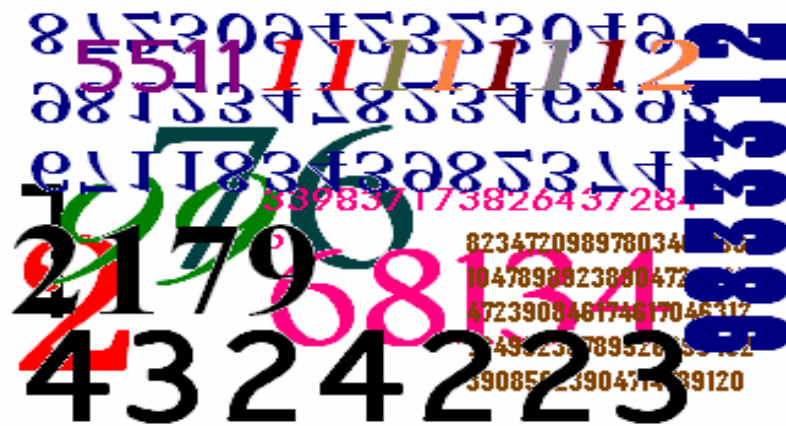


DATA DEARTH IN OFFSHORE OUTSOURCING: POLICYMAKING REQUIRES FACTS



OFFICE OF SENATOR
JOSEPH I. LIEBERMAN
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DATA DEARTH IN OFFSHORE OUTSOURCING **SENATOR LIEBERMAN INTRODUCTION**

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In May 2004, I released a white paper entitled “Offshore Outsourcing and America’s Competitive Edge: Losing Out in the High Technology R&D and Services Sectors”. A key conclusion of the white paper was the absence of reliable data to measure and assess the offshore outsourcing phenomenon. We do not have good data on the offshoring problem, and the data we have are general in nature. Estimates vary widely on the number of jobs moving overseas, and the lack of reliable data contributes to incorrect conclusions about the impacts of offshore outsourcing, which can result in flawed policy responses. We need data to understand what we are facing so we can chart a sure and steady future course. There is enough anecdotal data about job losses to spark debate and, in some cases, result in policies which may provide a “short-term fix” but which do not produce longer-term solutions to preserve U.S. innovation and ensure U.S. competitiveness. Comprehensive and balanced data on both job gains and job losses resulting from offshore outsourcing are essential. This data must be assembled by U.S. federal government agencies including the Department of Commerce and the Department of Labor, where data gathering capabilities are extensive and research methodologies are transparent.

The lack of data is critical because the issues raised in the May white paper are so important. The white paper was designed to stimulate a deeper review of the long term implications for our policy responses and to change the terms of the debate on offshore outsourcing. The paper looked at rising global competition and the challenges posed to America’s competitive advantage. Globalization is our current and future reality – there is no escaping it. The U.S. economy is inextricably linked to the rest of the world; our fortunes rise and fall depending on our performance with our trading partners and our competitors. Our strength and success with China, India and other emerging markets is as important to future U.S. economic and national security as the competition with Japan and Europe was to U.S. growth over the last 50 years. The offshore outsourcing phenomenon is one of the challenging manifestations of globalization.

The May white paper found that it was not just manufacturing jobs that are subject to global outsourcing – where 2.7 million jobs have disappeared since 2000 – but service sector and high-end R&D jobs are also being hit by offshore outsourcing. And it’s not just call centers, data entry facilities and other entry level service jobs that are impacted by offshore outsourcing. Higher skill professional jobs – from engineering, computer chip design to nanotechnology R&D- are beginning to go overseas and with these jobs, we may be losing key parts of the talent and technology which fueled the record growth and prosperity of the 1990s. Fundamental changes are facing us, as key components of our innovation infrastructure (knowledge, capital, labor, technology and facilities) are increasingly mobile. Offshore outsourcing of labor, capital

and technology not only hurts workers but threatens our knowledge-based economy. If engineering, design, R&D, and services follow manufacturing abroad, U.S. competitiveness is weakened, and our economic prosperity and national security are threatened.

What is at stake is the ability of the United States to remain a global leader in innovation, to maintain good-paying jobs, and to expand our global market share. We must rethink long-term strategies on competitiveness, innovation, R&D, trade policy and enforcement, as well as education and investments in “human capital”. However, we cannot begin to develop effective solutions until we have an understanding of the scope of the offshore outsourcing phenomenon. The need for data on offshore outsourcing is paramount.

Lord Kelvin, the 19th century Belfast-born physicist said:

“When you can measure what you are speaking about and express it in numbers, you know something about it; but when you cannot measure it, when you cannot express it in numbers, your knowledge is of the meager and unsatisfactory kind.” - May 3, 1883 lecture to the Institute of Civil Engineers

By improving U.S. government data collection, we can ensure that our knowledge of offshore outsourcing is neither meager nor unsatisfactory, but informed and balanced. With improved data and analysis, we will build constructive and lasting solutions to address the challenges posed by offshore outsourcing.

