifies best practices for potential Agency-wide implementation, and seeks to identify potential systemic weaknesses. Survey findings are presented to Center and Agency leadership, and final reports are posted to the NASA Procurement Library for Agency-wide distribution. Center self-assessments are conducted semiannually, and the results are submitted to the Assistant Administrator for Procurement.

- **Clarification of policy with respect to the acquisition of services**
  NASA purchase and management of contracted services is an area in which the Agency has lacked a common approach. Multiple NASA Centers have inconsistently implemented the services acquisition policy in various parts of the FAR (e.g., 7.3, 7.5, 37.1) and OMB Circular A-76 on issues such as personal services, service contracting (especially advisory and assistance services), and commercial activities. Absent clear explanation of the policy, there was a risk of improperly structuring, awarding, and managing contracts for services. In the interest of cross-Agency standardization, the Office of Procurement addressed this risk by issuing Procurement Information Circular (PIC) 07-02 in February 2007. The PIC provides a one-stop, clearly organized job aid that explains statutory, regulatory, and Agency policy regarding the acquisition of services and sets forth the documentation requirements necessary to appropriately comply with policy guidance. Policy related to the acquisition of services will be further enhanced by a revision to NASA Form 1707, Certifications and Special Approvals for IFM Purchase Requisitions. The revised form will include a new section on the acquisition of services to ensure that key considerations are made prior to releasing any solicitation. This revision is discussed in greater detail in the section below titled "Strengthening of the purchase request coordination process." NASA assesses Center compliance with procurement policy guidance through the Office of Procurement's survey and self-assessment program.

- **Policy improvements to acquisition strategy planning**
  NASA's new approach to Agency strategic acquisition is addressed in a separate initiative of this Plan. The Office of Procurement has issued associated changes to Agency procurement policy. The Acquisition Strategy Meeting (ASM) that was described in NFS 1807.170 has been retitled Procurement Strategy Meeting (PSM) as part of a revision in the NASA planning process into three significant and discrete events: Acquisition Strategic Planning (ASP), Acquisition Strategy Meeting (ASM), and the PSM. The ASP and the ASM occur during the program and project approval and requirements development processes. The ASP is used to approve programs and significant projects for execution. The ASM is program or project specific, more detailed than the ASP, and addresses questions such as risk, budget, schedule, and requirements. The PSM is project or contract specific and is developed by the project manager, supported by the contracting officer, and approved as prescribed in the NFS.

- **Award Fee cost benefit analyses**
  NASA frequently issues cost-plus-award-fee contracts, in which the award fee process plays a key role in contract management. However, award fee contracts are not always appropriate, and NASA procurement offices have not documented the cost-benefit analysis that supports use of an award fee incentive. This analysis

demonstrates that the administrative costs associated with managing the award fee are outweighed by the expected benefits. In addition, award fee evaluation criteria have not always been linked to desired performance outcomes. The NFS was revised with the issuance of Procurement Notice (PN) 04-27, dated June 29, 2007. The NFS now requires the documentation of a cost-benefit analysis and the use of evaluation factors that relate directly to outcomes. Compliance with PN 04-27 is assessed through the Office of Procurement's survey and self-assessment program. The Procurement management survey and self-assessment guides were revised in September 2007 to incorporate assessment questions targeting the effective use of award-fee contracts. These improvements will provide more effective contract management.

- **Strengthening of the purchase request coordination process.**
  When structuring contracts and modifications, Contracting Officers must obtain and abide by the recommendations of a cross-functional procurement team, including technical and functional experts. Such a team can best identify the optimal set of contract management requirements and tools for the contract document. Within the NASA IEMP automated environment, the requisition documentation is the method by which the members of the procurement team identify and document recommendations. However, at this point, requisition documents and electronic records do not always contain evidence of all the necessary presolicitation reviews, comments, and approvals. To ensure compliance and further standardization in this area, NASA is currently updating its Form 1707, as previously cited. This checklist-style form, which is required for all contract awards, is used to document presolicitation routing, approval, and action. Additions are being made to include sections addressing review and approval for service contracts and facility security contract requirements, and the existing section on quality assurance is being clarified.

Expected Outcomes
The expected outcomes and value thereof have been noted within each of the preceding six descriptions and are summarized below:
- Greater standardization in the form and structure of NASA contracts.
- Improved visibility into contract performance.
- Improved planning in the development of contracts for services.
- Reduced risk of key decisions not receiving appropriate management review.
- Increased compliance with Agency award-fee policy and appropriate use of these incentives.
- Reduced risk of key requirements being omitted from NASA contracts.

Accomplishments

August 2006	Completed policy improvements to acquisition strategy planning
October 2006	Deployed Agency-wide standard contract writing application
November 2006	Issued EVM procurement policy
February 2007	Completed clarification of policy regarding acquisition of services
June 2007	Completed award fee policy revisions

August 2007	Reviewed and clarified requirements for improvement of the purchase request process
November 2007	Completed processing revision to the purchase request form through NASA forms control. This milestone is completed.

Actions Required to Complete
January 2008 Update: All milestones under this initiative have been completed.

Impediments/Challenges
None

Metric
Standardization of procurement processes through the new automated CMM depends on full utilization of the tool. In order to monitor Center personnel's migration to the tool, NASA anticipates establishing a metric to track the percentage of documents built within the CMM PRISM software, including information by NASA Center and other attributes considered appropriate, after the next version release in FY 2008. The Office of Procurement will develop and maintain the metric and will provide the resultant data to OPII periodically for purposes of monitoring progress against this Plan.
January 2008 Update: the procurement team is currently evaluating the feasibility of building this metric (as well as other metrics) into a future release of CMM. Once feasibility has been assessed, the process will continue to the funding prioritization step. While working toward the system change that this metric would require, the team notes that a very high percentage of obligations in the Core Financial module now have corresponding records in CMM – this attests to the utilization of CMM at the Centers, and may be explored as a more easily obtainable metric. Additionally, the usage of CMM is now being assessed during each of Headquarters' periodic management surveys of Center procurement operations.

NASA
Government Accountability Office (GAO) High Risk Scorecard Status, Contract Management
October 2008

NASA Contract Management (October 2008)	**Indicate "satisfactorily addressed" or "improvement needed" (if "improvement needed," summarize recommended steps)**
Definition of Success	**Satisfactorily addressed** NASA has established a Definition of Success that includes cost, schedule, and mission success goals. NASA has identified metrics and supporting measures, and will assess and report progress against established targets every six months.
Leadership Commitment	**Satisfactorily addressed** NASA senior management actively champions and supports the initiatives set forth in the corrective action plan, the three-part Definition of Success, and the performance monitoring associated with the supporting measures. The High-Risk activities have been featured in multiple high-level meetings and discussions. A specific senior-level manager has been assigned accountability for each initiative within the Corrective Action Plan (CAP).
Capacity	**Satisfactorily addressed** NASA has successfully applied its resources to this effort, using a multi-functional integrated effort to best leverage its staff in achieving High Risk objectives.
Corrective Action Plan	**Satisfactorily addressed** • NASA developed the initial CAP in November 2007. • GAO has reported satisfaction that the CAP "targets problems and issues that our reports have found are contributing to high risk in contract management." During October 2008, NASA updated GAO through individual briefings for each of the seven initiatives. • The CAP has now been supplemented with an Executive Summary (delineating the Definition of Success), Supporting Measures sheet, and short-list of selected key milestones (which will be updated semi-annually).
Validation	**Satisfactorily addressed** • NASA's summary reporting document focuses attention on key goals for enhanced traceability. Cross-functionality of CAP, clearly defined roles and responsibilities of lead executives, and senior management involvement work together in ensuring relevance and value of CAP actions. • NASA has now collected and analyzed the data necessary to establish baselines and measure performance. The September 2008 baselines and actuals have been identified and included in the October update.

NASA Contract Management (October 2008)	**Indicate "satisfactorily addressed" or "improvement needed" (if "improvement needed," summarize recommended steps)**
Demonstrated Progress	**Satisfactorily addressed** Progress is clearly being made. The supporting measures sheet has now been populated with baselines and actuals. All identified key milestones for September 2008 were effectively met (barring final signature on one document). For example, NASA completed and tested new Independent Project Cost Estimate (IPCE) cost risk management tools and is now using baseline performance review data to predict and address project performance issues.

NASA HIGH RISK CORRECTIVE ACTION PLAN
EXECUTIVE SUMMARY and DEFINITION OF SUCCESS
September 26, 2008

INTRODUCTION

NASA's Deputy Administrator finalized the Agency's first GAO High-Risk Corrective Action Plan on October 31, 2007, and the full Plan was subsequently updated through January 31, 2008. This document summarizes the key elements of the plan and presents NASA's Definition of Success.

DEFINITION OF SUCCESS

- **NASA will maintain a cost performance level for its portfolio of major development projects that is within 110% of the budget-weighted aggregate cost baseline.**
- **NASA will meet the baseline schedule goals for its portfolio of major development projects, with aggregate schedule slippage falling within 110% of baseline.**
- **NASA will sustain mission success by staying on-course to meet Level 1 requirements for 90% of its portfolio of major development projects.**

- NASA typically conducts high risk missions using new technologies or systems in one-of-a-kind or first-of-a-kind applications. NASA's missions are unique in this way.

- This Definition of Success is consistent with NASA's recently-developed agreements with OMB and Congress as to reporting of cost and schedule performance metrics to meet the requirements of Section 103(b) of the NASA Authorization Act of 2005 (P.L. 109-155).

- NASA's major development projects are those with a life cycle cost exceeding $250 Million.

- The applicable cost and schedule baseline is the baseline that is established at Key Decision Point C in NASA's project life cycle, associated with the Preliminary Design Review.

- The projects' baselines will reflect NASA's new program/project management policies regarding budgeting to a 70 percent confidence level and developing probabilistic estimates.

- Despite the best planning efforts, externally-driven changes could negatively impact project funding profiles over time, resulting in project schedule delays and cost growth. Such externally-driven changes may include world events, shifting Presidential and/or Congressional budget priorities, or performance of NASA's international partners. In some cases, externally-driven changes necessitate baseline changes. In such instances, the original baselines will be adjusted and project success will be measured against the revised baselines.

- The appropriate end-of-lifecycle point for each project will be determined during that project's Key Decision Point C review.

- NASA aims to achieve success by FY 2013. This date reflects the time required for new policies and processes to take effect as new projects are initiated and completed. NASA's High-Risk Corrective Action Plan activities involve implementation of a set of improved program/project management policies and processes. The current set of major development projects will have been underway prior to such implementation. These current projects will gradually be completed (NASA's typical timeline for development being four years) and will be replaced with newer projects which will fully implement the improved management construct.

- The quantitative goals in the Definition of Success are applicable only to the portfolio of new major development projects – that is, those projects that are managed and baselined in accordance with the Agency's new program/project requirements. However, to maintain continued focus on improving existing projects' performance, NASA will track and report the measures for existing projects as well.

APPROACH

NASA's Corrective Action Plan targets five focus areas:

- Program/Project Management;
- Cost Reporting Process;
- Cost Estimating and Analysis;
- Standard Business Processes; and
- Management of Financial Management Systems.

A cross-functional high-risk team within NASA developed seven initiatives to address the five focus areas:

- Program/Project Requirements and Implementation Practices;
- Agency Strategic Acquisition Approach;
- Contractor Cost Performance Monitoring;
- Project Management Training and Development;
- Improve Life-Cycle Cost/Schedule Management Processes;
- IEMP Process Improvement; and
- Procurement Processes and Policies.

Due to the interrelationships between components of contract management, each initiative's activities were designed to improve one or more of the focus areas. As a whole, the efforts will lead to a lower level of risk associated with NASA contract management.

CONTRIBUTING GOALS, MEASURES, AND MILESTONES
Completion of numerous improvement activities will be critical to achieving the goal set forth in the NASA Definition of Success. NASA has identified subsidiary outcome goals, output goals, measures of success, and milestones, as appropriate to the individual initiatives.

CONCLUSION
NASA senior management is committed to successfully carrying out this Plan and is placing a high priority on achieving the stated milestones, metrics, goals, and objectives. NASA will continue to work closely with GAO and OMB counterparts during implementation of the Plan to review progress and status.

FOLLOW THE MONEY, PART II: GOVERNMENT AND PUBLIC RESOURCES FOR RECOVERY ACT OVERSIGHT

TUESDAY, MAY 5, 2009

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON INVESTIGATIONS AND OVERSIGHT,
COMMITTEE ON SCIENCE AND TECHNOLOGY,
Washington, DC.

The Subcommittee met, pursuant to call, at 2:10 p.m., in Room 2318 of the Rayburn House Office Building, Hon. Brad Miller [Chairman of the Subcommittee] presiding.

BART GORDON, TENNESSEE
CHAIRMAN

RALPH M. HALL, TEXAS
RANKING MEMBER

U.S. HOUSE OF REPRESENTATIVES

COMMITTEE ON SCIENCE AND TECHNOLOGY

SUITE 2321 RAYBURN HOUSE OFFICE BUILDING
WASHINGTON, DC 20515-6301
(202) 225-6375
http://science.house.gov

Subcommittee on Investigations and Oversight

Hearing on

Follow the Money Part II: Government and Public Resources for Recovery Act Oversight

Tuesday, May 5, 2009
2:00 p.m. – 4:00 p.m.
2318 Rayburn House Office Building

Witness List

PANEL I

Mr. Gene Dodaro, *Acting Comptroller General, U.S. Government Accountability Office*

Mr. Earl Devaney, *Chairman, Recovery Accountability and Transparency Board*

PANEL II

Dr. Clarence G. Newsome, *President, Shaw University*

Dr. Gary Bass, *Founder and Executive Director, OMB Watch*

Dr. Jerry Ellig, *Senior Research Fellow, Mercatus Center at George Mason University*

Ms. Danielle Brian, *Executive Director, Project on Government Oversight*

Mr. Eric Gillespie, *Senior Vice President of Products, Technology and Innovation and Chief Information Officer, Onvia*

HEARING CHARTER

SUBCOMMITTEE ON INVESTIGATIONS AND OVERSIGHT
COMMITTEE ON SCIENCE AND TECHNOLOGY
U.S. HOUSE OF REPRESENTATIVES

Follow the Money, Part II: Government and Public Resources for Recovery Act Oversight

TUESDAY, MAY 5, 2009
2:00 P.M.–4:00 P.M.
2318 RAYBURN HOUSE OFFICE BUILDING

I. Summary

The Subcommittee will meet on May 5, 2009, to continue oversight of the accountability and transparency provisions in the *American Recovery and Reinvestment Act* (hereafter cited as the "Recovery Act"). The first panel will examine the establishment of the Recovery Accountability and Transparency Board, set up under the Act to coordinate the efforts underway to measure the outcomes from the investment of the Recovery Act's $787 billion. The Board's new Chairman and the Acting Comptroller General of the Government Accountability Office (GAO) will also discuss what progress has occurred on oversight since the Subcommittee's previous hearing in March.

Witnesses on the second panel have been invited to testify on the policies, processes and organizations that will provide the public its ability to participate in Recovery Act oversight. With the capabilities of the Internet, new channels for gathering information increase the opportunity to forestall misuse of government resources as they happen, not when they are identified in audits months or years later. The Recovery Act calls for citizen involvement; the Subcommittee has asked the panel how to assure this happens.

II. Witness List

Panel I

- **Mr. Earl Devaney,** Chairman, Recovery Accountability and Transparency Board
- **Mr. Gene Dodaro,** Comptroller General of the United States (Acting), Government Accountability Office

Panel II

- **Dr. Clarence Newsome,** President, Shaw University (Raleigh, NC), representing the National Association for Equal Opportunity in Higher Education
- **Dr. Gary Bass,** Founder and Executive Director, OMB Watch (Washington, DC)
- **Dr. Jerry Ellig,** Senior Research Fellow, Regulatory Studies Program, The Mercatus Center, George Mason University (Arlington, VA)
- **Ms. Danielle Brian,** Executive Director, Project on Government Oversight (Washington, DC)
- **Mr. Eric Gillespie,** Senior Vice President, Products, Technology and Information, Onvia (Seattle, WA)

III. Panel I: Managing the Oversight Corps

Subtitle B of the Recovery Act's Title XV provides the statutory foundation for the Recovery Accountability and Transparency Board, established to ". . . coordinate and conduct oversight of covered funds to prevent fraud, waste, and abuse." President Obama named Mr. Devaney to chair the Board on February 23. Besides Mr. Devaney, the Board is made up of ten Inspectors General from federal agencies receiving funds in the Recovery Act. Two Board members, the IGs from the Departments of Commerce and Energy, testified at the Subcommittee's earlier hearing on March 19.

At that time, the Board had not met; as Mr. Devaney told the Committee on Oversight and Government Reform, "The status of the Board is what you might expect just 30 days after the Recovery and Reinvestment Act of 2009 was signed into law." The Board finally met on March 27. Mr. Devaney has been asked to describe for the Subcommittee the progress made by the Board in assuming its responsibilities.

In the Recovery Act, Congress explicitly required that grants and contracts issued using these funds be awarded using competitive procedures and for fixed prices,[1] as defined in the Federal Acquisition Regulation (unless exempted by the Act). This could be an item of special concern to agencies under the jurisdiction of the Committee, as research and development contracts are regularly awarded on a cost-reimbursable basis. The selection of contract type is normally a function of how much knowledge the agency has about the product or service it intends to buy and how confident it is that its needs will not change during the life of the contract. For NASA, which received $400 million in the Recovery Act to support the development of the Space Shuttle's replacement vehicles, this means that contracts using these funds have a higher likelihood of drawing Board attention. On the other hand, research grants issued by the National Science Foundation are normally awarded after undergoing merit review and are issued for fixed amounts. Thus, the NSF Inspector General is less likely to find this to be an issue. The Board is specifically tasked to review agency success at accomplishing these goals. The Board must also review whether the agencies properly report information on grants and contracts and identify what will be delivered by the recipient.

The Board will also have the responsibility to examine Recovery Act spending to detect ". . . wasteful spending, poor contract or grant management, or other abuses . . .."[2] While the Board has the authority to initiate its own audits, the Act clearly expects the Board to rely on the Inspectors General for the bulk of audit and investigation work. The Board will likely find its most important contributions to be distributing the workload most effectively and identifying topics that need immediate attention. Insight on specific Recovery Act projects, however, will come from direct work by an agency inspector general or cooperating State or local oversight offices.

"The President and the heads of federal departments and agencies," says the Act, "shall manage and expend the funds made available in this Act so as to achieve the purposes specified . . ., including commencing expenditures and activities as quickly as possible consistent with prudent management."[3] Mr. Devaney and Mr. Dodaro would likely agree with the witnesses at the Subcommittee's hearing in March that satisfying these simultaneous mandates puts a spotlight on the performance of the program managers and contracting officers directly managing the funds. As the government's representatives closest to the actual performance of a particular grant or contract, they have an early opportunity to prevent wasteful spending. They can just as easily be the source of the "poor contract or grant management" that the Board will seek out. Members expressed concerns numerous times about this issue at the March hearing.

In the course of its activities, the Board will collect information particularly useful in helping Congress gauge the severity of this problem. The Board will review whether agencies have an adequate number of people to determine what the agency needs, conduct competitions that result in maximum value for the money, and then manage the grantee or contractor to produce the expected outcome at the desired time and for the agreed cost.[4] What training these people receive will also be scrutinized so that gaps in institutional knowledge and preparedness can be closed. This information will also be valuable as Congress considers reform of government acquisition generally.

Central to the Board's interaction with the public is the *Recovery.gov* web site, established by Section 1526 of the Recovery Act. The goal is to produce "a user-friendly, public-facing web site to foster greater accountability and transparency in the use of covered funds."[5] The statute has specific requirements for the types of data that are to be made available, such as the agency plans for distributing Recovery Act funds to be provided May 1.

The Recovery Act defines an expansive role for the public in oversight of Recovery Act activities, and Recovery.gov should be viewed as the data well that citizens can draw on to obtain source material. The Act requires the web site to ". . . provide

[1] P.L. 111–5, Section 1554.
[2] Section 1523(a)(2)(C).
[3] Section 3(b).
[4] Section 1523(a)(2)(D) and (E).
[5] Section 1526(a).

a means for the public to give feedback on the performance of contracts that expend covered funds," and in Section 1514 of the Act Inspectors General are directed to:

> ". . . review, as appropriate, any concerns raised by the public about specific investments using funds made available in this Act. Any findings of such reviews not related to an ongoing criminal proceeding shall be relayed immediately to the head of the department or agency concerned."

Whether *Recovery.gov* is able to provide the support to interested citizens desiring to offer such support for oversight has been questioned in the early days of Recovery Act implementation. The Subcommittee has asked Mr. Devaney to discuss the Board's plans for management of the web site; he will likely refer to the online forum the National Academy on Public Administration conducted for the Board this week seeking suggestions for web site improvements. Mr. Devaney is likely to stress for the Subcommittee that *Recovery.gov* is a work in progress and that improvements to the site will likely be made throughout the life of the Board. The complexity of the task, involving the collection of data from multiple sources, assuring the quality of that data, and presenting it in comprehensible terms to the public, is formidable.

In the Recovery Act, the Government Accountability Office is focused more on how states, cities and other localities handle their allocations of Recovery Act resources. However, in the course of its regular work, GAO is likely to discover problems with the use of Recovery Act funds. The public is also likely to ignore the distinctions the Recovery Act makes in assigning oversight responsibilities and provide GAO with information that will need to be provided to the Board and Inspectors General for action. Thus the cooperation between GAO and the Board will be an important aspect in promoting Recovery Act oversight.

The Subcommittee has asked Mr. Dodaro to follow up on GAO's testimony at the Subcommittee's first hearing. GAO recently testified on the ability of Grants.gov, the web site that is supposed to allow application for any federal grant from one site, to handle the increased workload generated by the Recovery Act. In its first report examining implementation of the Act by the States, GAO reports on concerns expressed by officials that lack of resources may hamper the submission of data sufficient to meet the accountability and transparency requirements of the Act. Given GAO's responsibility for regular oversight of government activities, he was specifically asked for comments on public contributions to assist with oversight and on whistleblower protection. The Recovery Act offered new protection to whistleblowers in State and local governments and employed by contractors, and it is the responsibility of the Board and the Inspectors General to provide those protections. Mr. Dodaro should be able to provide additional insights on the issues Mr. Devaney now faces.

IV. Panel II: Public Perspectives on the Recovery Act

Witnesses on Panel II have been asked to discuss several different aspects examining how the Recovery Act is working or will work. This begins with the most basic question—how does someone who might benefit from Recovery Act funds learn how to compete for them?—to assuring that the oversight mechanism set up in the Act will improve our ability to "follow the money" and determine if it has contributed to ". . . provid[ing] investments needed to increase economic efficiency by spurring technological advances in science and health . . ." along with the other overall goals of the Act.

The Committee has continuing interests in the health of the American university system, driven by the need for educated citizens and the contributions colleges and universities make to economic development. Members of the Committee worked to include significant funding increases for science and technology programs in the Recovery Act. While the Recovery Act itself and the total level of resources available received wide publicity, potential beneficiaries have little assistance in actually obtaining funds if they are unfamiliar with the often opaque methods by which agencies conduct competitions and award grants and contracts. Members of the Committee also promote improved educational opportunities for communities that are hampered by historic barriers to top-quality education. The Subcommittee has therefore invited Dr. Clarence Newsome, representing the institutions of the National Association for Equal Opportunity in Higher Education, to describe their efforts to take advantage of the Recovery Act's opportunities to fill immediate and long-term needs for improvements at their campuses.

Dr. Bass has been asked to discuss the broadest set of oversight issues. If the Recovery Act is an experiment in encouraging information flow so that we can detect problems with federal spending earlier, is the initial structure actually accomplishing that goal? If the Act is trying to harness the collective knowledge that citizens may have about the particular projects being funded with Recovery Act dollars, can they find information on those projects and then easily find the proper person who needs to know that the funds are not being used as described by the contract or grant? Dr. Bass helped establish the Coalition for an Accountable Recovery, which has argued that the government does not collect enough information to provide the accountability and transparency sought by the Recovery Act. Unless states and localities present data on their use of Recovery Act funds, the ability to detect trouble may be lost.

Simply implementing the Recovery Act itself is also a work in progress. Guidance from the Office of Management and Budget to the agencies has evolved. Given Dr. Bass's experience at OMB Watch, the Subcommittee has asked for his comments on how accountability and transparency should be accomplished; he should also be able to comment on what the results of this experiment will mean for the regular operations of the Federal Government.

Dr. Ellig, of the Mercatus Center, is testifying at the suggestion of Dr. Broun, the Ranking Member. He has interests similar to those discussed by Dr. Bass, and will also discuss criteria for measuring the Act's performance. Dr. Ellig should also provide comments on the guidance issued to the agencies by the Office of Management and Budget on subjects such as counting the number of jobs produced or preserved by Recovery Act investments. Dr. Ellig has extensive knowledge about the *Government Performance and Results Act of 1993,* and helps to prepare the Mercatus Center *Annual Performance Report Scorecard,* which evaluates the annual agency GPRA Performance Reports for transparency and documentation of program outcomes. [While Congress spent a lot of effort on GPRA-related matters in the 1990s, the Bush Administration implemented a new initiative, the PART Process (Program Assessment and Results Tool), that largely supplanted GPRA. OMB managed PART and neither Congress nor the White House seemed to find any interest in GPRA plans or results after the initiative of PART by then-OMB Director Mitch Daniels.]

Whistleblowers will be critical sources of information when conducting oversight of Recovery Act projects. The Act establishes new protections for whistleblowers working in State and local organizations, and for employees working for recipients of grants and contractors. The law requires the appropriate Inspector General to investigate a case unless it is the subject of another administrative or judicial process, does not involve Recovery Act funds or is determined to be frivolous. The Inspector General involved has 180 days to prepare a final report that goes to the whistleblower, that person's employer, the head of the funding agency and the Board. Because the Act has extended these protections to non-Federal employees, there may be new and unique issues that arise if it becomes necessary for an Inspector General to enforce these powers. The Subcommittee has asked Danielle Brian, Executive Director of the Project on Government Oversight, to evaluate the new protections. The Subcommittee asked for her comments on the difficulties that may arise, and for advice on how to let prospective whistleblowers know of their rights under the Act.

Developing and managing Recovery.gov will pose challenges for the Board. To offer some insight on the extent of that challenge, the Subcommittee will receive testimony on a private-sector equivalent, *Recovery.org.* This web site was developed by Onvia, a Seattle company whose regular business involves identifying and tracking government procurement opportunities, and alerting private companies interesting in bidding. After passage of the Recovery Act, the company decided to use its capabilities to develop a tracking site for use by the public.

The Subcommittee has invited Eric Gillespie, the company's Senior Vice President for technology, to describe what was required to prepare the site, where to find the data for display, and how to present data for different audiences with different interests seeking different information from the site. Onvia has identified some 90,000 "purchasing units" across the U.S. that generate procurement opportunities. Each has unique rules for how funds should be spent and requirements for transparency. While Mr. Bass's coalition argues that data on spending should be provided down to contractor level, Mr. Gillespie's experience indicates this cannot be achieved overnight—if at all. Not all jurisdictions make their data accessible on the net to outside organizations. Changes must be tracked sometimes at hourly intervals, as it can't be guaranteed that postings will be permanent. States and localities may not have funds to collect, process and provide this data; Chairman Towns of the Oversight and Government Reform Committee is considering legislation to assist the states with funds to address this issue. While the Act provides the Board with $84 million to fund its operations, building the data infrastructure it authorizes will take that and more.

The Board has a statutory termination date of September 30, 2013, and Mr. Devaney is considering what will be left behind when the Board is done. Some agencies are already viewing their work overseeing Recovery Act activities as a new model for managing regular appropriations. The database behind *Recovery.gov* will embody many lessons learned about understanding where the Federal Government's resources go and how they affect the economy. It may become possible to shorten the time to determine the effectiveness of federal spending in order to react quickly to failure or reinforce success. The legacy of the Recovery Act may go beyond the physical infrastructure and economic benefits to include new ways to illuminate government performance for citizens.

Chairman MILLER. The meeting will come to order.

We are in the middle of a recession. We are trying to figure out how to spend $500 billion quickly in a way that stimulates the economy as much as possible, and we are trying to do with a minimum of waste, fraud, and abuse. All that is important, but there is a resolution on the Floor honoring my alma mater for winning the national men's basketball championship. I hope you understand the priority there.

I do welcome everyone to the Committee's second hearing on oversight related to the *American Recovery and Reconstruction Act.* These hearings are titled *"Follow the Money,"* after the character in the movie and the book, *"All the President's Men,"* the "Deep Throat" character who told Bernstein and Woodward to trace the money back to find out where the corruption began. Now we are at the front end trying to figure out where the money is going to go.

And we hope we will not end up with anything as sordid as that was, but perhaps by starting this effort and knowing at the outset the care that must be taken we can avoid it.

Our hearing in March featured inspectors general describing their efforts to establish the oversight mechanisms called for in the Act, and now we will hear from Mr. Devaney, Chairman of the new Recovery Accountability and Transparency Board. He has before him the daunting task of sitting at the top of the Recovery Act oversight pyramid. He has to marshal the capabilities of the inspectors general devoted to Recovery Act oversight, coordinate their deployment across multiple agencies, cooperate with opposite numbers in cities and states, share all the lessons learned, and run a data management operation trying to turn a massive amount of information into answers to the questions we all have.

Are we improving the economy? How many people have we put to work? Or how many have—how many jobs have we saved? He was not able to testify in March at our first hearing, but he said that he would appear as soon as possible, and he has proven good to that word, and we welcome him today.

We also welcome General Gene Dodaro, head of the Government Accountability Office, GAO. His job description is very similar to Mr. Devaney's except that his jurisdiction covers all of Federal Government. Mr. Dodaro will bring us up to date on the progress our science agencies have made in using their Recovery Act appropriations.

GAO has also issued the first of its reports examining State and local use of Recovery Act funds. It mentions the loss of funding and staff at stake in local oversight organizations at the same time that we are asking for the State and local governments to play a significant role in monitoring Recovery Act projects. That should concern us, as it will directly affect our ability to build a system that can follow a Recovery Act dollar as it leaves our Treasury and then goes, to use one example, to the Department of Transportation, from there to the Department of Transportation in North Carolina, and eventually becomes asphalt paving, a part of the Raleigh Beltline, Interstate 440. It seems like a simple task, but Dr. Bass and Mr. Gillespie before explained that there remain a number of issues, and Mr. Devaney will have to deal with these issues.

Dr. Ellig will also raise some questions about the methods of reporting performance as Recovery Act initiatives advance. Traditionally oversight has been an after-the-fact focus, when someone has done wrong, and by the time we get here, the money is already gone, and there is nothing much we can do about it except scold the people who were responsible. Perhaps provide a good deterrent for others to make the same mistakes.

But with the Recovery Act we are trying to set out a new approach, giving the people, all the American people, the opportunity to look at the raw data, or as raw as possible, and bring to bear their own experience, their own experience and some knowledge from places we may not have expected, to help us avoid—spot the danger ahead. We are in essence deputizing the entire American citizenry to help with the oversight of this program.

A whole industry is growing up around the release of National Weather Service data benefiting other important sectors of the economy like agriculture and utilities. That model works because the Weather Service takes seriously its responsibility to provide high-quality data, check for accuracy and integrity, and we need Recovery Act data to do the same thing.

Very often discovery of the misuse of public resources cannot happen without the willing of someone to step forward to say something is wrong, to blow the whistle. That can be a life-altering decision for those who do blow the whistle, and there is pressure to avoid damaging the organization of which they are a part, sometimes intense pressure. The Recovery Act adds to the protections that whistleblowers get outside of the Federal Government because those folks will be perfectly positioned to tell us if something is going wrong.

We had—have to make sure the potential whistleblowers know that those protections will be effective and that they are safe to do their duty to step forward and tell us that something is wrong. Ms. Brian has long experience with those issues and will help us with that.

I have a special welcome for one of our witnesses today. Dr. Clarence Newsome, the President of Shaw University in Raleigh. Dr. Newsome has told me for some time of his concern that—for smaller institutions like his it is—for them it is not easy to find out about opportunities in the Recovery Act, and I have heard the same thing from elected officials in small towns in my district, telling me the same thing, trying to figure out a way to get access to some of the funds for worthy projects in their own communities.

Funds in the Recovery Act are supposed to be distributed based upon competition so that all the best ideas should be in the running, but as we try to speed those funds into the economy, I think we are all concerned that there is a fair chance that less competitive projects don't win out by default because they have access to better information.

Every August, Washington goes into a slumber known as the August recess. Dr. Broun and Ms. Dahlkemper and I will not sleep through August. We will be home in our districts talking to people. There is our chance to find out how Congress is doing, how we are doing, and with this hearings, with these hearings we want to make sure that we can answer questions about Recovery Act.

Again, we are trying to spent $500 billion or so—the total amount of recovery is closer to 800 billion, but about 600—more than 60 percent of it is spending as opposed to tax cuts, and we are trying to spend it quickly and at the same time spend it efficiently without waste or abuse, which is no small task.

And with that I now recognize Dr. Broun, the Ranking Republican on the Committee.

[The prepared statement of Chairman Miller follows:]

PREPARED STATEMENT OF CHAIRMAN BRAD MILLER

I'd like to welcome everyone to the Subcommittee's second hearing on oversight related to the *American Recovery and Reconstruction Act.* These hearings are titled, *"Follow the Money."* We are, of course, borrowing Hal Holbrook's classic coaching, in his role as "Deep Throat" from the movie *All the President's Men,* on how Bernstein and Woodward could reveal the corruption at the heart of the Watergate scandal.

Let us hope we never reveal anything that sordid in this effort. However, the Recovery Act will spend $787 billion in public funds, a sum that makes "following the money" important.

Our hearing in March featured Inspectors General describing their efforts to establish the oversight mechanisms called for in the Act. Now we will hear from Mr. Devaney, Chairman of the new Recovery Accountability and Transparency Board. He has a daunting task seated at the top of the Recovery Act oversight pyramid. He has to marshal the capabilities of the Inspectors General devoted to Recovery Act oversight, coordinate their deployment across multiple agencies, cooperate with opposite numbers in states and cities, share all the lessons learned—and run a data-management operation trying to turn a massive amount of information into answers to the questions we all have: "Are we improving the economy," and "how many people have we put to work?" He wasn't able to testify in March but promised to appear later. He is a man of his word.

We also welcome Comptroller General Gene Dodaro, head of the Government Accountability Office (GAO). His job description is very similar to Mr. Devaney's except that his jurisdiction covers all of the Federal Government. Mr. Dodaro will bring us up to date on the progress our science agencies have made in using their Recovery Act appropriations. GAO has also issued the first of its reports examining State and local use of Recovery Act funds. The report points out the loss of funding and staff at State and local oversight organizations at the same time we are asking for their help monitoring Recovery Act projects.

This should concern us, as it will directly affect our ability to build the system that can follow a Recovery Act dollar as it leaves the Treasury, then goes (for example) to the Department of Transportation, from there to the transportation department of the State of North Carolina, and then to pay for the asphalt in the machine filling potholes on Interstate 440 near Raleigh. It seems a simple task, but Dr. Bass and Mr. Gillespie will explain that there remain a number of issues Mr. Devaney will have to deal with. Dr. Ellig will also raise some questions about the methods for reporting performance as Recovery Act activities advance.

Traditionally, oversight has had an after-the-fact focus here in Washington. By the time we learn what went wrong, the money's already gone and we have nothing to show for it. With the Recovery Act, we're trying out a new approach: give many people the opportunity to look at a data set and bring to bear their own expertise and experience, and some unanticipated knowledge may be revealed or unexpected danger avoided.

A whole industry has grown up around the release of National Weather Service data, benefiting other important sectors of the economy like agriculture and utilities. But that model works because the Weather Service takes seriously its responsibility to provide high-quality data, checked for accuracy and integrity. We will need that for Recovery Act data as well.

Very often, discovery of the misuse of public resources cannot happen without the willingness of one person to step forward and say, "something's wrong." This can be a life-altering decision, and the pressure to avoid damaging an organization can be intense. The Recovery Act adds new protections for whistleblowers outside the Federal Government, because they will be perfectly placed to see what's happening after funds begin flowing within the grant or contract. Now we have to make people believe the protections will actually work. Ms. Brian has long experience with these issues to share with us here.

I have a special welcome for one witness, Dr. Clarence Newsome, the president of Shaw University in Raleigh, North Carolina. Dr. Newsome has been telling me of his concern that for smaller institutions such as his, it is not easy to learn about the opportunities in the Recovery Act. I've also had elected officials in some of the small towns in my district telling me similar stories.

Funds in the Recovery Act are supposed to be distributed based on competition, so all the best ideas should be in the running. As we also try to speed these funds into the economy, I'm concerned that we may not give some folks a fair chance, and that some other less-competitive projects will succeed by default.

Every August, Washington D.C. goes into a slumber known as August recess. But for Member's themselves, August is far from a recess or vacation. That is the month that I, and I'm sure every other Member of this committee, go home, talk to my constituents and ask the question, "how are we doing? Is Congress doing what it needs to do for you"?

With these hearings, we're making sure we can answer those questions, with regard to the Recovery Act. Again, I'd like to thank everyone for joining us today, and I now recognize the Ranking Member, Dr. Broun, for his opening statement.

Mr. BROUN. Thank you, Mr. Chairman. Let me welcome our witnesses here today. I think I shook hands with the two in the first panel. I apologize for not having shook hands with the other witnesses, but welcome. We are glad to have you.

This is the second hearing that this committee has held on this very important topic, the Stimulus Act oversight. While it is no secret that my colleagues on this side of the desk and I voted against the stimulus bill, this committee does have an obligation to make sure that if taxpayers' money is going to be spent, that it be done appropriately.

As I said at the previous hearing, the identifying of waste, fraud, and abuse is a non-partisan endeavor. In addition to providing oversight of stimulus funding, it is also important for Congress to accurately assess the effectiveness of the Act by using metrics to track success and evaluate outcomes. Without this Congress is simply spending money based on evaluations just as random as how to determine the ultimate funding level for the Act.

Like the TARP bail-out, funding levels seem to have been chosen arbitrarily as if drawn from a hat. Presumably the anticipated results were as well. The President advertised 3.5 million jobs as a result of this Act, yet I am not sure how many folks will be able to explain where that number came from or how it will be ultimately verified. Perhaps it came from the same hat the funding level was pulled from.

The National Bureau of Economic Research, the group of economists tasked with determining the start and end of economic downturns, announced that December 2007 was the start of the current recession. Their research also indicated that economic downturns have usually lasted between six and sixteen months since the Great Depression.

Take into consideration that most of the stimulus spending won't occur until after 2010, and that the CBO determined that the Stimulus Bill will actually decrease gross domestic product in the out years by crowding out private investment. One has to wonder what we are doing for this—what we are doing this for. Our children and grandchildren who ultimately are going to pay for this deserve an answer.

The stimulus bill put taxpayers on the line for $3.27 trillion when you add debt servicing and account for program extensions. Under the Obama budget the national debt will double in five years and triple in ten. That is outrageous. Add to that the revelation that the Federal Government has already run out of money halfway through this fiscal year, and we have a recipe for disaster.

Whether or not you agree with the underlying Act, we still have to make sure that the government is capable of spending this money appropriately, with as little waste, fraud, and abuse as is possible and in a manner that directly benefits our country. In order to determine if the Act does, indeed, benefit the Nation, we need to clarify—we need to clearly define metrics for this success.

Simply put, the American people need to know what they got for their money. Since the stimulus bill was sold as a means to jump-start our economy and create jobs, it is important to identify baselines, track progress, and evaluate whether those outcomes were the result of a stimulus act or by other means.

On today's second panel we will hear from outside groups who can contribute greatly to ensuring that the funds are spent appropriately in a transparent and accountable manner. With agencies, inspector generals, OMB, GAO, and the RAT Board, and Congress, overwhelmed by the size of the spending, everyday citizens and outside groups will prove to be critical in ferreting out waste, fraud, and abuse.

That can also help evaluate not only the effectiveness of the spending, but also whether the Administration has followed through on its ambitious promise of transparency and accountability.

In addition to the witnesses appearing before us, I would also like to include in the written record a letter from the Americans for Tax Reform. Their letter clearly highlights the fallacy of government wealth creation, concerns with employment metrics, and also some of the challenges associated with transparency and accountability.

Thank you, Mr. Chairman. I look forward to the witnesses' testimony and yield back the rest of my time.

[The prepared statement of Mr. Broun follows:]

PREPARED STATEMENT OF REPRESENTATIVE PAUL C. BROUN

Thank you, Mr. Chairman. Let me welcome our witnesses here today, and thank them for attending. This is the second hearing that this committee has held on a very important topic—Stimulus Act oversight. While it's no secret that my colleagues on this side of the dais and I voted against the stimulus bill, this committee does have an obligation to make sure that if taxpayer money is going to be spent that it be done appropriately. As I said at the previous hearing, identifying waste, fraud, and abuse is a nonpartisan endeavor.

In addition to providing oversight of stimulus funding, it is also important for Congress to accurately assess the effectiveness of the Act by using metrics to track success and evaluate outcomes. Without this, Congress is simply spending money based on evaluations just as random as how it determined the ultimate funding level for the Act.

Like the TARP bail-out, funding levels seem to have been chosen arbitrarily as if drawn from a hat. Presumably, the anticipated results were as well. The President advertised 3.5 million jobs as a result of this Act, yet I'm not sure how many folks will be able to explain where that number came from or how it will ultimately be verified. Perhaps it came from the same hat the funding level was pulled from.

The National Bureau for Economic Research (the group of economists tasked with determining the start and end of economic downturns) announced that December 2007 was the start of the current recession. Their research also indicated that economic downturns have usually lasted between six and sixteen months since the Great Depression. Take into consideration that most of the stimulus spending won't occur until after 2010, and that the CBO determined that the stimulus bill will actually decrease gross domestic product in the out-years by crowding out private investment, and one has to wonder what we are doing this for. Our children and grandchildren, who ultimately are going to pay for this, deserve an answer.

The stimulus bill put taxpayers on the line for $3.27 trillion when you add debt servicing and account for program extensions. Under the Obama budget, the national debt will double in five years and triple in ten. Add to that the revelation that the Federal Government has already run out of money half way through this fiscal year, and we have a recipe for disaster.

Whether or not you agree with the underlying Act, we still have to make sure that the government is capable of spending this money appropriately, with as little waste, fraud, and abuse as possible, and in a manner that directly benefits our country. In order to determine if the Act does indeed benefit the Nation, we need to clearly define metrics for its success. Simply put, the American people need to know what they got for their money. Since the stimulus bill was sold as a means to jump-start our economy and create jobs, it is important to identify baselines, track progress, and evaluate whether those outcomes were a result of the Stimulus Act, or by other means.

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Thank you, Mr. Chairman. I look forward to the witnesses testimony and yield back my time.

[The information follows:]

AMERICANS *for* TAX REFORM

722 12th Street N.W.
Fourth Floor
Washington, D.C.
20005
T: (202)785-0266
F:(202)785-0261
www.atr.org

May 5, 2009

The Honorable Paul Broun
Committee on Science and Technology
U.S. House of Representatives
394 Ford House Office Building

Dear Dr. Broun,

I appreciate the opportunity to provide our thoughts on the issue of "following the money," specifically the money appropriated under the "American Recovery and Reinvestment Act of 2009." I serve as president of Americans for Tax Reform and chairman of our most recent project line, the Center for Fiscal Accountability. We focus on keeping the growth of government in check by keeping taxes and spending low and promote transparency and accountability in that context.

Government Cannot Create Wealth

As a taxpayer advocacy organization, Americans for Tax Reform was strongly opposed to the passage of the "Recovery Act" under the guise of economic stimulus. We dispute the notion of government spending as "stimulus" for the economy, as do many economists. History underscores government's failure to "spend" an economy out of a recession:

> In 1997, Argentina's economy began to worsen. In response, Argentine non-interest government spending grew from 23% of GDP in 1997 to 25% of GDP by 2001. The equivalent in the U.S. would be an immediate increase in government spending of nearly $300 billion. Despite this, average real GDP growth in the period was just 0.7%
>
> In the 1990s, Japan tried to grow government to "prime the pump" of the economy. Government spending grew from 32% of GDP in 1991 to 38% of GDP in 2000. The equivalent in the U.S. would be an immediate increase in government spending of nearly $900 billion. After this experiment, Japan's per-capita national income fell from 86 percent of the U.S. level in 1991 to only 74 percent in 2000. The people of Japan became poorer after this massive government "stimulus"
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> In 1929, the U.S. entered the Great Depression. In the decade following, a Republican failed president (Herbert Hoover) and a Democrat failed president (FDR) increased federal spending from 3.4% of GDP in 1930 to 10.3% of GDP in 1939. The equivalent today would be an immediate increase in government spending of $1 trillion. Despite all the spending of the New Deal, the U.S. economy actually shrank from $97.4 billion to $89.1 billion, or nearly 10 percent in 10 years.

Government cannot create wealth, it merely displaces capital and moves it around. Noted economist Henry Hazlitt pointed out years ago:

> The greater the amount of government spending, the more it depresses the economy. In so far as it is a substitute for private spending, it does nothing to "stimulate" the economy. It merely directs labor and capital into the production of less necessary goods or services at the expense of more necessary goods or services. It leads to malproduction. It tends to direct funds out of profitable capital investment and into immediate consumption.

Essentially, Keynesian "stimulus" is akin to walking to one side of a lake, removing water with a bucket, and carrying it over to the other side to pour it back in. This will not "stimulate" the lake. It will be no deeper than it was before.

Thanks to the "stimulus/bailout/pork/omnibus" bills, federal spending alone this year will be about 30 percent of GDP, according to Strategas Research Partners, LLP. That's the highest level since 1945, when World War II was drawing to a close. Since then, the average has been only 20 percent of GDP, a figure that held up as recently as two years ago. Since 2007, the federal government has managed to increase spending by 50 percent, and the budget just passed by Congress envisions a world where the federal government spends 25 percent of economic output on a permanent basis. These are unsustainable levels, and they will have to be paid for, most likely in the form of tax increases.

Not only does this package place a massive burden on American taxpayers, it also comes fraught with many problems, not least in the form of strings attached to funding made available to states, which are required to expand programs such as unemployment insurance. This is likely to lead to budgetary problems at the state level down the road once "stimulus" funds dry up, and the reason for which several governors have announced their opposition to accepting such funds.

The Invention of a New Metric: "Jobs Created/Saved"

Apart from the aforementioned underlying flaws, another problem we see is the arbitrary focus on the "jobs created/saved." President Obama has claimed that the Recovery Act would create or save four million jobs. In his press conference marking his 100th day in office on April 29, he asserted that the Act had already saved 150,000 jobs to date – against the background of official Bureau of Labor statistics that point to 1.3 million jobs lost since the President took office.[1]

The number of jobs "created and saved" will be impossible to determine. While there may be a metric to calculate job creation, any such claim can only be an estimate and fails to take into account any jobs that are destroyed as money is taken out of one part of the economy to inject it into another. Further, there is no way to scientifically and accurately calculate the number of net jobs saved, because it is impossible to know what would have happened absent the passage of the "stimulus" package.

Earlier this year, Senator Max Baucus (D-MT) challenged the Administration on their arbitrary claim, saying:

> "You created a situation where you cannot be wrong. If the economy loses 2 million jobs over the next few years, you can say yes, but it would've lost 5.5 million jobs. If we create a million jobs, you can say, well, it would have lost 2.5 million jobs. (…) You've given yourself complete leverage where you cannot be wrong, because you can take any scenario and make yourself look correct."

Transparency and Accountability Challenges

While we remain unconvinced of the merits of the Recovery Act, and remain concerned about the burden it imposes on taxpayers, the focus now must be damage control. This Committee has an important responsibility to ensure that funding from the Recovery Act is spent with an eye on

[1] http://www.bls.gov/news.release/empsit.nr0.htm.

minimizing the potential for fraud, waste, and abuse, the danger for which lurks whenever large sums of money are spent expeditiously. The key to minimizing fraud, waste, and abuse are transparency and accountability.

While the President assumed office promising that "those of us who manage the public's dollars will be held to account, to spend wisely, reform bad habits, and do our business in the light of day,"[2] already the way in which the Recovery Act was passed - without a single hearing by any committee, and without giving members of Congress an opportunity to read the hundreds of pages of bill text and report language – was a blatant violation of both the spirit and the letter of that promise.

And despite renewed lofty promises of an "unprecedented level of transparency" with regard to the implementation of the Recovery Act, so far, taxpayers are still largely in the dark as to how "stimulus" dollars are being spent.

Recovery.gov, the website which the Administration promised would allow "every America (to) find out how and where their money is being spent," has been touted as the administration's one-stop-shopping place for stimulus information. However, while aesthetically pleasing, the site so far holds little detail, but instead many colorful charts, links and announcements, as well as propaganda. Private sector websites like Recovery.org currently hold more useful information about spending projects already underway.

Given that much of the funds designated for agencies under this committee's jurisdiction will be distributed in the form of grants, a recent update on the implementation of the Federal Funding Accountability and Transparency Act which led to the creation of USAspending.gov launched on December 13, 2007, should alarm members of this committee: Over a year after its launch "significant data quality and completeness issues remain" - specifically with regards to assistance data (primarily grants and loans). If government is not able to live up to transparency requirements for regular government expenditures, how will we achieve oversight, transparency, and accountability for massive sums of funds that are rushed out the door?

The Recovery Act itself was rather vague in its transparency and accountability requirements. Subsequent guidance memoranda from the Office of Management and Budget (OMB) have taken first steps in the right direction. However, they still fall short in providing a framework that will be capable of helping prevent fraud, waste and abuse. One of the big concerns in this area is the failure of the disclosure requirements to capture multi-tier sub-awards, meaning funding that flows from the prime recipient through several other tiers of sub-awarding before it reaches the final recipient, and OMB should strengthen its guidance accordingly.

The promised "unprecedented level of transparency" can only be considered achieved if the following applies:

All information relating to expenditures made under the Recovery Act, ranging from prime-award over the various tiers of sub-awards to the final recipient should be provided in a form that allows users to programmatically search and access all data in a serialized machine-readable format, which allows for data to be exported. Users should be able to sort data by categories as well as search and find data by single keyword.

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[2] President Barack Obama, Inaugural Address, Jan. 20, 2009.

AMERICANS for TAX REFORM

If the data is presented in such a format, third-party groups will be able to supplement and augment the government's efforts to provide transparency and accountability by building their own websites and leveraging new technologies to create mesh-ups and other user-friendly applications as some have set out to do.

Taxpayers should further be able to access the full text of all contracts and related documents (i.e. RFPs, terms etc). The OMB guidance memoranda require the posting of summaries of contracts or orders (of contracts over $500,000 or of the contracts that were not fixed-price/competitively awarded). However, a comprehensive analysis of the spending occurring under the Recovery Act is only possible when access to all expenditure documents is granted – no thresholds, and full text if permissible by law, and if not permissible by law, maybe the law would have to be revisited. The same standards should apply for grants.

Lastly, given the implications of this massive spending package for taxpayers, transparency and accountability is needed in the process – not after-the-fact. Consequently, only providing the data to taxpayers in (close-to) real-time would do them justice, but at this point, it appears more likely that taxpayers will only be given the opportunity to perform an autopsy.

Sincerely,

Grover Norquist

Cc: All Members, House Science and Technology Committee

Chairman MILLER. Thank you, Dr. Broun. If you could attach that letter to your testimony, it can be part of the record.

Mr. BROUN. Thank you, sir. Appreciate it.

Chairman MILLER. And without objection, we will take opening statements submitted by other Members to include in the record. It is so ordered.

Panel I

Chairman MILLER. It is now my pleasure to introduce our first panel of witnesses, although I have largely introduced them already in my opening statement.

Mr. Earl Devaney is the Chairman of the Recovery Accountability and Transparency Board established by H.R. 1 and is formerly the Inspector General of the Department of the Interior.

Mr. Gene Dodaro is the Acting Comptroller General of the United States Government Accountability Office, the GAO.

As our witnesses should know, you have five minutes for your spoken testimony. Written testimony will be included in the record for the hearing. When you have completed your spoken testimony, we will begin with questions, and we will alternate with each Member having five minutes to question the panel.

It is the practice of this committee or the Subcommittee to receive testimony under oath. Do either of you have any objections to taking an oath? The record can reflect that neither did. You also have the right to be represented by counsel. Do either of you have counsel here? And the witnesses both responded no. We ask you these questions to put you at ease for your testimony.

If you would now please stand and raise your right hand. Do you swear to tell the truth and nothing but the truth? The record should reflect that both witnesses did take the oath.

We will now start with Mr. Devaney. Mr. Devaney, you may begin.

STATEMENT OF MR. EARL E. DEVANEY, CHAIRMAN, RECOVERY ACCOUNTABILITY AND TRANSPARENCY BOARD

Mr. DEVANEY. Mr. Chairman, Ranking Member Broun, and Members of the Subcommittee, I want to thank you for the opportunity to appear before you today to discuss the efforts and progress of the Recovery Board. My testimony today will address the current status and mission of the Board, and after I make my opening remarks, I will be glad to answer any questions.

Mr. Chairman, the members of the Board and I view the Board as having a duel mission. First, the Board is responsible for establishing and maintaining a web site; the purpose of which is not only to foster historic levels of transparency of Recovery funds but to do so in a user-friendly way.

Second, the Board will coordinate and conduct oversight of Recovery funds to help minimize fraud, waste, or mismanagement. I am pleased to tell you that the Board continues to advance its mission of accountability and has recently taken several important steps to achieve its goal of an unprecedented level of transparency of recovery funds.

With respect to the accountability mission, the Board has formed a Recovery funds working group. Unlike the Board, which is by law composed of ten specific IGs and a chairperson, the working group was created to foster participation and input from all 28 IGs that oversee agencies receiving Recovery funds. The working group is co-chaired by the Department of Transportation's IG and a former IG who is on the Board's staff. The working group has already identified a number of projects such as creating a Recovery audit work plan, suggesting ways to improve the single audit process, and identifying high-risk programs in the agencies.

Beyond the Federal Government IG community, the Board has interacted with many others involved in the oversight of recovery funds. As a part of its initial outreach the Board's procurement compliance staff is meeting with senior procurement executives from each agency receiving funds. The Board's staff has also developed a procurement checklist to assist federal agencies charged with spending recovery funds. It is our hope that this type of agency outreach can help prevent fraud, waste, and mismanagement of recovery funds before it happens.

The Board is also reaching out to assist states with their new Recovery Act responsibilities. This week, for example, I am hosting a visit from a new Recovery IG of California, a state that will be receiving more than $45 billion in Recovery Act funds. I will be introducing her to the IGs who are overseeing monies headed for California, the Board staff, and the Recovery teams at OMB and GAO. I hope to host similar meetings with oversight officials from other states and cities in the future.

Last week I spoke, as I have several times before, at a meeting of high-level State officials who convened in Washington to discuss Recovery fund implementation issues. In addition, on May 20 I will be speaking to a gathering of State IGs in Orlando. On each of these occasions I deliver the message that the Board is here to assist them with their oversight, and they should feel free to tell us about any help that they may need.

In order to better focus and utilize its resources, the Board has formed two committees; one dedicated to the Board's accountability mandate and the other to the Board's continuing development of *Recovery.gov.* Each committee is currently composed of three Board members. These committees meet in addition to the regular Board meetings and then report back to the entire board on the status of these critical initiatives, as well as giving recommendations for moving forward.

The Board's accountability committee, for instance, will discuss strategies for not only receiving reports of fraud, waste, and mismanagement, and referring them to the appropriate IG, but also analyzing and developing reports in light of available open-source data. These reports will make the Board's referrals more value added for the IGs and will also contribute to risk-based predictions about potential fraud.

On the IT side the Board's *Recovery.gov* committee is working to provide strategic direction on an entire range of IT efforts that are before the Board.

Mr. Chairman, it is important to remember that the creation of the web site is an involving process, with multiple phases. It is not a single event. Now that the first phase of getting *Recovery.gov* is up and running has ended, we are moving quickly to implement the second phase of development. The Board is beginning to manage the web site's design and content. OMB will still retain responsibility for the reporting guidance and the verification of the data, and GSA will continue to host the web site and will work with the Board to collect and store the data.

I am confident that this division of labor will provide the best opportunity to maximize *Recovery.gov*'s use as a transparency and accountability tool, and I am equally confident that we will have the opportunity to achieve unparalleled citizen participation.

On the subject of citizen participation, we also hope to employ the creative and innovative ideas the public may have for the future of *Recovery.gov.* The Board just this past week hosted an electronic town hall with NAPA and OMB, designed to engage the public recipients and IT professionals and our State and local and tribal partners.

While my impression was that we would get a high level of participation, the overwhelming response to our electronic town hall surpassed even my wildest expectations. At the end of this event the site had received well over 4.2 million hits, over 1,800 citizens had taken the time to register online, and we feel we have close to 550 solid ideas. NAPRA is now in the process of assembling and analyzing these ideas which will then allow us to move quickly to a competitive process for vendor selections.

Mr. Chairman, I think I have run out of time, so why don't I just stop there because I think the questions are going to be more informative.

[The prepared statement of Mr. Devaney follows:]

PREPARED STATEMENT OF EARL E. DEVANEY

Mr. Chairman and Members of the Subcommittee, I want to thank you for the opportunity to appear before you today to discuss the efforts and progress of the Recovery Accountability and Transparency Board (the Board). As you know, the President recently appointed me Chairman of that Board, which was established by the *American Recovery and Reinvestment Act of 2009* (the Recovery Act). My testimony today will address the current status and mission of the Board, and after I make my opening remarks, I will be glad to answer any questions you have for me.

The Members of the Board and I view the Board as having a dual mission. First, the Board is responsible for establishing and maintaining a web site, the purpose of which is not only to foster historic levels of transparency of Recovery Act funds but to do so in a user-friendly manner. Second, the Board will coordinate and conduct oversight of Recovery Act funds to help minimize fraud, waste or mismanagement. I am pleased to tell you that the Board continues to effect its mission of accountability and has recently taken several important steps to achieve its goal of unprecedented transparency of Recovery Act funds.

With respect to our accountability mission, the Board has formed a Recovery Funds Working Group. Unlike the Board, which by the Recovery Act's terms is composed of 10 specific agency IGs and a Chairperson, the Working Group was created to foster participation and input from all 28 Offices of Inspectors General that oversee an agency receiving Recovery Act funds. The Working Group is co-chaired by the Department of Transportation Inspector General (IG) and a former IG who is now on the Board's staff. The Working Group has identified a number of initial projects, such as creating a Recovery Audit Work Plan, suggesting ways to improve the Single Audit process, and identifying high-risk programs at the agency level.

Beyond the federal IG community, the Board is interacting with others involved in federal and State oversight and management of Recovery Act funds. As part of its initial outreach, the Board's procurement compliance staff is meeting with senior procurement executives from each agency receiving funds. The Board's staff has also developed a procurement checklist to assist federal agencies charged with spending Recovery Act funds. It is our hope that this type of agency outreach can help to prevent fraud, waste, and mismanagement of Recovery Act funds before such funds leave the agencies.

The Board is also reaching out to assist states with their new Recovery Act responsibilities. This week, for example, I am hosting a visit by the new Recovery IG of California, a state that will be receiving more than $45 billion in Recovery Act funds. I will be introducing her to the IGs who will be overseeing monies headed for California, the Board's staff, and the Recovery Teams at the Office of Management and Budget (OMB) and the Government Accountability Office (GAO). I hope to host similar meetings with oversight officials from other states and municipalities in the near future. Last week I spoke, as I have several times before, at a meeting of governors and other high-level State officials who convened in Washington to discuss Recovery Act fund implementation issues. In addition, on May 20th, I will be speaking to a gathering of all State IGs in Orlando for the Spring Conference of the Association of Inspectors General. On each of these occasions, I deliver the message that the Board is here to assist with State oversight and that they should feel free to call on us for any help that they may need.

I can assure you that the Board considers this type of assistance to be one of its highest priorities. Clearly, for the Board to accomplish its mission of accountability, we will need to ensure open communications and frequent interactions with State and local officials engaged in oversight, as well as with the GAO.

In order to better focus and utilize its resources, the Board has formed two committees: one dedicated to the Board's accountability mandate and the other to the Board's information technology (IT) operations and the continuing development of *Recovery.gov*. Each committee is currently composed of three or four Board members. These committees meet in addition to the regular Board meetings and then report back to the entire Board on the status of these critical initiatives, as well as any recommendations they may have for moving forward.

The Board's accountability committee, for instance, will discuss strategies for not only receiving reports of fraud, waste, and mismanagement and referring them to the appropriate IG, but also analyzing and developing reports in light of available open-source data. These analyses will make the Board's referrals more value-added for the IGs and will also contribute greatly to risk-based predictions about any potential fraud. On the IT side, the Board's *Recovery.gov* committee is working to provide strategic direction on the entire range of IT efforts that are before the Board.

Mr. Chairman, a great deal of credit must be extended to OMB and GSA for their efforts to launch *Recovery.gov*. Because of their efforts, all Americans can visit the web site today. However, it is important to remember that the creation of this web site is an evolving process with multiple phases. It is not a single event.

Now that the first phase of getting *Recovery.gov* up and running has ended, we are moving quickly to implement the second phase of development: The Board is beginning to manage the web site's design and content, OMB will still retain responsibility for the reporting guidance and the verification of data, and GSA will continue to host the web site and will work with the Board to collect and store the data. I am confident that this division of labor will provide the best opportunity to maximize *Recovery.gov*'s use as a transparency and accountability tool, and I am equally confident that we will also have the opportunity to achieve an unparalleled level of citizen participation.

On the subject of citizen participation, we also hope to employ the creative and innovative ideas the public may have for the future of *Recovery.gov*. The Board just this past week held an online Recovery Dialogue on Information Technology Solutions, or, as it has sometimes been referred to, an "electronic town hall." In partnership with the non-profit National Academy of Public Administration (NAPA) and OMB, we hosted a national online dialogue to engage the public, potential stimulus recipients, IT professionals, and State, local and tribal partners in answering the key question: What ideas, tools, and approaches can make *Recovery.gov* a place where the public can monitor the expenditure and use of Recovery Act funds? Through this online dialogue, which ran from April 27th through May 3rd, participants from across the Nation were able to recommend, discuss and vote on the best ideas, tools, and approaches to web site design, data collection, data warehousing, and data analysis, as well as fraud, waste, and abuse detection.

While my impression was that we would get a high level of participation, the overwhelming response to our electronic town hall surpassed my expectations. On the first day alone the Recovery Dialogue site received more than 593,000 hits. The feedback we received was also encouraging. As one participant said, "Traditionally, the U.S. [Government] has only really been a successful early IT adopter via NSA or NASA, and actions such as this National Dialogue give me hope that may change." NAPA is now in the process of assembling the great ideas that emerged from this exercise, which will then enable us to move quickly to a competitive process of vendor selections.

Perhaps even more importantly, we are excited about the public's potential contribution to the Board's mission of accountability. I am convinced that heightened citizen participation will act as a force multiplier for IGs and others charged with oversight of Recovery Act funds. The public—which in many cases is in the best position to see how money is actually being awarded and spent at the lowest levels—will likely be our "first responders" to potential fraud, waste, and mismanagement of Recovery Act funds.

I want to assure this subcommittee that—just as I am aware of the potential power that citizen participation can bring to the Board's efforts—I am acutely aware of the damage that can be done by only appearing to give weight to that participation and in reality letting it languish unheard. The Board's committee on accountability, as I mentioned earlier, has already begun analyzing the best methods of collecting, managing, and analyzing the public's comments and feedback. Currently, that committee is weighing options for a comprehensive referral management system, which would include a hotline service, through which the public would be able to share potentially crucial information with the Board.

This hotline (which will allow for input in all manner of communication) cannot simply be an off-the-shelf, "plain vanilla" hotline, with personnel who do not understand what questions to ask or what information to obtain. The Board faces a new challenge here in that, typically, hotlines are set up to address a single agency or a specific type of funding, and yet the Recovery Act has given the Board oversight responsibility for numerous and varied agency appropriations. For example, a hotline service might easily train its personnel to process information relating just to grants awarded by the Department of Education. However, in the Board's case, any hotline personnel will need to be able to understand and digest information about education grants, as well as federal construction contracts, rural development loans, or broadband technology programs. The Board will strive to ensure that any hotline personnel and technology will be both expansive and thorough enough to meet this challenge.

Whenever citizens have the potential to assist oversight and enforcement entities, legitimate concerns are raised about whistleblower protection. The Recovery Act explicitly states that employees of non-federal employers cannot be fired, demoted, or otherwise discriminated against as punishment for disclosing to the Board or several other entities any information that they believe is evidence of fraud, waste, or gross mismanagement of Recovery Act funds. If citizens believe they are being retaliated against for such disclosures, they may either contact the Board or submit a complaint directly to the appropriate IG.

Mr. Chairman, while I was the IG at the Department of the Interior, I believe I had a well-deserved reputation for aggressively investigating whistleblower complaints of federal employees. I intend to now extend that practice outside the federal arena. If citizens trust in their government, they will eagerly participate in the transparency and accountability of the Recovery Act funds. And, in a circular fashion, such transparency and accountability make the foundation upon which the public trust is built. Because I believe that public contributions to transparency and accountability are critical to the Board's success, I plan to do everything I can to earn and keep safe that public trust.

Mr. Chairman and Members of the Subcommittee, that concludes my prepared testimony. Thank you for this opportunity. I will now be glad to answer any questions you might have.

Biography for Earl E. Devaney

Earl E. Devaney was appointed by President Obama on February 23, 2009 to chair the Recovery Act Accountability and Transparency Board (Board). In this role, Mr. Devaney will lead the Board in its dual mission of delivering unprecedented levels of transparency through *Recovery.gov* and coordinating and conducting oversight of Recovery funds to prevent fraud, waste of abuse.

Devoting his full attention to his duties as Board Chairman, Mr. Devaney is on leave as the Inspector General for the Department of the Interior. He was nominated by President Clinton on July 1, 1999 to be the seventh Inspector General for the Department of the Interior, and confirmed by the full Senate on August 3, 1999. As head of the Office of Inspector General, he was responsible for overseeing the administration of a nationwide, independent program of audits, evaluations, and investigations involving the Department of the Interiors programs and operations.

Mr. Devaney transformed the Office of Inspector General into an innovative organization dedicated not only to detecting fraud, waste, and mismanagement, but also to assisting the Department in identifying and implementing new and better ways of conducting business. Mr. Devaney and his team of senior managers worked diligently toward developing strong working relationships with senior departmental managers, congressional staff and key congressmen and senators. Armed with a philosophy that blends cooperation with strong oversight and enforcement, the Office of Inspector General for the Department of the Interior made significant advances under the leadership and vision of Mr. Devaney.

Mr. Devaney began his law enforcement career in 1968 as a police officer in his native State of Massachusetts. After graduating from Franklin and Marshall College in 1970 with a degree in Government, he became a Special Agent with the United States Secret Service.

At the time of his retirement from the Secret Service in 1991, Mr. Devaney was serving as the Special Agent-in-Charge of the Fraud Division and had become an internationally recognized white collar crime expert regularly sought by major media outlets. During his tenure with the Secret Service, Mr. Devaney was the recipient of five U.S. Department of Treasury Special Achievement Awards and numerous honors and awards from a wide variety of professional organizations.

Upon leaving the Secret Service, Mr. Devaney became the Director of the Office of Criminal Enforcement, Forensics and Training for the U.S. Environmental Protection Agency. In this position, Mr. Devaney oversaw all of EPA's criminal investigators, EPA's Forensics Service Center, and the National Enforcement Training Institute. Mr. Devaney's years of managerial excellence were recognized in 1998 by the prestigious Meritorious Presidential Rank Award for outstanding government service.

Chairman MILLER. Thank you, Mr. Devaney. You were just barely over time.

Mr. Dodaro, you are recognized for five minutes.

STATEMENT OF MR. GENE L. DODARO, ACTING COMPTROLLER GENERAL, U.S. GOVERNMENT ACCOUNTABILITY OFFICE

Mr. DODARO. Thank you very much, Mr. Chairman. I am pleased to be here with you and Ranking Member Broun and Congresswoman Dahlkemper. I am very pleased to have this opportunity to discuss how GAO has been working with the broader accountability community to carry out our responsibilities under the Recovery Act.

The Act assigns GAO a range of responsibilities to include bimonthly reviews of the uses of the Recovery funds by selected states and localities. Now, given the inter-governmental nature of this task, it has been a priority from the beginning to make sure that we are coordinating properly with the broader accountability community. Soon after the Act was passed, I outreached to the inspector general community and within a couple of weeks of the Act's passage we met with 17 inspectors general, or their representatives. I also outreached to the State community, and we had a conference call with over 46 State audit offices and dozens of local audit offices across the country. We are coordinating, of course, with Mr. Devaney's board functions as well.

Now, this coordination activity really served us well as we took our teams to the field. In order to fulfill the responsibilities for the bimonthly reviews, we selected 16 states and the District of Columbia to do a longitudinal study over the next two or three years of the uses of the Recovery funds, by those jurisdictions and what impact those funds would have in those localities. These 16 states and the District of Columbia are expected to receive over two-thirds of the amount of Recovery Act funds flowing to states and localities.

Now, during fiscal year 2009, there are estimated outlays of $49 billion that are expected to go to the states and localities, and in the question and answer period I can talk about the projected outlay ratio rate over the next few years if you would like and how the composition of the funding will be changing from 2009 to 2012, to the states and localities. But in—for fiscal year 2009, over 90 percent of the $49 billion to be distributed to the states and localities is going to be in the health area, education area, and transportation area.

Now, the three largest programs are the Medicaid Program, which is the federal matching share, and the highways area for the transportation area, and the State Stabilization Fund in the education area. So we focused largely on those three programs in our first bimonthly review, and our report was issued last month.

Now, basically in terms of the uses of the funds, most of the funds were drawn down in the Medicaid area. The 16 states and the District had an allocation of about $16.9 billion. They had collectively drawn down $7.9 billion or about 40 percent, 47 percent of their allocation.

In the highways area, about $15.5 billion had been allocated to the 17 jurisdictions. About $3.3 billion had been obligated, and by obligated that means the Federal Department of Transportation and the State Department of Transportation had agreed on projects. So there were about 950 projects, but most of them were in the competitive bid stage during the April and May timeframe and were not yet awarded so that there was not a significant amount of Recovery Act funds yet distributed in the transportation area.

In the State Stabilization Fund area over $20 billion was allocated to these states, but before they can award—spend the money, they have to submit an application to the Department of Education, who reviews it and then gives them the ability to spend the money. Of the 16 states at the time our report was issued only two states, California and Illinois, had received approval from the department.

Now, we made a series of recommendations to strengthen the accountability features at the State level. A big concern was that the states were under fiscal constraints, and they had cut back some of their accountability and oversight mechanisms, both in the management area and audit area, and we suggested that OMB clarify whether or not Recovery Act funds could be used to strengthen the State and local accountability mechanisms. And this is very important. And also we made a recommendation to more effectively use the single audit process, which is the standard accountability tool, to make sure that it can be more effective in providing adequate oversight over the Recovery Act funds earlier in 2009, before the vast majority of funds are spent in 2010 and 2011.

We also suggested that OMB provide greater guidance on methodologies to be used to report the number of jobs created and the number of jobs preserved.

Now, with regard to the R&D funding in the agencies that we reported to you on within this committee's jurisdiction in March, of the almost $22 billion in R&D funding, as of last week basically $342 million of that had been obligated, largely in the Department of Energy's Office of Science, for funding some renovations at the National laboratories.

And so, you know, but I would be happy in the question and answer session to talk more about our recommendations in this area and any other questions that you would like to pose to me.

Thank you very much.

[The prepared statement of Mr. Dodaro follows:]

PREPARED STATEMENT OF GENE L. DODARO

Chairman Miller, Ranking Member Broun, and Members of the Subcommittee:

I am pleased to be here today to discuss our efforts to carry out GAO's oversight roles related to the *American Recovery and Reinvestment Act of 2009* (Recovery Act).[1] An important part of our work entails coordinating with the accountability community including the federal Inspectors General (IGs), the Recovery Accountability and Transparency Board, and State and local government auditors. I will also provide updated information on the status of Recovery Act funds to be spent for research and development (R&D) activities, about which we testified before this subcommittee in March 2009.[2]

The Recovery Act delineates an important set of responsibilities for the accountability community. GAO is required to conduct bimonthly reviews of the use by selected states and localities of funds made available under the Act; we issued the first of these bimonthly reviews on April 23, 2009.[3] GAO is also charged with reporting on, among other things, specific areas including trade adjustment assistance,

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[1] Pub. L. No. 111–5 (Feb. 17, 2009).

[2] GAO, *American Recovery and Reinvestment Act: GAO's Role in Helping to Ensure Accountability and Transparency for Science Funding,* GAO–09–515T (Washington, D.C.: Mar. 19, 2009).

[3] GAO, *Recovery Act: As Initial Implementation Unfolds in States and Localities, Continued Attention to Accountability Issues Is Essential,* GAO–09–580 (Washington, D.C.: Apr. 23, 2009).

new education incentive grants, new health care tax credits, and the effects of national economic downturns on states—especially in the Medicaid area—over the past several decades.[4] IGs across government are expected to audit the efforts of federal agencies' operations and programs related to the Recovery Act, both individually within their particular entities and collectively, as many of them are members of the Recovery Accountability and Transparency Board (the Board). The Board will help prevent waste, fraud, and abuse by reviewing contracts and grants to ensure they meet applicable standards, satisfy applicable competition requirements, and are overseen by sufficient numbers of trained acquisition and grants personnel. The Board is charged with reporting to the President, Vice President, and the Congress any potential problems requiring immediate attention in addition to reporting quarterly and annually.

As we testified before the Subcommittee on March 19, 2009, the Recovery Act's combined spending and tax provisions are estimated to cost $787 billion, including more than $21 billion in additional spending for R&D-related activities at the Department of Energy (DOE), Department of Commerce, National Science Foundation (NSF), and National Aeronautics and Space Administration (NASA). These activities include supporting fundamental research, demonstrating and deploying advanced energy technologies, purchasing scientific instrumentation and equipment, and constructing or modernizing research facilities. Our earlier testimony identified several R&D programs that deserve special attention from agency managers and IGs based on our prior work. Sustained oversight attention on these programs will be critical as Recovery Act funds are spent.

Because funding streams of the Recovery Act—including R&D funding—will flow from different federal agencies to the states, localities and institutions within them, we have been coordinating with the IGs and the Board, as well as with State and local auditors. My statement today discusses (1) GAO's efforts to fulfill its responsibilities under the Recovery Act; (2) GAO's coordination with the Board, IGs, and State and local government auditors; (3) GAO's authorities to assist whistleblowers and elicit concerns from the public; and (4) updated information on Recovery Act funds to be spent for R&D from our previous testimony.

Our Reporting to Date Under the Recovery Act

In order to meet our mandate to conduct bimonthly reviews and prepare reports on selected states' and localities' use of funds, we have selected 16 states and the District of Columbia to track over the next few years to provide an ongoing longitudinal analysis of the use of funds under the Recovery Act.[5] These states contain about 65 percent of the U.S. population and are estimated to receive about two-thirds of the intergovernmental grant funds available through the Recovery Act. In addition to reporting on the core group of 16 states, we will review the recipient reports from all 50 states. These recipient reports are to include information on funds received, the amount of Recovery funds obligated or expended to projects or activities, the projects or activities for which funds were obligated or expended, and the number of jobs created or preserved as a result of Recovery Act funds. The Recovery Act also included a number of specific mandates on which GAO must take action between April 2009 and February 2014.[6]

Our first bimonthly report, issued two weeks ago, covers the actions of selected states and localities under the Recovery Act as of April 20, 2009. About 90 percent of the $49 billion in Recovery Act funding being provided to states and localities in fiscal year 2009 will be through health, transportation, and education programs. (See app. I for federal programs that are receiving Recovery Act funding and are administered by states and localities.) Our first report focused particularly on Recovery Act funds for the three largest programs in these categories—Medicaid Fed-

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[4] GAO, *American Recovery and Reinvestment Act: GAO's Role in Helping to Ensure Accountability and Transparency,* GAO–09–453T (Washington, D.C.: Mar. 5, 2009).

[5] We will track the following 16 states: Arizona, California, Colorado, Florida, Georgia, Iowa, Illinois, Massachusetts, Michigan, Mississippi, New Jersey, New York, North Carolina, Ohio, Pennsylvania, and Texas. In addition, we will sample localities within these states to provide a perspective on the use of Recovery Act funds at a local level.

[6] See appendix I of GAO–09–453T for a list of GAO's mandates under the Recovery Act. In addition to issuing our first bimonthly report, we have completed two other requirements under the Act: First, on April 3, 2009, we announced the appointment of 13 members to the Health Information Technology Policy Committee, a new advisory body established by the Recovery Act. Second, on April 16, 2009, we reported on the actions of the Small Business Administration to, among other things, increase liquidity in the secondary markets for Small Business Administration loans (see GAO, *Small Business Administration's Implementation of Administrative Provisions in the American Recovery and Reinvestment Act of 2009,* GAO–09–507R (Washington, D.C.: Apr. 16, 2009).

eral Medical Assistance Percentage grant awards, highway infrastructure investment, and the Department of Education's State Fiscal Stabilization Fund. We reported on the status of states' activities related to these three programs. The report contains separate appendixes on each of the 16 states and the District of Columbia that discuss the plans and uses of funds in these three major programs as well as selected other programs that are receiving Recovery Act funds. The report also makes several recommendations to the Office of Management and Budget (OMB) directed toward improving accountability and transparency requirements; clarifying the Recovery Act funds that can be used to support State efforts to ensure accountability and oversight; and improving communications with Recovery Act funds recipients about when funds become available for their use and when federal guidance is modified or newly released. OMB concurred with the overall objectives of our recommendations and plans to work with us to further accountability for these funds.

In consultation with the Congress in exercising our general statutory authority to evaluate the results of government programs and activities, we also will continue to target programs for additional review using a risk-based approach and will incorporate reviews of Recovery Act funding where practicable when we are examining base programs. There are many implementation challenges to ensuring adequate accountability and efficient and effective implementation of the Recovery Act. Experience tells us that the risk for fraud, waste, and abuse grows when billions of dollars are going out quickly, eligibility requirements are being established or changed, new programs are being created, or a mix of these characteristics. This suggests the need for a risk-based approach to target for early attention specific programs and funding structures based on known strengths, vulnerabilities, and weaknesses, such as a track record of improper payments or contracting problems. Of particular concern to this subcommittee will be the extent to which Recovery Act R&D funding is effectively expended, and we discuss the initial implementation of R&D funding below.

GAO's Coordination with the Accountability Community

Regular and frequent GAO coordination with federal IGs, the Board, and State and local government auditors is a critical component of our work to ensure effective and efficient oversight. With several early coordination meetings, we laid the foundation for this ongoing coordination soon after the Act was passed. First, I reached out to the IG community and, with Ms. Phyllis Fong, the Chairman of the Council of Inspectors General on Integrity and Efficiency, hosted an internal coordination meeting on February 25, 2009, with Inspectors General or their representatives from 17 agencies. It was a very productive discussion in which we outlined coordination approaches going forward. In addition, soon after the President appointed him as Chairman of the Board on February 23, 2009, I talked with Mr. Earl Devaney, former Inspector General at the Department of the Interior, to begin to coordinate such efforts as the audit of the U.S. Government's consolidated financial statements whereby GAO relies on the individual efforts of the IGs' financial audits of their departments and entities across the government. I am confident that we will coordinate our respective efforts well, both with the IG community and with the Board.

We also reached out to the State and local audit community and participated in initial coordination conference calls. The first call, on February 26, 2009, included State auditors or their representatives from 46 states and the District of Columbia. The next day, we held a similar discussion with auditors from many localities across the country. State and local auditors perform very important oversight functions within their jurisdictions and have unique knowledge about their governments; we are continuing to coordinate with them closely as we carry out our responsibilities.

It is also important for us to coordinate with OMB, especially in regard to the reporting requirements and other guidance to fund recipients and on what information is to be collected in order to adequately evaluate how well the Recovery Act achieves its objectives. We participate in weekly coordination conference calls with OMB, the Board, IGs, and State and local auditors. The impetus to schedule these calls was a letter OMB Director Peter Orszag and I received from the National Association of State Auditors, Comptrollers, and Treasurers; the National Association of State Budget Officers; the National Association of State Chief Information Officers; and the National Association of State Procurement Officials. This letter expressed their strong interest in coordinating reporting and compliance aspects of the Recovery Act. During these calls, we provide updates on our Recovery Act activities, and OMB provides updates on its actions. One important outcome of these calls thus far has been to call OMB's and the Board's attention to the need to clarify certain reporting requirements. For example, the Recovery Act requires federal agencies to make information publicly available on the numbers of jobs created and retained as a result of Recovery Act funded activities. Our work in the states yielded information that local level officials needed to define how to capture these data, and the

State and local auditors were able to corroborate what we had heard. We included a recommendation to OMB in our first bimonthly report on the Recovery Act actions of selected states and localities to clarify this requirement, and OMB generally concurred with this recommendation.

In addition to these regular calls, we are actively participating in discussions with State and local organizations to further foster coordination within the accountability community. These organizations include the National Association of State Auditors, Comptrollers, and Treasurers; the National Association of State Budget Officers; the National Association of State Procurement Officials; the National Association of State Chief Information Officers; the National Governors Association; the National Conference of State Legislatures; and the National League of Cities. For example, in March 2009, we participated—along with a State auditor, local auditor, and inspector general—in a webinar hosted by the National Association of State Auditors, Comptrollers, and Treasurers for its members.

As Acting Comptroller General, I also serve as the Chairman of the National Intergovernmental Audit Forum (NIAF). The NIAF is an association that has existed for over three decades as a means for federal, State, and local audit executives to discuss issues of common interest and share best practices. NIAF's upcoming May meeting will bring together these executives, including OMB, to update them on the Recovery Act and provide another opportunity to discuss emerging issues and challenges. In addition, a number of Intergovernmental Audit Forum meetings have been scheduled at the regional level that seek to do the same, and this regional coordination is directly contributing to our work in the states. For example, GAO's western regional director recently made a presentation at the Pacific Northwest Audit Forum regarding GAO's efforts to coordinate with State and local officials in conducting Recovery Act oversight. In conjunction with that forum and at other related forums, she has regularly participated in meetings, panel discussions, and break-out discussions with the principals of State and local audit entities to coordinate efforts to provide oversight of Recovery Act spending.

The work of our 16 State teams that resulted in our first bimonthly report on the actions of selected states and localities under the Recovery Act also exemplifies the level of coordination we are undertaking with the accountability community. During the conduct of our work, we collected documents from and interviewed State Auditors, Controllers, and Treasurers; State Inspectors General; and other key audit community stakeholders to determine how they planned to conduct oversight of Recovery Act funds. We also coordinated as appropriate with legislative offices in the states concerning State legislatures' involvement with decisions on the use of Recovery Act funds. In addition, we relied on reporting and data collected from the Federal Audit Clearinghouse, which operates on behalf of OMB to assist oversight agencies in obtaining audit information on states, local governments, and non-profit organizations. Illustrative examples follow:

- Our team working in Georgia coordinated closely with that state's State Accounting Office, the State Auditor, and Inspector General among others, to understand their plans for mitigating risks and overseeing Recovery Act funding. For example, the Inspector General developed a database specifically to track Recovery Act complaints and a public service announcement to alert the public of how to report fraud, waste, and abuse.
- Our team working in North Carolina coordinated with the State Auditor regarding that state's plans to ensure that Recovery Act funds are segregated from other federal funds coming through traditional funding streams to help ensure accountability and transparency.
- Our team working in New Jersey coordinated with the state's new Recovery Accountability Task Force, which will review how State and local agencies spend Recovery Act funds as well as provide guidance and best practices on project selection and internal controls. As part of the Task Force, the State Comptroller has responsibility for coordinating all of the oversight agencies within the state.
- Our team working in California is coordinating with the state's newly appointed Recovery Act Inspector General, who is seeking to make sure that Recovery Act funds are spent as intended and to identify instances of waste, fraud, and abuse. In addition, the team relied on the work of the State Auditor, whose most recent single audit identified numerous material weaknesses associated with programs included in GAO's review.

GAO's Authorities to Assist Whistleblowers and Elicit Public Contributions

Provisions in GAO's authorizing statute, the *Whistleblower Protection Act,* and the Recovery Act as well as a dedicated fraud reporting hotline facilitate our ability to evaluate allegations of waste, fraud and abuse in the Federal Government. Under our authorizing statute, we have authority to access information needed for the effective and efficient performance of our reviews and evaluations. Subject to certain limited exceptions, all agencies must provide the Comptroller General access to information he requires about the duties, powers, activities, organization, and financial transactions of that agency,[7] including for the purpose of evaluating whistleblower complaints.

Moreover, the Recovery Act applies certain federal whistleblower protections to the employees of recipients of Recovery funds. The *Whistleblower Protection Act* prohibits personnel actions taken against federal employees in reprisal for the disclosure of evidence of a violation of any law, rule, or regulation, gross mismanagement, a gross waste of funds, an abuse of authority, or a substantial and specific danger to public health or safety. Similarly, the Recovery Act prohibits reprisals against employees of nonfederal recipients of Recovery funds, but its protections only relate to disclosures regarding the use of Recovery funds. The Recovery Act provides employees of a non-federal entity receiving a contract, grant, or other payment funded in whole or part by Recovery funds may not be discharged, demoted, or otherwise subject to discrimination as a reprisal for disclosing to the Board, an IG, the Comptroller General, the Congress, a State or federal regulatory or law enforcement agency, the employee's supervisor, a court or grand jury, or a federal agency information about mismanagement, waste, danger to public health or safety, or a violation of law regarding the use of Recovery Act funds. People who believe they have been subject to reprisal may submit a complaint to the appropriate inspector general for investigation and seek redress through the courts. Table 1 outlines the coverage of Whistleblower Act and Recovery Act provisions.

Table 1: Coverage of Whistleblower Act and Recovery Act Provisions

Provision	Section 1553 of the Recovery Act	Whistleblower Protection Act (5 U.S.C. § 2302(b)(8))
Coverage	Employees of a non-federal entity (state or local government, contractor, etc.) receiving a contract, grant, or other payment funded in whole or in part by the Act.	Employees of federal executive branch agencies except FBI, CIA, and intelligence agencies.
Protected disclosures	Gross mismanagement of a contract or grant funded by the Act; gross waste of funds provided by the Act; substantial and specific danger to public health or safety related to the use of the Act's funds; abuse of authority related to the use of the Act's funds; or a violation of any law, rule, or regulation related to a contract or grant related to the Act's funds.	Violation of any law, rule, or regulation; gross mismanagement; gross waste of funds; abuse of authority; or a substantial and specific danger to public health or safety.
Disclosure to	Recovery Act Accountability and Transparency Board; any inspector general; GAO; Congress; state or federal regulatory or law enforcement agency; the employee's supervisor or another employee authorized to investigate, discover, or terminate misconduct; a court or grand jury; or a federal agency.	Anyone if the disclosure is not prohibited by law or is not of classified information; or the Special Counsel or an inspector general (if disclosure would be otherwise prohibited).
Prohibited actions	Termination, demotion, or discrimination because of the disclosure	The taking, failure to take, or threat to take any personnel action because of the disclosure.
Enforcement mechanism	Investigation by the relevant agency's inspector general. The agency may then order reinstatement with back pay or other corrective action, as well as fees and expenses. The employee has an independent right to file a civil action if the agency declines to take action.	Investigation by Special Counsel. The employee has an independent right to appeal the action to the Merit Systems Protection Board.

Source: GAO analysis.

Section 902 of the Recovery Act gives us additional authority to examine the relevant records of contractors, subcontractors, or State or local agencies administering contracts that are awarded with Recovery Act funds. We may also interview officers and employees of such contractors or their subcontractors as well as officers or employees of any State or local agency administering such transactions. This additional authority could be applied to examining allegations made by whistleblowers.

As part of our normal operations, we maintain a fraud reporting service. Anyone can report evidence of fraudulent activity to FraudNet through an automated answering system, a dedicated fax line, a dedicated e-mail address, a dedicated mailing address, or an online form accessible from our web site at *www.gao.gov.* Information about how to provide evidence of fraud is available on our web site at *http://gao.gov/fraudnet.htm* and on the last page of every GAO report. After the Recovery Act was passed, we coordinated with the IG community to publicize the use of

[7] 31 U.S.C. § 716(a), (d).

FraudNet as a means to solicit public input and gather information on potential instances of waste, fraud, and abuse in the allocation and spending of Recovery Act funds. We also issued a press release on March 30, 2009, which was cited by the national news media in articles about the Recovery Act. Over the past few months, Fraudnet has received more than 25 allegations related to the misuse of Recovery Act, Troubled Asset Relief Program,[8] or other related funds. These allegations are currently under review by GAO's Forensic Audits and Special Investigations (FSI) unit, a specialized team with many years of experience conducting fraud investigations. FSI coordinates with the IG community as appropriate to ensure that there is no duplication of investigative efforts across the Federal Government. Further, in cases where GAO determines that another agency is better positioned to perform an investigation, FSI will refer relevant information to the appropriate agency. Although it is too soon to discuss details of the allegations we have received or the status of ongoing investigations, we will continue to work with our partners in the IG community, with the appropriate law enforcement agencies, and with the Congress, to ensure that all allegations are reviewed and investigated.

Updated Information on the Recovery Act's R&D Funding

On March 19, 2009, we testified before this subcommittee on our role in helping to ensure accountability and transparency for Recovery Act science R&D funding. Our statement identified over $21 billion in related funding appropriated to DOE; the National Institute of Standards and Technology (NIST) and the National Oceanographic and Atmospheric Administration (NOAA) within the Department of Commerce; NSF; and NASA. As initial implementation of the Recovery Act unfolds, we are tracking these agencies' activities to plan for science R&D expenditures. Table 2 provides information on the status of these agencies R&D-related Recovery Act funds, as of April 28, 2009. To collect this information, we worked with agencies' officials and coordinated with agencies' IGs. As implementation of the Act progresses, further evaluations will continue to be coordinated with agencies' IGs to prevent duplication and minimize any overlap in our work.

[8] Pub. L. No. 110–343 (Oct. 3, 2008), the Emergency Economic Stabilization Act of 2008, seeks to stabilize the Nation's financial markets by, among other things, authorizing the Troubled Asset Relief Program.

Table 2: Status of Recovery Act R&D-Related Funding, as of April 28, 2009

Dollars in millions

Agency	Recovery Act appropriation	OMB apportionment	CFO allotment	Program obligations	Program expenditures
DOE					
Energy Efficiency and Renewable Energy[a]	$4,900	$4,900	$2,400	$0[b]	$0
Fossil Energy	$3,400	$0	$0	$0	$0
Science	$1,600	$1,600	$738	$342	$0
Advanced Research Projects Agency – Energy	$400	$400[c]	$2	$0	$0
Innovative Technology Loan Guarantee Program	$6,000	$35	$35	$0	$0
Department of Commerce					
NIST	$610[d]	$580	$0	$0	$0
NOAA	$830	$830	$0	$0	$0
NSF	$3,000	$3,000	$0	$0	$0
NASA	$1,000	$50	$0	$0	$0
Total	**$21,740**	**$11,395**	**$3,175**	**$342**	**$0**

Sources: Conference Report for the American Recovery and Reinvestment Act of 2009, House Report 111-16 (Washington, D.C.: Feb. 12, 2009) and GAO analysis of data and information provided by DOE, NIST, NOAA, NSF, and NASA.

Note: Once Congress appropriates funds for an agency, OMB apportions these funds to the federal agencies. After an apportionment is received, federal agencies' Chief Financial Officers (CFO) allot them to the agency's programs on the basis of approved plans. After receiving their allotments, programs then obligate funds for approved activities performed by agency employees, contractors, or grantees. Funds can be expended for these activities.

[a]The data reported for DOE's Office of Energy Efficiency and Renewable Energy represents the R&D-related portions of the overall Congressional appropriation, OMB apportionment, and CFO allotment.

[b]According to DOE CFO officials, DOE's Office of Energy Efficiency and Renewable Energy has obligated approximately $341,000 in Recovery Act funds for program direction. These funds do not appear in the table above, due to rounding.

[c]According to DOE officials, while OMB has fully apportioned ARPA-E's $400 million appropriation, $198 million of the apportionment is restricted until the fourth quarter of fiscal year 2009 or until after OMB approves additional documents. Until then, $198 million of the apportionment is not available for allotment.

[d]NIST received $580 million in direct appropriations through the Recovery Act. The act directed that NIST receive an additional $30 million in transfers from DOE and the Department of Health and Human Services.

As Table 2 shows, the status of agencies' R&D-related funding varies. Officials from each agency told us about the controls in place to ensure that their program plans are approved before funds are either apportioned by OMB or allotted by their agencies' CFOs. For example, officials from each agency told us they are following OMB's April 3, 2009, guidance for implementing the Recovery Act. OMB's guidance requires that agencies' submit program plans justifying Recovery Act expenditures that include a program's objectives, funding, activities, types of financial awards to be used, schedule, environmental review compliance, performance measures, description of plans to ensure accountability and transparency, and a plan for monitoring and evaluation. In addition, this guidance requires that agencies submit the program plans to OMB for approval by May 1, 2009, and states that OMB will approve these program plans by May 15, 2009. Officials from NIST, NOAA, and NSF told us that their agencies' CFOs will not allot funds for obligation until the House Appropriations Subcommittee on Commerce, Justice, and Science has reviewed their program plans. DOE CFO officials told us that the CFO will allot apportioned funds after an internal DOE approval process, even if OMB has not yet approved program plans; however, officials said DOE programs cannot obligate funds until OMB program plan approval is complete. As of April 28, 2009, only DOE's Office of Science had obligated any funds for R&D project expenditures. These obligations, totaling $342 million will support various construction, facilities disposition, and general plant projects at national laboratories, as well as procurement and installation of experimental equipment and instrumentation. (See Appendix II for additional details on each agency's planned uses of funds.)

Related to the efforts of the four federal agencies to obligate the R&D funds, our April 29, 2009, report discussed our initial observations on improving grant submission policies that could help minimize disruptions to the grants application process during the Recovery Act's peak filing period.[9] Our report was requested in response to two OMB memoranda to federal agencies stating that the existing Grants.gov infrastructure would not be able to handle the influx of applications expected as key

[9] See GAO, *Recovery Act: Consistent Policies Needed to Ensure Equal Consideration of Grant Applications,* GAO–09–590R (Washington, D.C.: April 29, 2009).

Recovery Act deadlines approached. We found that at least 10 agencies will accept some or all applications outside of Grants.gov during the Recovery Act's peak filing period. For example, NSF and NASA are only accepting applications through their own existing electronic systems for some grants. We recommended that the Director of OMB take actions to increase the likelihood that applicants can successfully apply for grants during the Recovery Act's peak application filing period. Specifically, we recommended that OMB (1) ensure that an announcement discussing agency alternate submission methods similar to that recently posted on *Grants.gov* is posted in a prominent location on *Recovery.gov* and on all federal Websites or in all documents where instructions for applying to Recovery Act grants are presented and (2) prominently post certain government policies for all grant applications submitted during the peak filing period for Recovery Act grants, notifying applicants that, among other things, if an application was deemed late they are notified of such an outcome and are provided an opportunity to provide supporting documentation demonstrating they attempted to submit the application on time. OMB generally concurred with these recommendations.

In addition to direct expenditures, the Recovery Act also includes tax provisions that benefit individuals and businesses. The Internal Revenue Service (IRS) recently published a fact sheet on 12 different tax credits available under the Recovery Act for various energy efficiency measures taken by homeowners and businesses as well as for qualified renewable energy producers. Some of these credits are new, and others are modifications of existing tax credits previously included in the tax code. As I testified in March 2009, one particular area that needs additional early attention is identifying the data to be collected concerning the use and results of the Recovery Act's various tax provisions. Accountability and transparency are perhaps easier to envision for the outlay portions of the stimulus package, but the billions of dollars in tax provisions in the Recovery Act are considerably different than outlay programs in their implementation, privacy protections, and oversight. Most tax benefits are entirely administered by the Internal Revenue Service (IRS), and all taxpayer information, including the identity of those using the benefits, is protected by law from disclosure. Further, unlike most outlay programs, IRS does not know who makes use of the tax benefit until after the fact, if then. While IRS previously collected information that may have been sufficient to evaluate the benefits of energy tax credits, IRS has not yet announced what information it will collect for the credits as revised or added by the Recovery Act.

In closing, I want to underscore that we welcome the responsibility that the Congress has placed on us to assist in the oversight, accountability, and transparency of the Recovery Act. We will continue to coordinate closely with the rest of the accountability community and honor our ongoing commitment to promptly address information provided by whistleblowers. We are committed to completing our Recovery Act work on the timetable envisioned by the Act and will keep the Congress fully informed as our plans evolve.

Mr. Chairman, Representative Broun, and Members of the Subcommittee this concludes my statement. I would be pleased to respond to any questions you may have.

Staff Acknowledgments

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Appendix I: Selected Federal Programs Receiving Recovery Act Funding and Administered by States and Localities

Dollars in millions

Program	Fiscal years 2009-2019 total budgetary authority	Fiscal year 2009 outlays
Medicaid	$80,065	$30,720
State Fiscal Stabilization Fund	53,600	6,540
Highways	27,500	2,750
Special Education (Individuals with Disabilities Education Act)	12,200	732
Child Care and Development Block Grant (CCDBG)	2,000	660
Federal Transit Administration-Public Transit Investment Grants	6,900	621
Employment and Training	4,320	613
Elementary and Secondary Education Act Title I	13,000	494
Child Support Enforcement	1,000	489
Temporary Assistance for Needy Families (TANF)	5,000	441
Byrne/Justice Assistance Grant Program/other State and Local	2,765	415
Census Bureau	1,000	400
Foster Care/Adoption Assistance (Title IV-E)	843	313
Health Centers: operations	500	265
Health Centers: capital	1,500	255
Community Services Block Grant	1,000	232
Unemployment Insurance Modernization Incentive Payments	7,000	191
Head Start & Early Head Start	2,100	172
High-speed & Intercity Rail	8,000	160
Health and Wellness	650	140
Federal Transit Administration: Fixed Guideway/New Starts	1,500	136
Weatherization Assistance Program	5,000	132
Clean Water State Revolving Fund	4,000	120
Neighborhood Stabilization	2,000	120
State Employment Services	400	120
Women, Infants and Children (WIC)	500	114
Vocational Rehabilitation Services	680	111
Commodity Assistance Program	150	105
Community Oriented Policing Services	1,000	100
Federal Emergency Management Agency: Emergency Food and Shelter	100	100
Rural Housing Insurance Fund Program	200	92
Energy Efficiency & Conservation Block Grants	3,200	85
Broadband Technology Opportunities	4,700	84
State Energy Program	3,100	82

Dollars in millions

Program	Fiscal years 2009-2019 total budgetary authority	Fiscal year 2009 outlays
Public Housing Capital Fund	$4,000	$80
Centers for Disease Control and Prevention: Immunization	300	65
Distance Learning Telemedicine/Broadband	2,500	63
Drinking Water State Revolving Fund	2,000	60
Rural Water and Waste Disposal Program	1,380	55
Federal Aviation Administration: Discretionary Airport Grants	1,100	55
Violence Against Women	225	50
Child Nutrition: School Lunch Equipment	100	50
Section 202, 8 project based assistance and energy retrofit	2,250	45
Watershed & Flood Prevention Operations	290	44
Diesel Emission Grants	300	39
Leaking Underground Storage Tanks	200	26
Home Investment Partnerships Program	2,250	23
Aging Services-Senior Meals	100	20
Homelessness Prevention Fund	1,500	15
Educational Technology/Homeless Children	720	14
Unemployment Insurance State Administration Grants	500	14
Community Development Block Grant Program	1,000	10
Innovation & improvement	200	10
Impact Aid	100	10
Watershed Rehabilitation Program	50	10
Rural Business Program	150	9
Federal Emergency Management Agency: Firefighters	210	8
Economic Development Administration	150	8
Rural Community Facilities Program	130	8
Federal Emergency Management Agency: State and Local Programs	300	6
Higher Education Teacher Quality	100	5
National Endowment for the Arts	50	5
Brownfields Projects	100	4
Historic Preservation Fund	15	2
Lead Hazard Reduction	100	1
Surface Transportation Supplemental Grants	1,500	-
Temporary Assistance for Needy Families: Supplemental Grants	319	-
Veterans Affairs: State Extended Care Facilities	150	-
Total	**$281,812**	**$48,918**

Source: GAO analysis.

Appendix II:

Updated Recovery Act Funding for R&D-Related Activities

To update information on Recovery Act funding for R&D-related activities, we met with and interviewed Department of Energy (DOE), National Institute of Standards and Technology (NIST), National Oceanographic and Atmospheric Administration (NOAA), National Science Foundation (NSF), and National Aeronautics and Space Administration (NASA) officials, and analyzed documentation they provided. We also reviewed publicly available information provided by the Office of Management and Budget (OMB), through the *Recovery.gov* web site, and agencies' own recovery web sites. Finally, we coordinated with each agency's Inspector General (IG) to discuss the data we collected. We conducted this work in accordance with generally accepted government auditing standards.

Department of Energy

DOE's program offices vary in the extent to which they have funds available to obligate for expenditure. A little more than 40 percent of DOE's R&D-related Recovery Act funding has been apportioned by OMB, and only DOE's Office of Science has obligated R&D project funds. OMB has not apportioned any funds to DOE's Office of Fossil Energy and has only apportioned minimal funds to its Loan Guarantee Program.

Energy Efficiency and Renewable Energy (EERE). The Recovery Act appropriated $2.5 billion to EERE for R&D activities related to alternative and renewable energy sources, such as biomass and geothermal. An additional $2.4 billion was appropriated for advanced transportation research focused on next-generation plug-in hybrid electric vehicles, their advanced battery components, and transportation electrification. OMB has apportioned all of EERE's appropriation, and DOE's Office of the Chief Financial Officer (CFO) has generally allotted the funds to support the R&D activities associated with vehicle technologies and electrification. EERE has issued a solicitation for grants, which closes May 13, 2009, to establish development, demonstration, evaluation, and education projects to accelerate the market introduction and penetration of advanced electric drive vehicles. In addition, EERE has issued a solicitation for grant proposals supporting the construction of U.S.-based manufacturing plants to produce batteries and electric drive components, which closes May 19, 2009.[1]

Fossil Energy (FE). The Recovery Act appropriated $3.4 billion to FE for R&D-related activities, including funds to support a third round of competition under the Clean Coal Power Initiative; fossil energy R&D programs, such as fuel and power systems research or FutureGen;[2] and competitive grants for carbon capture and energy efficiency improvement projects. As of April 28, 2009, OMB had not apportioned any of these funds to DOE, and thus no funds have been allotted, obligated, or expended. According to an FE official, OMB is unlikely to apportion funds to FE until after May 15, 2009, when its program plans are expected to be approved.

Science. The Recovery Act included a $1.6 billion appropriation for DOE's Office of Science (Science). Nearly all $1.6 billion appropriated has been apportioned by OMB to DOE without restriction, and the Secretary of Energy has announced priorities for $1.2 billion of these funds, including:

- $248 million for major construction, modernization, infrastructure improvements, and needed decommissioning of facilities at national laboratories;
- $330 million for operations and equipment procurement and installation at major scientific user facilities;
- $277 million for competitive research collaborations on transformational basic science needed to develop alternative energy sources;
- $90 million for core scientific research grants to be awarded to graduate students, post-docs, and Ph.D. scientists across the Nation for applications of nu-

[1] We are currently examining the potential benefits and challenges associated with plug-in hybrid electric and other plug-in vehicles; the status of development, factors that could delay availability or encourage development of these vehicles; and challenges to incorporating plug-in hybrid electric vehicles and other plug-ins into the federal fleet.

[2] See GAO, *Clean Coal: DOE's Decision to Restructure FutureGen Should Be Based on a Comprehensive Analysis of Costs, Benefits, and Risks,* GAO–09–248 (Washington, D.C.: Feb. 13, 2009).

clear science and technology, and for alternative isotope production techniques; and

- $215 million to accelerate construction of two experimental facilities.

Science has obligated $342 million to support various approved construction, infrastructure improvement, and facility decommissioning projects at national laboratories, as well as procurement and installation of experimental equipment and instrumentation. Table 3 describes Science's Recovery Act projects at its national laboratories, including those for which funding has already been obligated.

Table 3: Science's Recovery Act Projects at Its National Laboratories

Dollars in millions

National laboratory	Description of use of funds	Recovery Act funds
Ames Laboratory (Ames, Iowa)	Funds will support general plant projects that improve energy efficiency.	$1.7
Argonne National Laboratory (Argonne, Illinois)	Funds will support upgrades and replacements of major electrical switches and equipment as a first step toward rehabilitation of the laboratory's central campus.	13.1
Brookhaven National Laboratory (Upton, New York)	Funds will primarily support accelerated construction of the National Synchrotron Light Source II, a $912 million project that, when built, will be the brightest x-ray source in the world. Remaining funds will go toward construction of an interdisciplinary science building, other infrastructure improvements in several facilities, and upgrades to experimental equipment.	184.3
Fermi National Accelerator Laboratory (Batavia, Illinois)	Funds will support construction and improvement projects, as well as the purchase of key high-tech components for experiments.	34.9
Thomas Jefferson National Accelerator Facility (Newport News, Virginia)	Funds will primarily support a project to upgrade the Continuous Electron Beam Accelerator Facility. Additional funds will go toward improving laboratory facilities.	75.0
Lawrence Berkeley National Laboratory (Berkeley, California)	Almost half of the funds will support a prototype data networking system. Remaining funds will go to support infrastructure improvements, accelerated construction of a laboratory facility, and the demolition of facility decommissioned over a decade ago.	115.8
Oak Ridge National Laboratory (Oak Ridge, Tennessee)	Most of the funds will be used to accelerate construction of a new chemical and material sciences research building designed to replace an aging facility built in 1952. Remaining funds will support infrastructure improvements and experimental facility upgrades.	71.2
Pacific Northwest National Laboratory (Richland, Washington)	Nearly all of the funds will support accelerated investment in the Environmental Molecular Sciences Laboratory, a national user facility, and capital upgrades to the Atmospheric Radiation Measurement Climate Research Facility, another national user facility. Remaining funds will support energy equipment upgrades and improvements in three other facilities.	124.0
Stanford Linear Accelerator (Menlo Park, California)	About half of the funds will support accelerated purchase and assembly of instrumentation for the Linac Coherent Light Source, the world's most intense x-ray laser. Remaining funds will support seismic upgrades to facilities, including the Stanford Synchrotron Radiation Light Source, and work on other experimental facilities.	68.3
Total		**$688.3**

Source: DOE and its national laboratories.

Advanced Research Projects Agency–Energy (ARPA–E). The Congress authorized the establishment of ARPA–E within DOE in August 2007.[3] ARPA–E supports transformational energy technology research projects with the goal of enhancing the Nation's economic and energy security. ARPA–E received its first appropriation of $400 million in the Recovery Act, which was soon followed by an additional $15 million in the Omnibus Appropriations Act, 2009.[4] According to a DOE official, the Secretary of Energy signed a memorandum formally creating the new office on April 22, 2009, and designated an Acting Deputy Director until a presidential appointee is confirmed by the Senate. As of April 28, 2009, DOE's CFO had allotted $2 million in program direction funds to ARPA–E to hire employees, set up office space, and support requirements necessary to implement the provisions of the Recovery Act. In addition, ARPA–E issued its first competitive solicitation on April 27, 2009, to fund up to $150 million of high-risk, high-potential projects focused on innovative energy technologies. Project proposals are due June 2, 2009, and awards are generally expected to range from $2 million to $5 million. According to a DOE official, ARPA–E anticipates issuing more targeted solicitations associated with the remaining Recovery Act funds; however, the official said these solicitations are not likely to be issued until a Senate confirmed appointee is in place to lead the organization.

Loan Guarantee Program (LGP). The Recovery Act included appropriations totaling $6 billion to LGP, which could support $60 billion in new loan guarantees, de-

[3] Pub. L. No. 110–69 (Aug. 9, 2007).
[4] Pub. L. No. 111–8 (March 11, 2009).

pending on the credit subsidy rate. LGP officials told us the program plans that they submitted to OMB on May 1, 2009, support new loan guarantees for renewable energy systems, electric power transmission systems, and leading-edge biofuel projects performing at the pilot or demonstration stage and that the Secretary of Energy determines are likely to become commercial technologies.[5] In addition, the Secretary of Energy has announced a number of restructuring initiatives for the program, which, as we reported in July 2008, faces a number of challenges.[6] Officials have indicated that 6 of the 11 applicants who responded to DOE's August 2006 solicitation for various types of innovative technology loan guarantees could be eligible for loan guarantees under Recovery Act terms.[7] We are currently examining the status of LGP's efforts to solicit and review loan guarantee applications, including its efforts to use Recovery Act funds, and its progress in implementing the recommendations in our July 2008 report.

Department of Commerce

As of April 28, 2009, OMB had apportioned all $1.41 billion directly appropriated to NIST and NOAA for Recovery Act R&D-related activities. According to agency officials, funds have not yet been made available for obligation pending OMB and Congressional approval of program plans.

NIST. NIST plans to spend the $580 million it was directly appropriated to support, competitive research grants, fellowships, and procurement of advanced research and measurement equipment and supplies. These funds are also planned to support a construction grant program for research science buildings, construction of new NIST facilities, and the reduction of the backlog of deferred maintenance for existing NIST facilities. In addition, NIST will receive $10 million appropriated to DOE under the Recovery Act for work on the electricity grid and $20 million appropriated to the Department of Health and Human Services to create and test standards related to health security. According to one official, NIST is working with OMB to prepare solicitations and other grant-related documents, so the agency can quickly issue Recovery Act grant solicitations once its program plans are approved.

NOAA. The Recovery Act appropriated $830 million to NOAA for construction and procurement related to R&D-related activities, including support for research operations and facilities; construction and repair of facilities, ships and equipment; and research to address gaps in climate modeling and to establish climate data records for research into the cause, effects, and ways to mitigate climate change. NOAA has issued a competitive solicitation for up to $170 million in grants for shovel-ready projects to restore marine and coastal habitats. Applications were due on April 6, 2009. A NOAA official told us that NOAA is working with OMB to draft solicitations and other contract-related documents so the agency can quickly issue Recovery Act contract solicitations once its program plans are approved.

NSF

The Recovery Act appropriated $3 billion to NSF for R&D-related activities, including competitive research grants; major research instrumentation and equipment procurement and facilities construction; academic research facilities modernization; and education and human resources. NSF officials believe their Recovery Act funds can be obligated quickly once program plans are approved because, for example, $2 billion of the $3 billion will fund proposals that NSF's independent expert review panels have already deemed of merit but that NSF was not previously able to fund. Specifically, NSF officials have stated that these grants will be awarded by September 30, 2009, and NSF expects its Recovery Act funds will allow the agency to support an additional 50,000 investigators, post-doctoral fellows, graduate and undergraduate students, and teachers throughout the Nation.

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[5] The Recovery Act appropriated $6 billion for the credit subsidy costs of approved projects—i.e., the estimated net present value of long-term costs to the government from defaults, delinquencies and interest subsidies for those projects. The original loan guarantee program did not receive an appropriation for such costs, which must therefore be paid by fees charged to borrowers.

[6] See GAO, *Department of Energy: New Loan Guarantee Program Should Complete Activities Necessary for Effective and Accountable Program Management,* GAO–08–750 (Washington, D.C.: July 7, 2008).

[7] The August 2006 solicitation invited applications for loan guarantees under DOE's Innovative Technologies loan guarantee program. The Recovery Act added a new program that provides loan guarantees for a different set of project categories, some of which overlap with those eligible for loan guarantees under the original program.

NASA

The Recovery Act appropriated $1 billion to NASA for expenditures on space exploration; Earth science and climate research missions; adding supercomputing capacity; aeronautics activities, including aviation safety research, environmental impact mitigation, and activities supporting the Next Generation Air Transportation System; and restoration of facilities at the Johnson Space Center in Houston, Texas, damaged during Hurricane Ike in 2008. $50 million to support restoration work at the Johnson Space Center has been apportioned by OMB, and NASA has begun to issue requests for proposals for this restoration work. According to a NASA official, OMB has agreed with NASA on the funding priorities for the remaining $950 million appropriated, and funds will apportioned once OMB approves NASA's program plans.

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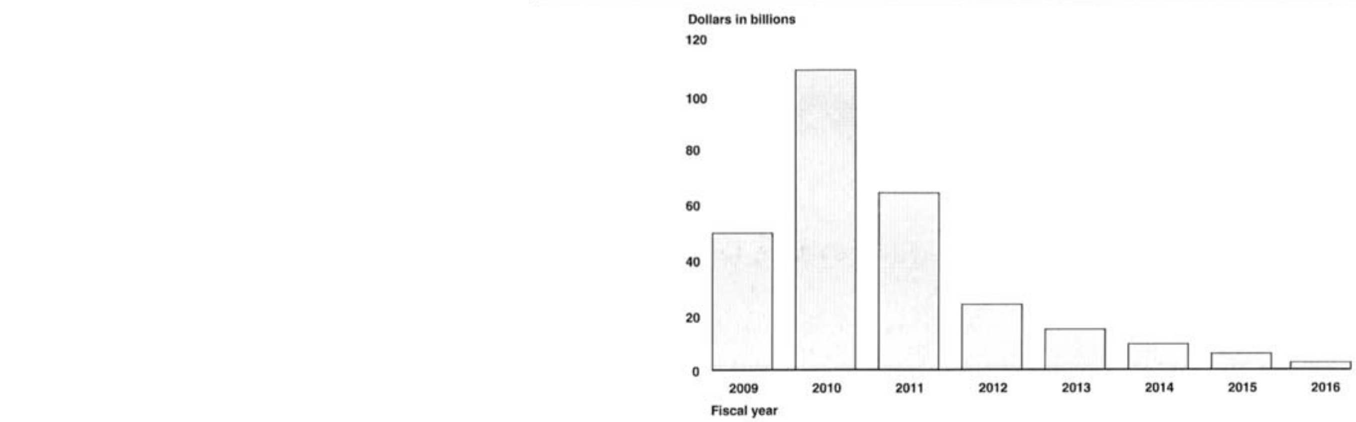
Figure 1: Projected Timing of Federal Recovery Act Funding Made Available to States and Localities by Fiscal Year



Source: GAO analysis of CBO and FFIS data.

Excerpted from GAO, *Recovery Act: As Initial Implementation Unfolds in States and Localities, Continued Attention to Accountability Issues Is Essential,*
GAO-09-580 (Washington, D.C.: Apr. 23, 2009).

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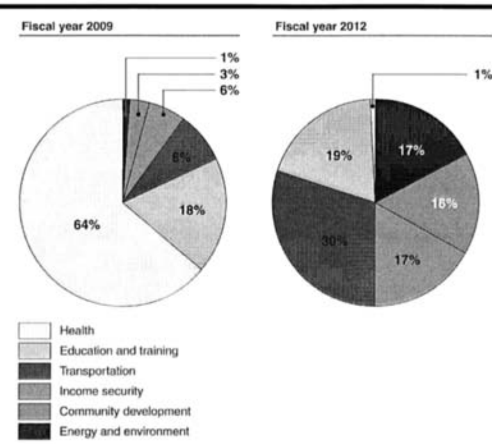
Figure 2: Composition of State and Local Recovery Act Funding, Fiscal years 2009 and 2012



Source: GAO analysis of CBO and FFIS data.

Excerpted from GAO, *Recovery Act: As Initial Implementation Unfolds in States and Localities, Continued Attention to Accountability Issues Is Essential*,
GAO-09-580 (Washington, D.C.: Apr. 23, 2009).

BIOGRAPHY FOR GENE L. DODARO

Gene L. Dodaro became Acting Comptroller General of the United States and head of the Government Accountability Office on March 13, 2008.

Mr. Dodaro has testified before Congress dozens of times on important national issues. Most recently he has testified on the *American Reinvestment and Recovery Act of 2009,* the Troubled Asset Relief Program, federal assistance to the auto industry, U.S. involvement in Iraq and Pakistan, the Federal Government's financial condition and fiscal outlook, and the need to modernize the U.S. financial regulatory system. He has led efforts to fulfill GAO's new audit responsibilities in connection with the 2008 *Economic Stabilization Act* to help stabilize financial markets and institutions, as well as the *American Recovery and Reinvestment Act*—the stimulus legislation designed to combat the economic downturn. Under Mr. Dodaro, GAO has also undertaken initiatives such as a new transition web page and a new high-risk list to help bring to the attention of the 111th Congress and the new Administration the major challenges GAO has identified across the Federal Government, from improving food safety to rebuilding transportation infrastructure.

As Acting Comptroller General, Mr. Dodaro helps oversee the development and issuance of hundreds of reports and testimonies each year to various committees and individual Members of Congress. These and other GAO products have led to hearings and legislation, billions of dollars in taxpayer savings, and improvements to a wide range of government programs and services.

In a GAO career dating back more than 30 years, Mr. Dodaro has held a number of key executive posts. For nine years, Mr. Dodaro served as the Chief Operating Officer, the number two leadership position at the agency, assisting the Comptroller General in providing direction and vision for GAO's diverse, multi-disciplinary workforce. Mr. Dodaro led the development of GAO's strategic plans for serving Congress and improving government in the 21st Century. He also played a key role in guiding the agency's efforts to highlight current and emerging issues that warrant attention from policy-makers.

Until 1999, Mr. Dodaro headed GAO's Accounting and Information Management Division, the agency's largest unit, which specialized in financial management, computer technology, and budget issues. While there, he directed the first-ever audit of the comprehensive financial statements covering all federal departments and agencies. Mr. Dodaro also helped conceive GAO's strategy for strengthening computer security government-wide and led the updating of standards for internal controls in the Federal Government.

Mr. Dodaro worked closely with the Congress and several administrations on major management reform initiatives, including the 1994 *Government Management Reform Act,* which expanded the *Chief Financial Officers Act;* the revised 1995 *Paperwork Reduction Act* and the *Clinger-Cohen Act of 1996,* which require agencies to implement modern management practices for information technology management; and the 1996 refinements to the *Single Audit Act,* which outlines requirements for audits of federal assistance to State and local governments. Mr. Dodaro also led management reviews of the Department of Justice, the Internal Revenue Service, the Office of Management and Budget, and the Office of Personnel Management and has extensive experience working with State and local government officials.

Mr. Dodaro, who holds a Bachelor's degree in accounting from Lycoming College in Williamsport, Pennsylvania, is a fellow of the National Academy of Public Administration and a member of the Association of Government Accountants. Mr. Dodaro has received many of GAO's top honors as well as recognition from outside organizations, including the American Society for Public Administration, the Institute for Internal Auditors, and *Federal Computer Week.* These include:

- The 2008 Association of Government Accountants' National President's Award in recognition of outstanding vision in leading GAO through a major transition and for partnering with AGA to improve government financial management.
- The 2006 Association of Government Accountants' Elmer B. Staats Award for improving government performance and government accountability.
- The 2003 American Society for Public Administration's and the National Academy of Public Administration's National Public Service Award recognizing outstanding practitioners in public service.
- The 2001 Association of Government Accountants' Frank Greathouse Distinguished Leadership Award for sustained outstanding leadership in financial management.

- The 2000 Institute of Internal Auditor's (D.C. Chapter) Person of the Year for leadership in addressing the Year 2000 computing challenge.
- The 1999 Federal Computer Week's Information Technology Top 100 Award.
- The 1989 Arthur S. Flemming Award for outstanding individual performance in government.

Mr. Dodaro will serve as Acting Comptroller General until the President nominates, and the Senate confirms, a successor from a list of candidates that will be proposed by the Congress.

Mr. Dodaro is married to the former Joan McCabe and has three adult children.

DISCUSSION

Chairman MILLER. Thank you. By the standards the Committee has set and other witnesses have set you both were very close to your time limits, and I think it is probably a good thing that men in your position are rule followers. I look forward to seeing if the benefit of your example affects any Member of the Committee.

I do now recognize myself for five minutes of questioning, and each Member here will have a turn.

INFORMATION TRANSPARENCY AND COMPATIBILITY

Mr. Devaney, the President, President Obama, promised a level of transparency through the Internet, *Recovery.gov*. The public was led to believe that that would be available, that would get right down to who got the contract for pouring asphalt. But it has been the experience of this subcommittee in the last two years, particularly with respect to IT projects, trying to assemble information from—in different forms from different agencies and put it all in one usable format, although that seems like that ought to be something readily accomplished, we find out that years later and millions of dollars later, what appeared to be a very qualified bidder got the contract and what they produced is worse than what they started with.

How do you intend to provide that level of transparency to see how—who actually got the contract to pour asphalt?

Mr. DEVANEY. Mr. Chairman, obviously it will probably be done through the *Recovery.gov* web site.

Chairman MILLER. Right.

Mr. DEVANEY. And as I mentioned in my testimony that web site is evolving and developing, and I will be the first to admit today that web site doesn't give you that kind of information. The information, quite frankly, isn't there yet. It hasn't come back in yet, but it will have to be—the web site will have to be ready to receive the data that comes pouring back into the government in—October is the big date. So we have a challenge here. We have about 140 days to move very quickly from this electronic town hall, which I described, to where we get all these great ideas to, in the next week or two, moving into some sort of a competitive process and get the vendors working.

It is an enormous challenge. The integration issues are profound, but I am optimistic by nature, a little bit—mixed in with a little bit of realism, but optimistic, and I think it can be done. And my hope, and our goal on the Board is that, you know, come October or shortly thereafter the American public will begin to see the data that they so desperately want to see. And we will ensure that that site gets better and better and better as time goes on. We are not going to stop in October, obviously.

Chairman MILLER. Okay. Mr. Devaney, are you going to build an IT team within your agency? Or are you going to rely upon private contractors? How do you plan to proceed?

Mr. DEVANEY. Well, we have already assembled a team; a good, solid IT team. I think I have got the best and brightest in government. We have sort of stolen them, if you will, from other agencies. Borrowed them, and in some cases put a lot of leverage on agencies to provide us with the very best people they have. Combined with some contractor help we have and the vendors that will be involved in the building of this infrastructure I think we can get it done.

Chairman MILLER. Okay. Mr. Dodaro, you are facing much the same challenge. You are certainly familiar with trying to bring in diverse data, inconsistent data, agencies that use different formats, collect different data, et cetera, et cetera.

What are your observations or thoughts on the task of creating from all that diverse data an integrated—from two different, from two dozen agencies creating that in a format that will be usable in a single format? Understandable.

Mr. DODARO. Yeah. First of all, I want to say I think that the goals that are set out by the legislation and by the implementing guidelines are very laudable goals, and I think set a standard for transparency and accountability in federal spending that haven't been set before.

That being said, there will be definitely implementation challenges associated with making sure the data is complete, it is accurate, it is timely, and it is in an understandable format. And so those things can be achieved with a lot of effort, but it will be a challenge and a stretch goal, if you will, for the agencies in order to be able to achieve that.

One of my earlier responsibilities was to help orchestrate the first ever financial audit of the Federal Government's financial statements, and believe it or not, prior to 1997, there was never a financial audit done of any federal department or agency, let alone the consolidated statements of the U.S. Government, and that was a monumental achievement, but it took time and effort. It can be done, and I think the commitment is there, but we will have to wait to see how implementation unfolds.

Chairman MILLER. Following the example set by the witnesses, my time has expired.

Dr. Broun is recognized for five minutes.

Mr. BROUN. Thank you, Mr. Chairman. I have a question for both of you gentlemen.

THE LEVEL OF DETAIL IN TRACKING CONTRACTS

Current OMB guidance only requires that money be tracked two layers down. For example, a state and city would have to report data but not the contractor or subcontractor. Do you intend to require additional reporting beyond the OMB guidance, and do you believe two layers of accountability are enough to satisfy the President's promise that, "Every American will be able to go online and see where and how we are spending every dime?"

Mr. DEVANEY. I will answer that by saying that if I could make—wave a magic wand, I would want to follow a dollar from cradle to grave. As I said earlier, the division of labor here and as it should be, is that OMB is responsible for providing the guidance as to what needs to be reported. They are also going to be responsible for scrubbing the data, which is—my fellow witness mentioned this is going to be an enormous challenge to make sure that that data is accurate.

So I think that we are going to have a situation where we are going wait, probably, for OMB to come out with some additional guidance in the future after a few quarters have gone by and we see where the missing gaps are, and I am going to push them very hard to give me as much data as possible.

Mr. BROUN. Do you intend to carry that all the way down to the ultimate consumer——

Mr. DEVANEY. I would like to——

Mr. BROUN.—as the Chairman is talking?

Mr. DEVANEY.—do that.

Mr. BROUN. So two layers is not enough?

Mr. DEVANEY. I would like to get it down to where we can see where it went at the end of the day. That is—from an accountability standpoint.

Mr. BROUN. Mr. Dodaro.

Mr. DODARO. Yeah. I agree completely with what Mr. Devaney has just said. My understanding is that based upon input that had been received by GAO State and local officials and others, OMB is reevaluating the guidance that they have. I know this issue came up when I testified on this subject before the Senate, and the expectation is and the hope is that more complete reporting will be included in the next set of expanded guidance.

I mean, it definitely needs to be on the manager's screen to make sure there is adequate accountability, and if you have that, and the real challenge will be to make sure it is in a cost-effective type of reporting approach. But you need more complete reporting.

KEEPING ACCURATE JOB STATISTICS

Mr. BROUN. I agree with both of you, and I think this promise that the President made is unfillable, and I don't think it is going to be, unfortunately.

Mr. Devaney, the Americans for Tax Reform point out an interesting contradiction in their letter. President Obama recently claimed in his press conference marking his 100th day in office on April 29, that the stimulus act has already saved 150,000 jobs. Don't know where he got that figure. Maybe pulled it out of the hat like a lot of these figures are.

I also point out that the Bureau of Labor Statistics show 1.3 million jobs lost since the President took office. Given that you are tasked with providing accountability with independence, how do you plan to verify the actual number of jobs created?

Mr. DEVANEY. Well, sir, we haven't really received any information about that on the web site—to the Recovery Board. It hasn't come into us. I am assuming that those figures come from a council of economic advisors, which has been working in the jobs area and information—forthcoming information—hopefully soon—will be coming forward about how to count jobs.

So we don't have it yet. I eagerly await it, and as soon as I get it, we will put it up.

Mr. BROUN. Well, I appreciate that, and I hope that you will verify the numbers. I think very probably these numbers were just picked out of the clear blue sky and are not authenticated or authenticable at this point, but anyway, let me carry on.

WHISTLEBLOWERS

In her testimony, Ms. Brian describes Congress's decision not to provide meaningful protections for federal whistleblowers with respect to stimulus funding as, "simply absurd." Separate from the absence of such protections what options are available to you as head of the RAT Board to assist in protecting federal whistleblowers?

Mr. DEVANEY. Sir, I have been pretty aggressive about protecting whistleblowers in my former position as Inspector General of Interior. I don't intend to abandon that practice now. When the Board hears from a whistleblower, we are going to make sure that the appropriate IG gets the information, and if there is any charge of retaliation, I am going to be pretty aggressive about making sure that we try to put a stop to that.

Mr. BROUN. Thank you very much. I trust that you will and look forward to you doing so.

Mr. Chairman, I am out of my time.

Chairman MILLER. An even better example for all of us.

Ms. Dahlkemper is recognized for five minutes.

INDICATIONS OF SUCCESS

Ms. DAHLKEMPER. Thank you, and thank you both for coming today and speaking in front of us.

As a new Member of Congress and someone who did vote for the Recovery Act, obviously I feel a lot of obligation to make sure that this money is spent in the way those of us who voted for it intended.

So, Mr. Devaney, with that in mind, looking to the future, when you close down your office in 2013, what would you consider as success? Could you describe that to me, please?

Mr. DEVANEY. Well, we have held fraud, waste, or mismanagement to an absolute minimum, that we have been able to prevent that from happening as opposed to merely detecting it after it happened.

With respect to the web site, my hope is that this web site will serve as a prototype for how we provide transparency to the American people for years to come. I think if we do this right and take our time, do it right, and that transparency becomes part of what we do every day, that folks in the future will look to this web site as a model for how to build future models, to democratize the process.

I mean, this is the very first time that I can recall that every dollar is being tagged by a specific title of Recovery funds, and for an

IG that is very exciting because I get to—I get a better shot at making sure that none of it is wasted or fraud takes place.

TRACKING MONEY AT THE LOCAL LEVEL

Ms. DAHLKEMPER. I have asked my staff, particularly back in my district, to try to track what they can within my district. Can you give me any suggestions on what I should be trying to do back in my district in trying to make the transparency and the accountability there for the people in the third district of Pennsylvania?

Mr. DEVANEY. Well, I am hoping to give everybody in the third district of Pennsylvania an opportunity—in the not too-distant future—to be able, for instance, to go on that web site and put in a zip code and see the expenditures in their neighborhood or look at across the country. Can't do that now but I am very confident that in the coming months, in the short amount of months, we are going to be able to do that for you.

Ms. DAHLKEMPER. Summertime, fall, end of the year? When do you——

Mr. DEVANEY. Well, I——

Ms. DAHLKEMPER.—have any thoughts on——

Mr. DEVANEY.I stay awake a little bit at night worrying about October 10, which is when the data comes rushing into the government from the recipients, and so by then it has to work.

PREVENTING MISUSE OF GRANT AND CONTRACT FUNDS

Ms. DAHLKEMPER. Okay. Thank you.

And Mr. Dodaro, GAO has also been conducting extensive work on the government's acquisition resources. What improvements need to be made to enhance an agency's ability to intervene and prevent misuse of funds at a time when speedily completing a grant or contract action is also being emphasized?

Mr. DODARO. Yeah. The acquisition area is one, as you mentioned, that we have tracked a number of federal contracting activities on our high-risk list that we keep, and the acquisition workforce area, in particular, is important; that there be adequate numbers of people that are there in order to track some of the contracting activities. This has been a particular area we focus on at the Department of Defense, where they have doubled the amount of spending on contract services over the past several years, but the acquisition workforce has grown less than one percent. So having adequate numbers of people are important. People have to be trained properly. There has to be adequate reporting and monitoring of those activities.

Now, there it is also important that the proper contracting vehicles be used, that there be competition in contracting whenever possible to ensure that the government has the best prices available for the services that they are trying to contract with.

So those are some of the fundamental things that, you know, we think. In this area I know for the Recovery Act that the inspectors general have been focused on trying to provide some best practices, as we have up-front, to try to deal with the contracting activities and following these best practices to minimize potential problems going forward. But it is an area to keep an eye on as the Recovery Act money gets distributed over the next few years.

Ms. DAHLKEMPER. Thank you very much.

Chairman MILLER. Thank you. We do have votes coming up shortly, but I will recognize myself for a second round of questioning, and we should have time for all three of us to ask a second round, and the second panel will probably be after a series of votes.

I now recognize myself for five minutes.

Mr. Devaney, I—it may be true that not all of the accountability we would—and transparency we would like to achieve with the Recovery Act is achievable right now, but the first step in achieving a government that is accountable and transparent is to elect people to office who will be transparent and accountable. And to see those obstacles not as an excuse for being opaque and unaccountable but as something to try to overcome and continue to try to overcome. And our experience in trying to provide as much transparency and accountability as possible now will improve our efforts later. It will be a continuing effort to get more and more accountable and more and more transparent.

AVAILABILITY OF INFORMATION

Mr. Dodaro, in your testimony you said the Department of Energy—I believe that Mr. Whittaker has a couple of graphics that are—I think it is being displayed here for you. In your testimony you say that the Department of Energy has obligated, I assume contracted, $342 million of the funds allocated for the Office of Science. In the appendix of your testimony you provide a great deal of detail on the spending, but at the DOE Recovery Act web site it is very easy to find the 342 number in the total obligations——

Mr. DODARO. Uh-huh.

Chairman MILLER.—but kind of impossible to find the level of detail that you have provided in the Appendix.

How did the GAO get the level of detail that you reported? Did I say Mr. Dodaro?

Mr. DODARO. Yes.

Chairman MILLER. Right.

Financial and Activity Report (sheet 1 of 2) Version 1.3

Agency Name: (019) Department of Energy

Week End Date: 24-Apr-09

(89-0227 2009 \ 2010) Science - Recovery Act 341,989,000.00

No.	Agency / Bureau	TAFS	Sub-Account Code (OPTIONAL)	Total Obligations
1	(019-20) Department of Energy: Energy Programs	(89-0331 2009 \ 2010) Energy Efficiency and Renewable Energy - Recovery Act		704,957,636.40
4	(019-20) Department of Energy: Energy Programs	(89-0227 2009 \ 2010) Science - Recovery Act		341,989,000.00
5	(019-20) Department of Energy: Energy Programs	(89-0336 2009 \ 2010) Energy Transformation Acceleration Fund, Recovery Act		
6	(019-10) Department of Energy: Environmental and Other Defense Activities	(89-0253 2009 \ 2010) Defense Environmental Cleanup - Recovery Act		2,198,275,000.00
7	(019-20) Department of Energy: Energy Programs	(89-0335 2009 \ 2010) Non-defense Environmental Cleanup - Recovery Act		34,000,000.00
8	(019-20) Department of Energy: Energy Programs	(89-5657 2009 \ 2010) Uranium Enrichment Decontamination and Decommissioning Fund - Recovery Act		0
9	(019-60) Department of Energy: Departmental Administration	(89-0237 2009 \ 2012) Office of the Inspector General - Recovery Act		10,972.38
10	(019-20) Department of Energy: Energy Programs	(89-0209 \ X) Title 17 Innovative Technology Loan Guarantee Program - Recovery Act		0
11	(019-20) Department of Energy: Energy Programs	(89-0323 \ X) Advanced Technology Vehicles Manufacturing Loan Program - Recovery Act		0
12	(019-50) Department of Energy: Power Marketing Administration	(89-5655 \ X) Construction, Rehabilitation, Operation and Maintenance, Western - Recovery Act		0

Total Obligations
Provide integer only

Graphic presented by Mr. Miller: Excerpt from Department of Energy Financial and Activity Report showing obligation of $342 million in Recovery Act funds by Office of Science (April 24, 2009)

Table 3: Science's Recovery Act Projects at Its National Laboratories

Dollars in millions

National laboratory	Description of use of funds	Recovery Act funds
Ames Laboratory (Ames, Iowa)	Funds will support general plant projects that improve energy efficiency.	$1.7
Argonne National Laboratory (Argonne, Illinois)	Funds will support upgrades and replacements of major electrical switches and equipment as a first step toward rehabilitation of the laboratory's central campus.	13.1
Brookhaven National Laboratory (Upton, New York)	Funds will primarily support accelerated construction of the National Synchrotron Light Source II, a $912 million project that, when built, will be the brightest x-ray source in the world. Remaining funds will go toward construction of an interdisciplinary science building, other infrastructure improvements in several facilities, and upgrades to experimental equipment.	184.3
Fermi National Accelerator Laboratory (Batavia, Illinois)	Funds will support construction and improvement projects, as well as the purchase of key high-tech components for experiments.	34.9
Thomas Jefferson National Accelerator Facility (Newport News, Virginia)	Funds will primarily support a project to upgrade the Continuous Electron Beam Accelerator Facility. Additional funds will go toward improving laboratory facilities.	75.0
Lawrence Berkeley National Laboratory (Berkeley, California)	Almost half of the funds will support a prototype data networking system. Remaining funds will go to support infrastructure improvements, accelerated construction of a laboratory facility, and the demolition of facility decommissioned over a decade ago.	115.8
Oak Ridge National Laboratory (Oak Ridge, Tennessee)	Most of the funds will be used to accelerate construction of a new chemical and material sciences research building designed to replace an aging facility built in 1952. Remaining funds will support infrastructure improvements and experimental facility upgrades.	71.2
Pacific Northwest National Laboratory (Richland, Washington)	Nearly all of the funds will support accelerated investment in the Environmental Molecular Sciences Laboratory, a national user facility, and capital upgrades to the Atmospheric Radiation Measurement Climate Research Facility, another national user facility. Remaining funds will support energy equipment upgrades and improvements in three other facilities.	124.0
Stanford Linear Accelerator (Menlo Park, California)	About half of the funds will support accelerated purchase and assembly of instrumentation for the Linac Coherent Light Source, the world's most intense x-ray laser. Remaining funds will support seismic upgrades to facilities, including the Stanford Synchrotron Radiation Light Source, and work on other experimental facilities.	68.3
Total		**$688.3**

Graphic presented by Mr. Miller: Table from GAO testimony describing projects that received the $342 million in Recovery Act funds obligated by the Office of Science

Mr. DODARO. Right. Right. Our staff interviewed the people at the Department of Energy and looked at the supporting documentation available. You know, obviously we have more access to information than the general public would be, but that doesn't mean that the web sites could not be improved and additional level of detail there, and I think that is the expectation going forward.

But we did it through normal auditing procedures that we have.

Chairman MILLER. What is the task of getting that level of detail that is in the Appendix? Your testimony available to all God's children with Internet access——

Mr. DODARO. Right.

Chairman MILLER.—which is most of God's children in this country at least now, up at a usable forum?

Mr. DODARO. Yeah. I think that the task is to just put in the disciplined processes necessary in order to achieve that, and as I mentioned earlier in response to Congressman Broun's question, I mean, this is a stretch goal for agencies to have that level of detail and timely reporting. It could be achieved, but there needs to be disciplined processes put in place to make sure that when it is posted, it is complete and accurate and timely, and I think that the expectation of the Administration moving forward is to try to get that level of detail provided.

Now, that money has been, you know, obligated, and as things move through the process, you know, additional funds will become obligated, but I think the—it is just a matter of having the proper procedures in place.

AGENCY COMPLIANCE WITH RECOVERY ACT REQUIREMENTS

Chairman MILLER. Okay. Mr. Devaney, our committee is looking into contracting issues that one of the agencies within our subcommittee's jurisdiction, our committee's jurisdiction, and our initial efforts suggest that the staff, the contracting staff are not particularly aware of the legal requirements of the Recovery Act. And that is worrisome, that if they don't know about, they are not going to do it very well.

What efforts are either of you making to try to make sure that all those in government agencies know what the requirements are?

Mr. DEVANEY. Well, we have our compliance, procurement compliance staff out there talking to the chief procurement officers of each of the agencies. I am not sure what agency you are referring to, but there is the visit, there is the opportunity I had to speak to the Cabinet on a couple of occasions and talking about, you know, the work that we were seeing initially was sloppy, that mistakes were being made. It is probably true that this is—goes on all the time, but the sunlight has never been shone on this work before.

So I know the Vice President, for instance, challenged the Secretaries to make sure that those kinds of guidance pieces that are coming out of OMB get down to the lowest level, which is not always the case in most big departments. And every time we have an opportunity to interact with those levels, we are trying to be helpful and informative to them as to what the rules really are.

Mr. DODARO. Yeah. I would just say in response to your question about, you know, our activities here, our responsibilities under the Recovery Act are mostly to track the uses of the funds at the State and local level, so we have been deferring to the inspectors general to work with the federal departments and agencies.

Now, what we will plan to do is coordinate with them, if we see some gaps or other areas that we can help out in, we will do that as part of our coordination of follow-up activities.

Chairman MILLER. Okay. My time has expired.

Dr. Broun for five minutes.

OVERSIGHT AT THE STATE AND LOCAL LEVEL

Mr. BROUN. Thank you, Chairman. Just going along with what the Chairman was just asking, State and local governments and even the private sector are being overwhelmed with both funding and new transparency requirements.

Does the Act allow states to use stimulus money to increase their ability to comply with transparency and accountability requirements, and do you have any recommendations on how the Federal Government can assist State and locals in meeting these requirements?

For both of you, please.

Mr. DODARO. I would say, you know, in our first report, Congressman, last month we recommended that OMB clarify this very point. Now, some of these programs or existing programs that allow for administrative expenses to be recouped, a certain percentage of them, there are indirect costs, rate allocations that are in some of the programs, but there is a lot of confusion out there at the State and local level, and we recommended that OMB clarify this. And I think they have a number of options available to them in order to do this. Our understanding is they are looking at this very carefully and hope to clarify it soon.[1]

I think this is a very important issue because I do believe that a number of states have very legitimate concerns about their ability to implement adequate accountability, and this clarification if very important.

Mr. BROUN. Mr. Devaney.

Mr. DEVANEY. Same thing. I think OMB is about to clarify that issue and maybe bring a little help to the states. I hear this every time I talk to them, and when asked if I would be supportive of even legislation that might help in this area, I have been—I have personally responded yes.

So they need help. They are overwhelmed with this responsibility. As you know, the federal IGs get a considerable amount of money to perform oversight, and the states didn't get anything. So I am empathetic to that situation. I want to help them. I will do anything to help them and be very supportive of any effort to make sure that money gets down to them.

Mr. BROUN. Thank you. I appreciate that.

I understand there is some legislation that is going to help mitigate this issue, but I think this Act has tremendous unfunded mandates all the way down even to the local contractor that people just don't understand. In fact, a lot of states have looked at opting out of various parts of this Act for that reason.

RESULTS FROM THE ONLINE DIALOGUE

Mr. Devaney, you noted in your testimony that you held an online dialogue to receive comments on how best to structure the *Recovery.gov* web site and how to best collect and analyze data.

What, if any, notable consensus or theme emerged from this dialogue?

Mr. DEVANEY. Well, I am still waiting for the official results from NAPA [National Academy of Public Administration], which was our partner in this, but my understanding is there is a number of really good, solid ideas that emerged from this exercise; some very notable people wrote to us and suggested things. As part of the process people were able to engage in running dialogue and actually vote at the end of the day, so I haven't seen the tallies of the votes, but, you know, we had been looking already, of course, at what is out there, but the people that I have doing that told me they were surprised by some of the ideas. We have got to consider them, but we have got to do it very quickly.

Mr. BROUN. When do you expect to announce how you plan to incorporate any suggestions as a result of that dialogue?

Mr. DEVANEY. Well, I think we are going to move very quickly to the dialogue is being shaped by NAPA to reflect the buckets of

[1] OMB issued Memorandum M–09–18, "Payments to State Grantees for Administrative Costs of Recovery Act Activities," on May 11, 2009.

information we got. We are going to take a look at that, then we are going to move very quickly to having some people in to show us things as opposed to just talking about them, and do that in a competitive way in a very short period of time.

Mr. BROUN. All right. Very good. Do you expect the information detailed on *Recovery.gov* will be maintained and updated throughout the life of the stimulus awards and grants?

Mr. DEVANEY. Yes. Absolutely.

Mr. BROUN. Do you believe that it would be appropriate as Dr. Ellig suggested to include information on performance outcomes on the *Recovery.gov* web site?

Mr. DEVANEY. I think the whole issue of performance metrics is an issue that we haven't really addressed yet, and as you may know, there is an advisory panel that is supposed to be appointed by the President to provide the Board with expert advice. I am very much interested in having some performance people or a performance person on that panel and have made that known.

I want to very quickly get my hands around that as soon as I can find the time to—once the vendors are selected that that is being built, then I want to go back to the metrics and try to see what we can do in that area.

Mr. BROUN. I think it is very critical to have those performance metrics in place, and I thank you, sir.

My time is up.

Chairman MILLER. Dr. Broun—Ms. Dahlkemper for five minutes.

Ms. DAHLKEMPER. Mr. Devaney, during the drafting of the Recovery Act there was concern among the inspectors general that the Board had been given too much power to determine what investigations they would be allowed to pursue, or that there was insufficient protection against political interference with investigations. And ultimately the language in the Act made it clear that the inspectors general retain their independent discretion.

I just want to ask if you are comfortable with the Act's language limiting the Board's authority in this area?

Mr. DEVANEY. Well, if I had written it, I may have written it differently. I certainly am not about to tell an inspector general that they should not investigate something. I don't think I would ever do that. I think I have—I am expressing the view of the Board entirely, and I have made it known in any opportunity I have had before the IGs to tell them that. I am going to speak to them next week down at their annual retreat. I will reiterate that. The board is not about to tell somebody not to investigate something.

So, that language—it is implied in the language that the Board would do that. We are not going to do that.

Ms. DAHLKEMPER. Okay. That is good to hear. That is all I have. I don't have any further questions.

Chairman MILLER. I don't have any further questions either. We have not yet been called to votes. I suppose it makes sense to excuse this panel. Thank you very much for being here, and we will continue to talk with you about how to do this, and perhaps we should begin the second panel, although we will probably not be able to complete all the testimony of the panel before called to votes.

We will all just be at ease for a second while everyone gets repositioned.

The bell is calling us to vote, and I understand that Mr. Bilbray has already gone on over to vote. It doesn't take us 15 minutes to get there, but it is an awkward time, so I think we will resume at the end of the last vote. Thank you very much. See you shortly.

[Recess.]

Panel II

Chairman MILLER. Hello, again. I understand that Mr. Bilbray will be substituting for Dr. Broun for the second panel, and he will be here momentarily, but I will now introduce our second panel.

Dr. Clarence Newsome is the President of Shaw University in Raleigh, a well-regarded institution, I think literally across the street from my district. Dr. Gary Bass is the Founder and Executive Director at OMB Watch, not OMB as my notes say. I do know the difference. OMB Watch has been very helpful to me, to my staff, to this subcommittee in the last two years.

Dr. Jerry Ellig is the Senior Research Feller, Fellow—Feller is actually the North Carolina pronunciation—at the Mercatus Center at the—at George Mason University. Ms. Danielle Brian is the Executive Director of POGO, the Project on Government Oversight, and Mr. Eric Gillespie is the Senior Vice President of Products, Technology, and Innovation and the Chief Information Officer of Onvia Incorporated, which has created the private stimulus watch web site *Recovery.org*.

As you know from having been here before, you will each have five minutes for your spoken testimony. Your written testimony will be included in the record. When you have completed your spoken testimony, your oral testimony, we will begin with questions, and each Member will have five minutes to question the panel.

It is the practice of the Subcommittee to take testimony under oath. Do any of you have any objection to taking an oath? No—all witnesses appear to nod that they had no objection. If not, do you have—you also have the right to be represented by counsel. Do any of you have counsel here? And all the witnesses nodded that they did not.

As I said before, we ask you these questions to put you at ease. Please stand now and raise your right hand. Do you swear to tell the truth and nothing but the truth? Each of the witnesses took the oath.

We will now begin with President Newsome.

STATEMENT OF DR. CLARENCE G. NEWSOME, PRESIDENT, SHAW UNIVERSITY

Dr. NEWSOME. Good afternoon, Mr. Chairman.

Chairman MILLER. Dr. Newsome, I think you need to turn your microphone on.

Dr. NEWSOME. Okay. I will start again then. Good afternoon, Chairman Miller and Members of the Subcommittee on Science and Technology. I thank you for hosting this hearing to learn about how historically black colleges and universities, HBCUs as we call them, predominantly black institutions—PBIs—and other intended beneficiaries of the Recovery and Reinvestment Act funds are faring in accessing those dollars.

I am delighted to be here as the President of Shaw University, a United Negro College Fund, UNCF, institution, and I am delighted to be here as a member of the Board of Directors of the National Association for Equal Opportunity in Higher Education, NAFEO.

Shaw is the first, we claim, of the HBCUs to have been founded in the South; two colleges, one school, ten departments, employ 120 faculty members to serve approximately 2,800 students by providing a variety of academic offerings that are geared towards today's employment market.

With the initial phases of the work of Congress completed on the Recovery Act, the legislation states that the goals of the Recovery Act include, and I quote, "To provide investments needed to increase economic efficiency by spurring technological advances in science and health."

The HBCU community, particularly through NAFEO, has at all times suggested that one critical measure of success in achieving this goal is the extent to which HBCUs and other under-resourced institutions are able to access Recovery funds to make improvements to their infrastructures and enhance and expand research capabilities.

With this in mind I would like to share with you some of the challenges that Shaw University has experienced in seeking to access Recovery Act funds. While I refer to specific instances at Shaw, I can assure you that other institutions around the Nation like Shaw have had similar experiences in trying to access these funds.

One of the largest challenges facing Shaw or any private institution in North Carolina is the lack of a mechanism for independent institutions to receive funds through the Recovery Act. The State of North Carolina thus far has limited funding to State institutions and State agencies, leaving Shaw University and many others unable to receive even the slightest assistance from these funds.

Moreover, it is not clear at this point whether private and independent colleges will be able to participate in any meaningful way in the stimulus funding that has been made available to the state.

In reaching out to federal institutions in order to seek assistance from Recovery Act funding, Shaw has continuously been met with uncertainty on the part of the agencies as to a process or procedure to direct these monies to private institutions. In addition, many agencies impose time constraints that make those funds all but inaccessible to such institutions.

One instance of this is the requirement that funds be spent within too narrow of a timeframe after receiving them, or even after applying for them. For many private institutions of higher learning it is nearly impossible to get the three estimates on each portion of the job as required by federal law, sign the contracts, and schedule construction or other work before the time limit has expired.

All of these challenges are made more difficult by the fact that many of the institutions seeking these funds are not planning to use them to begin a new program but to take a heretofore isolated program and expand it to improve infrastructure and vastly improve academic programs by institutionalizing them so they can be studied more extensively and more inclusively than the current arrangement allows.

I want to share with you one example along that line, Mr. Chairman, at this point in order to stay within my timeframe. We have a wonderful program going on in Bertie County, North Carolina, with an experiment producing biodiesel fuel by way of growing canola seed oil. I want to just flash a picture up here right quick and show you how we are—this is the canola plant that is mostly grown in Canada. We are paying farmers in Bertie County to grow this plant, we are using the oil to produce biodiesel fuel. We are even putting fuel in the Bertie County buses. There is the machine that we are using. There is the bus. We are able to expand this program—we will be able to expand this program significantly with the help of some of these Recovery Act funds if they are made—not only made available to the NSF, but made available to us by way of a process that allows those funds to reach us.

I have some recommendations that I would like to share perhaps upon the time that we come upon the question and answer session, but at this point in time I would say thank you very much for giving me an opportunity to come and share with you.

[The prepared statement of Dr. Newsome follows:]

PREPARED STATEMENT OF CLARENCE G. NEWSOME

Good afternoon Chairman Miller, Ranking Member Sensenbrenner, and Members of the Subcommittee on Science and Technology. I thank you for hosting this hearing to learn about how Historically Black Colleges and Universities (HBCUs), Predominantly Black Institutions (PBIs) and other intended beneficiaries of the Recovery and Reinvestment Act funds are faring in accessing those dollars targeted for providing "investments needed to increase economic efficiency by spurring technological advances in sciences and health."

I am delighted to be here as the President of Shaw University, a United Negro College Fund (UNCF) institution, and as a member of the Board of Directors of the National Association for Equal Opportunity in Higher Education (NAFEO).

Background and Contextual Information

Shaw University is located in Raleigh, North Carolina, in the 2nd Congressional District, represented by Congressman Bob Etheridge, and adjacent to the 13th Congressional District served by the distinguished Chairman of this subcommittee. Shaw is the oldest and, I believe, the best private co-educational liberal arts historically black university in the South. Founded in 1865, by Missionary Henry Martin Tupper, Shaw University is affiliated with the Baptist Church. Its former Leonard School of Medicine was the first four-year medical school to train black doctors and pharmacists in the South. Today, the primary mission of Shaw University is teaching with a commitment to maintaining excellence in research and academic programs that foster intellectual enhancement and technological skills. Two colleges, one school, and ten departments employ 120 faculty members to serve approximately 2,800 students by providing a variety of academic offerings that are geared toward today's employment market.

The University offers thirty (30) undergraduate majors and is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools to award the Associate, Bachelor's and Master's degrees. Three of its academic programs also have national accreditation. The Shaw Divinity School is one of only a handful of divinity schools in the State of North Carolina to earn full accreditation from the Association of Theological Schools (ATS) in the United States. The kinesiotherapy program is accredited by the American Kinesiotherapy Association and the teacher education program is accredited by the National Council for Accreditation of Teacher Education. The latter program is also approved by the North Carolina Department of Public Instruction. The University's science program attracts funding from major donors interested in increasing the number of minority students in scientific research.

In addition to its emphasis on teaching, Shaw University stresses character development, which includes religious, cultural, social, and ethical values.

Shaw University in one of the Nation's 103 mission-based, equal educational opportunity institutions federally designated as Historically Black Colleges or Universities (HBCUs).

HBCUs, as a class of diverse institutions, were established in America in the mid-1800s to welcome, nurture, and develop the progeny of the slave system. Unlike nearly all other American colleges and universities, however, from their inception, HBCUs have been open to students, faculty, and administrators of all races, colors, creeds, ethnicities, religions and both genders, except in student bodies of institutions whose expressed mission was to provide education to exclusively males or females. HBCUs have, through the years, collectively offered academic and employment opportunities and attendant benefits and privileges to all without regard to non-*bona fide* criteria or considerations, except where State law prohibited the same. They have been and to this day, are menders and healers for wounded minds and restless souls. They have produced, and continue to produce, sterling talent that has benefited the Republic immeasurably, not only in material contribution, but also in intellectual, cultural, moral, and spiritual offerings. These institutions have backgrounds of perpetual service to all people, with missions and goals of making educational opportunities a reality rather than an empty expectation.[1] They are providing students with the intercultural, interpersonal, and political skills with which to compete and thrive in a diverse yet still Balkanized world.

America's black colleges and universities remain at the creative forefront of American education, offering the tools and skills necessary to prepare students to promote peace at home and abroad; secure our communities and our homeland; meet pressing global and community health care needs; and fight injustice with the power of ideas, and by closing the achievement gap and opening doors of opportunity to those who are ill-served by many of the systems in our communities and the Nation. They are continuing to do more for students with fewer resources than any other higher education institutions.

Most HBCUs are the economic engines in their communities. According to a 2006 report by the National Center for Education Statistics, the short-term economic impact of HBCUs is $10 billion. Short-term economic impact was defined in that report by the expenditures of the colleges and universities on salaries and other institutional expenditures, and the expenditures of undergraduate, graduate, and professional students attending the institution in the communities in which the institutions are located. This figure does not capture the vast other multipliers for out years.

In testimony before the National Association for Equal Opportunity in Higher Education, April 3, 2009, in Atlanta, Georgia, on *"Ending the Cradle to Prison Pipeline, Establishing a Cradle to College and Career Pathway,"* Lynn Huntley, Esquire, President of the Southern Education Foundation (SEF), cited Department of Commerce data that also substantiate the major economic benefits provided by HBCUs to the communities and states in which they are located. Huntley noted that the economic impact of HBCUs "is evident not only in the job creation and community investment terms, but in upgrading the skills, earning potential, and taxpaying capacities of their students." Huntley cited a U.S. Department of Commerce study that found "The total employment impact of . . . [101 HBCUs] included 180,142 total full and part-time jobs . . .. To put that into perspective, the rolled-up employment impact of the Nation's HBCUs exceeds the 177,000 jobs at the Bank of America in 2006, which is the Nation's 23rd largest employer."

HBCUs foster innovation, economic growth and social mobility for disproportionate percentages of low-income and middle-income students, and they remain the primary source of new knowledge that will fuel the Nation's economic engine in the future.

These richly diverse institutions, that are stimulating the economies in their service areas and producing excellent, diverse students in disproportionate numbers in the teaching profession as well as in other high need disciplines and growth disciplines (health, the sciences, engineering, technology), are provided voice with pub-

[1] Baskerville, Lezli, President & CEO, National Association for Equal Opportunity in Higher Education (NAFEO) initially included these observations in Supreme Court briefs in *The Regents of the University of California v. Allan Bakke* (No. 76–811, October Term, 1976) and later in *United Steel Workers of America, AFL–CIO, Kaiser Aluminum & Chemical Corporation, United States Equal Employment Opportunity Commission v. Brian Weber* (Nos. 78–432, 78–435, 78–436, October Term 1978). They have been republished in several reports and publications since then with the author's permission.

lic and private policy-makers and policy shapers across the country by the National Association for Equal Opportunity in Higher Education (NAFEO).

NAFEO is the 501(c)(3) not-for-profit, national membership association of the diverse class of institutions known as HBCUs and the new Predominantly Black Institutions (PBIs) added to the constellation of American colleges and universities by the *Higher Education Opportunity Act of 2008.*

Founded in 1969, by a group of presidents of Historically Black Colleges and Universities, NAFEO is "the voice for blacks in higher education." The association represents the presidents and chancellors of the Nation's black colleges and universities: public, private and land-grant, two-year, four-year, graduate and professional, historically and predominantly black colleges and universities in 35 states, the District of Columbia and the Virgin Islands, and the 500,000 students, 53,000 faculty and five million alumni represented by NAFEO member institutions.

The 39 private black colleges and universities that belong to UNCF are members of NAFEO, including Shaw University and Saint Augustine's College, the other HBCU located in Raleigh, North Carolina, as well as Bennett College, Johnson C. Smith University, and Livingstone College, the other accredited private HBCUs located in North Carolina. Elizabeth City State University, Fayetteville State University, North Carolina A&T State University, and Winston Salem State University, North Carolina's public HBCUs, are among the 47 public colleges and universities that belong to the Thurgood Marshall College Fund, and are also NAFEO member institutions. The NAFEO membership also includes the 18 HBCU land-grant universities, black two-year institution that belong to the American Association of Community Colleges and other equal educational opportunity institutions that belong to the new class of Predominantly Black Institutions (PBIs).

NAFEO was founded to provide an international voice for the Nation's HBCUs; to place and maintain the issue of equal opportunity in higher education on the national agenda; to advocate policies, programs and practices designed to preserve and enhance HBCUs; and to increase the active participation of blacks at every level in the formulation and implementation of policies and programs in American higher education.

HBCU Championship of Inclusion of Higher Education Institutions in Recovery Act

Having established the reason and context for my appearance before you today, I thank you Chairman Miller and Members of this Oversight and Investigations Committee for holding this important hearing. Your examination of how different groups are faring in accessing and using Recovery Act funds at this juncture is especially important because it gives Congress time before all of the Recovery Act funds are disbursed, to make recommendations for any adjustments that may be suggested by what you learn from these hearings and your other investigative and oversight work.

Shaw University and NAFEO were pleased to be among the early champions of the inclusion of America's colleges and universities in the *American Recovery and Reinvestment Act.* Speaking before four Presidential Transition Team work groups on behalf of HBCUs and PBIs, NAFEO President Lezli Baskerville talked about the immediate research and infrastructure needs of disproportionate numbers of HBCUs and PBIs that reported deferred maintenance needs in the billions of dollars, and that had large numbers of shovel-ready infrastructure projects, campus greening and sustainability projects. NAFEO proposed the establishment of a higher education infrastructure initiative to support campus infrastructure projects that would provide jobs immediately, strengthen the academic capacity of colleges and universities, and stimulate the economy of the service areas of the colleges and universities.

In making the case to Members of Congress and the Presidential Transition Team for the proposed HBCU infrastructure grant program, and for additional research dollars, NAFEO made a clear and compelling nexus between the strengthening of HBCUs and stimulating the economy. Among other things, we cited findings from NAFEO's signature publications, *The State of America's Black Colleges: Expanding Access, Ensuring Success, Promoting Global Competitiveness* (Beckham Publications Group, 2008) and *The State of Blacks in Higher Education* (Beckham Publications Group, 2009)—copies of which have been provided to every Member of this committee. These publications respectively describe the strengths, accomplishments, challenges and promise of HBCUs, and make a compelling economic case for additional investments in HBCUs. They document the tremendous progress that blacks have made in attaining college degrees, disproportionate percentages of whom receive degrees in high need and growth fields from HBCUs. The *State of Blacks in Higher Education* notes, for example, that HBCUs lead the Nation in awarding degrees in the sciences, technology, engineering, and mathematics (STEM): From 1996–2005, HBCUs accounted for seven of the top ten institutions awarding life and medical science degrees to black women and nine of the top ten institutions warding life and medical science degrees to black men. In 2006, 18 percent of all black Ph.D.s in the life sciences received their Bachelor's degrees from HBCUs. We argued additionally that given that HBCUs compose roughly three percent of all institutions, they are doing a disproportionate share of the work in preparing black students for positions and research in the sciences. They must be afforded an adequate level of public funding to shore up their laboratories, other facilities, and their infrastructures to enable them to continue their great work and keep pace with increasing demands.

The fact that an increasing number of students in the traditional age group of 18–24 years old seek to finish a degree or to learn new skills when the economy stumbles; because an increasing number of persons in the workforce are expected to return to colleges and universities to retool during these austere times, and large numbers of Veterans will be returning to the civilian workforce and look to our colleges and universities to assist in transferring military skills to the civilian labor force as well as learning new skills; and because the cost of a private HBCU is $10,000 less than its traditionally white counterpart on average, according to The College Board's *"Cost of College"* report, enrollments are likely to surge at HBCUs in the coming months. Our institutions must be prepared.

For all of the above reasons, NAFEO appealed to Congress as it was acting to shore up our economy and stimulate future prosperity and productivity, to include America's colleges and universities in the plan, especially HBCUs, PBIs, and other Minority-Serving Institutions (MSIs).

We appealed for support for TRIO and GEAR UP programs—pipeline and retention programs for many of our students. We urged an increase in the Pell maximum, a refundable education tax credit, to assist students during this economic downturn, and an increase in work-study dollars. Along with the Hispanic Association of Colleges and Universities (HACU), we appealed for support for the *Minority-Serving Institutions Digital and Wireless Technology Opportunity Act of 2008,* enacted by the 110th Congress in the *Higher Education Opportunity Act.*

Recognizing the importance of science and research to promoting short- and long-term economic growth, we urged support for increased funding for science and technology programs targeted at HBCUs, MSIs, low-income, first generation, traditionally under-served students, including the Course, Curriculum, and Laboratory Improvement (CCLI) Program at the National Science Foundation, and an NSF instrumentation acquisition focused on education in the STEM areas, and other targeted stimulus programs.

We worked indefatigably to include a separate line item for educational infrastructure and within that provision, for an infrastructure program for HBCUs that would provide funding to be distributed within 90-days to public and private, two-year and four-year, non-profit institutions of higher education to support "shovel ready" projects to modernize, renovate, repair or construct academic and research facilities and student housing; and for campus greening and sustainability projects. We additionally sought funding for the HBCU Historic Preservation program, administered by the Department of Interior, and for the suspension of the matching funds requirement for that program. We submitted to Members of Congress and the Administration documentation that the HBCU community has hundreds of millions of dollars of infrastructure, greening, and historic preservation projects ready to go, "but for" the funding.

The HBCU Community also sought funding in the stimulus bill for loan subsidies for the HBCU Capital Financing Program (Title III, Part D of the *Higher Education Act*) that would allow the Secretary of Education and the Secretary of the Treasury to guarantee an additional $61 million in loans, including those in the pipeline for FY 2009.

As with all education and legislative processes, the *American Recovery and Reinvestment Act,* as passed, included some of the priorities of the HBCU and PBI communities and not others. We were pleased to get HBCU "Recovery Act" Preservation Grants that included the suspension of the funding matching requirement; a $500 increase in the Pell Grant maximum; funds for higher education institution modernization, renovation, repair of facilities used for instruction, research, student housing, for both public and private college facilities (the letter in the State Fiscal Stabilization Funds for Government Services in DOEd). We were also pleased to have included in the Recovery Act funds for a number of new or enhanced targeted health, math, science, engineering, and teacher preparation programs.

HBCU Skepticism About the Award of Recovery Funds Through States

NAFEO underscored that including HBCUs and PBIs in the *American Recovery and Reinvestment Act could* assist HBCUs and MSIs to become equipped to play a central and vital role in stimulating the economy, putting our nation on the path to economic prosperity and returning it to global eminence. We admonished, however, that many in the HBCU community were concerned that if the Recovery Act funds were administered by the states, HBCUs and other institutions and communities of least advantage, that have historically been ill- or under-served by their states, might not fare well in accessing the Recovery dollars. We argued:

> ". . . that the higher education programs not be funded through the states. HBCUs and other institutions and programs serving disproportionately large percentages of low income, first generation, traditionally under-served populations historically and to this day have not fared well in receiving a fair share of public dollars distributed through the sovereign states. In the context of the economic stimulus bill, grants to the states for the benefit of HBCU/MSIs are unnecessary and they introduce a level of bureaucratic decision-making that is unlikely to serve the best interests of our institutions. Existing federal programs can be used to provide funds to HBCUs and to MSIs. We urge you to adopt this approach in your bill. HACU shares our view that this would be in the best interest of the HBCU and MSI communities . . .."

With funding in the final bill provided through the states, and with no separate line item for educational infrastructures, (although stabilization funds could be used for higher education infrastructure needs), we worked to assist in shaping the report language, procedures and regulations for accessing the Recovery funds that would flow through the states. We urged specifying that in distributing funds the governor shall allocate all funds between public and private higher education institutions, giving priority to those institutions that educate disproportionate percentages of low-income, first generation, traditionally under-served students; those which the have the smallest endowments; and those located in geographic areas of highest distress.

HBCU Challenges and Successes Accessing Recovery Act Resources

With the initial phases of the work of Congress completed on the Recovery Act, the legislation stated that the goals of the Recovery Act as passed include, ". . . to provide investments needed to increase economic efficiency by spurring technological advances in science and health." The HBCU Community has at all times suggested that one critical measure of success in achieving this goal is the extent to which HBCUs, MSIs, and other under-resourced institutions that are preparing disproportionate percentages of the growing populations in the labor force are able to access Recovery funds, to make improvements to their infrastructures and enhance and expand research capabilities.

With this in mind, I would now like to share with you some of the challenges that Shaw University has experienced in seeking to access Recovery Act funds. While I will refer to specific instances at Shaw University, I can assure you that private institutions, HBCUs, MSIs, and PBIs around the Nation have had similar experiences in trying to access these funds.

One of the largest challenges facing Shaw, or any private institution in North Carolina, is the lack of a mechanism for independent institutions to receive funds through the Recovery Act. The State of North Carolina, thus far, has limited funding to State institutions and State agencies, leaving Shaw University and many others unable to receive even the slightest assistance from these funds. Moreover, it is not clear at this point whether private and independent colleges will be able to participate in any meaningful way in the Stimulus Funding that has been made available to the state.

In reaching out to federal institutions in order to seek assistance from Recovery Act funding, Shaw has continuously been met with uncertainty on the part of the agencies as to a process or procedure to direct these monies to private institutions. In addition, many agencies impose time constraints that make those funds all but inaccessible to such institutions.

One instance of this is the requirement that funds be spent within a certain amount of time after receiving them, or even after applying for them. For many private institutions of higher learning it is nearly impossible to get the three estimates on each portion of the job as required by federal law, sign the contracts, and schedule construction or other work before the time limit has expired.

All of these challenges are made more frustrating by the fact that many of the institutions seeking these funds are not planning to use them to begin a new program, but to take a heretofore isolated program and expand it to improve infrastructure, and vastly improve academic programs by institutionalizing them so they can be studied more extensively and more inclusively than the current arrangement allows.

For instance, Shaw University has a history of success in developing programs through federal grants. In particular, Shaw University has pioneered in the research of photovoltaic/solar energy and in the production of biodiesel fuel. Our work in the area of photovoltaic/solar energy has been funded by a Department of Defense contract, which was awarded to the University to develop third-generation photo cells for military drones. This contract, however, allows only enough funds to complete the specific project, and not enough to integrate ongoing study or future development into our science curriculum.

Additional funds would allow Shaw to take these findings and developments and create a solar energy infrastructure on its main campus that would all but nullify the need for external power sources. This would save the institution a great deal of money and possibly generate revenue by selling excess energy to the local power companies. Just as importantly, it would provide instructional opportunities for students throughout our math and sciences programs to help design, implement, monitor, and study a working solar plant of a significant size.

Obviously, with the growth of Green Energy technology throughout the Nation and the world, this educational experience would afford our students a remarkable head start on a new career, and set the stage for powerful advancements in the field in the years to come.

Another example is the University's biodiesel project funded by the National Science Foundation. This program has received over 2.5 million dollars in NSF funding not tied to the Recovery Act. It is beginning to produce results that could revolutionize the energy industry and the farming industry, while helping to economically revitalize Bertie County.

Currently, farmers in Bertie County, a county that has been economically depressed for generations, are being paid out of the grant to grow canola plants. These plants can be used to manufacture canola oil, a healthy cooking oil. Currently, 90 percent of all canola oil consumed in the United States is imported from Canada.

Even more importantly for this nation's environmental, economic, and energy production future, these crops have been converted into a biodiesel fuel that is currently being used to power cars and, quite cost-effectively, some Bertie County school buses. This fuel could one day power a large energy production plant. In fact, it is Shaw University's intention to expand this program in order to create the first zero-waste power plant in the State of North Carolina.

This means that farmers who had formerly been totally dependent, for example, on tobacco, cotton, and peanut farming in order to make a scant living, can possibly grow a new cash crop, and play an important role in energy production.

But the program does not end there. This project has also begun to look into the use of biowaste for energy purposes, and is reaching out to many of the same farmers, as well as expanding to involve other farmers in the Roanoke/Chowan region of the state, to identify possible waste streams and begin to look at new ways to use these materials for energy production.

For example, chicken waste is a known carcinogen and an environmental hazard. Our project is researching ways to convert 95 percent of this material for energy production, thus all-but-negating the cancer risk, and vastly reducing its adverse environmental impact.

This program is exactly the type of program the Federal Government appears interested in funding, and it has had successes well worth the investment made by the government. Recovery Act funds, if accessible to Shaw University, would allow us to expand the program. We could involve more farmers, create more renewable energy, and make new strides in developing biowaste applications. In addition, we could partner with the agricultural high school in the county to improve their access to the project for study, enable more Shaw students to have hands on experiences, and improve the distance education facilities of our satellite campus in Bertie County.

In addition, our Institute for Health, Social, and Community Research could connect to the biodiesel fuel project in order to study the health challenges and needs of minority and impoverished farm communities. This research could help to identify and address some of their particular concerns. In addition to addressing the need for better diagnosis, treatment, and care of diseases such as hypertension, diabetes, etc., the IHSCR could also explore the unique health needs of the farming community, such as the one in Bertie County, including possible environmental factors that could be creating health issues.

Many institutions are not asking to start programs, but merely to expand and institutionalize them. Without access to these, or other similar, funds, these projects could grow, blossom, and then run the very serious risk of dying on the vine.

Other institutions in the HBCU community have experienced similar challenges to accessing the Recovery Act funds. In the few days since we received the invitation to appear and testify this afternoon, we learned from NAFEO members that, because of the 90-day expenditure requirement, in order to learn about the funding opportunities and respond in a timely manner, institutions have had to reassign staff members so that one person monitors multiple web sites several times, weekly. For many member institutions, including Shaw, the economic downturn has forced layoffs of many staff, meaning that there is no one to track down funding opportunities, so these resources prove to be unavailable to them.

Because of the tremendous needs and breadth and scope of disciplines spanning many federal and State agencies, staff with a clear understanding of the mission and priorities of the colleges and universities, and ideally with expertise in institutional advancement and government relations must monitor their State web site and multiple web sites of federal agencies. They report that the State stimulus accountability web sites and *www.Recovery.gov* web site are helpful. Our members have found very useful the regional briefings provided by NAFEO, UNCF, TMCF, and the White House Initiative on HBCUs, none of which would have been effective without close collaboration with front-line administrators in a wide range of federal agencies and their regional colleagues.

Our members report challenges in communicating with the states because, in many instances, there is only web site access or access to information through the respective congressional districts, all of which are overwhelmed by the volume of activity in the abbreviated timeframe. Without sufficient staff persons to assign a full- or even majority-time staff member to the function of reviewing information on the various web sites and culling from the information sufficient details to make a recommendation as to whether their institution is eligible to participate and if the solicitation is aligned with the priorities of the institution, several NAFEO members reported missing funding opportunities. Our members are relying on our membership services associations to augment the work of our staffs in tracking and reviewing Recovery Act opportunities. These include not only NAFEO, UNCF, and TMCF, but also CIC, NAICU, NASULGC, and ACC, each of which was reported as being helpful by one or more NAFEO members. Several noted that their congressional offices and the web sites and newsletters of their Members are helpful.

Some members who are able to track and identify opportunities online or through other channels in time to make use of them reported other barriers to participation, including the short turnaround time between the posting of the opportunity and the required submission of the proposal. A common concern was the lack of adequate time to prepare competitive submissions. Those colleges and universities in which the personnel in the Office of Sponsored Programs "wear several other hats," as is true in most HBCUs, are at a particular disadvantage in this accelerated information dissemination/gathering and grant-making process.

The gravest concerns appear to be related to the processes by which some states are notifying constituent institutions about the opportunities. Many report that the traditional notification and publication requirements appear to have been dispensed with or abbreviated in an effort to move resources rapidly. This truncated process could only be equitable in this economic crisis if there were a concurrent affirmative outreach and notification requirement to those communities and institutions in targeted stimulus communities, including communities of highest distress and institutions that serve disproportionate percentages of people from distressed districts.

We received a report from the State of Arkansas that one NAFEO member institution was included in the state's plan because a member of the board happened to be in the governor's mansion at the time the finishing touches were being added to the plan. Another, which has fared especially well in recent years in strengthening the institution and its service area and garnering both public and private resources, was not aware of the time or process for decision-making. In Mississippi, one institution was incorrectly informed that as a private institution, it did not qualify for any State Recovery funds. The Department of Education's web site clearly indicates that under the State Fiscal Stabilization Funds for Government Services provision, modernization, renovation and repair funds are available for both public and private college facilities.

One university that has adequate staff to be positioned well in this process, and which prepared 25 submissions for funds under the Recovery Act, has made no headway at the federal or State level, despite being vigilant, and maintaining continuous connections via telephone, e-mail, and pounding the pavement.

One of the large, two-year public college systems reported faring well in accessing Recovery dollars. They received $1.5 million for a seven-week summer program to train WEA certified, inner city youth ages 19–24 years old, for jobs the city needs to fill immediately. While training, the students will work on the campuses in positions not covered by union agreement. The students will earn between $9 and $12 dollars per hour. This system was also included in the Community Development Dislocated Worker plan. Even in this instance, concern was raised about the level of bureaucracy as a barrier to securing the grant. The institution had to seek inclusion at the State level, in the city plan, and in the plan of the workforce board to ultimately access the resources.

In the two days provided us to gather information from our members for this hearing, we received no reports about efforts to access NSF funds. We anticipate forthcoming reports that we will forward to the Subcommittee. The National Science Foundation (NSF) has a long history of making limited awards of research, facilities and program dollars to HBCUs. For example, according to data from NSF, six of the top 20 predominantly white universities received more federal funds for research than 79 HBCUs combined. (Richard J. Bennof, "FY 2005 Federal S&E Obligations Reach Over 2,400 Academic and Nonprofit Institutions; Data Presented on Minority-Serving Institutions," National Science Foundation NSF 07–326 (revised), Directorate for Social, Behavioral, and Economic Sciences, October 2007).

The NSF report shows that despite a clear and quantifiable record of success at educating African American scientists and engineers, HBCUs continue to receive disproportionately fewer federal dollars. The data show that among public four-year colleges, 31.1 percent of black students are majoring in engineering or science compared to 25.9 percent at non-MSIs. At private not-for-profit four-year colleges, 27 percent of black students at HBCUs major in engineering and science compared to 20.8 percent at non-minority-serving institutions. (William E. Spriggs, "Major Trends Facing Historically Black Colleges and Universities" in *The State of America's Black Colleges* (NAFEO, 2008. Beckham Publications Group, p. 2). The data also demonstrate that roughly 50 percent of black students who receive a four-year degree in the natural and physical sciences, do so from an HBCU. *The State of Blacks in Higher Education* (NAFEO 2009, Beckham Publications Group, p. vii).

We are eager, therefore, to determine how HBCUs fared at accessing NSF funds for research grants. While we had no member reports at the time we submitted this testimony, NAFEO was disappointed to learn from a review of the NSF web site that while NSF will receive an additional $2 billion for Research and Related Activities, the Foundation plans to primarily fund proposals that are already in house. "[T]he Foundation does not anticipate a substantial increase in proposal submissions or requests to review proposals beyond what has already been put in place for FY 2009."

Relative funding priorities, the NSF notes on its web site, "Funding of new Principal Investigators and high-risk, high-return research will be top priorities. With the exception of the Academic Research Infrastructure Program, the Science Masters Program, and the Major Research Instrumentation Program, the majority of proposals eligible for Recovery Act funding include those that are already in-house and will be reviewed and/or awarded prior to September 30, 2009. NSF also will consider proposals declined on or after October 1, 2008." We hope that in spite of these public pronouncements, NSF will use some share of its additional funding to expand opportunities and funding to institutions like HBCUs, that can serve as incubators for research on eliminating all of the major disparities in this nation in order to restore it national eminence. These institutions have also developed models of excellence in health and wellness, greening and sustainability, teacher preparation, and in so many other fields that are central to stimulating our economy and strengthening our communities.

We urge and encourage NSF to set aside some of its Recovery funds for science instruction instrumentation purposes at HBCUs. This proposal was advanced by Congresswoman Eddie Bernice Johnson as an amendments to the *American Recovery and Revitalization Act of 2009.* It would have been inestimably helpful to HBCUs, many of which are not major research institutions, but which, nonetheless, prepare disproportionate numbers of African American students to pursue advanced and terminal degrees in the sciences, technology, engineering and mathematics. These funds would permit HBCUs to purchase sorely needed science instrumentation for instruction, not research.

We eagerly await the results of the solicitations under the NSF Math and Science Partnership Program. NSF Targeted Partnerships seek to improve student achievement in math or the sciences. Its Institute Partnerships seek to meet the national needs for "teachers who have deep knowledge if disciplinary content and are school-based intellectual leaders in mathematics and science." Given the record of HBCUs in preparing disproportionate numbers of diverse students in math and the sciences, and its record of graduating 50 percent of African American teachers, we anticipate that our members will fare well in this competition.

NSF funds are especially important to HBCUs to assist them to continue to attract, retain, adequately train, and graduate highly talented students in the growth and high need disciplines.

HBCUs also have special interests and capabilities in securing their communities and our Homeland; greening their campuses and communities; championing resource management and conservation; promoting energy conservation, energy efficiency and renewable energy and the range of issues relating to the sustainability of our campuses, communities and our planet. We would like to be a good and long-term partner with the Federal Government, the states and our service communities in these regards. We have the will and many of our institutions are today poised to lead in some of these efforts. We need adequate resources.

Recommendations

To provide HBCUs a better opportunity of accessing the Recovery Act dollars they need to make the investments in their infrastructures and research capabilities, and to better position these equal educational opportunity institutions that are serving disproportionate percentages of the growing populations of the states to better meet the education, training, economic, research, civic, social, ecumenical, health and human services needs of the communities in which they are located, we propose the following:

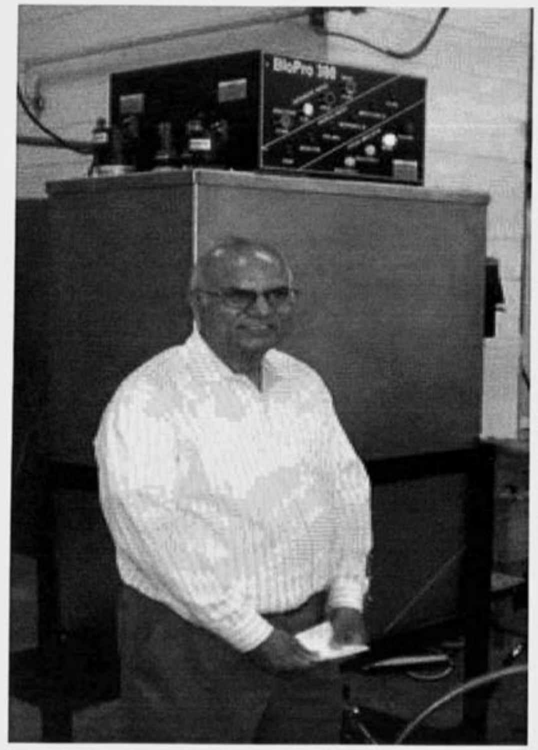
1. Because large numbers of HBCUs and MSIs may not be able to participate fully in playing their important role in stimulating the economy and preparing the next cohort of scientists, teachers, health professionals, engineers and others using the State funding processes, we recommend requiring federal agencies to set aside funding for the Nation's historically black colleges and universities and other minority-serving institutions and provide Recovery funds for these institutions and their constituents directly to eligible institutions via programs already authorized by Congress to benefit these institutions and the communities they serve;
2. Require federal agencies to encourage and reward states that establish a goal of including HBCUs, MSIs and other institutions of higher learning that educate disproportionate percentages of low-income, first generation, traditionally under-served students, and students that are under-represented in high need and growth industries in the states and the Nation in their Recovery activity;
3. Because the federal agencies over which this committee has jurisdiction (NSF, the Department of Energy, Environmental Protection Agency, NASA, Homeland Security, Federal Aviation Administration, Federal Emergency Management Agency, and National Oceanic and Atmospheric Administration) are central to the scientific and technological advancement of this nation, and because some of the agencies have an especially poor record of supporting HBCUs and MSIs, require these agencies establish goals and take affirmative outreach actions to include HBCUs, PBIs, HSIs, TCUs and other MSIs among grantees, contractors, and partners for the important stimulus and recovery work, and the long-term work of these agencies.

The above are just a few recommendations. We welcome the opportunity to continue dialogue with Members of this committee and your committee staffers about other ideas and ways in which we can be of assistance to you.

Mr. Chairman and Members of this subcommittee, I thank you once again for hosting this important hearing and for inviting me to participate. I hope that my comments today, and my written testimony, provide you a snapshot of some of the challenges incurred and opportunities created for Shaw University and other HBCUs as the result of passage of the *American Recovery and Reinvestment Act.* I hope that I was also able to put in clearer perspective for some Members of the Committee and to underscore for others the vitally important role of HBCUs in shoring up the economy, stimulating future prosperity and productivity, returning the Nation to eminence and achieving the national goal of having 60 percent of Americans hold a two- or four-year degree by 2020.

Shaw University
Bio-Diesel Project
Bertie County, NC

A canola field at three feet of growth, and the canola blossom.



Dr. Deva Sharma, Program Investigator, with the BioPro 380, Bio-diesel generating machine.

Filling the bus with bio-diesel made from the canola plant.

The State of America's Black Colleges 2008

Expanding Access, Ensuring Success, Promoting Global Competitiveness

A Publication of the National Association for Equal Opportunity in Higher Education (NAFEO)

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THE EDITORS

Editor-in-Chief
Lezli Baskerville, Esq.

Managing Editor
LaNitra Walker Berger

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Lionel Smith

Charts
Lionel Smith

Publishing Consultant
The Beckham Publications Group, Inc.

INTRODUCTION

Lezli Baskerville, J.D.
President and CEO

The State of America's Black Colleges: Expanding Access, Ensuring Success, Promoting Global Competitiveness

Earlier this year, an article in Howard University's *Hilltop* student newspaper reported that black college students from around the country drove to South Carolina to support Senator Barack Obama's campaign to become the Democratic nominee for president. As the students prepared to canvas neighborhoods, they chanted, "Fired up and ready to go!"

Regardless of which candidate wins the election in November, this slogan echoes a sentiment that has existed on black college campuses for almost two centuries. Black colleges—their students, faculty, and presidents—have always been driven by their knowledge of the connection between scholarship and service.

NAFEO is pleased to release *The State of America's Black Colleges* at this time in which a movement for change is sweeping our nation, fuelled by young Americans, mostly students, whose discontent is being channeled into making a difference at ballot boxes across the country. This movement for change has brought the nation closer to realizing its egalitarian ideal, as we head toward the 2008 Party conventions this summer with an African-American male and a woman as the contenders for the Democratic nomination for the President of the United States—leader of the free world.

This movement for change has brought to the fore issues of poverty, health care, education access and success. It has brought the tremendous contributions of, continuing need for, and needs of the nation's Historically Black Colleges and Universities (HBCUs) to the center of the national public debate. The movement spurred at least one candidate for the presidency of the United

States of America to include in his or her platform a comprehensive plan for strengthening (HBCUs) and Minority-Serving Institutions (MSIs) and for financially rewarding institutions like HBCUs and MSIs that enroll and graduate disproportionate numbers of students of fewer financial means.

We dedicate this publication to the unprecedented numbers of students who are participating in a presidential campaign this year, especially those among the more than 300,000 enrolled at one of the nation's 103 HBCUs who are following in the tradition of the students of the Civil Rights Movement, those of the Voting Rights Movement, those of the Silver Rights Movement, students of the Black Power Movement, the Women's Rights Movement, the Anti-War Movement, the Free South Africa Movement, the Environmental Justice Movement, the Judicial Justice Movement, and all of the student-generated movements of the twentieth and twenty-first centuries, who are helping to move American closer to a more perfect union.

The State of America's Black Colleges is designed to provide the data that will dictate greater investments in HBCUs and in HBCU students like today's debating heroes, the progeny of the likes of Wiley College's debating heroes celebrated in the film, *The Great Debaters*; and like those who won the Ford Motor Company HBCU Business Classic, the Sallie Mae Fund Writers of Passage Writing Competition; the Honda All Star Academic Challenge, and those who protested racial injustice in Jena, Louisiana last year. The data herein demonstrate beyond peradventure that America's Black Colleges are producing graduates who are critical thinkers, civically engaged, prepared and ready to lead.

The state of America's black colleges is that they are strong and poised to get stronger with today's diverse cohort of black college presidents, administrators and faculty, and with greater investments by states, the federal government, corporations, foundations, and by the more than five million HBCU alumni. Black colleges are the nation's premiere equal educational opportunity institutions, graduating disproportionate numbers of black and low-income students each year. Although they represent approximately 3 percent of all institutions, HBCUs graduate approximately 30 percent of all African-American students and 40 percent of African-American students receiving a four-year degree in STEM (science, technology, engineering, and mathematics), and 50 percent of African-American teachers.

Despite these successes, in 2008 HBCUs will realize only modest increases in federal funding. In addition, black colleges continue to receive significantly less funding for research, facilities, and programs than their historically white counterparts. According to data from the National Science Foundation, for example, six of the top 20 predominantly white universities received more federal funds for research than 79 HBCUs combined.[1] The NSF report shows that despite a quantifiable record of success at educating African-American scientists and engineers, HBCUs continue receiving disproportionately fewer federal dollars. This pattern has created a barrier to black colleges remaining comparable and competitive with historically white institutions and must be reversed.

The State of America's Black Colleges provides a snapshot of the strengths, capabilities, and proposed growth areas of each of the nation's historically and predominantly black institutions. This year's theme is "Expanding Access, Ensuring Success, Promoting Global Competitiveness." In this inaugural edition of NAFEO's signature publication, you will see what our institutions are doing in each of these areas to guarantee that students at black colleges thrive.

The first section includes essays written by a distinguished group of NAFEO member presidents and faculty. These essays address some of the most important issues facing America's black colleges in 2008. William Spriggs, chair of the economics department at Howard University, opens with an analysis of the current trends in HBCU enrollment and graduation rates. William R. Harvey, president of Hampton University, reflects on his successful capital campaigns and the president's role in the crucial task of endowment building at black colleges. In her essay on strategic planning, Trudie Kibbe Reed, president of Bethune-Cookman University, provides strategies and best practices to guide college presidents in securing their institution's long-term stability. At a time when 50 percent of black men do not graduate from high school, Everette Freeman, president of Albany State University in Albany, Georgia, describes his institution's successful initiative to improve recruitment and retention rates among black males. Julianne Malveaux, president of Bennett College for Women, analyzes the crucial role that historically black women's colleges play in cultivating the next generation of black women leaders. In the wake of an increasing number of both natural disasters and man-made emergencies affecting college campuses, Wayne Watson, chancellor of the City Colleges of Chicago, discusses how community colleges play an essential role in supporting and rebuilding communities affected by disaster. Finally, George T. French, Jr. president of Miles College, writes about how he is preparing students on his campus to be competitive in the global economy.

As a resource for increasing academic/corporate/community partnerships and aiding foundations in providing funding for HBCUs and PBIs, *The State of America's Black Colleges* will be an invaluable reference tool. The appendices provide data and information on black colleges' tremendous value to their students, their communities, the nation, and the world. You will find one of the most comprehensive lists of majors and degrees offered by NAFEO members as well as listings of Centers of Excellence, data on faculty diversity at NAFEO institutions, special collections, distance learning courses offered, and the unique goods and services that black colleges produce for their communities and beyond.

As our nation confronts a host of political, social, and economic challenges at home and abroad, the need for America's black colleges has never been more acute. The United States is becoming more diverse, more technologically advanced, and more global in its outlook. Today's students must be trained to succeed as leaders. Building on their tradition of excellence in education, passion through service, and leadership through activism, America's black colleges continue to produce graduates who have proved that, against all odds, they are fired up and ready to go.

I invite you to learn more about NAFEO's members through *The State of America's Black Colleges*.

THE STATE OF BLACKS IN HIGHER EDUCATION

A National Association for Equal Opportunity in Higher Education Study

William A. Darity, Jr., PhD, Duke University
Rhonda Vonshay Sharpe, PhD, University of Vermont
Omari H. Swinton, PhD, Howard University

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Editor-in-Chief
Lezli Baskerville, Esq.

Managing Editor
LaNitra Berger

INTRODUCTION

Lezli Baskerville, J.D.
President and CEO

I am pleased to present one of NAFEO's signature publications, *The State of Blacks in Higher Education*. With generous support from the Lumina Foundation for Education, *The State of Blacks in Higher Education* is an important document for researchers, policy makers and shapers, university administrators, and those in the corporate and social sectors who are interested in understanding how blacks are faring across the higher education spectrum. This report describes the tremendous progress that blacks have made in achieving higher education over the last twenty years, and it explains what needs to be done to see this progress continue. In short, *The State of Blacks in Higher Education* is an essential tool in ensuring excellence and equity in postsecondary education.

The State of Blacks in Higher Education examines black progress in higher education from bachelor's degree attainment through the tenure track. As you will see in the publication, blacks are achieving higher education in unprecedented numbers. There is still, however, much to be done to ensure that the institutions that are serving minority, low-income, and first-generation students are receiving their fair share of funding from state and federal governments.

You will also learn about the tremendous work that our nation's black colleges are doing to provide educational opportunities not just for black students, but for any student who walks through their doors. Black colleges are the nation's quintessential equal opportunity institutions, and *The State of Blacks in Higher Education* demonstrates the importance of these schools in filling the gap that has been created as the costs of higher education continue to soar and access is denied to all but the most privileged. In addition to producing a disproportionate share of black graduates in all fields, *The State* *of Blacks in Higher Education* describes how black colleges are also doing well as educating nonblack and foreign students.

Some of the report's major findings include:

- During 1996-2005, the number of degrees awarded to blacks across all discipline groupings increased.
- HBCUs increased the number of bachelor's degrees awarded from 1986-1995 to 1996-2005 by 39% compared to a 29% increase in degrees awarded by all schools.
- Of the master's degrees awarded in engineering, the physical and natural sciences, and the life and medical sciences from HBCUs, over 25 percent were earned by nonblack citizens.
- Black citizens increased the number of doctorates earned from 1986-1995 to 1995-2005 by 56 percent.

The importance of higher education in creating a globally competitive workforce is undeniable. It is imperative that our students acquire the skills to succeed in the twenty-first century economy. *The State of Blacks in Higher Education* provides a basis for those committed to minority student access and success in higher education to develop sound policies and best practices for increasing achievement in college and beyond.

I invite you to learn more about NAFEO and its research through *The State of Blacks in Higher Education*.

BIOGRAPHY FOR CLARENCE G. NEWSOME

Dr. Clarence G. Newsome, 13th President of Shaw University, blazed trails throughout his life. Born in Ahoskie, NC, Dr. Newsome went to Duke University on a football scholarship, being named to the Dean's list, and becoming one of the first Black football players honored by being named to the Atlantic Coast Conference All-Academic team.

He also became the first Black commencement speaker at Duke University, speaking at his graduation ceremonies, and sharing the stage with retired newscaster Walter Cronkite. In addition to his undergraduate degree, he received his Master of Divinity (*magna cum laude*) and Doctor of Philosophy degrees from Duke University. He interrupted his theological school studies for a year to serve as Acting Dean of the Office of Black Affairs (later Minority Affairs) and Director of the University's Summer Transitional Program.

For eight years, Dr. Newsome served on the Duke Divinity School faculty, teaching in the areas of American Christianity and Black Church History. He left Duke University to take a position at the Howard University School of Divinity, being named the Dean there in 1992. While Dean, he guided the School through two accreditations, began an international program with South Korean Seminaries, and increased fundraising by over 100 percent during his tenure.

In 2003, Dr. Newsome was named Shaw University's 13th President. While at Shaw University, he has initiated a partnership program with three universities in China; overseen the construction and opening of the Shaw University Center for Childhood Education, Development, and Research and the Institute for Health, Social, and Community Research; and has increased fundraising significantly—including the acquisition of a five million dollar gift from The Christy and John Mack Foundation—the largest Shaw has ever received from a foundation.

Dr. Newsome serves on the Board of Trustees at Duke University, and his name was read into the *Congressional Record* as being one of the top religious educators in the United States. He also serves on the North Carolina State Ethics Commission.

Dr. Newsome is married to the former Lynne Platt of Charlotte, and is the proud father of Gina Lynn, a psychiatrist, and Brittany Ann, a filmmaker; and the very proud grandfather of Kendellyn Marie.

Chairman MILLER. Thank you, Dr. Newsome. I should say that part of the history of Shaw University is that Shaw University was where the Student Non-Violence Coordinating Committee was founded in 1960, by among others our colleague, John Lewis——

Dr. NEWSOME. That is right.

Chairman MILLER.—shortly after the Greensboro sit-ins that were led by students at A&T, North Carolina A&T.

Dr. Bass.

STATEMENT OF DR. GARY D. BASS, FOUNDER AND EXECUTIVE DIRECTOR, OMB WATCH

Dr. BASS. Thank you, Mr. Chairman, Mr. Bilbray. After hearing the witnesses so far today I think—from an OMB Watch perspective I think it is safe to say that a remarkable job has been done so far in the two and a half months since the law has been signed into action, but it is not all we want, and I think that is what we are hearing today.

The transparency is a high priority, but it is not the end game. Transparency is simply a tool to get us to the accountability that we have been talking about today.

In that context I want to summarize the written testimony by raising five challenges we have.

The first challenge is who reports. If we don't get sub-recipient reporting, if we don't get down to the lowest level or the smallest denominator, we will not achieve true accountability.

The second question is related to the testimony we just heard, how is the money to be obtained and allocated. We have *grants.gov,* we have *fedbizopps.gov,* we have State web sites, but it is not clear how groups can actually apply and get that money. So—and there is a great fear. This law was designed around both recovery and reinvestment, that one of the objectives is to ensure equity, and so we have to make sure that the money is reaching those areas where it was intended to go.

The third question is what is going to be reported? We have heard a fair amount about how data is going to come in. I want to talk about three kinds of data. A lot of emphasis has been put on the jobs data, which we need not only greater definition of jobs as was mentioned by the previous panel, but I think we need related information, including what are the wages being paid, what kinds of benefits, what are the demographics of the people getting the jobs?

Beyond the jobs comes performance data. I think all of us will be greatly interested in knowing precisely whether or not we are actually achieving the objectives of what the Recovery Act really is. This model, this new model that we are talking about in recovery, presents a whole new opportunity, not just simply to find out who is getting how much money, but we can now start talking about has it been—is the money being used properly, and we can talk about that in terms of performance.

The third kind of data that we need is going to be the request for proposals and the actual contracts that were used. Now, OMB has put out guidance saying they are going to have summaries of contracts from the Federal Government, but as we all know the bulk of the money right now is the formula money going out to the states. There is nothing that is going to require clarity about ensuring competitive award systems or that those contracts are going to be disclosed in any way for the public to see.

So who reports, how is the money allocated, what is being reported? The fourth one is—where is it going to be reported? We need to have a centralized system where all of the sub-recipients and recipients report. Not only do we need a centralized system, but we are going to have to have—make sure it is apples to apples in comparison. That means we are going to have to have the right kind of language for standardizing the content as well as the mechanical, the machine-readable format of this. We are going to have to have something that makes it accessible to everyone.

That—there are many models for this. There is something, extensible mark-up language is one example. There is a variant on XML called XBRL. We can go into all kinds of technical language, but the point is we need these standards if we are going to be able to compare from state to state or even within states or within program areas.

And that leads me to the final challenge and question, and that is, how will the public get access to any of this? And it seems to me it is more than just an issue of what kind of web site *Recovery.gov* is going to be or what colors or what search or what zip code you can put in. It seems to me that we have got to create the structure that has not only people access, but machine-to-machine readable access. If we do this right, if we do it right, the data that comes into the centralized reporting should be available not only to states, to Congress, to agencies, but to all of us on this panel and beyond this panel in terms of the public.

We can do the value added as well as the government can do. So we have to create a new kind of democratic system with newer technologies to achieve meaningful public access.

Let me just conclude by saying that the frame on Recovery Act right now is about waste, fraud, and abuse, and we need to have that frame. That is essential. There is a lot of money going out the door. The hope and the opportunity of all of this debate, if we get this right, if we get it right now and we build the longer-term beyond Recovery Act to talk about all federal spending down the road, is to create a new kind of dialogue, a new kind of opportunity for sharing information to improve the quality of programs that the government is funding. Instead of always the "gotcha" politics, we should be starting to talk about how we can make communities better and really do what the Act called for, which is reinvesting in our country.

Thank you.

[The prepared statement of Dr. Bass follows:]

PREPARED STATEMENT OF GARY D. BASS

Chairman Miller, Ranking Member Broun, Members of the Subcommittee:

My name is Gary Bass and I am the Executive Director of OMB Watch—an independent, nonpartisan watchdog organization. Thank you for inviting me to testify today on what we all can agree is a crucial cause—making our government the most effective and responsive it can absolutely be through transparency and accountability of Recovery Act spending.

OMB Watch was founded in the early 1980s and has spent over twenty-five years advocating for government accountability, transparency and access to government information, and citizen participation in governmental processes. OMB Watch believes citizens must take an active role in holding their government accountable, and Recovery Act transparency will do much to enable this.

Our development of *FedSpending.org,* a web site that provides access to information about most of the Federal Government's spending, demonstrated how the web can be used for greater accountability. We also co-chair with Good Jobs First the Coalition for An Accountable Recovery (CAR) that calls for greater transparency and accountability with regard to federal recovery efforts. In other words, we have both policy and practical experience with disclosure of federal spending information. OMB Watch does not receive any government funding and, therefore, would not be financially affected by actions taken with regards to improved transparency and accountability of the Recovery Act.

President Obama has been emphatic that he wants Recovery Act expenditures to be transparent and accountable. While transparency is laudable for its own sake, it should not be forgotten that transparency is a means to an end; it makes accountability possible. And it is accountability, after all, that makes government spending more effective and efficient.

The challenge in creating such a system for the implementation of the Recovery Act is to make a simple structure by which recipients of stimulus funds answerable to taxpayers. To create such a system, those recipients must be able to enumerate what services or goods they provided to the Nation, the state, and the local communities in which they work while explaining the degree of success of the projects they undertook. The government has the obligation to taxpayers to ensure that recipients are efficient in the delivery of the services or goods they were trusted to deliver.

Without a system that creates incentives that aligns the goals of the Recovery Act with those of who receive funds to implement it, it is quite likely this effort will fall short. And without knowing what every recipient is doing with the funds that they receive, it is impossible to find instances of waste, fraud, and abuse. Nor is it possible to discover those recipients that are exceptional stewards of the Nation's resources and deserve recognition for their work and additional opportunities to serve their country.

It may be necessary to place criminal and civil penalties in place to reduce waste, fraud, and abuse. The Recovery Act does not specify any such penalties beyond those existing prior to the enactment of the Act. Conversely, it is worth considering ways of rewarding the most efficient entities receiving Recovery Act funds, either through public praise or monetary bonuses in order to encourage good behavior.

This is all easier said than done. The concept of transparency in Recovery Act spending is rather easy to articulate but quite difficult to implement. In order to ensure that Recovery Act spending is fully transparent, the government and the public should not only have access to data about who is getting money and what they are doing with it, but also be able to easily access and understand that information. I believe there are three essential elements of spending transparency necessary for the Recovery Act:

1) Information about Who Receives Recovery Act Funds

Americans have a right to know how and where public dollars are being spent. Reporting and oversight are necessary to ensure the honest and ethical use of public funds. Without sufficient transparency, pay-to-play scandals and corruption are endemic to large, federal expenditures. Additionally, understanding which communities, companies, and individuals are supported by Recovery Act funds is a basic fairness issue. Without it, some communities or sectors could be systematically excluded from support, while well-connected entities may get special deals. Proper transparency mechanisms for tracking spending will help mitigate this.

2) Information about Effectiveness of Recovery Act Spending

Only by carefully tracking expenditures will public officials be able to judge the effectiveness of public investments and be able to fine-tune or shift spending to achieve maximum results. As with all federal spending, decisions on whether to fund similar programs, contractors, or grantees in the future should be informed by the effectiveness of their performance during the Recovery Act implementation.

3) Accessible, Understandable, and Usable data on Recovery Act Spending

Information flows from agencies to OMB should take place though publicly visible channels. Recipient data transmission that is hidden from public view raises concerns about the timeliness and information fidelity of recipient reports. Aggregated data, for example, obscures the fine-grain details of spending data that enable assessments by program advocates, government watchdogs, and the press. Data made available through machine-readable feeds represent an ideal way to accomplish this. Through feeds, the public can obtain important disclosures directly from the source, mitigating distrust that may emerge from more filtered data.

Implementation of the Recovery Act to Date

OMB Watch has been intently monitoring the implementation of the Act and is very encouraged by what we have seen so far. But as of today, the Federal Government's efforts to make Recovery Act spending fully transparent and accountable still have a long way to go.

This is not to say the task is easy or there hasn't been significant progress. The task which the Administration has undertaken—the tracking of hundreds of billions of dollars that are being rapidly disbursed to thousands of recipients—is unprecedented and enormous. The Administration has made great strides within a very short time frame and is already making some data available to the public. While *Recovery.gov* and the recipient reporting requirements that will drive what data are available remain less than ideal, I am cautiously optimistic that the system will continue to substantially improve.

The willingness of the Administration to solicit feedback from the public on its designs has been very helpful in improving *Recovery.gov* and I am hopeful that they will continue to implement the advice and recommendations of the Coalition for an Accountable Recovery (CAR). The CAR coalition is co-chaired by OMB Watch and Good Jobs First and is comprised of some 30 politically diverse organizations. It was founded on the eve of passage of the Recovery Act to design and advocate for a Recovery Act spending tracking system that will provide the unprecedented level of transparency and accountability in federal spending as articulated by President Obama. As a coalition we have communicated to the Obama Administration our ideas and have commented on guidance issued by OMB. Indeed, we are encouraged by more recent interim guidance from OMB to the federal agencies issued on April 3 that we believe incorporated some of CAR's recommendations.

Despite an open dialogue and receptive officials within the Obama Administration, there are still major obstacles to full transparency and accountability in the current rules for *Recovery.gov* and recipient reporting. These obstacles fall into six main areas: Multi-Tier Reporting; Direct Recipient Reporting and Registration; Solicitations (RFPs), Bids, and Contracts; Jobs Data; Performance Data; and Data Access.

Multi-Tier Reporting

The first major obstacle is the Act's (and OMB's) definition of "recipient." This is critical because it is recipients that are required to report on their use of and Recovery Act funds. Both the Recovery Act and OMB consider a recipient to be "any entity that receives Recovery Act funds directly from the Federal Government (including Recovery Act funds received through grant, loan, or contract) other than an individual and includes a State that receives Recovery Act funds." [1] While the current reporting requirements apply to prime non-federal awardees only, they also require that prime recipients report on any sub-awards (i.e., sub-grants, subcontracts, etc.) they make. These requirements are problematic for two reasons:

First, Recovery Act funding remains visible only to the first tier of sub-awards. For large projects, it is likely that there will be several tiers of sub-awarding. For example, the Department of Energy has allocated $132 million to North Carolina for its Weatherization Assistance for Low-Income Persons program.[2] If North Carolina hires a contractor to implement the program, information reported by that contractor would be made available by the Department of Energy through Recovery.gov according to current reporting requirements. However, if North Carolina gives some of those funds to Raleigh, and Raleigh hires a contractor to implement the program, then we would not, under current reporting requirements, be able to see which contractor was hired nor would we be able to see how well it executed the program. Limiting reporting requirements to only the first two layers will obscure basic information—such as to whom the money went and on how that entity employed it—on billions of dollars of Recovery Act spending.

Second, sub-awardees do not themselves report on their use of the funds. The prime recipient has responsibility to report on any sub-awards made, hiding from the public much of the details on Recovery Act activities by State hired contractors. So, in this example, North Carolina would report to the Department of Energy on its use of funds, and it would report that it sub-awarded the funds to Raleigh. The Department of Energy would then submit a report to OMB. So not only can we not see what happened to the funds after they were sub-granted to Raleigh, we have access only to the Department of Energy's report—not Raleigh's nor North Carolina's. Although spending and performance information (such as jobs data) may be included in State government reports, performance information of those contractors will not be available to the public, nor will any information on Recovery Act funds that were used to hire subcontractors.

There is reason for optimism however. In its April 3 interim guidance (M–09–15), OMB stated that it intends to eventually "expand the reporting model in the future to also obtain . . . information [on awardees beyond first-level awards], once the system capabilities and processes have been established." [3] OMB Watch is eager to see the details of such a model and we are withholding judgment until then. But it is essential that all recipients of Recovery Act funds—possibly with a de minimis level of, say, $25,000 that allows some exclusion—report directly to the Federal Government.

Direct Recipient Reporting and Registration

Another chief area of concern with Recovery Act transparency related to the definition of "recipient" is the means by which recipients report on the use of their funds. Data from prime recipients are reported directly to the federal agency that disbursed the funds, with the disbursing agency making that information available on *Recovery.gov*. Not only would the public not be able to directly view these recipient reports, recipients of Recovery Act funds that are sub-awardees (e.g., subcontractors and sub-grantees) would not be required to report on the use of their funds. The use of tens of billions of Recovery Act dollars by thousands (perhaps tens of thousands) of Recovery Act funds recipients would be hidden from public scrutiny.

Direct reporting by recipients, rather than reporting back up through the chain of funding, will eliminate the possibility that data will be manipulated or delayed by agencies or companies higher in the chain. There will still be some level of "cleansing" of data necessary to identify and correct errors or to standardize names

[1] OMB memo M–09–10.
[2] FormulaBlockGrants Allocation—April 14, 2009.
[3] OMB memo M–09–15.

of companies and State agencies (e.g., to standardize “Dept. of Transportation” vs. “Department of Transportation”). But when data are “cleaned,” the raw reported data should also be preserved and made available. A system that collects spending and program performance data directly from all recipients ensures the raw data are actually raw and not manipulated before the Federal Government receives it.

Again, the April 3 OMB interim guidance shows the government is moving in the right direction in this respect. OMB states that it is “moving aggressively” to develop a central collection system for recipient reports.[4] Agencies are to instruct recipients to begin submitting recipient reports (those specified in Sec. 1512 of the Recovery Act) on Oct. 10 of this year, and that they “should assume the central system capability will be online and available no less than 45 days before the October 10, 2009 statutory quarterly reporting deadline.”[5] However, the guidance remains unclear about which recipients will report what data. By requiring first-hand reporting directly from recipients, the data will likely be more accurate, comprehensive, and timely.

In order to facilitate accurate reporting directly from all recipients, the government should require all recipients (this includes all sub-recipients) of Recovery Act funds to register with OMB’s proposed central reporting system prior to receipt of Recovery Act awards. The April 3 OMB interim guidance would require first-tier sub-grantees to register with Central Contracting Registration (CCR) system but exclude first-tier subcontractors of prime contractors from this requirement. This bifurcated registration requirement would significantly hinder OMB’s efforts to centrally collection information on all sub-awardees. By excluding subcontractors and additional tiers of sub-awardees from CCR registration, potentially thousands of recipients of Recovery Act funds would not be identified as such. If OMB expanded its definition of “recipient” to include all tiers of sub-awardees and required all recipients to register with CCR, OMB Watch would strongly support this area of OMB’s interim guidance for the Recovery Act implementation.

For a centralized registry and centralized reporting system to work there must be standardized formats in how data are reported. There are various standards, such as eXtensible Markup Language (XML), for transport and storage of data. One type of XML schema is eXtensible Business Reporting Language (XBRL), which gives each data element its own identity tag, thereby creating a taxonomy that is easily readable by computer data processors. If done correctly, data can easily move from registry to reporting systems, from federal agencies to State agencies, or to any public source. The data is also easier to compare and analyze.

Solicitations (RFPs), Bids, and Contracts

While transparency in the use of Recovery Act funds is essential, the decision-making process by which those funds are awarded must also be transparent. Because billions of dollars of federal Recovery Act funds will be awarded through State and local governments, solicitations for contracts at the State level should be advertised as widely as possible to ensure that a large pool of potential bidders are aware of such projects. Without access to requests for proposals (RFPs), bids, and all of the language of attendant awarded contracts, it will be difficult for outside stakeholders to assess the performance of any contractor using Recovery Act funds.

The first step to enabling transparency in the Recovery Act contract award process is to require that State and local governments report to the Federal Government as quickly as possible any Recovery Act project RFPs they may be offering. The next step is to make available online all bids received for all Recovery Act RFPs. If this presents a confidentiality problem, it would be reasonable to adhere to the guidelines surrounding disclosures of bids as articulated in the *Strengthening Transparency and Accountability in Federal Spending Act of 2008* (S. 3077) as introduced in the 110th Congress by then Sen. Barack Obama.

Lastly, but most importantly, current Recovery Act law and OMB guidance[6] requires agencies to post to the agency web site and to *Recovery.gov* summaries of contracts or orders (or modifications to an existing contracts or orders) over $500,000, or any contract was not fixed-priced and competitively awarded. There are two problems with this requirement.

First, contract summaries will not offer the quality of data that will enable the public to assess whether a given contractor did, in fact, faithfully carry out its fiduciary duties. Nor will the public be privy to assessing whether the awarded contract adheres closely to the RFP under which it was granted. This is critical to developing

[4] *Ibid.*
[5] *Ibid.*
[6] OMB memo M–09–10.

true accountability in the Recovery Act contracting process. Access to all contract agreement language is an essential element to any effort to oversee governmental spending. While some will argue information contained within contracts can contains confidential business information, allowing for limited redactions in contracts can help to alleviate those concerns.

The second problem with existing contract posting requirements is that the contract reporting threshold is too high. There could be thousands of contracts below $500,000 that would escape public scrutiny and congressional oversight. Substantially lowering that threshold, say to $200,000, would allow the public to see much more information on how Recovery Act funds are distributed without creating an overly burdensome reporting requirement.

Jobs Data

Congress crafted and President Obama supported the Recovery Act as a means to stimulate the economy with the express purpose of creating or saving millions of jobs. To ascertain the effectiveness of the package, Congress appropriately built into it a requirement that funding recipients and federal agencies report the number of jobs created or saved by Recovery Act projects. While this provision is certainly welcome, the law and OMB guidance could be substantially improved in two respects: The method of counting the number of jobs created or saved and the type of data collected on those jobs.

Current employment data will be collected by federal agencies from prime recipients only. Prime recipients are responsible for "reporting on their use of funds as well as any sub-awards (i.e., sub-grants, subcontracts, etc.) they make."[7] In cases in which a federal agency gives money to a state, the state would be required to report employment data on each project that it has undertaken with those Recovery Act funds. Aggregation of employment data by prime recipients will hinder transparency and accountability by obscuring the performance and results of individual organizations that receive Recovery Act funds at the end of the funding chain.

OMB interim guidance states that recipients are to report a brief description and an estimate of the jobs created or retained. Job creation and retention figures are to be based on aggregate hours worked converted into a figure for full-time-equivalent (FTE) positions. Yet it leaves it up to each recipient to determine how many hours equal a FTE, which will lead to substantial inconsistencies across all job data that is reported. It would be advisable to require recipients to report the aggregate hours figure as well as the FTEs, so that analysts and watchdogs can make valid comparisons.

While it is encouraging that the procedures for employment reporting include the collection of data on the types of jobs created ("job titles or broader labor categories"), it is disappointing that the guidance does not also provide for gathering information on the quality of those jobs, especially wage levels and availability of health coverage. Without such information, it will not be possible to safeguard against the use of Recovery Act funds in the creation of substandard jobs. To assess of the quality of jobs created by the Recovery Act, OMB Watch believes the OMB should require employers should report: type of work; wage levels; health care coverage; and demographic characteristics of Recovery Act project workers.

Performance Data

In addition to the collection of the number of jobs saved and created as called for in the Recovery Act and OMB interim guidance, there are a host of data that need to be collected to allow the government and the public to discover how well or how poorly Recovery Act programs are being implemented. Information on who receives funds needs to be combined with information about what those recipients did with the money. For example: How many homes were weatherized by the Energy Department's Weatherization Assistance program? How many acres of marine habitat were restored under NOAA's Habitat Restoration project? What new research did NSF undertake? How many and which NIST facilities were repaired?

Such information could be used to demonstrate the accomplishments of government funding just as easily as it could be used to draw scrutiny to waste, fraud and abuse. This performance data also could be used as a valuable data set to help improve the quality and effectiveness of federal programs. Those involved in the delivery of government services seem to draw public attention only for failures. Yet a good monitoring system doesn't just give out grades, it also uses interim goals and benchmarks so that self-correction and improvement can be undertaken. Moreover, as federal funds move farther from the Federal Government through sub-awards,

[7] *Ibid.*

the Federal Government has less and less control. This type of monitoring system mitigates against this loss of control by creating new opportunities for dialogue and openness.

OMB Recovery Act interim guidance requires that agencies submit specific plans for each Recovery Act program. One of the elements required in this plans is "expected quantifiable outcomes consistent with the intent and requirements of the legislation."[8] The guidance also notes that the terms and conditions that are to accompany Recovery Act grant awards leaves "significant discretion to federal agencies" on how and what performance data awardees must report as part of their quarterly recipient reports.

This flexibility is a necessary provision to allow for collection of agency- and program-specific performance data, but OMB needs to ensure that all federal agencies will obtain sufficient data necessary to measure the impact of Recovery Act projects. While flexibility and discretion with respect to measuring each agency's programs is desirable, OMB should immediately engage federal agencies to quickly devise their Recovery Act performance data requirements to ensure that sufficient, relevant, and comparable data are collected from the beginning. OMB should also require federal agencies to seek public input on the performance data to be collected. While providing the flexibility already mentioned, OMB should also issue guidance to the agencies on core principles, such as equity, to incorporate in the data to be collected.

While a comprehensive list of such data has yet to be compiled, the CAR coalition has developed some examples of what performance benchmarks should include:

For general State funds:

- Total general fund expenditures, and expenditures specifically in elementary and secondary education (K–12), higher education, Medicaid/SCHIP, human services, transportation, corrections, and other areas;
- Per-pupil State K–12 expenditures as well as distribution by school districts;
- Changes in Medicaid eligibility and services with 2008 as a baseline.

For transportation projects:

- Net number of new lane miles, if any, generated by projects;
- New transit capacity should be tracked via new service mileage for fixed guideways and expanded fleet capacity for all transit modes (in comparison to replacement fleet purchases);
- Reporting on whether funds have been "flexed" over to other programs such as public transit, inter-city rail, or pedestrian improvements as allowed by law.

For school construction projects:

- The name of the school district (including school) or college/university, along with the code assigned from the Common Core of Data, which is the Department of Education's primary database on public elementary and secondary education in the United States;
- Expected life of improvement;
- Whether matching funds were involved, how much, and source of the matching funds.

OMB should also be clear that the requirements for performance data collection will follow Recovery Act funds so that any level of sub-awardee must collect the performance data specified by the agency for the project.

Access to Data

Even if the law was changed today to collect the information as described above, these data would remain essentially useless unless they were made available in such a way that the public could not only understand but also manipulate the data. In terms of helping the public understand Recovery Act data, Recovery.gov will have to present the collected data in a way that novice and experienced can access and make sense of it. At the most basic level, a user should be able to search the data on *Recovery.gov* for Recovery Act projects located in her state, zip code, city, or congressional district. She should be able to sort the data from largest expenditure to smallest; from most jobs created to least; by entities receiving money, and by which federal agency authorized each project. These are just a few examples of the kind

[8] *Ibid.*

of elementary searching and sorting functionality Recovery.gov should provide, but does not currently have. There are knowledgeable and talented people working on Recovery.gov right now, who no doubt see the value in these tools, but I cannot emphasize enough that it is this basic database functionality that will provide the sort of transparency envisioned by Congress and President Obama.

Analysis and presentation of the data should not be the sole province of the Federal Government, however. There are many outside organizations that could make use of *Recovery.gov* data for many purposes—some as yet unimagined. To accomplish this, these groups must have access to Recovery Act data in a machine-readable format, such as through a data feed like RSS (Real Simple Syndicate) or Atom. These feeds should not be an option, but a requirement for every source of information (e.g., the central registry, the central reporting system, agency web sites).

OMB Watch's database of federal spending, *FedSpending.org,* is a perfect example of the importance of making data available in an understandable and accessible format. Before the creation of *FedSpending.org,* data on trillions of dollars in Federal Government spending were nominally accessible to the public, but the presentation, search, and sorting tools were abysmal, rendering the data difficult to understand and virtually useless to the public. However, because these government data sets were public, we were able to download the data and build a user-friendly, easily-searchable web site that opened up the data for millions of people. Since its launch in October, 2006, *FedSpending.org* has attracted well over a hundred thousand unique visitors a month, processed over ten million searches, and has been cited hundreds of times in media reports. With the increased attention and scrutiny of the Recovery Act spending, there are many more organizations—large and small, for- and nonprofit—that would no doubt invent novel ways to add value to Recovery Act spending data and work to make it more accessible to the public. This will only work if the data are made available in the proper, "machine-readable" formats.

It is also essential that Recovery Act data be transmitted in such a way so as to maximize access to as much unfiltered data as possible. Reporting data should be available as close to the source of Recovery Act reporting as possible. Additionally, OMB Watch's experience with federal contract and grant data throughout the *FedSpending.org* project has taught us there is certainly a need for some data "cleaning," such as standardizing the name of funding recipients or ensuring address and zip code fields match on individual entries. Ideally, a "cleansed" data set would be available in addition to the "raw" data.

These feeds do not negate the importance of a robust *Recovery.gov* web site as many in the public will want an easy to use, searchable web site run by the government.

Recovery Act Transparency and the States

So far I have discussed elements of Recovery Act transparency that are in the domain of the Federal Government. However, State governments are already beginning to allocate hundreds of billions of dollars of federal funds for Recovery Act projects. States will also add their own money to Recovery Act projects, the details of which will not be reported on *Recovery.gov.* Many citizens, local media, and local government watchdogs, therefore, will look to State Recovery Act web sites to learn about their state's implementation of the Recovery Act. My own review of State Recovery Act web sites has revealed a substantially uneven landscape.

As people query their state's web site to find out how to receive Recovery Act funds, how the funds will be allocated, who has received them already, and what did they do with them, Americans will find that there is not a single State web site that can provide the answer to all these basic questions of spending transparency. For example, the Maryland and Washington State Recovery web sites have interactive maps showing county-by-county breakdowns of Recovery Act funding by category (health care, infrastructure, education, etc.). Yet one can't perform a simple search such as typing in a ZIP code to find a list of all Recovery Act projects within a given neighborhood.

Washington State's web site has information describing the kinds of grants that are available to the state. It also has a useful list of programs that are providing funding for State projects, but is thin on details about how to apply for funds. Rhode Island's site has only a detailed list of proposed Recovery Act projects per agency, in PDF format, with no aggregate data, like the county-by-county summaries that appear on Maryland's site. When looking at State Recovery web sites last week in preparation for this testimony, Virginia's web site was experiencing technical errors. And while we have yet to see the quality of spending data that may be available on these sites, our experience so far indicates that it will vary as much as the quality of information today. It is here that the Federal Government should take the lead and offer not only funds to assist states in enabling Recovery Act transparency, but it should also provide technical assistance and advice, including minimal functional requirements that must be achieved.

Another problem is its unclear how concerns about waste, fraud, and abuse on State and local projects should be reported. While there are established hotlines for waste, fraud, and abuse at the federal level, the same is not immediately apparent for State and local governments. There is a lot of potential for abuse, especially at the local level, and since these are federal funds that could be wasted, the Federal Government should establish a clear reporting system for waste, fraud, and abuse allegations for State and local Recovery Act projects.

Current Effort Is Unprecedented, But More Is Still Needed

It is clear what the Obama Administration is trying to accomplish with Recovery Act transparency is unprecedented for our Federal Government. This is not to say that the level of transparency as articulated by President Obama can never be achieved. Implementing that degree of visibility will be an iterative process in which the reporting model and collected data improve over time—and should extend well beyond the Recovery Act to all future government spending. As the Recovery Accountability and Transparency Board implementing team learns more and more about the challenges they face, better and better versions of *Recovery.gov*—and the data reporting structure that supports the web site—will emerge. OMB Watch continues to be guardedly optimistic about the efforts of the Obama Administration to promote transparency and accountability in Recovery Act spending. But there is still much work to be done. The attention this committee is directing at Recovery Act transparency in this hearing is a critical step on the path to a better accountability system for Federal Government spending.

BIOGRAPHY FOR GARY D. BASS

Gary D. Bass is the founder and Executive Director of OMB Watch, a nonprofit research and advocacy organization established in 1983 that promotes greater government accountability and transparency and increased citizen participation in public policy decisions.

An expert on federal budgetary, program management, regulatory and information policy issues, Dr. Bass has published extensively, testified before Congress, appeared on national television and presented to groups across the country. A specific area of expertise is his understanding of the apparatus of government, particularly the executive branch of the Federal Government. Dr. Bass has also been selected as one of the *NonProfit Times* Power and Influence Top 50 every year since 1999. In 2008, he received the Public Access To Government Information Award from the American Association of Law Libraries.

Dr. Bass is a strong advocate for strengthening government transparency and using newer technologies to empower citizens and community groups to challenge unchecked institutional power. In 2006, he successfully championed passage of a law that required the government to create a searchable web site providing information about government spending. At the same time, OMB Watch launched *www.FedSpending.org,* which has proven invaluable to journalists, public interest organizations and citizens looking for information on more than $16.8 trillion in government spending—and serves as a model for how the government should implement its requirements to create a searchable web site. Data from *FedSpending.org* has been cited in news stories nationwide, and Dr. Bass was selected as one of the Federal 100—the top executives from government, industry, and academia who had the greatest impact on the government information systems community—for his work on *FedSpending.org* in 2007. And back in 1989, Dr. Bass created *www.RTKNET.org,* (the Right-to-Know Network), a free online service that provides the public access to government environmental data, including the Toxics Release Inventory.

With the rapid increase in government secrecy following September 11, 2001, Dr. Bass has spoken out against the erosion of the public's right to know. He helped form a powerful coalition, *www.OpenTheGovernment.org,* that includes journalists and advocates who are pursuing more democracy and less secrecy. Honoring his role in protecting public access to government information, the Freedom Forum inducted him into the National Freedom of Information Act Hall of Fame in 2006.

In addition to his role at OMB Watch, Dr. Bass is an affiliated Associate Professor at Georgetown University's Public Policy Institute and also teaches in the Nonprofit Management Executive Certificate program at Georgetown's Center for Public and Nonprofit Leadership. Prior to founding OMB Watch, Dr. Bass was President of the Human Services Information Center. He also served as Director of Liaison for the

International Year of Disabled Persons; worked as a consultant on several projects in special education and the mental health of children and youth; and served as special assistant to Wilbur Cohen, then Chairman of the Michigan Governor's Task Force on the Investigation and Prevention of Abuse in Residential Institutions.

Dr. Bass received a combined doctorate in psychology and education from the University of Michigan, along with the University's highest award for graduate student teaching and several awards for academic excellence.

Chairman MILLER. Thank you, Dr. Bass.

Dr. Ellig.

STATEMENT OF DR. JERRY ELLIG, SENIOR RESEARCH FELLOW, MERCATUS CENTER, GEORGE MASON UNIVERSITY

Dr. ELLIG. Thank you, Chairman Miller, Mr. Bilbray. I am delighted to be here this afternoon. I want to thank you for the invitation.

My name is Jerry Ellig. I am a Senior Research Fellow at the Mercatus Center at George Mason University, and the reason I responded so quickly to the invitation to testify here is because for more than a decade I have been involved with colleagues at the Mercatus Center in various projects to try to encourage the development, the adoption, and the use of performance measurement and performance information by the Federal Government.

Our biggest project just today, in fact, we released the results of our 10th annual performance report scorecard, which examines the quality of the performance reports that federal agencies produce under the Government Performance and Results Act. We have been doing this for 10 years. I can tell you we have seen a lot of improvement in the quality of reports that are produced, a lot of improvement in the quality of the performance information that agencies are producing. We have seen some evidence in some other research that agencies that produce better performance reports under GPRA are also more likely to have more managers say they actually have and use performance information in their programs.

Our third goal, though, was to try to encourage folks in Congress to make use of performance information for oversight and for appropriations, and quite frankly, we have seen less evidence of that in past Congresses, and for that reason we are delighted that this subcommittee is taking an interest in Recovery Act accountability because we think this is a great opportunity to match up performance information with spending information.

I would like to make three points this afternoon. First off, the Obama Administration in its guidance to agencies has said that agencies' *Government Performance and Results Act* measures and goals should be used to account for the results of Recovery Act spending. I think this is a great idea, and you are not going to get the word but followed by a contradictory statement from me on that, either. I sincerely believe it is a great idea. If I had written the guidance, I would have said the same thing.

I have a couple of suggestions that would, I think, make this even more effective. One would be that agencies in some way, either by OMB guidance or prodding from their oversight committees, ought to be urged to report performance information along with the spending information so that the public, the media, other folks can find out, you know, what they are getting in exchange for the spending.

The other point that I think would help improve the way this would work is if agencies were explicitly required to do some rigorous program evaluation in order to control for other factors that affect outcomes so that we know how much of the reported outcome really was caused by the program spending and how much of the outcome really was caused by the additional spending that occurred as a result of the Recovery Act. Sort of basic application of the scientific method. Great thing for a subcommittee of the Science and Technology Committee to be looking into.

Again, if the Administration doesn't require agencies to do that, it would be great to have Congressional oversight committees asking for the same type of information from agencies and making it public.

Second point. Although I think it is a great idea for agencies to use their GPRA goals and measures to account for Recovery Act results, some of the goals and measures still need to be improved. I mentioned earlier that we released our 10th annual performance report scorecard this morning. We compared the results in that scorecard with Recovery Act appropriations in Division A of the Recovery Act. We found that only about 14 percent of the appropriations are going to agencies that got very good scores on our performance report scorecard and about a third of the appropriations are going to agencies that got below satisfactory scores.

So this suggests that there is still a lot of room to improve the GPRA measures and the GPRA goals before we have the—we fulfill the promise of full transparency and accountability for the Recovery Act spending.

Finally, just a word on measuring the other thing that people are interested in out of the Recovery Act, in addition to the program outcomes, which is creation of jobs and the employment effects. I just want to emphasize that in order to understand the Recovery Act's effects on employment, what we need is macro-economic analysis that takes into account the effect of the spending as well as the effect of the borrowing and that the numbers that are reported in a database as jobs created or preserved by the Recovery Act are only giving us part of the picture, which is the number of people hired or that weren't fired because of the Recovery Act spending. We need to net that against the employment effects of the borrowing in order to figure out the actual effect of the Recovery Act on employment. So to figure that out, keep your eye on the macroeconomic analysis rather than the numbers reported in the database.

And this is where I will stop.

[The prepared statement of Dr. Ellig follows:]

PREPARED STATEMENT OF JERRY ELLIG

Mr. Chairman and Members of the Committee:

Thank you for the opportunity to testify today on Recovery Act oversight.

I am a research fellow with the Mercatus Center, a 501(c)(3) research, educational, and outreach organization affiliated with George Mason University.[1] Along with several colleagues at the Mercatus Center's Government Accountability Project,

[1] This testimony reflects only the views of the author and does not represent an official position of George Mason University. I would like to thank Stefanie Haeffele-Balch and Christina Forsberg for research assistance.

I have spent more than a decade working to encourage the development, adoption, and use of outcome-based performance measures in federal agencies.

Reliable performance measurement requires application of the scientific method to control for various factors that affect desired outcomes. Only by controlling for other variables can we determine how much of an observed result was actually caused by a federal program or a change in federal spending. Consequently, it is especially gratifying to see the Oversight and Investigations Subcommittee of the House Science and Technology Committee taking such a strong interest in Recovery Act oversight.

Outcome-oriented performance measurement isn't just a good idea; it's the law. The *Government Performance and Results Act of 1993* (GPRA) requires federal agencies to produce strategic plans with performance measures, annual performance plans with performance goals, and annual performance reports that measure progress toward those goals. Measures are supposed to track the agencies' "outputs, service levels *and outcomes.*" [2]

Just this morning, we released the results of the Mercatus Center's tenth annual *Performance Report Scorecard,* which evaluates the transparency and quality of disclosure in agencies' annual GPRA performance reports.[3] The Scorecard evaluates the GPRA reports produced by the 24 agencies covered by the Chief Financial Officers' Act, according to 12 criteria derived from GPRA. Our evaluation produces a ranking, and some of the agencies at the top have become quite competitive over the past ten years. (Individual agency scores and rankings are available at *www.mercatus.org/scorecard*.) But we did not produce the Scorecard just because people like to read about rankings. Our work on government accountability seeks to:

1. Prompt federal agencies to improve the quality of information they provide about outcomes—the tangible benefits they produce for the public.
2. Promote the use of this performance information in federal agency decision-making.
3. Encourage Congress to use GPRA performance information for oversight and budgeting.

There is ample evidence that the quality of performance information produced by federal agencies has improved a great deal. Based on the change our Scorecard has documented during the past decade, we estimate that the quality of federal agencies' GPRA reports has improved, on average, by at least 75 percent.[4]

Similarly, there is evidence that GPRA has encouraged federal agencies to use performance information. After controlling for other factors, agencies with higher *Scorecard* scores have higher percentages of managers who say they have outcome, output, or efficiency measures for their programs when surveyed by the Government Accountability Office (GAO). Agencies with higher *Scorecard* scores also have higher percentages of managers who say that they use performance information to manage their programs and activities.[5]

Unfortunately, there is less evidence that previous Congresses used GPRA performance information for oversight and budgeting purposes. For this reason, we welcome this subcommittee's focus on using performance data for Recovery Act oversight.

I would like to make three points in my testimony today:

1. The use of GPRA goals and measures to account for results of the Recovery Act, as the Administration plans to do, is highly desirable. This increases the odds that taxpayers will get the maximum possible value for their dollars. The current approach would be improved if all agencies were explicitly required to (1) report outcome information for each program alongside cost information and (2) identify the amount of change in program outcomes caused by Recovery Act funding, either by devising measures that isolate the effects of the additional spending or conducting program evaluations that control for other factors that might affect outcomes.

[2] GPRA Sec. 1115. Emphasis added.

[3] The Mercatus *Performance Report Scorecard* is available at *www.mercatus.org/scorecard*

[4] Maurice McTigue, Henry Wray, and Jerry Ellig, *10th Annual Performance Report Scorecard: Which Federal Agencies Best Inform the Public?* (Arlington, VA: Mercatus Center at George Mason University, 2009), pp. 12–13, *www.mercatus.org/scorecard*

[5] Jerry Ellig, "Has GPRA Increased the Availability and Use of Performance Information?," Mercatus Center Working Paper No. 09–03 (March 2009). *http://www.mercatus.org/PublicationDetails.aspx?id=26478*

2. Despite the substantial progress we have seen in GPRA reporting, many agencies' GPRA goals and measures still need substantial improvement if citizens are to receive a full, fair, and accurate accounting of what their Recovery Act dollars accomplish. Only 14 percent of Recovery Act appropriations went to agencies whose reports received a "very good" score on the Mercatus Center's *Performance Report Scorecard* for fiscal 2008. Congress can play a significant role in improving agencies' GPRA goals and measures by actually using GPRA performance information for oversight of both Recovery Act spending and all other federal spending. This would increase the incentive for agencies to produce and use good information, and it would reallocate scarce resources towards more effective programs.
3. Estimating the Recovery Act's effects on employment requires serious macroeconomic analysis that takes into account both the immediate and obvious employment effects of the spending and the not so obvious employment effects of the borrowing. Macroeconomic analysis of the Recovery Act's net effect on employment plays the same role that program evaluation plays in determining how much of the observed outcome was actually caused by a federal program. Calculating the net effect is important because some people may just switch jobs toward one created by federal spending. For this reason, it would be extremely inaccurate to portray only the employment created by the spending as the full effect of the Recovery Act on employment.

1. GPRA goals and measures are desirable for Recovery Act oversight

Office of Management and Budget (OMB) Director Peter Orszag's April 3 memo on Recovery Act implementation directs agencies to use their GPRA goals and measures for Recovery Act planning and reporting to the maximum extent possible.[6] Agency Recovery Act implementation plans must identify outcomes and outputs. Agencies are to report the program's targets for each measure with and without the Recovery Act funding, along with the difference—the incremental change in performance expected to result from the Recovery Act funding.[7] They must also "specify the length of the period between measurements (e.g., monthly, quarterly), the measurement methodology, and how the results will be made readily accessible to the public."[8]

OMB also expects agencies to collect performance information from entities who receive funding: "To the extent possible, agencies should instruct recipients to collect and report performance information as part of their quarterly submissions that is consistent with the agency's program performance measures."[9] Finally, the agency must explain its "plans to organize program cost and performance information available at applicable recipient levels."[10]

This focus on linking Recovery Act expenditures with GPRA goals and measures is crucial to ensuring that taxpayers receive full value for their dollars. In particular, GPRA requires agencies to establish goals for outcomes. Outcomes are the actual benefits created, or harms avoided, for citizens. *"Outcomes are not what the program did but the consequences of what the program did."*[11] Outcome measurement is necessary if congressional and agency decisions are to be based on actual evidence of the effects of Recovery Act spending.

Full transparency requires accurate disclosure to the public of outcomes actually achieved. The most informative outcome indicators isolate the government agency's direct effect on the outcome from other causes and indicate how much of the change in the outcome was due to the government's action.

When such an indicator cannot be constructed, it is still often possible to measure outcomes and then assess the effects of government actions through comparisons of "treatment" and "control" groups, field trials, or statistical analysis that attempts to separate the effects of various factors.[12] This is the role of program evaluation. A program evaluation is defined as "an assessment, through objective measurement and systematic analysis, of the manner and extent to which federal programs

[6] Peter R. Orszag, *Memorandum for the Heads of Departments and Agencies, Updated Implementing Guidance for the American Recovery and Reinvestment Act of 2009* (April 3, 2009), p. 18: "To the extent possible, Recovery Act goals should be expressed in the same terms as programs' goals in departmental Government Performance Results Act strategic plans."
[7] Orszag memo, p. 78.
[8] Orszag memo, p. 18.
[9] Orszag memo, p. 22.
[10] Orszag memo, p. 19.
[11] Harry P. Hatry, *Performance Measurement: Getting Results* (Washington, DC: Urban Institute, 1999), p. 15. Emphasis added.
[12] Office of Management and Budget, "What Constitutes Strong Evidence of a Program's Effectiveness?" *http://www.whitehouse.gov/omb/part/2004_program_eval.pdf*

achieve intended objectives."[13] Under GPRA, agency strategic plans must identify program evaluations used to reevaluate goals and objectives and set forth a schedule of program evaluations. The agency's annual performance report must summarize the results of program evaluations concluded in that fiscal year.

A simple example illustrates why program evaluation is essential for true accountability. Suppose the Department of Transportation quickly uses Recovery Act money for road and bridge repairs that are completed in time for the summer driving season, and then we observe that there are fewer accidents on the roads during the ensuing summer months. It's plausible that the repairs contributed to the reduction in accidents, because previous DOT research finds that accidents are indeed correlated with the condition of roads. But we cannot simply assume that Recovery Act road projects caused all of the observed improvement in safety. Perhaps there were fewer cars on the road due to the recession, or maybe mild weather helped reduce accidents. Or maybe lower gas prices led to a big surge in summer driving compared to last year, so that the change in accidents between the previous year and the current year actually understates the improvement in safety caused by the road repairs. Accurate measurement of the effects of the spending requires a comparison of the actual observed results to a baseline—the results that would likely have occurred in the absence of the spending.

If we do not control for other factors that affect outcomes, we will not really know whether the Recovery Act projects caused the outcomes, or how much of the outcome they caused. Reported data on outcomes could either overstate or understate the effects of the Recovery Act on program outcomes. This insight is, of course, nothing more than Scientific Method 101—control for other factors that could affect the observed results. But it sometimes gets ignored when agencies report performance data and then presume the agency's actions are the only thing that caused the progress captured by the performance measures.

Mirroring GPRA, the OMB Recovery Act memo requires agencies to use GPRA's outcome goals and measures wherever possible, disclose results to the public, and explain plans for program evaluation. These are all positive steps that will promote accountability for results.

I can think of two possible improvements that would further promote accountability and transparency.

First, the OMB memo appears to leave agencies with the responsibility of deciding how they will inform the public about the GPRA outcomes produced by Recovery Act spending. One highly useful format would clearly juxtapose expenditures with results. There are several ways to accomplish this. One would be to require agencies to report outcome data alongside the expenditure data to be posted on *Recovery.gov;* spending and results would then be available from the same database. Another option would be to require agencies to report annually on how Recovery Act funding affected each outcome in their annual performance reports required under GPRA. If the Administration, or individual agencies, decline to report on Recovery Act outcomes in a way that is linked to costs, then oversight committees could of course request that information from the agencies under their jurisdiction and make that information public.

Second, although the OMB memo mentions program evaluation, it does not underscore the central role program evaluation plays in determining how much of the change in an observed outcome was actually caused by a federal program rather than other causes. Agencies are required to explain their plans for program evaluation of Recovery Act spending, but they are not explicitly required to do program evaluation. More reliable estimates of the effects of Recovery Act funding would be available if agencies were required to perform program evaluations—perhaps for any program for which Recovery Act spending exceeds some defined threshold. Again, if the Administration does not require agencies to do this and they do not choose to do soon their own, requests from oversight committees could prompt action.

2. GPRA goals and measures still need improvement

Although the quality of agencies' GPRA reporting has improved substantially during the past decade, there is still a great deal of variation. For some agencies, reporting the effects of Recovery Act spending on GPRA goals and measures provides ready-made accountability. Other agencies, however, must significantly improve their GPRA goals and measures if they are to provide the "full transparency and accountability" promised on an early version of the *Recovery.gov* web site.

[13] 31 U.S.C. § 1115(f)(2).

Figure 1 classifies the Recovery Act's $334 billion in appropriations (listed in Division A of the legislation) according to the scores each agency received on the Mercatus Performance Report Scorecard for fiscal year 2008. An expert team evaluates each report on 12 criteria derived from GPRA. On each criterion, the report receives a score that can range from 1 (no useful content) to 5 (best practice that other agencies should adopt). The maximum possible score is 60, with a minimum of 12. An average of 3 points on every criterion yields a score of 36, which could be considered "satisfactory."

Reports with scores in the "very good" range (48+ points) are most likely to achieve "full transparency and accountability." But as Figure 1 shows, only 16 percent of the appropriations in the Recovery Act go to agencies whose reports met this standard in fiscal year 2008.

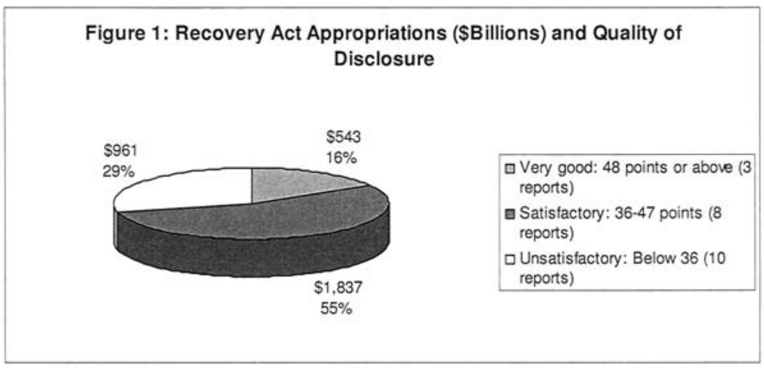


Figure 1: Recovery Act Appropriations ($Billions) and Quality of Disclosure

Source: Maurice McTigue, Henry Wray, and Jerry Ellig, *10th Annual Performance Report Scorecard: Which Federal Agencies Best Inform the Public?* (Arlington, VA: Mercatus Center at George Mason University, 2009), p. 3, www.mercatus.org/scorecard.

About 55 percent of appropriations go to agencies whose reports received a "satisfactory" score of 36 or better in fiscal year 2008. Almost one-third of Recovery Act appropriations go to agencies who achieved unsatisfactory scores. Thus, a substantial portion of Recovery Act funding goes to agencies whose GPRA goals and measures do not yet provide adequate accountability for results.

Congress could play a helpful role in improving the quality of performance reporting. Between fiscal year 1999 and fiscal year 2008, the quality of GPRA reports tended to improve more at agencies where lower percentages of managers surveyed by the Government Accountability Office (GAO) identify "lack of ongoing congressional commitment and support for using performance information" as a hindrance to performance management.[14] If oversight committees express a clear interest in obtaining accurate, valid, outcome-oriented GPRA measures to evaluate program results, then agencies will likely respond by improving the quality of their GPRA measures.

3. Ascertaining the Recovery Act's effects on employment requires serious macroeconomic analysis

The Recovery Act seeks to promote economic recovery in addition to accomplishing specific program goals. The Act proposes to measure recovery in two different ways. First, the Council of Economic Advisers is responsible for measuring the effects of the Recovery Act on "employment, estimated economic growth, and other key economic indicators" in quarterly reports to congressional appropriations committees.[15] Second, recipients of funds are supposed to report the number of full-time equivalent jobs created or retained as a result of Recovery Act spending.[16]

There are some practical problems with measuring how many jobs are created or retained as a result of the spending. The April 3 Peter Orszag memo provides defini-

[14] McTigue, Wray, and Ellig (2009), pp. 30–31.
[15] Recovery Act, Sec. 1531a.
[16] Orszag memo, p. 23.

tions for "created" and "retained," but it simply says recipients of funds are to provide estimates of jobs created or retained without providing guidance on how to calculate a credible, accurate, and verifiable estimate. It is not clear how Congress and the public are to know whether the jobs recipients claim they created or retained really were created or retained *because of* the Recovery Act spending.

In contrast, GPRA has a much stronger requirement for agency performance measures. The law does not simply assume Congress and the public must take it on faith that the reported measures accurately reflect results. Rather, agencies must "describe the means to be used to verify and validate measured values."[17] Ideally, agencies should provide sources for all performance data and the underlying analysis that produced it so that Congress, inspectors general, GAO, auditors, and interested members of the public can ascertain for themselves whether the performance data are accurate.

Several steps are needed to apply this principle to job data reported by recipients of Recovery Act funds. First, agencies should require recipients to present credible explanations of how the Recovery Act funding caused the jobs to be created or retained, rather than just reporting their estimates. Second, agencies should explain how they verify and validate the jobs data reported by the recipients. Third, the Recovery Accountability and Transparency Board should use random audits to confirm the accuracy of the reported information. Fourth, the Administration should make all of this information available for public scrutiny via *Recovery.gov.* If agencies and the board do not do these things, oversight committees could prompt action by asking for this information.

Those steps would help ensure the accuracy and verifiability of the job data reported by funding recipients. However, data on the number of people the funding recipients hired or retained does not tell us the net effect of the Recovery Act on employment, for two reasons.

First, nothing in the legislation or the reporting process guarantees that the people hired as a result of the spending are people who would otherwise have been unemployed. It is quite possible that some of the people hired with Recovery Act funds will simply be switching from some other job. If a person switches jobs as a result of Recovery Act funding, total employment does not increase unless the person's former employer hires a replacement. We will not know whether this happens, because there is no provision for it in the reporting process.

Second, the money borrowed to fund the spending and tax breaks in the Recovery Act is not "free"; it has alternative uses. Since the Federal Government will borrow an additional $787 billion to fund the Recovery Act, there is $787 billion less available in the capital markets to be used for other public or private purposes. To understand this, we need not venture into the economics jargon about "multipliers" and "crowding out." Deep down, we all know that using money for one purpose means that the same dollars cannot be used for some other purpose. The reason the Recovery Act was limited to $787 billion, instead of $1 trillion or $5 trillion, is that all responsible decision-makers know we give up something when we decide to spend money for one thing instead of something else.

Pulling $787 billion out of the capital markets will have some kind of effect on U.S. employment and economic growth. Economists who specialize in macroeconomics will hotly debate whether this effect is large or small. The better ones will analyze the data as it comes in to figure out what's actually happening. I am not here today to argue that this effect will be large or small, because macroeconomics is not my area of specialization. My only point is that we will not know the true effect of the Recovery Act on employment unless we take into account the effect of the borrowing on economic growth and employment.

This is information that the recipients of the funding cannot be expected to know or report. Therefore, it is inevitable that the data on jobs created and retained will overstate the effects of the Recovery Act on employment even if the data truthfully and accurately reflect the number of jobs created or retained as a result of the spending. This point is worth emphasizing because it will be very tempting to assume that the raw data on jobs measures the full effect of the Recovery Act on employment. In fact, the numbers generated by this reporting will not tell the whole story.

As an economist, I do not have much confidence in economists' prediction—particularly macroeconomic attempts to make predictions about the overall economy. But I'll offer a two-part macroeconomic prediction that I'm willing to stand behind: America will have an economic recovery sometime, and the recovery will be caused by a variety of factors. Just as program evaluation helps determine how much of the observed outcome was caused by a federal program, so too is macroeconomic

[17] GPRA Sec. 1115.

analysis necessary to determine how much of the recovery is caused by the Recovery Act and how much is caused by other factors. I presume this is why Congress chose to require those quarterly reports from the Council of Economic Advisers in addition to the jobs reporting requirements for funding recipients.

The bottom line: To assess the Recovery Act's effects on employment, keep your eye on the macroeconomic analysis.

Conclusion

It is especially appropriate for the Oversight Subcommittee of the Science and Technology Committee to concern itself with accountability for results under the Recovery Act. Full and accurate accountability for results requires application of the scientific method to determine how much of the change in outcomes was actually caused by federal programs and Recovery Act spending.

The Administration's proposal to use GPRA goals and measures to evaluate the effects of Recovery Act spending is an excellent one. Accuracy and transparency would be improved if agencies reported outcome information along with cost information and OMB explicitly required agencies to assess how much of the change in outcomes is directly attributable to Recovery Act spending. Many agency GPRA goals and measures still fall short of providing full accountability for outcomes, and agencies need to improve these to ensure full accountability for program outcomes affected by Recovery Act spending. Finally, both the Administration and Congress should apply the same fundamental program evaluation principles to assess the Recovery Act's effects on economic recovery and employment. Accurate assessment of the Recovery Act's effect on employment requires valid and verifiable job data combined with macroeconomic analysis to determine how much of the employment change was actually caused by the Recovery Act rather than other factors.

BIOGRAPHY FOR JERRY ELLIG

Dr. Jerry Ellig has been a senior research fellow at the Mercatus Center at George Mason University since 1996. Between August 2001 and August 2003, he served as Deputy Director and Acting Director of the Office of Policy Planning at the Federal Trade Commission. Dr. Ellig has also served as a senior economist for the Joint Economic Committee of the U.S. Congress and as an Assistant Professor of Economics at George Mason University.

Jerry has published numerous articles on government regulation and business management in both scholarly and popular periodicals, including the *Journal of Regulatory Economics, Managerial and Decision Economics, Journal of Politics, Business & Politics, Antitrust Bulletin, Competitive Intelligence Review, Federal Communications Law Journal, Texas Review of Law & Politics, Wall Street Journal, New York Times, Barron's,* and *Washington Post.* His co-authored/edited books include *Dynamic Competition and Public Policy, New Horizons in Natural Gas Deregulation,* and *Municipal Entrepreneurship and Energy Policy.* He is a co-author of the Mercatus Center's annual *Performance Report Scorecard,* which evaluates the quality of the annual performance reports produced by 24 major federal agencies.

Jerry is a native of Cincinnati, Ohio and a graduate of St. Xavier High School. He received his B.A. in Economics from Xavier University and his Ph.D. and M.A. in Economics from George Mason University in Fairfax, VA.

Chairman MILLER. Thank you, Dr. Ellig.

Ms. Brian, was POGO the cartoon character who said, "We have met the enemy and he is us?"

Ms. BRIAN. Absolutely. That is not a mistake——

Chairman MILLER. Okay.

Ms. BRIAN.—that is our acronym.

Chairman MILLER. Ms. Brian is recognized for five minutes.

STATEMENT OF MS. DANIELLE BRIAN, EXECUTIVE DIRECTOR, PROJECT ON GOVERNMENT OVERSIGHT (POGO)

Ms. BRIAN. Thank you very much, Chairman and Mr. Bilbray, for inviting me to speak today. I am not only speaking on behalf of the Project on Government Oversight, but we are also as an organization a member of the Coalition for an Accountable Recovery, as is OMB Watch, and so I am just ascribing to those recommendations that Dr. Bass made in terms of the transparency for contracts. That is something that is terribly important to us as well, and I am going to be limiting my testimony to focusing on improving resources for auditors, investigators and whistleblowers.

I view the level of protection against waste, fraud, and abuse in the Recovery Act with mixed feelings. On the one hand, certain provisions provide a terrific opportunity to finally crack open the opaque world of government contracting, so we could see this as a changed world for the future and not just limited to the Recovery Act.

On the other hand, some of the essential protections are insufficient and others are simply non-existent. Due to those weaknesses, the velocity and magnitude of the Recovery Act spending makes me very anxious.

One weakness that could be improved to stem losses is the significant lack, as we heard Mr. Devaney speaking specifically to, of funding for State and local auditors and investigators. For every dollar IGs investigate, for example, in audits, there is an average return of more than $9, according to a recent GAO study.

Chairman Towns has introduced recently legislation[2] that we believe is an essential step in trying to help provide adequate oversight of spending of these funds for those under-funded State and local auditors.

Whistleblowers will also be essential to minimizing losses. According to a study last year by the Association of Certified Fraud Examiners, nearly half of the initial detection of occupational fraud, 46 percent, came from whistleblower tips rather than from internal auditors. It was an extraordinary study, I thought.

For that reason I am distressed to testify that one of the most significant weaknesses of the Recovery Act is in Section 1553, the section protecting whistleblowers. While it provides meaningful protections for State, local, and contractor whistleblowers, federal employees are yet again left out in the cold. This is simply absurd. Without solid protection it is far less likely that a federal employee with knowledge of wrongdoing will come forward.

The good news is there is now a lot of activity to report—to repair that damage, and I can report that yesterday there was—I was a member of a four-hour meeting at the White House discussing the need for federal protection—protection for federal whistleblowers, and there is discussion in both the House and Senate and having hearings soon. So maybe this fundamental deficiency in the Recovery Act could be resolved soon with stand-alone legislation. I certainly hope so.

For those whistleblowers who are already protected by the Recovery Act, though, I want to focus on what needs to happen for the process to work effectively. First, potential whistleblowers need to know what their protections are and where to go with their disclosures. An individual in their hometown who comes across misconduct is unlikely to know to which web site to turn. They may not even know which federal agency has awarded the original contract.

[2] H.R. 2182, the *Enhanced Oversight of State and Local Economic Recovery Act.*

In light of this, clear language should be on *Recovery.gov,* on State and local web sites, and on the web sites of each of the inspector general what whistleblower protections there are or are not and how to report waste, fraud, and abuse.

IGs especially need to make a concerted effort to encourage people to come to them with their disclosures. Some IG offices are already doing a good job of this. However, POGO just released in March our analysis of the IG, federal IG system and their accountability for how they do their work, and we found that many IGs are simply not effective at working with whistleblowers. In fact, I was just speaking with the Council of IGs about two weeks ago where a few IGs argued quite forcefully that they do not see it is appropriate for their offices to proactively reach out to whistleblowers.

To make 1553 work effectively, it is imperative for IGs to make a concerted effort and sometimes change their culture to encourage people to come to them with their disclosures.

Although the Council of IGs has recently announced a cross-cutting review of their hotline system, the results from that review may come too late, and so I believe it is essential that interim steps be taken closer to immediate than anything else to implement more effective systems than those that are in place now.

The next problem is also on the IG side, handling the volume of intake responsibly. Currently *Recovery.gov* simply has a page that says, tell us your story. That is it. There are no explanations for whistleblowers about what kinds of information to report, how they are or are not protected, or how the information will be used. This is an invitation for problems. We know from our own experience you need to have very clear directions, a tracking system, and a way to communicate further with the whistleblower for this to work at all. Given the volume of intake they will be receiving, this is an enormous but essential task.

Finally, when there is a successful case of a whistleblower disclosure identifying a problem, the IG needs to herald this as a case well done. But even if the systems were to work perfectly, serious and sustained oversight from both the Board chaired by Mr. Devaney and the Congress are essential. The discretion given IGs in the Recovery Act regarding when they will or will not investigate disclosures is so broad as to be very worrisome, and this is where oversight will play an essential role.

Another area that requires Congressional oversight, and where this committee in particular has shown great strength, is in overseeing the IGs themselves. For example, it is in large part because of this committee's terrific work that the NASA IG was finally forced to resign after his poor performance, and this committee deserves credit for sticking with that issue over the last few years.

At the moment, the stars are not in complete alignment for taxpayers to benefit from whistleblower disclosures, audits, and investigations of misconduct in the Recovery Act spending, but the weaknesses are fixable. We just need to fix them now, and I look forward to working with the Committee to accomplish that goal.

[The prepared statement of Ms. Brian follows:]

PREPARED STATEMENT OF DANIELLE BRIAN

Thank you for inviting me to testify today. It is terrific that the Science and Technology Committee is conducting oversight of the way in which science and technology-related agencies will manage the *American Recovery and Reinvestment Act* (Recovery Act). POGO, as a member of the Coalition for an Accountable Recovery (CAR), supports the recommendations in OMB Watch's testimony, which would improve Recovery Act provisions for contract transparency, recipient reporting, and public access to data, as he lays out in his testimony. Thus, I will limit my comments today to improving resources for auditors, investigators, and whistleblowers.

I view the level of protection against waste, fraud, and abuse in the Recovery Act with mixed feelings. On the one hand, certain provisions provide a terrific opportunity to finally crack open the opaque world of government contracting. On the other hand, some essential protections are insufficient, and others are simply nonexistent. Due to those weaknesses, the velocity and magnitude of Recovery Act spending makes me very anxious. In fact, Earl Devaney, Chairman of the Recovery Act Transparency and Accountability Board (RAT Board), recently noted that it is "inevitable" that taxpayer dollars will be lost to waste, fraud, and abuse.

One weakness that could be improved to stem those losses is the significant lack of funding for State and local auditors and investigators. This is a case of penny-wise and pound-foolish. For every dollar IGs invested in audits, there is an average return of more than nine dollars, according to a GAO study last year of all IGs. Chairman Edolphus Towns has introduced the *Enhanced Oversight of State and Local Economic Recovery Act,* which we believe is an essential step to helping provide adequate oversight of the spending of these funds.

Whistleblowers will also be essential to minimizing losses. According to a study last year by the Association of Certified Fraud Examiners, nearly half of the initial detection of occupational fraud—46 percent—resulted from whistleblower tips. Whistleblowers are clearly a vital source of information about fraud.

For that reason, I am distressed to testify that one of the most significant weaknesses of the Recovery Act is in Section 1553, the section protecting whistleblowers. While it provides meaningful protections for State, local, and contractor whistleblowers, federal employees are yet again left insufficiently protected. This is simply absurd given the important role federal whistleblowers play as the first line of defense—they are the eyes and ears for taxpayers. This defect is not the fault of the House. The House has repeatedly passed with almost no opposition, protections for federal whistleblowers. And in the case of the Recovery Act, Representatives Chris Van Hollen (D–MD) and Todd R. Platts (R–PA) introduced an amendment to cover federal whistleblowers that was quickly passed by the House and incorporated into the language that was sent to the Senate. However, the Senate objected to allowing federal whistleblowers access to jury trials and to including protections for national security whistleblowers without having held Senate hearings first. The White House remained silent on this question, and as a result the House language protecting federal employees was stripped. And without solid protection, it is far less likely that a federal employee with knowledge of wrongdoing will come forward with that knowledge.

The good news is that there is now a lot of activity to repair that damage. The White House is engaged, and both the House and Senate are planning hearings to explore providing the missing protections to federal employees—so maybe soon this fundamental deficiency in the Recovery Act will be resolved with stand-alone legislation? I certainly hope so.

For those whistleblowers who are protected by the Recovery Act, I want to focus on what needs to happen for the process to work effectively.

First, potential whistleblowers need to know what their protections are and where to go with their disclosures. This may be harder than you would think. An individual in their hometown who comes across misconduct in the spending of recovery dollars is unlikely to be so immersed in the minutiae of the rules to know which web site to look at—they may not even know which federal agency awarded the contract. In light of that, clear language should be on *Recovery.gov,* on State and local web sites, and on the web sites of each of the Inspectors General about what the whistleblower protections are and how to report waste, fraud, or abuse.

IGs especially need to make a concerted effort to encourage people to come to them with their disclosures. Some IG offices are already good at doing this. However, POGO just released a report on the Inspectors General system in which we found that many IGs are not effective at working with whistleblowers. In fact, I was just speaking with the Council of IGs last week where a few IGs argued quite forcefully that they do not see it as appropriate for their offices to proactively reach out to whistleblowers. Yet, the Recovery Act places this responsibility squarely in the hands of the IGs. So to make Section 1553 work effectively for those whistleblowers who are protected, the culture in some of those IGs' shops must change to one in which they recognize that they should be proactive in that regard.

It will take a concerted and cooperative effort by agencies and their IGs to inform recipients of Recovery Act funds of their whistleblower protections and that they need to go to the IGs with disclosures of waste, fraud, and abuse.

The next problem is also on the IG side—handling the volume of intake responsibly. Currently, *Recovery.gov* simply has a page that says "Tell us your story." There are no explanations for a whistleblower about what kinds of information to report, how they are or are not protected, or how the information will be used. That is an invitation for problems. We know from our own experience you need to have very clear directions, a tracking system, and a way to communicate further with the whistleblower for this to work at all. Given the volume of intake they will be receiving, this is an enormous but essential task, and one I know Earl Devaney is taking very seriously as he prepares to take over the site.

In that regard, I am happy to report that the Council of IGs has announced a cross-cutting review of all their hotline systems, I believe in part because POGO identified a number of weaknesses. While that review will be valuable for improving many of the tip-intake systems in the future, it may come too late to help protect Recovery Act funds from waste, fraud and abuse—the money is going out the door now and whistleblowers have already begun submitting tips. Because of the magnitude of funds being distributed, it is essential that interim steps be taken to implement more effective systems than those in place now. IGs should meet with representatives from the whistleblower community now in order to hash out best practices for outreach and tip intake. This is a terrific opportunity, not only to get it right for the purposes of the Recovery Act, but also to strengthen the capacity of many IGs to more effectively handle whistleblower cases.

Finally, and this will also mean a cultural change for some IGs, when there is a successful case of a whistleblower disclosure identifying a problem, the IG needs to herald it as a case well-done. Recently SIGTARP Neil Barofsky made a point in his testimony of saying that nearly one-third of his investigations were initiated because of tips coming to him through whistleblowers. This is the kind of positive reinforcement that will encourage others to come forward with disclosures of wrongdoing.

But even if the systems were to work perfectly, serious and sustained oversight from both the RAT Board and the Congress are essential. It is most likely that this oversight will be necessary to ensure the discretion clause included in Section 1553 is not abused. I want to be clear here. The clause is important: without it, IGs would have been required to investigate every single complaint received. As a person who runs an organization that receives such complaints, I can assure you such a requirement would have wasted valuable time and energy. However, the discretion given IGs regarding when they will or will not investigate disclosures is so broad as to be very worrisome. You can't legislate judgment, but I do think this is where oversight will play an essential role.

Another area that requires congressional oversight, and where this committee in particular has shown great strength, is in overseeing the IGs themselves. For example, it is in large part because of this committee's great work that the NASA IG was finally forced to resign after his poor performance, and the Committee deserves credit for sticking with that issue over the past several years.

At the moment, the stars are not in complete alignment for taxpayers to benefit from whistleblower disclosures, audits, and investigations of misconduct in Recovery Act spending. But the weaknesses are fixable—we just need to fix them now. I look forward to working with the Committee to accomplish that goal.

BIOGRAPHY FOR DANIELLE BRIAN

Since 1993, Danielle Brian has been the Executive Director of the Project On Government Oversight (POGO), a nonprofit government watchdog organization. She frequently testifies before Congress, and often appears in major national media.

Under Ms. Brian's direction, POGO has conducted numerous investigations that have resulted in major public policy reforms, including:

- **Cutting Wasteful Defense Contracts.** Her investigations have led to the cancellation of some of the largest government contracts, including the Boeing tanker leasing scandal, the $13 billion Superconducting Supercollider, the $11 billion Army Crusader, and the Army's Sergeant York Division Air Defense Gun.

- **Exposing Oil and Gas Industry Fraud on Public Lands.** Her groundbreaking investigations into oil and gas industry fraud on public lands led to the Justice Department's recovery of nearly half a billion dollars, and to rule changes that generate an additional $70 million annually.
- **Increasing Nuclear Security.** Her investigations into lax nuclear power plant security led the Nuclear Regulatory Commission to order its contractors responsible for security to improve training and working conditions for guards. Her investigations into the U.S. nuclear weapons complex have also successfully led the government toward consolidating nuclear materials and making the complex more secure.
- **Fighting Excessive Government Secrecy.** Her investigations have uncovered and helped address excessive government secrecy. For instance, she filed and won a lawsuit against then-Attorney General John Ashcroft for retroactively classifying FBI documents.

Under Ms. Brian's leadership, POGO has also been working to strengthen the oversight infrastructure of the government itself, through such programs as:

- **POGO's Congressional Oversight Training Series,** monthly bipartisan seminars teaching Capitol Hill staff the art of congressional oversight.
- **Evaluating the federal Inspectors General (IG) system,** and working to strengthen both the independence as well as the accountability of IGs.

Ms. Brian serves on the Board of Taxpayers for Common Sense and HALT: Simple, Affordable, Accountable Justice for All. In 2006, Ms. Brian was inducted into the Freedom of Information Act Hall of Fame; and in 2008, *Ethisphere* magazine ranked her among the top 100 most influential people in business ethics. Ms. Brian earned her Master's degree in International Relations from the School of Advanced International Studies at Johns Hopkins University in 1990, and her Bachelor's degree in Government from Smith College in 1985.

Chairman MILLER. Thank you. I did not get a Christmas card from Mr. Cobb this year.

Mr. Gillespie.

STATEMENT OF MR. ERIC GILLESPIE, SENIOR VICE PRESIDENT OF PRODUCTS, TECHNOLOGY, AND INNOVATION AND CHIEF INFORMATION OFFICER, ONVIA, INC.

Mr. GILLESPIE. Chairman Miller, Mr. Bilbray, and Members of the Committee, thank you for inviting me to testify today with such a distinguished panel about oversight of the Recovery Act.

Simply stated, our business provides a comprehensive view of government to businesses that want to do business with the government. We track all goods and services that are procured around the country, across every industry; infrastructure, architecture, engineering, water, energy, information technology.

There are a variety of issues that create a transparency barrier which limits visibility into how funds are spent between the Federal Government and State, local, and education agencies around the country. The situation that everyone wants to avoid is one in which Recovery Act money will have been spent and untold amounts will have been lost, particularly at the State and local level, before anyone is fully aware of the loss.

Mr. Devaney has previously testified that in his experience a seven percent number is a good metric to use for fraud in spending. That equates to $55 billion in the Recovery Act, which makes the stimulus fraud the 60th largest economy in the world according to the IMF. It is effectively the size of the GDP of Ecuador.

As a challenge, this market is highly fragmented. There are more than 89,000 State, local, and education agencies around the country and an estimated 20,000 of those are going to receive some level of Recovery Act funding.

In addition, at those agencies there are hundreds of thousands of people procuring goods and services, and there are more than three million companies that are qualified to bid on Recovery Act projects.

As you can see from these numbers, the sheer magnitude quickly creates an intractable problem when it comes to tracking, especially when you compress it into a very aggressive timeline.

One more example to highlight that transparency barrier. Several weeks ago the Administration held a press conference touting the 2,000th transportation project that was undertaken as a result of the Recovery Act. That same day we had actually tracked almost 5,000 transportation projects that had been funded by the Recovery Act. So there is a significant delta in the data as it exists today.

We set up our web site, *Recovery.org,* to primarily provide timely information to businesses in the marketplace, the businesses that create jobs with recovery funding. But an interesting user group has emerged at *Recovery.org.* We are seeing the government come and use *Recovery.org.* At the federal level, federal agencies are registering to get a comprehensive view of how the states are using the dollars. States are registering to see how counties and cities are using the dollars, and cities are registering to see how the other cities are using the dollars to make sure they are getting their fair share.

It took us about two weeks to develop and launch the site, and it has a fairly simplistic interface which allows a user to select a state, a country, or a city and see the projects in that geographic area. Search engines, user interfaces, infrastructure are all things that are key to a successful product like *Recovery.gov,* but the primary reason why we were able to launch *Recovery.org* in such a short period of time, in two weeks, was the underlying standardized taxonomy and the data that we have. Without the data that sits underneath it, none of the technology would have made it possible.

Representatives from OMB have previously testified that *Recovery.gov* receives hundreds of millions of hits, even reaching 3,000 hits per seconds at one point, and by any measure even those of online commercial enterprises, it has been wildly successful. The incredible volumes of traffic are, I think, emblematic of the intense public interest in engaging with their government via technology. And in my opinion it not unreasonable to think *Recovery.gov* could have live searchable data in 30 to 45 days so that those hundreds of millions of visitors and hits don't go to waste. And they will if the data is not available soon.

I have made a series of recommendations in my written testimony that I believe will help *Recovery.gov,* and without getting into deep technical details—Dr. Bass touched on this—suffice it to say that in order to maximize use and adoption the data has to be available in formats that have low barriers to use. There are many excellent, free, non-proprietary formats and standards that can be leveraged, including the ones that Dr. Bass mentioned.

With that I will conclude by saying that while this may presently feel like an impossible task, there is an enormous opportunity to use Recovery Act tracking to usher in a new era of transparency, accountability, and performance, and it will set the stage for generations to come in terms of engaging in civic discourse with their government. *Recovery.gov* can be the flagship for government transparency and accountability. We fully support the goals that Congress and the Administration have outlined and will continue to serve in any way we can to that end.

Thank you for inviting me to testify here today, and I look forward to answering any questions you might have.

[The prepared statement of Mr. Gillespie follows:]

PREPARED STATEMENT OF ERIC GILLESPIE

Introduction and Overview

Chairman Miller, Ranking Member Broun, and Members of the Committee, thank you for inviting me to testify today with this distinguished panel about oversight of the *American Recovery and Reinvestment Act of 2009* (ARRA). My name is Eric Gillespie and I am the Chief Information Officer at Onvia, a 12-year-old, NASDAQ-traded information services company based in Seattle, Washington.

Simply stated, our business model provides a comprehensive view of government spending to companies that desire to sell their goods and services to agencies around the country. We were purpose-built to track government purchasing events in the State, local and education marketplace and are the widely recognized leader in this space.

Our business at Onvia is comprised of two distinct parts. On one side, we facilitate procurement and vendor management for State, local and education agencies through an eProcurement portal. We have more than 6,000 government users and more than 50,000 business users, and we drive procurement compliance via both technology and process. As an aside, this part of our business was started with a small Department of Commerce grant many years ago to help disadvantaged business gain access to government contracts.

On the other side, we have a data subscription product that is designed to assist companies that do business with the government. In total, we cover more than 89,000 State, local and education entities and have more than 8,000 paying subscribers. We also partner with organizations such as local Chambers of Commerce to provide government contract visibility for their members.

Our products contain information about government spending, built up from millions of goods and services transactions from across every industry vertical—from construction, engineering, and architecture to health care, energy, water, and information technology.

As draft versions of the stimulus bill were being published by the House and Senate at the beginning of the year, my team and I recognized that Recovery Act funds would be primarily distributed through existing programs, from federal agencies to states, counties and cities, and these funds would ultimately end up in the hands of contractors and subcontractors who would create jobs outside the beltway.

Based on our experience we believed then as we do today that we have a unique perspective to offer about filling the visibility gaps in the current flow of capital from D.C. out to the thousands of government agencies that perform various functions in the communities in which we all live.

To that end, over the past four months we have met with a variety of agency and Administration officials at the Office of Management and Budget, the TIGER team at the Department of Transportation, the Small Business Administration, many Members of Congress and their staff, and government watchdog groups here in D.C., among others.

Throughout this journey we have attempted to serve as a resource to Federal, State and local governments, offering advice, consulting, data and information, and technology solutions to help solve the seemingly intractable problem of knowing where every dollar of Recovery funds is being spent.

Current State of Recovery Act Tracking

The Administration has stated unequivocally that this unprecedented spending requires an unprecedented level of accountability and transparency. Both the House and the Senate included language in the draft Recovery legislation and amendments as they made their way through Congress that would have tracked every dollar of spending, accurately and in real-time, but key accountability provisions that would have tracked theses dollars down to the subcontractor level were not included in the final bill.

The transparency provisions that did survive in ARRA were set in motion with the passage of the *Federal Funding Accountability and Transparency Act of 2006* which laid the basic foundation for collecting and exposing information about federal appropriations. Although it has taken several years to enforce compliance and coordinate reporting, as examples of successful federal data systems the *FedBizOpps.gov* (FBO) web site provides a single view into procurement across agencies at the federal level, and the *USASpending.gov* web site provides online transparency into those purchasing events.

As you well know, there is no parent-child relationship between the Federal, State, county, and municipal governments and thus there is no comparable FBO–USASpending platform for State, local and education procurement. In actuality there are almost as many programs, rules, and platforms as there are agencies around the country.

OMB has now issued two sets of complex, sometimes conflicting, directives in an attempt to clarify what information should be tracked, to what level of government, and how it should be reported as part of ARRA. These directives focus almost exclusively on federal agency compliance and ignore the fact that most spending will occur at the State and local level by State and local officials.

Further complicating this, by design the states function independently from the Federal Government and that separation of governmental powers is core to our Constitution. The states exist in part to preserve freedom, and attempts to centralize and control the flow of information at the federal level are often met with resistance. Constitutional scholars will likely have heated debates about how the Administration should track data from the largest spending initiative in the history of civilization without setting a precedent of Soviet-like, centralized information control.

These combined issues create a "transparency barrier" that limits visibility into how funds are spent between the Federal Government and State, local and education agencies around the county. The situation everyone wants to avoid is that in which Recovery Act money will have been spent and untold amounts will have been lost, particularly at the State and local level, before anyone is fully aware of the loss. The Government Accountability Office (GAO) recently pointed out that states are already struggling with how to oversee and manage stimulus expenditures.

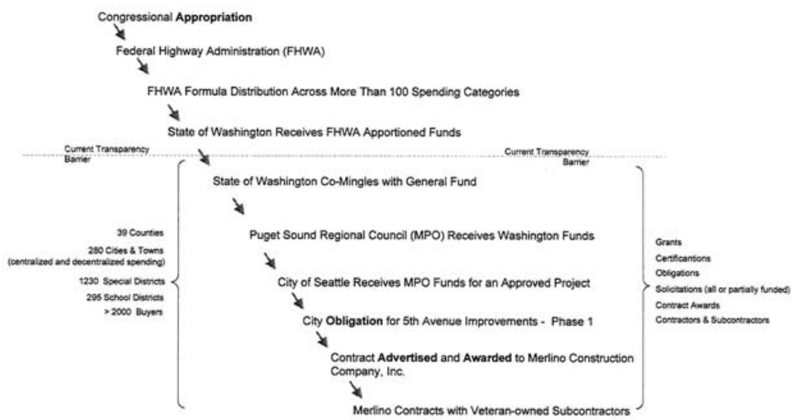
The Transparency Barrier

Transparency and reporting to both Congress and the public at large, with full disclosure of all entities, public and private, receiving funding from ARRA, tracking grants and sub-grants, contracts and subcontracts, obligations and certifications, and authenticating the sources of this data, serves as the backdrop for defining the key challenges. Establishing accurate and timely job creation metrics adds yet another level of complexity.

The market is highly fragmented: there are more than 89,000 State, local and education entities across the country, and an estimated 20,000 of these will receive a portion of funds from ARRA. In addition there are hundreds of thousands of officials at these agencies who will have a role in procuring goods and services with ARRA funds, and there are more than three million businesses that are qualified to bid on ARRA-funded projects. You can see from these numbers how the sheer magnitude quickly creates an intractable problem, especially when placed on an aggressive timeline.

The transparency barrier that exists between the Federal Government and State and local government has been exposed with the passage of the ARRA and with the speed at which these funds are being approved and disbursed.

Consider the example below of atypical capital flow from Congress to local subcontractors in the Recovery Act:



Congress, the Administration, the States, the Municipalities, and the American people are all attempting to track where capital is being obligated and spent at the local level; this transparency barrier prevents that. Both the legislation and the directives from the Office of Management and Budget focus on federal agencies and federal contractors, but largely ignore money that is spent at the local level and do not provide for tracking the ultimate recipients of the funds—the contractors and subcontractors. With the burden of tracking spending at a local level, Counties and Cities are beginning to feel like they will be the scapegoats for misused funds.

There are four key challenges which must be addressed in order to see through the opacity. First, untangling the vast amount of unstructured data across these sundry entities is a Herculean task. Each entity has its own set of rules and workflow that address procurement, formats for solicitations, reporting requirements for contract awards, vendor qualification, vendor lists, and data persistence among many other areas. The categorization and compliance issues faced by the Federal Government in implementing *FBO.gov* and the Federal Procurement Data System (FPDS) over a number of years are similar, although given the wide dispersion of the State, local and education market the complexity is several orders of magnitude greater when attempting to track ARRA funds.

Once a canonical view of the entities is established, the second primary challenge can begin to be addressed: authentication of entities and their executives tasked with certifying the ARRA spending. A structured registration and validation process is required to ensure data integrity, along with a basic support center to handle basic compliance questions and simple account issues like password resets. Executive certification is compounded by entities mixing stimulus funds with general funds at the local level and tracking projects that are only partially funded by stimulus dollars, highlighting that self-reporting by fund recipients is certain to be fraught with inaccuracy and latency. A method of objective and independent compliance reporting is necessary to ensure stipulations like "use it or lose it" are followed.

The third challenge is societal and technological. Ubiquitous Web 2.0 technologies, principally in the private sector but increasingly in the public sector, have raised the expectations of the American people in terms of their ability to navigate complex information through relatively simple interfaces. Deep datasets and corresponding real-time reporting engines are presumed in the case of available government data as there is an abundance of information in the government market; the public expects the experience they get elsewhere on the web from what has been described as "the most technologically savvy Administration."

The fourth challenge is the incredibly aggressive timeline on which funds are being dispersed. An "aggressive but realistic" plan to achieve the transparency and accountability goals of the Administration is required. The need to get capital moving in local economies, to create jobs as rapidly as possible, combined with the unprecedented level of spending, presents an opportunity for unprecedented waste and fraud. The Chairman of the Recovery Accountability and Transparency Board, Earl Devaney, estimated that $55 billion of taxpayer dollars may be lost to fraud, which is particularly true at the State and local level where the Administration has very limited visibility. That's five times the entire GDP of Afghanistan; about the same as the GDP of Vietnam, Luxembourg, and Ecuador; and half the GDP of New Zealand, Egypt and Iraq.

According to figures from the World Bank and the International Monetary Fund, the fraud alone in our ARRA spending will be the 60th largest economy in the world. Eliminating the transparency barrier with only a one percent improvement in fraud would save the American taxpayers $550 million. With the aggressive timeline there is simply not an opportunity to spend months, or compared to some implementation cycles years, developing a delivery platform, and there is little opportunity to stop waste *before* it starts rather than relying on investigations *after* spending occurs.

Technology Platform

We appreciate the scope of the technical challenges associated with trying to track Recovery Act spending. There are likely many ways to solve this problem technologically. We began solving it over a decade ago and have developed a proprietary, dynamic platform with hundreds of servers, thousands of custom software programs, deep web search technologies, scanning and optical character recognition functions for hard copy material, and on-demand *Freedom of Information Act* (FOIA) request processing. Our technologists and researchers have many years of experience in this arena and are constantly looking for new and innovative ways to meet these tracking challenges. We provide a standardized view of the public record with these solutions.

When looking for a comparable analog for the technology footprint required to track spending on a federal scale, consider both the "revenue side" and the "expense side" of the federal budget. On the revenue side, the Internal Revenue Service (IRS) tracks flows of capital in granular detail; every citizen and entity in the country reports their income, number of dependents, profits and losses on investments, the home they own and interest paid on their mortgage, and the taxes paid on the car they purchased, as examples. On the expense side where the purchase of goods and services occurs, the government marketplace is by far the largest "industry" vertical; citizens, businesses, non-profit organizations, State and local agencies, and schools are involved in spending. However, the level of transparency and tracking on the expense side pales in comparison to that on the revenue side. From a technology perspective the IRS is able to sift through massive amounts of data on the revenue side because they have established standardized forms for processing, invested in large data centers, and employ countless programmers. For the Federal Government the expense side of the equation is no less complex than the revenue side, it just isn't tracked and reported with the same veracity.

Until recently Americans have tolerated a lack of transparency in governmental spending. The shift toward intolerance is being driven by the advance of technology, the Internet, and the assumption that information should be and is easily accessible; the Internet generation has a new set of expectations. There has also been a recent groundswell of ARRA expectations established with the many statements made by President Obama about transparency, accountability, and efficacy.

The Development of Recovery.org

With the expected beneficiaries of these funds being a diverse group of mostly small and medium businesses, economists agree that the "flywheel effect" of job creation from these stimulus dollars will happen principally in local communities. Many of these beneficiaries are subcontractors to prime contractors who have been awarded a contract by a State or local agency.

Given our subject matter expertise in this area we believed that in the short-term it would be difficult to provide visibility to the American taxpayers for every dollar of stimulus spending. At the end of March we launched a web site called *Recovery.org* which is principally targeted at companies that do business with the government. At *Recovery.org* we post early notices of projects, RFPs, bid documents, amendments to these documents, and award information about contractor and subcontractor recipients of stimulus funds, and we do this as close to "real-time" as possible.

It took us about two weeks to develop and launch the site, and it has a somewhat simplistic interface which allows the user to select from combinations of State, county and city.

It produces obligation and spending results as transactions occur every day in those geographies.

We are currently in the process of making the site navigable via an interactive map so that users can drill down to their community and see the spending that is most important to them via zoom controls.

Given the time constrained "use it or lose it" provisions contained in the legislation the bulk of the projects we are currently tracking at *Recovery.org* are related to infrastructure and transportation.

With *Recovery.org* we have done precisely what the Administration has been encouraging with regard to government information: we took a large public dataset and turned it into something searchable and useful.

The Complexity and Power of Data

The potential economic and societal impacts of exposing government-wide data in standard formats are profound. However, the challenges with aggregating and presenting vast amounts of unstructured data in meaningful ways are many. The Federal Government has made an effort in recent years to open some of its data coffers, some successfully and some unsuccessfully. While there has been significant progress at the federal level as a result of the *Coburn-Obama Act* and *USASpending.gov* for tracking and reporting, the process of obtaining quick, accurate information about federal spending remains difficult at best.

The most interesting and beneficial information, however, is not in the coffers of the Federal Government but in the highly fragmented State, local and Education marketplace—data about the communities in which we all live. Attempting to add State and local data to the mix only serves to magnify current visibility gaps. For State and local levels of government, there is no ecosystem of interaction, no interoperability, and no single source of truth.

To further complicate requirements for timely and standardized data collection from State and local entities, many of these agencies perform a combination of essential services ranging from public safety to maintenance of physical infrastructure. Unlike the Federal Government's established taxonomies for tracking spending on goods and services, there is no universally accepted standard across these highly fragmented State and local governments. What initially appears to be a relatively simple set of functional spending categories is not easily mapped to a common state-by-state, municipality-by-municipality view.

For the moment let's assume the data aggregation and standardization problems can be solved for Recovery fund tracking, or for that matter any other dataset such as TARP fund tracking. Consider the mash-up possibilities with census data, campaign contribution results, crime statistics, or tax information, to name a few views, and imagine the level of citizen engagement that might be generated.

Unleashing data, however, isn't solely about transparency and accountability, nor solely about preventing waste, fraud and abuse, although much of the discussion has thus far centered around those laudable goals. It is also about economic development and prosperity. If executed well, the Recovery Act cannot only have the expected direct impacts on the economy by infusing capital for stability and job creation, but by exposing more actionable data it can also have the ancillary benefit of creating new businesses and redirecting capital flows to more efficient channels.

There are good precedents for this and the Administration has admirably taken a leading position on promoting widely available data feeds with the web site *Data.gov.* They have used the Human Genome Project as a shining example of how unleashing data can lead to the greater good. In addition to this powerful National Institutes of Health example, other examples include the GPS industry created by the Department of Defense unleashing satellite data to the geospatial community, and the trillion dollar intellectual property licensing industry supported by data unleashed by the U.S. Patent and Trademark Office. If successful at democratizing large datasets and giving access to the public, *Data.gov* will likely also set an international gold standard for transparency.

Without getting into deep technical details, suffice it to say that in order to maximize use and adoption the data must to be made available in formats with low barriers to use. There are excellent, free, non-proprietary formats such as XML, JSON, and YAML. There are other standards such as XBRL which the Securities and Exchange Commission has adopted for electronically collecting financial results from companies.

Search engines, user interfaces, and infrastructure are all key to a successful technology-based product like *Recovery.gov* but the primary reason we were able to build *Recovery.org* in two weeks was our underlying, standardized taxonomy and data. Without the data none of the other technology would have mattered.

Recommendations for Recovery.gov

Representatives from OMB have previously testified that *Recovery.gov* receives hundreds of millions of hits, reaching 3,000 hits per second at one point. By any measure including those of online commercial enterprises it has been wildly successful. This is further emphasized by the traffic generated by Mr. Devaney's recent *National Dialogue on Information Technology Solutions* online forum: 1.5 million visitors within the first 48 hours. These incredible volumes of traffic are emblematic of the intense public interest in engaging with their government via technology. *Recovery.gov* represents an opportunity to meld the culture of web innovation with the culture of citizen engagement.

It is difficult at this point to evaluate *Recovery.gov* as a tracking mechanism for stimulus funds because very little data has been reported to OMB and the Recovery Accountability and Transparency Board thus far. As I have testified, it has taken our company more than 10 years to perfect the process of collecting large volumes of data in various formats and while I wouldn't expect it to take that long to track Recovery Act funds, hurdles remain.

I have several tactical and strategic suggestions for improving functionality and transparency on the site:

(1) A project impacting so many aspects of the government is not undertaken without some level of risk. Data will never be perfect. Accept that and get on with it. Adopt an implementation framework that is designed for nimbleness, such as Agile Scrum, to facilitate speed.

(2) A good user experience is paramount to success. Consider the many needs of the audience and distill them into a few basic, representative personas around which the site can be designed. View transparency and accountability as a leading "brand" with constituent touch points, of which *Recovery.gov* is perhaps the most significant in terms of its appeal.

(3) Define a simple common vocabulary for constituents, developers, Congress, the Administration, states and cities. This should include terms like *appropriation, obligation, approval, certification* and *award,* among others. Establish a standard corpus of entities and information about them. With the vocabulary and the entities, begin to develop simple data architecture concepts.

(4) Choose a basic data format as standard. This doesn't require a significant amount of research as there are many excellent choices available; as long as an open, non-proprietary format is chosen it will be hard to go wrong.

(5) An initial dataset is requisite. Get a centralized database up and running quickly and begin processing and standardizing larger volumes of data. It doesn't need to be perfect, and the broad interest from the user community that has already been demonstrated will help to hone the approach.

(6) Implement a basic search engine so that spending can be filtered by variables like geography, Federal Supply Codes, and program area. Provide businesses with an easy way to access projects on which they can bid; at a time when businesses are struggling, providing details of Recovery-funded projects serves to create and preserve jobs in local communities. With this, government agencies will get more qualified contractors bidding on contracts and as a result taxpayers will get more value for their dollar—a transparent system that is more efficient.

(7) Operate a Recovery Act program assistance center to assist federal, State and local agencies with compliance, and assist potential recipients of funds by answering questions about securing grants or contracts. Learnings from this center should be used to inform further development of the site.

(8) As the dataset grows, provide raw data feeds via APIs to the public at-large. It is not incumbent on the Federal Government to create unique and interesting views of the data and, instead, by providing data to developers the public at-large can create engaging user experiences with the underlying data.

(9) Look for best practices and pockets of innovation across the public and private sectors which can be adopted. To be successful this can't be onerous on either State, local and education entities or the private sector contractors and subcontractors. It is also important to not create an inefficient parallel universe of data and systems.

The benefits of allowing the public to have access to wide range of data, the tools to interpret it, and the conduit to build on it, are fundamental to achieving the goals of transparency and accountability. It is not unreasonable in my opinion to think

Recovery.gov could have live, searchable data in a 30-to-45 day timeframe but the hundreds of millions of hits received at *Recovery.gov* will go to waste unless the data is available soon.

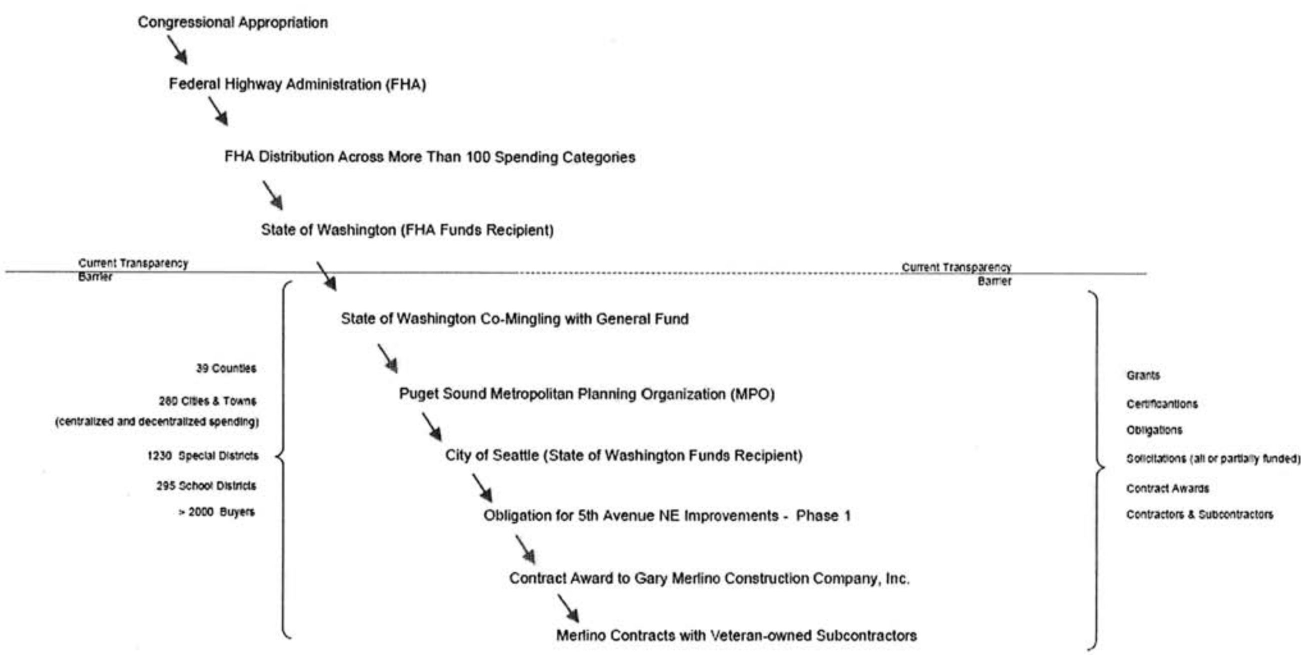
The communication agency McCann-Erickson's slogan "Truth Well Told" is an apt description of what I believe the *Recovery.gov* web site can achieve.

Conclusion

With that, I'll conclude by saying that while this may presently feel like an impossible task, there is an enormous opportunity to use Recovery Act tracking to usher in a new era of transparency, accountability and performance, and set the stage for generations to come in terms of engaging in a civic discourse with their government. There will also be a significant culture shift for many who work in the public sector, and the shift will be particularly pronounced at the State, local and education levels of government.

The technology is available to turn *Recovery.gov* into the flagship for government transparency and accountability. We fully support the important goals that Congress and the Administration have outlined, and we will continue to serve in any way we can.

Thank you again for inviting me to testify here today, and I look forward to answering any questions that you might have.


Congressional Appropriation
Federal Highway Administration (FHA)
FHA Distribution Across More Than 100 Spending Categories
State of Washington (FHA Funds Recipient)
Current Transparency Barrier
Current Transparency Barrier
State of Washington Co-Mingling with General Fund
Puget Sound Metropolitan Planning Organization (MPO)
City of Seattle (State of Washington Funds Recipient)
Obligation for 5th Avenue NE Improvements - Phase 1
Contract Award to Gary Merlino Construction Company, Inc.
Merlino Contracts with Veteran-owned Subcontractors
39 Counties
280 Cities & Towns
(centralized and decentralized spending)
1230 Special Districts
295 School Districts
> 2000 Buyers
Grants
Certificantions
Obligations
Solicitations (all or partially funded)
Contract Awards
Contractors & Subcontractors

BIOGRAPHY FOR ERIC GILLESPIE

Mr. Gillespie is an accomplished organizational leader and problem-solver recognized for developing and implementing strategic plans. His technology and business development expertise spans a variety of industries, with emphasis in data and information services, software development, intellectual property and telecommunications. His views on data, technology, innovation and patents have been featured by leading publications including *Fortune, The Economist,* the *Wall Street Journal,* the *International Herald Tribune, Intellectual Asset Management Magazine,* and the *Chicago Tribune,* among others.

DISCUSSION

Chairman MILLER. Thank you, Mr. Gillespie.

We will now have questions from the Members present, and I recognize myself for five minutes.

ACHIEVING DETAIL IN DATA TRACKING

Mr. Bass, Dr. Bass, Mr. Gillespie, you heard my questions to, I think it was Mr. Dodaro, about the Department of Energy having obligated, contracted for $342 million in funds for the Office of Science. It is set out in some detail in the appendix, but when you go to the web site for the DOE, you can't find anything below the 342 number.

And I asked how they got that number, and apparently they just went in and looked at the written records and coded by hand. How is—how difficult a task is it going to be—you touched on this in your testimony, to get that level of detail, who the contractors are, how much they got, in a way that can be on a web site that anybody can see and understand?

I guess Dr. Bass first and then Mr. Gillespie.

Dr. BASS. Mr. Chairman, first I would want to clarify that there are, in essence, really two different reporting systems we are talking about. One is the reporting system from the federal agencies that is currently happening, and that is where the Department of Energy data is coming on weekly reports to *Recovery.gov.* That is one reporting system.

The second, which was mentioned in the last panel, starts the October, what is it, 7th? Is that the—10th. October 10? The first reporting from the recipients, and that will tell us how the money is actually being spent.

And they are two very different systems. They have to come together.

In terms of the first one, which is the agency reporting, I think Mr. Gillespie's point is completely on target that there already is data that can be made publicly available. It is not rocket science on how to make that data available. We have weekly reports as you saw from the screen shot you took that came out of Excel spreadsheets. What *Recovery.gov* should be gathering today is the detailed information that GAO got, in a consistent manner from each of the agencies so that we, the public, can get not only access to it through *Recovery.gov* in a searchable format, but access to the underlying data itself through various feeds so we can utilize it and do various kinds of manipulation.

But having said that, I have got to be mindful that this is going to be an iterative process. We are going to make mistakes. I think the first thing I thought of was when OMB put out guidance to the agencies initially and told us to have a tag number that said "Recovery." It had a number, which is great because we could start to identify the dollars. But they forgot to say "put the name of the program," and so we had all these account numbers and no name, and none of us knew what the heck the programs were with the account numbers.

They are going to learn from mistakes like that, and I think we are going to have to have all of us pitch in, and this is going to be a bipartisan, it is going to be a non-governmental, it is going to be a governmental effort to get this right.

Chairman MILLER. Mr. Gillespie.

Mr. GILLESPIE. Just to build off of what Dr. Bass said, the data issue is a significant issue. Not surprisingly, the Department of Energy, people at the Department of Energy have registered at our web site to look at data and help track data.

It is a large problem, and it gets larger as you get deeper into State and local, and it is a very different animal at the State and local procurement level than it is at the federal level and gets many orders of magnitude greater as you get down lower.

Chairman MILLER. Mr. Gillespie's business has created for a different reason, for different motive, a technology that does much of what we want to try to do for purposes of accountability and oversight.

Ms. Brian, is it—how helpful to potential whistleblowers would it be to have that kind of access to information so they could connect dots before blowing the whistle?

Ms. BRIAN. Well, it is fantastic because essentially, a whistleblower can be a person who walks down the street to see whether the bridge is being built, and if it is—nothing is going on, that—they need to be able to figure that out.

So information is the central keystone to being a whistleblower, and so they need to have access to that information.

Chairman MILLER. I will yield back my last 17 seconds.

Mr. Bilbray.

Mr. BILBRAY. Yes. Thank you, Mr. Chairman. Mr. Chairman, as the Ranking Member on the procurement Subcommittee of Government Oversight I am running back and forth between hearings, but it is appropriate.

In fact, one of the things that really has kind of shown up that one of the blatant problems we have run into in Afghanistan was not the for-profit contracts but for the non-profit contracts and people claiming to have planted an orchard and then showing the picture of somebody else's orchard and giving the wrong GPS locations.

MONITORING JOB CREATION

But I want to get back to the ability to count on some of these things, and I would open this up to any of the panels who wants to talk about this, but one of the things that is going to be asked a lot about the success of this program is to calculate how many jobs were created by this investment. How do we not only assess it but document the creation of jobs under this program?

Dr. BASS. I think there are several steps. The first is that we have to have a better definition of what a job is so that we are all talking apples to apples here. That is one step.

I think the second is if we do have sub-recipient reporting, Congressman, we will have the real opportunity to get information from the horse's mouth, if you will. This is an opportunity in this model of Recovery Act to have the recipients who actually touch the dollars to report on literally what kind of jobs they have either saved or created, and instead of it being filtered one level up and up and up and up, we have a chance to have it reported directly so we all can see it.

If it is done in the right manner, we can tie that data to the originating contract so we can see how that all fits with one another. This isn't—as I say, in some respects this is a huge task, but we can break it up into smaller parts and think about the dollars that are really being dealt with here. We heard from the first panel that the bulk of the dollars going out the door are really the health care dollars, the Medicaid dollars.

So we could narrow the focus to some very specific areas like transportation and other areas to try and tackle this.

Mr. BILBRAY. How do we do this, though, you know, we had an instance here where the House tried to at least have a minimum standard of disclosure, and that was the verified for everybody to participate in the program. Our colleagues on the other side of the aisle not only did not accept it, they had it stripped. They did not want that level of investigation of just even checking that the Social Security number of anybody getting the programs or getting the job, be identified.

With that attitude coming out of, you know, the House of Lords on the other side, how do we assure the American people that we are going to have the database, we are going to ask the questions, we are going to go to the individual who is getting the job to make sure that they actually had a job, that they were working on? How do we do that, especially under this environment that we started off with this thing where you actually had sort of a basic program that was 99.6 percent successful taken out of the review process from the get-go? Can we get that back in? Can we, you know, can we kind of go back and try to recapture that mistake?

Dr. NEWSOME. Well, Congressman, my response is going to be just perhaps a little off from your question, so I am going to pass on real quickly, but I want you to know in the HBCU world and colleges and universities like ours, we would feel ourselves privileged to be in a position to be measured and to be——

Mr. BILBRAY. If you could get——

Dr. NEWSOME. If we could have access.

Mr. BILBRAY. Uh-huh.

Dr. NEWSOME. There is another "A" that has to be added to this, access, accountability. The first one is access. We would count it an honor to be in a position to respond to a question like that because we were receiving funds and being asked to demonstrate that we were using those funds in the way intended.

Mr. BILBRAY. Now, let me just reinforce the fact—a lot of people missed out and didn't realize—not just your institution. You have Catholic institutions that do huge outreach to disadvantaged, do huge outreach into the communities, and because they happen not to fall under the public guise, they have been fenced out of the system.

Dr. NEWSOME. Absolutely.

Mr. BILBRAY. But let us get back to this data issue. If I can't even find out, if I am not even required to check that the Social Security number and name matches, how can you require me to track this and document it down the line when—can we add this in after the fact?

Mr. GILLESPIE. It is a very difficult data problem, Congressman. It has taken us 10 years to figure out how to do that. We do it every day, but it is an intractable problem.

There will be close to $100 billion spent by the October 10 date that Mr. Devaney spoke of on the previous panel that will be out the door, and unless that level of transparency or that level of tracking is put in place soon, those funds will be gone, and it will be a forensic audit that is required to understand it as opposed to being prognostic or preventative.

Dr. ELLIG. As with other kinds of performance information, you are going to have to have random audits and other types of procedures to make sure that it is actually—to verify that the information that is being reported is actually accurate.

Ms. BRIAN. I think an additional factor is the deterrent effective Congressional oversight, and I think having hearings like this on a continuing basis so people will be afraid not to be reporting would be a helpful way to keep people honest and reporting as much as possible.

Mr. BILBRAY. Well, thank you, Mr. Chairman. To be, and you know, not that I will be proactive, but the fact is I think there was a strong consensus on both sides of the aisle here that the verify and starting off with who was being employed was an essential part of our credibility, and it is too bad that there are powers that be. And I have a feeling on both of sides of the aisle over in the Senate, that specifically did not want that kind of accountability, and I think there is going to be a question asked again and again, why in the world would you not want to check the minimum if you are going to promise to be—to check everything else down the line. And I think that is a real challenge that we have, and it didn't start in the House. It, you know, we ended up having to settle for a deal that came from the Senate, but I still question why were the people over there so hell bent not to have that accountability.

Thank you.

Dr. BASS. Could I just chime in on——

Chairman MILLER. Dr. Bass.

Dr. BASS.—the last point? I think, Congressman, I think given what we have today, I think we have to assess the situation as it is, and what I think is important to understand is that OMB has the authority to request certain types of information, notwithstanding the specific statutory issue you were referring to, OMB could be collecting information around what kinds of jobs are being created, what are the wages being paid, what are the benefits that people are getting, where are they—where are people who are getting employed, where are they coming from.

These are the kinds of equity questions that many of us want to have answered, and I think OMB can collect that.

Mr. BILBRAY. But if you do not know who it is, who got the job, you can't audit it. That is the key.

Dr. BASS. I am just saying you can have the authority to get this far that I have just described.

PROVIDING EQUITABLE FUNDING ACCESS

Chairman MILLER. Dr.—I now recognize myself for another five minutes.

Dr. Newsome, your testimony has hit upon one of the great frustrations for me in the six years and four months that I have been in Congress and representing the district that I represent that includes both, for instance, Greensboro, the county of Guilford, and Caswell County and Yanceyville, the disparity in the personnel, and the resources to apply for funding programs to identify and apply for is enormous and it results in an inequity in the funds that actually flow.

You have identified it as a problem for HBCUs——

Dr. NEWSOME. Yes.

Chairman MILLER.—specifically in getting research funding, that Shaw is at a competitive disadvantage in that way from—compared to say, Duke. How can we get out of that? How can we provide more, a more equitable way of providing grant funding and one that does not give such an advantage to larger units that have the personnel, the resources to identify and apply for funding?

Dr. NEWSOME. Thank you, Mr. Chairman. You are quite right in suggesting that other minority institutions share the same kind of challenges as Shaw University, and that basically is a kind of economy of scale issue.

I would suggest that one way to begin is by having representatives from these institutions participate in some very strategic conversations and discussions with State personnel in particular, because this is where we are having our logjams, our confusion, our bottlenecks, and the like, and together work out some ways and means to free these funds up to flow to these institutions.

At the State level, access is made possible primarily by way of a web site, and the web site is constantly being bombarded with all kinds of requests. In other words, it is overused. It is hard to get through. It is hard to get responses. We need to come together and have the people who are to benefit from these funds work hand in hand with those who are charged and have a mandate to make those funds available to come up with a very satisfactory resolution and solution. Develop the policies, develop the procedures, and then hold each other mutually accountable, because accountability comes to light at that point as well.

The states are charged to make funds available. We want to make sure those funds get where they should go. The recipients ought to participate in the development of processes, procedures, and policies to ensure that that happens.

Chairman MILLER. Okay. Thank you. Mr. Gillespie. I am sorry. I am calling you when you are reading a note. Maybe your note includes the answer to the question.

The—I said earlier that your web site—you developed your web site for reasons that were not the same as the reasons that we are trying to develop *Recovery.gov* as an instrument of accountability and transparency—as a management tool for government—but to help people who want to contract with the Federal Government.

But its effect is the same, is similar, and you have already run the traps, many of the traps that *Recovery.gov* presumably will have to run. Has anyone from Mr. Devaney's staff talked to you about how your web site works, what problems you have encountered, how you have overcome the obstacles, et cetera?

Mr. GILLESPIE. I received the first contact from Mr. Devaney's office this week and expect to meet with them at the end of this week.

CLOSING

Chairman MILLER. Okay.

I yield back my balance of my time.

Mr. Bilbray.

Mr. BILBRAY. Thank you, Mr. Chairman.

Chairman MILLER. I think Mr. Bilbray has no further questions either.

Well, as Ms. Brian and others have suggested, this needs to be something that we continue. We—when I have heard the phrase, "Bless us hearty," it means well. It usually is not a compliment, but the first step in providing accountability—as I have said before—and transparency is that you need to want to provide accountability and transparency. And we have now embarked upon that, and we may have obstacles, we may not successfully deliver as much accountability as we had hoped, but this will not be the last time we spend government funds.

The obstacles that we encounter and overcome will be overcome for the future. So this is a continuing effort, both with respect to specifically the stimulus funding, the 500 billion or so that we are spending, and actually, Mr. Gillespie, I think probably the correct figure is more like 35 billion. It was only 35 billion in waste. I am not sure how much comfort we should take in that number being a little lower because almost 40 percent of the Recovery funds were actually tax cuts.

But this is something we need to continue, we will continue to hold hearings, and we hope we will not have to have hearings where we call miscreants to account, to where our beginning admonishments that witnesses are entitled to counsel and are under oath will actually be pertinent to the testimony we will get.

Dr. NEWSOME. Mr. Chairman, may I just offer one additional word?

Chairman MILLER. Dr. Newsome.

Dr. NEWSOME. I serve—thank you. I serve on the North Carolina State Ethics Commission, and I certainly am a proponent and a champion for accountability, fair play, but in the final analysis the end game is results. Results. And this is what this initiative is all about.

The HBCU community has a short-term economic impact of $10 billion. Our contribution to the job market is around 180,000 plus, making us the 23rd largest employer collectively in the Nation. Our campuses are full of creative and innovative energy. We take a little of nothing and turn it into something miraculous.

Who would have thought that an institution Shaw University's size would be helping to stimulate the economy in one of the poorest counties in the entire country, not just North Carolina, through an NSF grant, paying farmers to grow a crop that grows during the winter so that we add to their growth cycle, reducing their overhead by taking that crop, providing them fuel, reducing the overhead of the school system so that they can stretch their meager dollars to improve their performance. If we had the funds to augment what we do, the results would be tremendous, redounding not just to the benefit of the HBCUs and the contribution that they make within that world, but to the health and well-being fiscally and otherwise, socially, of the Republic.

Thank you very much.

Mr. BILBRAY. Thank you, and Mr. Chairman, for the record, we grow our crops in the winter all the time in California, but that is different.

Chairman MILLER. I didn't know you had a winter.

Mr. BILBRAY. Just happens to be the largest agricultural state in the union there.

Chairman MILLER. All right. Before we bring this hearing to a close, I do want to thank all the witnesses for testifying, and under the rules of the Committee, the record will remain open for two weeks for additional statements from Members, as well as for any answers to any follow-up questions the Committee may have for the witnesses.

The witnesses are now excused, and the hearing is adjourned.

[Whereupon, at 4:50 p.m., the Subcommittee was adjourned.]

Appendix:

ANSWERS TO POST-HEARING QUESTIONS

ANSWERS TO POST-HEARING QUESTIONS

Responses by Earl E. Devaney, Chairman, Recovery Accountability and Transparency Board

Questions submitted by Representative Paul C. Broun

Urgency of Funding

Q1. One of the selling points of the stimulus bill was that action was needed immediately.

- *How long will it take to spend all of the money directed to agencies?*

A1. The Office of Management and Budget (OMB) has provided guidance indicating that 70 percent of stimulus funds will be disbursed by the fall of 2010. The remaining fluids will be disbursed over the life of the program. Some funding is aimed at providing immediate relief to local and State economies, according to OMB. Other funding applies to longer-term programs. Federal agency plans and programs are now posted on the Board's web site, *Recovery.gov.*

Contract Management

Q2. At our previous hearing, the DOE IG identified contract administration as "one of the most significant management challenges facing the Department." Please discuss the current status of the Federal Government's ability to issue contracts and manage both grants and contracts.

- *Does the government have adequate resources to issue, manage, and audit contracts?*
- *Are its employees adequately trained?*
- *Are auditing staff levels adequate?*
- *What can Congress do to help?*

A2. In my judgment, Congress provided sufficient funding for these activities, but staffing levels overall are not adequate. As required by the *American Recovery and Reinvestment Act of 2009* (the Recovery Act), the Board is reviewing whether there are sufficient qualified acquisition and grant personnel overseeing Recovery funds and whether they have adequate training. Meanwhile, while I do not believe that audit staffing is adequate, I should note that Inspectors General are adding personnel to meet the increased demand for reviews, assessments and investigations of potential Recovery program abuses. At the State and local government level, officials continue to tell us that they desperately need funds to adequately carry out their oversight functions.

Barriers to Spending

Q3. In order to get money out the door and into communities quickly, have agencies developed streamlined processes to expedite funding?

- *Do these processes run the risk of increasing waste, fraud, and abuse?*
- *How do you, the agencies, or specific Inspectors General plan to prevent this?*
- *What types of barriers do agencies face when trying to push money out the door? (Davis-Bacon, federal bidding practices, environmental regulations, etc.).*

A3. On April 3, 2009, OMB provided guidance to all federal agencies issuing federal contracts under the Recovery program to "expeditiously award contracts using available streamlining flexibilities." The guidance also directed that agencies "effectively expedite recovery expenditures in a manner that does not compromise program objectives or increase the risk of unintended consequences (e.g., accounting and/or payment errors, waste, fraud, etc.)."

The risk of fraud and abuse is heightened, of course, when streamlined processes are used. All federal agencies must make sure that they have rigorous safeguards in place to closely monitor grants and contracts awarded under the Recovery Act. These agencies also should review their contracting needs and add, as necessary, contracting officers and program managers. Among other oversight issues, agencies will need to closely monitor contracts to be certain that performance, cost and schedule goals are met.

At the Recovery Board and in the Inspector General community, we are focused on detecting and preventing misuse of stimulus funds. I foresee the Board actively detecting fraud trends, identifying best practices for conducting reviews, and designing risk-based strategies to help focus the oversight community's limited resources. When fraud is detected, the Board will work closely with the Department of Justice to ensure that a swift, coordinated inquiry follows. We have already received significant input from the Government Accountability Office, and we are a building a productive relationship with the GAO. To be successful in combating misuse of Recovery Act funds, the Board believes that it must forge close working relationships with our State and local oversight partners. We are doing that. Finally, the best way to deal with funding barriers is for agencies to put in place sufficient numbers of qualified acquisition and grants personnel.

Jobs Creation

Q4–Q8.

A4–A8. The Recovery Act delegates to the Board several critical functions, some of which I discussed in the earlier answers. Jobs creation questions would be best answered by the Council of Economic Advisers. I suggest that you contact Scott Adams, Senior Economist at the CEA, at (202) 395–1455.

ANSWERS TO POST-HEARING QUESTIONS

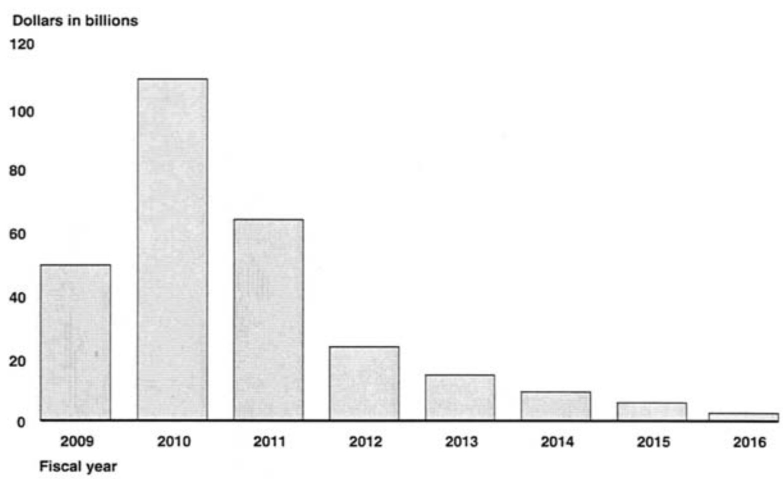
Responses by Gene L. Dodaro, Acting Comptroller General, U.S. Government Accountability Office

Questions submitted by Representative Paul C. Broun

Q1. One of the selling points of the stimulus bill was that action was needed immediately. How long will it take to spend all of the money directed to agencies?

A1. The *American Recovery and Reinvestment Act of 2009* (Recovery Act) is estimated by the Congressional Budget Office (CBO) to cost $787 billion over the next ten years. As we reported in our first bimonthly report on Recovery Act spending,[1] the timeline of Recovery Act spending has been a key issue in the debate and design of the Recovery Act because of the elapsed time until the appropriated funds are spent. Figure 1 shows that, of the $282 billion appropriated for State and local governments, the Federal Government expects to outlay almost 60 percent of the funds by October 2010. The remaining payments of Recovery Act funds drop off rapidly in subsequent years.

Figure 1: Projected Timing of Recovery Act Outlays for State and Local Government Programs, Fiscal Years 2009-16



Source: GAO analysis of Congressional Budget Office and Federal Funds Information for States data.

Over time, the programmatic focus of Recovery Act spending will change.[2] For example, about two-thirds of Recovery Act funds expected to be spent by states in the current 2009 fiscal year will be health related, primarily temporary increases in Medicaid FMAP funding. Health, education, and transportation are estimated to account for about 90 percent of fiscal year 2009 Recovery Act funding for states and localities. However, by fiscal year 2012, transportation will be the largest share of State and local Recovery Act funding. Taken together, transportation spending, along with investments in the community development, energy, and environmental areas that are geared more toward creating long-run economic growth opportunities, will represent about two-thirds of State and local Recovery Act funding in 2012.

Q2. At our previous hearing, the DOE IG identified contract administration as "one of the most significant management challenges facing the Department." Please

[1] See GAO, *Recovery Act: As Initial Implementation Unfolds in States and Localities, Continued Attention to Accountability Issues Is Essential,* GAO–09–580 (Washington, D.C.: Apr. 23, 2009). The Recovery Act directs GAO to conduct bimonthly reviews of the use of funds by selected states and localities.

[2] For more information about Recovery Act spending time frames, see the presentation by CBO's Director entitled *Implementation Lags of Fiscal Policy* to the International Monetary Fund Fiscal Affairs and Research Departments Conference on Fiscal Policy on June 2, 2009.

discuss the current status of the Federal Government's ability to issue contracts and manage both grants and contracts.

- *Does the government have adequate resources to issue, manage, and audit contracts?*
- *Are its employees adequately trained?*
- *Are contracting staff levels adequate?*
- *Are auditing staff levels adequate?*
- *What can Congress do to help?*

A2. While we have not conducted a comprehensive review of the Federal Government's ability to issue contracts and manage grants and contracts, we track a number of federal contracting activities on the high-risk list that GAO maintains.[3] A survey of recent information from various agencies' inspectors general (IGs) and previous GAO work indicates that contract management will be a challenge for federal agencies and State and local governments in the efficient and effective delivery of Recovery Act funds.

The ability of individual agencies to issue contracts and manage grants and contracts varies by agency. For example, the National Science Foundation (NSF) believes it has qualified grants and contract management staff in place. To speed the process for awarding of research grants, NSF plans to use more than $2 billion in Recovery Act funds to support grant proposals that were previously recommended for funding through NSF's peer review process but for which it did not have sufficient funds. In addition, on May 11, 2009, shortly after receiving approval of its Recovery Act spend plan from the Office of Management and Budget (OMB) and Congressional committees, NSF posted solicitations for awarding funding of its Academic Research Infrastructure and Major Research Instrumentation programs—two of four programs for which it did not have in-house proposals. By contrast, the Department of Commerce's Inspector General in March 2009 testified that spending Recovery Act funds effectively and in a manner that meets the Act's economic objectives poses significant risks for Commerce and will put significant strain on a number of already stretched resources and vulnerable operations. Specifically, the Commerce IG testified that the Recovery Act's emphasis on grants and contracts spending puts additional pressure on weak management and administrative operations, particularly with regards to the department's shortage of qualified contracting specialists, technical specialists, and subject matter experts.

We have found examples of agency contract management and procurement issues in our work. For example, in June 2006, we reported that Commerce's National Oceanic and Atmospheric Administration (NOAA) lacked a knowledge-based process for developing and producing complex systems—a situation that can increase the risk of cost increases and schedule delays.[4] In April 2009, we reported on the next generation of geostationary operational environmental satellites, called the Geostationary Operational Environmental Satellite-R series—which are under procurement by NOAA along with the National Aeronautics and Space Administration (NASA). Specifically, we found that the program's cost, schedule, and scope have changed, key milestones are likely to be delayed, and improvements are needed in management and oversight of the program.[5]

Regarding the adequacy of auditing staffs, our first bimonthly review of the use by selected states and localities of Recovery Act funds found that many states are concerned about their ability to track Recovery Act funds due to State hiring freezes that resulted from budget shortfalls. For instance, New Jersey has not increased (1) the number of State auditors or investigators, (2) funding specifically for Recovery Act oversight, or (3) the Recovery Act oversight efforts by many State agencies.[6] Moreover, State officials expect the Recovery Act to incur new regulations, increase accounting and management workloads, change agency operating procedures, require modifications to information systems, and strain staff capacity, particularly for contract management. To address states' needs to meet the Recovery Act's increased audit requirements with a reduced number of staff, we recommended that the Direc-

[3] GAO, *High-Risk Series: An Update.* GAO–09–271 (Washington, D.C.: Jan., 2009).

[4] GAO, *NOAA: Next Steps to Strengthen Its Acquisition Function,* GAO–06–594, (Washington, D.C.: Jun. 7, 2006).

[5] See GAO, *Geostationary Operational Environmental Satellites: Acquisition Is Under Way, but Improvements Needed in Management and Oversight,* GAO–09–323, (Washington, D.C.: April 2, 2009).

[6] GAO's bimonthly Recovery Act work is focused on 16 states and the District of Columbia—representing about 65 percent of the U.S. population and two-thirds of the intergovernmental federal assistance available through the Recovery Act.

tor of OMB should timely clarify what Recovery Act funds can be used to support State efforts to ensure accountability and oversight.

Regarding possible Congressional actions, we believe that Congressional oversight hearings have the salutary effect of encouraging all parties involved—federal agencies, State and local governments, and the auditors—to redouble their efforts to ensure that federal funds are effectively and efficiently spent in compliance with laws and regulations.

Q3. In order to get money out the door and into communities quickly, have agencies developed streamlined processes to expedite funding?

- *Do these processes run the risk of increasing waste, fraud, and abuse?*
- *How do you, the agencies, or specific Inspectors General plan to prevent this?*
- *What types of barriers do agencies face when trying to push money out the door? (Davis-Bacon, federal bidding practices, environmental regulations, etc.).*

A3. A review of agency responses to us in preparing this testimony show the Department of Commerce, the Department of Energy (DOE), and NSF have all reported taking steps to minimize the potential for waste, fraud and abuse of Recovery Act spending, while trying to meet government objectives that funds be spent quickly. Specifically:

- Commerce IG staff responsible for oversight of R&D-related Recovery Act funds met with the National Institute for Standards and Technology's (NIST) Deputy Director and Chief Financial Officer (CFO) in early March 2009 to discuss how to approach oversight. At that time, NIST staff gave the IG staff an oversight and spending plan of its Recovery Act funds. In addition, the Commerce IG staff had identified R&D-related high-risk programs that were slated to receive Recovery Act funds and had begun approaching the appropriate programmatic officials to get further details of the agencies' spending plans.
- DOE's CFO has employed a detailed tracking system linked to its existing accounting system that allows DOE to track recovery funds at the individual project level. A DOE official told us that because DOE knew that Recovery Act funds would need to be spent quickly, but in an accountable and transparent way, the department required each program office to prepare two-page summaries of proposals for spending for DOE management review to assess internal controls and risk management as a basis for approving funding. In addition, DOE's IG staff conducted briefings on fraud awareness for DOE employees who oversee Recovery Act funds.
- NSF officials report the foundation has developed formal policies and procedures for implementing the Recovery Act, a framework for allocating funds, and effective management processes, refined over many decades, to ensure that Recovery Act funds are awarded in a timely manner while maintaining the integrity of award management processes. NSF has designated a Senior Accountability Officer to oversee a Recovery Act Steering Committee drawn from across the agency. Many members of the steering committee themselves direct "tiger teams" with specific responsibilities aligned with the requirements of the Recovery Act. With regards to awarding funds, NSF has an established merit review process, which relies on a pool of volunteer national and international experts, to evaluate the grant proposals the foundation receives. In addition, NSF believes it can spend the research grant funds quickly without bypassing its established merit review procedures because it has grant proposals totaling more than $2 billion that its peer review panels earlier this fiscal year had judged were worthy of funding; however, NSF could not fund these proposals because grant proposals substantially exceeded its annual appropriation to support research grants.

In carrying out our responsibilities under the Recovery Act, we will continue to evaluate State and local uses of funds and will continue to coordinate with the IG and State auditor communities.

Q4. Since the goal of the stimulus bill is to create jobs, has anyone in your office been tasked with verifying the number of jobs a specific grant or project will actually create?

A4. The Recovery Act directs GAO to examine the use of Recovery Act funds by selected states and localities. The act also expects GAO to review and comment on estimates of the number of jobs created and the number of jobs retained that states and localities submit in quarterly reports under the Act.

Recipient reporting is required to begin on October 10, 2009, with subsequent quarterly reports due thereafter. GAO has formed a team internally to review these recipient reports. The team includes research methodologists, specialists in intergovernmental relations, and GAO's chief economist. Together, this team is developing a methodology for commenting on estimates of the numbers of jobs created or retained as reported by funds recipients. GAO will review analytical efforts to estimate the direct and indirect effects of Recovery Act spending on employment, recognizing the limitations of such models in predicting Recovery Act effects because of their restricted geographical focus and imperfections in representing the complexity of economic interactions.

Q5. A central objective of the stimulus funding is to "create or save 3.5 million jobs." This has been stated by President Obama numerous times and will likely be a key measure through which the success or failure of stimulus funding is measured. However, Dr. Ellig notes in his testimony that measuring the effect of stimulus spending on employment is very difficult to verify and validate, and that agencies will need to work with OMB and others to develop methods for obtaining credible estimates. In particular, he notes that such efforts must account for the net effect of job creation because some people may simply switch jobs from their current position to one created by federal spending.

- *Do you agree with Dr. Ellig's assessment of the difficulties associated with determining jobs "created or saved?"*
- *Do you think it is possible to obtain such measurements with intensive efforts?*
- *Do you believe the existing guidance to agencies on how best to obtain job estimates provides adequate guidance on how to calculate a credible estimate of jobs created or saved?*
- *How would you suggest we evaluate the success or failure of this goal?*

A5. In our first bimonthly report of the use by selected states and localities of funds made available under the Recovery Act, we reported that OMB took an important step in its April 3 guidance by issuing definitions, standard award terms and conditions, and clarified tracking and documenting Recovery Act expenditures;[7] however, we recommended that OMB continue to identify methodologies that can be used to:

- assess jobs created and retained from projects funded by the Recovery Act;
- determine the impact of Recovery Act spending when job creation is indirect; and
- identify those programs, projects, or activities that in the past have demonstrated substantial job creation or are considered likely to do so in the future. Consider whether the approaches taken to estimate jobs created and jobs retained in these cases can be replicated or adapted to other programs.

In addition, we noted that one way to develop these methodologies is to establish a working group of federal, State, and local officials and subject matter experts. OMB concurred with our overall recommendations. Furthermore, technical and practical issues about recipient reporting are part of an ongoing discussion in which GAO is participating—with OMB and representatives from State and local audit organizations—during weekly conference calls. OMB is expected to issue another round of guidance on recipient reporting in mid-June.

Requiring recipients of Recovery Act funds to report jobs created or retained will focus efforts on spending that creates employment and generates income. However, the full impact of Recovery Act spending on employment and national income can be tallied only at the aggregate level because of the complexity of the economy, which makes it impossible to trace the direct and indirect impact of job creation or retention from a single project or even a group of projects. Recipient reports on jobs created or retained provide one perspective on the performance of local, State, and regional economies and can be placed in context to allow assessment of the consistency of Recovery Act spending impacts with stronger economic growth.

Q6. Since employment was marketed as a rationale for the stimulus, and this committee is tasked with oversight of science, are there any difficulties determining employment related to science money?

- *Will science money more likely go to experienced and established principal investigators, or newer scientists?*

[7] GAO–09–580.

- *Does the government currently have a system to monitor and track this sort of information?*
- *If the money is more likely to go to proposals from more experienced PIs, then how does this affect employment?*
- *If the money goes to less experienced PI's and spurs employment, then what happens after the money dries up? Have we created an unsustainable system?*

A6. GAO identified more than $21 billion in Recovery Act funds that will broadly support R&D activities at Commerce, DOE, NSF, and NASA. GAO is not aware of any system the government currently has in place to monitor and track information about Recovery Act funds received by individual principal investigators (PIs) or to determine whether funds are being received by established PIs versus newer PIs. Each agency receiving Recovery Act funds is establishing its own criteria for awarding these funds to applicants who meet these criteria. For example:

- NSF officials told us they are giving special consideration to those proposals that would fund new investigators and/or are considered "highly transformative"—high risk, and high payoff research activities.
- A DOE official responsible for standing up the new Advanced Research Projects Agency–Energy (ARPA–E) told us that ARPA–E will focus on high-risk, high-potential, transformational energy technology projects that would not have a place in the rest of DOE.
- Other R&D funds, such as funds for NASA's Earth Science program, are planned for expenditure using contracts rather than grants to individual PIs.

GAO has not evaluated the extent to which the scientific community will be affected by the absence of Recovery Act funds once Recovery Act-supported projects are complete.

Q7. How do you calculate the employment effects of stimulus money associated with science?

- *In determining the net effect, should we count only the Principal Investigator, or also research assistants and "downstream" employment as well?*
- *How should the government account for a Principal Investigator who already has several grants and receives additional grants through stimulus money?*

A7. Small research projects are likely to include the PI and a post-doctoral student or a graduate student. Large research projects might include the PI, research team leaders, post-doctoral associates, graduate students, and technicians. A calculation of the employment benefits of the Recovery Act should consider only the portion of the time that each research team member, including the PI, is scheduled for the project. Because a post-doctoral associate or graduate student is more likely to work full-time on the grant project, their positions could appropriately be counted among new jobs created or jobs retained. However, it would seem inappropriate to count a PI who is a university faculty member and working on at least one other grant project as a job created or retained.

Q8. How should the government account for stimulus money that "crowds out" or limits venture capital and private investment? Is there any way to determine the amount of private investment prevented by public money?

A8. CBO's macroeconomic model incorporates a basic assumption that, in the long run, each dollar of additional debt crowds out about a third of a dollar's worth of private domestic capital (with the remainder of the rise in debt offset by increases in private saving and inflows of foreign capital). Because of uncertainty about the degree of crowding out, however, CBO has incorporated both more and less crowding out into its range of estimates of the long-run effects of the Recovery Act legislation.[8]

[8] CBO letter dated March 2, 2009, to Senator Charles Grassley estimating year-by-year economic effects of the Recovery Act.

ANSWERS TO POST-HEARING QUESTIONS

Responses by Gary D. Bass, Founder and Executive Director, OMB Watch

Questions submitted by Representative Paul C. Broun

Job Creation

Q1. How hard is it to determine if a job has been created by the stimulus act?

- *Do you have any recommendations for how the government should calculate this net total?*

A1. While I do not have the expertise to answer how hard it would be to determine if a job has been created by the Act, I can say that the definition of a "job" must first be consistent across all Recovery Act reporting.

OMB guidance on Recovery Act reporting (OMB memo M–09–15) states that recipients are to report a brief description and an estimate of the jobs created or retained. Job creation and retention figures are to be based on aggregate hours worked converted into a figure for full-time-equivalent (FTE) positions. Yet it leaves it up to each recipient to determine how many hours equal a FTE, which will lead to substantial inconsistencies. It would be advisable to require recipients to report the aggregate hours figure as well as the FTEs, so that analysts can make valid comparisons.

I am also very concerned about OMB's method of job estimate data collection. In reference to an April 1, 2009 *Federal Register* Notice "Information Collection Activities: Proposed Collection; Comment Request," (74 FR 14824), OMB specifies the format of the data that are to be collected from Recovery Act fund recipients. In the notice, OMB indicates that an estimate of the number of jobs created or retained be included in a narrative description of the Act's impact on employment. If jobs, or "full-time equivalents" (FTEs) are not reported as numbers—that is, data that can be added, sorted, compared, etc.—it will be next to impossible to assess the total number of jobs created or retained per project or for all of Recovery Act spending. For example, if FTEs are reported in a separate numbers field, a web site database using data from *Recovery.gov* could show users a summation of the FTEs resulting from Recovery Act projects; sort projects by number of jobs created; or show just those projects that created more than 100 jobs. If the number of FTEs appears within a block of text, this sort of analysis becomes much more difficult, if not impossible, to execute. Additionally, there should be an indicator of whether a job has been created or retained so that the data can be sorted in that manner. It is likely best to include this in a separate data field that corresponds to the jobs data.

Q2. A central objective of the stimulus funding is to "create or save 3.5 million jobs." This has been stated by President Obama numerous times and will likely be a key measure through which the success or failure of stimulus funding is measured. However, Dr. Ellig notes in his testimony that measuring the effect of stimulus spending on employment is very difficult to verify and validate, and that agencies will need to work with OMB and others to develop methods for obtaining credible estimates. In particular he notes that such efforts must account for the net effect of job creation because some people may simply switch jobs from their current position to one created by federal spending.

Q2a. Do you agree with Dr. Ellig's assessment of the difficulties associated with determining jobs "created or saved?"

A2a. Yes. Arriving at reliable estimates of job creation and retention is certainly a daunting challenge.

Q2b. Do you think it is possible to obtain such measurements with intensive efforts?

A2b. Although I agree that it will be somewhat difficult to measure job creation and retention estimates, I am not skilled enough to say whether such efforts are entirely futile.

Q2c. Do you believe the existing guidance to agencies on how best to obtain job estimates provides adequate guidance on how to calculate a credible estimate of jobs created or saved?

A2c. As I noted in my answer to the first question, the OMB guidance on job estimation is critically flawed: OMB allows recipients of Recovery Act funds to determine how many weekly hours comprise a "full time equivalent," which certainly create substantial inconsistencies in job-creation data. And as I also noted, the form of the data that are to be collected will hinder even simple analyses by federal agencies and outside stakeholders.

Q2d. How would you suggest we evaluate the success or failure of this goal?

A2d. I do not have the expertise to address this question.

Q3. Since employment was marketed as a rationale for the stimulus, and this committee is tasked with oversight of science, are there any difficulties determining employment related to science money?

Q3a. Will science money more likely go to experienced and established principal investigators, or newer scientists?

A3a. I do not have the expertise to address this question.

Q3b. Does the government currently have a system to monitor and track this sort of information?

A3b. OMB guidance leaves this type of data collection requirement up to the federal agencies. If, for example, the Department of Energy would like track the level of experience of scientists and principal investigators working on Recovery Act projects, it could require recipients of DOE Recovery Act funds to report that data. However, because OMB grants such leeway to federal agencies, there is little opportunity, if any, for Members of Congress or the public to comment on which types of data should be collected by the federal agencies.

Q3c. If the money is more likely to go to proposals from more experienced PIs, then how does this affect employment?

A3c. I do not have the expertise to address this question.

Q3d. If the money goes to less experienced PIs and spurs employment, then what happens after the money dries up? Have we created an unsustainable system?

A3d. I do not have the expertise to address this question.

Q4. How do you calculate the employment effects of stimulus money associated with science?

Q4a. In determining the net effect, should we count only the Principal Investigator, or also research assistants and "downstream" employment as well?

A4a. I do not have the expertise to address this question.

Q4b. How should the government account for a Principal Investigator who already has several grants and receives additional grants through stimulus money?

A4b. I do not have the expertise to address this question.

Crowding Out

Q5. How should the government account for stimulus money that "crowds out" or limits venture capital and private investment?

- *Is there any way to determine the amount of private investment prevented by public money?*

A5. I do not have the expertise to address this question. However, I would note that OMB Watch believes federal spending on community investments that create sustainable jobs will help the economy as well as invest in our future.

ANSWERS TO POST-HEARING QUESTIONS

Responses by Jerry Ellig, Senior Research Fellow, Mercatus Center, George Mason University

Questions submitted by Representative Paul C. Broun

Q1. How hard is it to determine if a job has been created by the stimulus act? Do you have any recommendations for how the government should calculate this net total? Do you agree with Dr. Ellig's assessment of the difficulties associated with determining jobs "created or saved"? Do you believe the existing guidance to agencies on how best to obtain job estimates provides adequate guidance on how to calculate a credible estimate of jobs created or saved? Do you think it is possible to obtain such estimates with intensive efforts? How would you suggest we evaluate the success or failure of this goal?

A1. The Office of Management and Budget's April 3, 2009 Recovery Act guidance to agencies makes a good start by defining what counts as jobs "created" and "retained," specifying that all jobs should be reported as full-time equivalents, and encouraging recipients to specifically identify jobs attributable to the Recovery Act as opposed to other federal awards.[1]

But focusing on recipients' reporting to agencies misses a much bigger issue. The Recovery Act might create jobs, induce people to switch jobs, or do some of both. "Job creation" figures reported by recipients of funding will include both kinds of jobs. If a goal of the Recovery Act is to create more employment than would have existed in its absence, then we will not know if this goal was accomplished unless we know the net amount of employment created.

It is impossible for recipients of the money to calculate the *net* number of jobs created or preserved by the stimulus spending. Even if the recipients conscientiously do their best to present accurate numbers reflecting positions created or retained in their organizations, they cannot know whether some of the people they hired or retained would have been hired elsewhere. Some of the people hired or retained would otherwise have been unemployed for some period of time, but others may have moved from another job or would have found work elsewhere in the absence of the stimulus spending. We cannot correct for this problem simply by instructing recipients to report whether they hired unemployed people or retained people they had been planning to lay off. It is not enough to know whether someone hired with stimulus money was formerly unemployed or would have been discharged. We need to know if that person would have been employed elsewhere in the absence of the stimulus spending. It is unreasonable to expect the recipients of the stimulus money to know this.

For this reason, even if the job figures reported by recipients of the funding really do represent the most accurate estimate of jobs created or saved *in their organizations,* the reported figures will inevitably overstate the *net* number of jobs created or retained. Merely reading the numbers reported in the database will, therefore, overstate the effects of the Recovery Act on employment.

The "intensive effort" that needs to take place is not placing additional job reporting burdens on the recipients of the funding. Rather, the intensive effort needs to take the form of rigorous macroeconomic analysis that determines how many *net* jobs were created or preserved, after taking into account the effects of both the spending and the borrowing. This requires examining how total employment responds to changes in spending and borrowing.

This is not easy and will inevitably be contentious. Policy-makers would do well to keep in mind this statement from the Congressional Budget Office's preliminary analysis of the President's budget in March:

> Even after the fact, it will be quite difficult to assess the impact of ARRA on the economy. Uncertainty is great about both how the economy would perform in the absence of fiscal stimulus and the impact of stimulus. The best estimates of the impact of stimulus will come later, from studies carefully designed to isolate the effects of particular categories of stimulus from other influences on the economy.[2]

[1] http://www.whitehouse.gov/omb/assets/memoranda_*fy2009/m09-15.pdf*

[2] Congressional Budget Office, *A Preliminary Analysis of the President's Budget and an Update of CBO's Budget and Economic Outlook* (March 2009), p. 29 available at *http://www.cbo.gov/ftpdocs/100xx/doc10014/03-20-PresidentBudget.pdf*

Q2. Are there any difficulties determining employment related to science money? Will science money more likely go to experienced and established principal investigators, or newer scientists? Does the government currently have a system to monitor and track this sort of information? If the money is more likely to go to proposals from more experienced PIs, then how does this affect employment? If the money goes to less experienced PIs and spurs employment, then what happens after the money dries up? Have we created an unsustainable system?

A2. Because of the speed with which the money is supposed to be spent, money going to scientists will likely go to those who are best at getting their grant applications in quickly. This probably provides an advantage to more experienced scientists who are already very familiar with the application processes and likely have many well-developed ideas for research projects. As Dr. Newsome suggested in his testimony, the process probably also favors larger institutions with larger grants and contracts staffs who have the time to keep track of available funding and respond rapidly.

The question about sustainability is an excellent one, but it is not at all unique to science-related spending. The spending in the Recovery Act is supposed to occur quickly and temporarily, over the course of a few years. It is not supposed to permanently increase the size of federal expenditures. It is doubtful that the majority of the jobs it directly funds will be sustainable after federal spending returns to more normal levels. The theory underlying the Recovery Act is that having the Federal Government borrow money to put people to work will lead to a more rapid economic recovery. But there is no guarantee that the jobs that become available and sustainable as the economy recovers are the same ones the government is funding. For example, the Recovery Act will fund many road projects, but once the economy recovers the available jobs may well be in the airline or hotel industries. In short, many of the people who take jobs funded under the Recovery Act may find that they have to look for some other kind of employment after the Recovery Act spending stops in a few years.

Q3. How do you calculate the employment effects of stimulus money associated with science? In determining the net effect, should we count only the principal investigator, or also research assistants and "downstream" employment as well? How should the government account for a principal investigator who already has several grants and receives additional grants through stimulus money?

A3. In principle, the employment effects of stimulus money associated with science should be accounted for in the same way that employment effects of other spending are accounted for. If the funding leads a principal investigator to hire additional research assistants or other staff, then these jobs could be counted as jobs created by the stimulus spending.

If much of the research funding goes to experienced scientists who already have grants, then one of several possible effects on employment could happen. An experienced PI might simply work longer hours, and thus the stimulus money might be said to create "over-employment"—the equivalent of working overtime. I do not know whether this was anticipated when the legislation was passed. An experienced PI might also direct a larger number of grants by bringing in more help and delegating more. In this case, the employment effect will not be to employ more PIs, but to employ more junior colleagues, research assistants, and others to whom work can be delegated. Assuming this is new employment, the situation seems no different than that of any other government contractor who adds personnel without adding more top-level managers.

Q4. How should the government account for stimulus money that "crowds out" or limits venture capital and private investment? Is there any way to determine the amount of private investment prevented by public money?

A4. This question could be interpreted in two different ways. One way stimulus money might "crowd out" private funding is if the money is spent on projects the private sector would otherwise have funded. Alternatively, even if the money is spent on projects the private sector would not have funded, it is possible that the government spending merely displaces private investment or consumption spending. In either case, the government spending would not increase the total amount of economic activity or employment.

The best way to prevent stimulus money from displacing projects that the private sector would have funded is to ensure that the money is spent on projects that economic analysis suggests the private sector might under-provide. Basic research, for example, might be under-provided by the private sector if it is difficult for private firms to profit from research results that add to the general stock of human knowledge. More applied research that produces knowledge which can be protected by patents or trade secrets is less likely to be under-provided by the private sector. Therefore, the government can minimize crowding out of private research by focusing on basic research that the private sector is unlikely to fund. Similarly, federal highway funding could displace private investment in highways if it is used for projects that could be financed by tolls. Federal highway funding is less likely to displace private funding if it focuses on projects where tolling would not be practical.

The broader concept of "crowding out" stems from government borrowing to finance the Recovery Act. Government borrowing displaces at least some private investment, because the funds borrowed by the government are not available for other borrowers. In the short-term, this means that the private sector borrows and invests less, which can be expected to have a depressing effect on employment that partly counteracts the stimulative effect of the government spending. Over the longer-term, the economy may be less productive because there is less private capital.

The Recovery Act might not just crowd out private investment spending; it might also crowd out private consumption spending. The government spends more, borrows the money from citizens, and citizens spend less than they otherwise would have spent.

The exact size of any offsetting effects on investment or consumption spending will be vigorously contested, even by well-meaning economists who are not pursuing partisan or ideological agendas. Essentially, determining whether the Recovery Act increases economic activity and employment boils down to a test of the Keynesian economic model, which posits that government can expand GDP and employment in a recession by borrowing and spending or cutting taxes. The Council of Economic Advisers estimated the employment impact of the Recovery Act by using "multipliers" to project the effects of the spending and tax cuts on Gross Domestic Product, then using rules of thumb to calculate the number of jobs the projected increase in GDP would produce.[3] If the CEA uses similar methods to assess the effects of the Recovery Act on jobs, the resulting numbers will only be as reliable as the underlying Keynesian macroeconomics.

[3] *http://www.whitehouse.gov/administration/eop/cea/factsheets_reports/*

Project On Government Oversight
Exposing Corruption Exploring Solutions www.POGO.org

June 15, 2009

The Honorable Paul Broun
U.S. House of Representatives
Committee on Science and Technology
Subcommittee on Investigations and Oversight

Attention: Jane Wise, Research Assistant
2321 Rayburn House Office Building

Dear Representative Broun:

The Project On Government Oversight (POGO) thanks you for the opportunity to respond to additional questions regarding Recovery Act oversight. As an independent nonprofit that investigates and exposes corruption and other misconduct in order to achieve a more effective, accountable, open, and ethical federal government, POGO feels strongly that the expenditure of Recovery Act funds should be subjected to extraordinary oversight. While we are grateful that you have taken the time to seek our input on such important questions, we are unable to provide detailed responses due to our lack of experience with the specific subject matter of each question.

I apologize that we were not able to provide meaningful responses. If you have any additional questions with which I may be able to help, please do not hesitate to contact me.

Sincerely,

Danielle Brian

Danielle Brian
Executive Director

Attachment: "Questions for the Record," May 26, 2009

1100 G Street, NW
Suite 900
Washington, DC
20005-3806
Phone: 202-347-1122
Fax: 202-347-1116

www.POGO.org
pogo@pogo.org

ANSWERS TO POST-HEARING QUESTIONS

Responses by Eric Gillespie, Senior Vice President of Products, Technology, and Innovation and Chief Information Officer, Onvia, Inc.

Questions submitted by Representative Paul C. Broun

Recovery.gov

Q1. In your testimony you mention a number of recommendations for a Representative in Congress from the State of Recovery.gov.

- *How early will those recommendations need to be adopted before more reporting starts to flow into the web site?*

A1. A majority the recommendations made across panel members should have been accounted for immediately following passage of the legislation and prior to capital flowing to agencies. In some cases the directives issued by the Office of Management and Budget (OMB) have clarified reporting requirements, but in others the requirements of federal, State and local agencies remain unclear.

Assumptions have been made by the Recovery Accountability and Transparency Board (RATB) about the requisite level and quality of data for the *Recovery.gov* web site. The RATB has spending oversight and investigative responsibility using reported data, with the *Recovery.gov* web site as an appendage. The site as envisaged was intended to first provide visibility into stimulus spending to the public at-large; the approach thus far, however, has been to provide an audit-level standard for use by the Inspector General community to root out fraud, waste and abuse. While clearly an important and necessary goal, setting the standard exclusively at this level creates a latent view of the information for an audience that doesn't require such stringent standards.

The recommendations made by panel members should be undertaken immediately. Reporting and presenting basic datasets on the web site can and should begin immediately. Perfecting the data and standards for audit purposes, or for that matter for broader pubic visualizations, can occur over time. There is no downside risk, rather only upside gain, to immediately exposing the data that is available.

Job Creation

Q2. Since employment was marketed as a rationale for the stimulus, and this committee is tasked with oversight of science, are there any difficulties determining employment related to science money?

A2. There are significant issues with determining actual employment affected by the legislation, both related to science funds and not related to science funds. The original estimations made in the *Job Impact of the American Recovery and Reinvestment Plan* paper authored by Christina Romer, Chairman of the Council of Economic Advisors, and Jared Bernstein, Chief Economic Advisor to the Vice President, have proven to be optimistic, but moreover, the formulaic process used to assess jobs "created or saved" has been widely challenged.

Chairman Max Baucus recently stated to Treasury Secretary Timothy Geithner during a March hearing of the Senate Finance Committee, "You created a situation where you cannot be wrong. If the economy loses two million jobs over the next few years, you can say yes, but it would've lost 5.5 million jobs. If we create a million jobs, you can say, well, it would have lost 2.5 million jobs. You've given yourself complete leverage where you cannot be wrong, because you can take any scenario and make yourself look correct."

The challenge is particularly pronounced when attempting to calculate jobs related to investments in science and technology. By its very nature, the economic impacts of research and development capital are often seen over very long periods of time, especially when considering the many large and seemingly intractable problems often addressed by federal agencies such as the National Institutes of Health, NASA, or the National Science Foundation. The indirect benefits of these investments are many but often immeasurable.

Q2a. Will science money more likely go to experienced and established principal investigators, or newer scientists?

A2a. It is unclear at this point in my opinion. One might assume, however, since capital is being allocated through existing programs without fundamental changes at the agency level, that the ratio of money going to established PIs versus newer scientists will be comparable to historical patterns.

Q2b. Does the government currently have a system to monitor and track this sort of information?

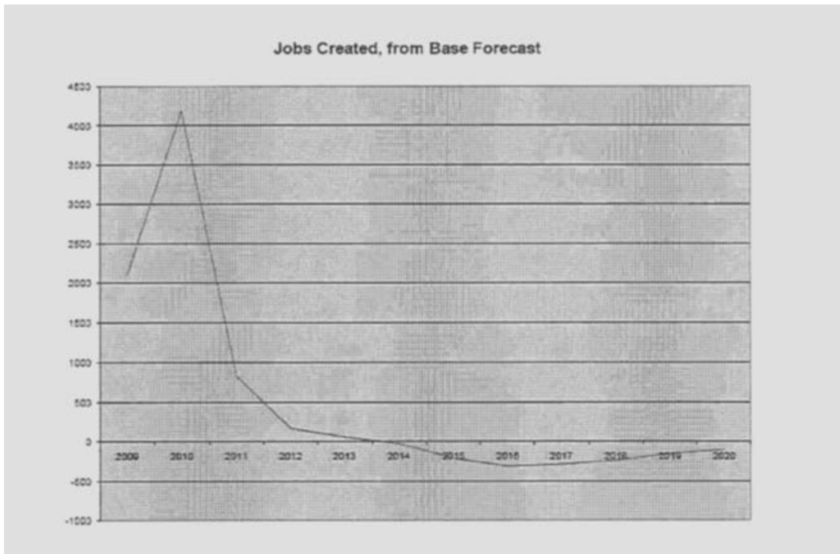
A2b. I do not have an opinion on this subject.

Q2c. If the money is more likely to go to proposals from more experienced PIs, then how does this affect employment?

A2c. I do not have an opinion on this subject.

Q2d. If the money goes to less experienced PIs and spurs employment, then what happens after the money dries up? Have we created an unsustainable system?

A2d. In a recent presentation to the International Economic Development Council, the highly respected economic modeling firm Regional Economic Models, Inc. forecasted that the net effect of the stimulus legislation on both jobs and GNP will go negative in 2014 and through the outer years without additional intervention and assistance by the Federal Government.



Source: Regional Economic Models, Inc.

Subsequent modeling demonstrated that investments in education, with related labor productivity, make job creation more sustainable over time. This would argue for more investment in science and technology education to create a sustainable model.

Q3. How do you calculate the employment effects of stimulus money associated with science?

A3. For formulaic estimation, which has historically presented a grossly inaccurate view of reality, actual performance results are required for "backtesting" analysis and to estimate current impacts.

The question, in my opinion, should be "How do we take actual results from stimulus spending and use those results to inform future appropriations and spending?" in order to maximize the return on science and technology investments using taxpayer dollars.

Q3a. In determining the net effect, should we count only the Principal Investigator, or also research assistants and "downstream" employment as well?

A3a. In order to accurately measure the efficacy of stimulus spending, both direct and indirect employment should be measured for all funding, whenever possible and in as much detail as possible. This is the only way to inform future spending decisions and optimally allocate resources.

Q3b. How should the government account for a Principal Investigator who already has several grants and receives additional grants through stimulus money?

A3b. I do not have an opinion on this subject.

Crowding Out

Q4. How should the government account for stimulus money that "crowds out" or limits venture capital and private investment?

A4. The stimulus legislation was not crafted to account for this and funding is being routed via agencies through existing programs. The priorities and agenda for innovation in areas that align with the goals of the Federal Government should continue to be set by the Federal Government. The incentives are not there, however, for the public sector to fill the market currently served by the private equity and venture capital industries, and any attempt to do so poses a high risk of sub-optimal capital allocation. The CIA's venture capital arm, In-Q-Tel, has developed a successful model that encourages private sector investment while at the same time incorporates innovation and best practices using public sector funds.

Q4a. Is there any way to determine the amount of private investment prevented by pubic money?

A4a. This would, in my opinion, be a theoretical calculation at best and be wildly inaccurate.

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