I would like to thank Sara E. Hagigh of my staff and Mary Jane Bolle of the Congressional Research Service for their hard work in researching and preparing this report.



U.S. Senator Joseph I. Lieberman

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EXECUTIVE SUMMARY

The issue of offshore outsourcing has been at the center of many key political and public debates over the last few years. The term “outsourcing” has become part of our everyday lexicon, gracing the covers of news magazines, television broadcasts, and playing a central role in Congressional debates during an election year. Most Americans are aware of the issue of offshore outsourcing, but few of us have an understanding of the full dimensions of the problem.

To develop a better understanding of offshore outsourcing, the Office of Senator Joseph Lieberman released a white paper in May 2004 entitled “Offshore Outsourcing and America’s Competitive Edge: Losing Out in the High Technology R&D and Services Sectors”.¹ The white paper found that it is not only manufacturing jobs that are being outsourced overseas, where 2.7 million jobs have disappeared since 2000. Offshore outsourcing has also begun to hit high-end services and R&D jobs, and there is evidence that it is not just call centers, data entry and other entry level service jobs that are impacted by offshoring. We are beginning to send higher skill professional jobs overseas – including engineering, computer chip design and nanotechnology R&D, and with these jobs, we may be losing the talent and technology that created the growth of the 1990s. The white paper concluded that offshore outsourcing of high-end services and R&D jobs could threaten our innovation infrastructure, and therefore our economic prosperity, and our national security.

A key conclusion of the white paper was the absence of reliable data to measure and assess the offshore outsourcing phenomenon. Estimates vary widely on the number of jobs moving overseas, and the lack of reliable data contributes to incorrect conclusions about the impacts of offshore outsourcing. The result is flawed and ineffective policy responses. In order to develop effective policies to address the many facets of the offshore outsourcing challenge – including investments in education and “human” capital, greater investments in federal, industrial, and services R&D, and better enforcement of our trade agreements – we must have better, more reliable data.

This paper provides a review and assessment of federal data on offshore outsourcing:

- (1) It begins by identifying a series of questions that would produce useful data to measure offshore outsourcing. These questions address information about job “losses” as well as job “gains” from offshore outsourcing so we can arrive at a balanced assessment of the impacts of offshore outsourcing.
- (2) The report then surveys ten existing U.S. government data sets, from the Departments of Labor and Commerce, measuring aspects of offshore outsourcing. The report enumerates strengths and weaknesses of each of the ten data sets in measuring offshore outsourcing and identifies which federal agency data best answer the questions posed in **Table 1** of the report – Useful Data to Measure Offshore Outsourcing. The report also contains **Table 2** (Aspects of Offshore Outsourcing Potentially Measurable with Existing Data), **Table 3** (Legislative Recommendations for Improving Federal Agency Data on Offshore

¹ “Offshore Outsourcing and America’s Competitive Edge: Losing Out in the High Technology R&D and Services Sectors”, Office of Senator Joseph I. Lieberman, May 11, 2004.

Outsourcing), **Appendix A** (Federal Agency Data’s Strengths and Weaknesses for Measuring Offshore Outsourcing) and **Appendix B** (Major U.S. trading partners).
(3) Finally, the report makes five legislative recommendations for improving federal agency data to provide a more useful measure of offshore outsourcing. The five recommendations (summarized in **Table 3**, Legislative Recommendations for Improving Federal Agency Data on Offshore Outsourcing) are:

- (a) extend the Trade Adjustment Assistance Program
- (b) require the Office of Trade Adjustment Assistance to report data
- (c) require Bureau of Labor Statistics to make changes to Mass Layoff data program
- (d) require the Commerce Department to publish annual multipliers
- (e) link Bureau of Economic Analysis and Bureau of Labor Statistics data sets

This report represents a beginning, not an end. We must develop reliable and comprehensive data gathering capabilities at U.S. government agencies to measure employment and economic effects of offshore outsourcing. Without a better understanding of the scope of the problem, effective policy solutions to offshore outsourcing cannot be developed.

This is the fifth major white paper in a recent series on U.S. economic growth Senator Lieberman has released. This report can be found at <http://lieberman.senate.gov/newsroom/whitepapers/Offshoredata.pdf>.

The four previous papers are:

- 1) “Offshore Outsourcing and America’s Competitive Edge: Losing Out in the High Technology R&D and Services Sectors”, May 11, 2004, <http://lieberman.senate.gov/newsroom/whitepapers/Offshoring.pdf>
- 2) “Making America Stronger: A Report with Legislative Recommendations on Restoration of U.S. Manufacturing”, September 2003, <http://lieberman.senate.gov/newsroom/reports/ManufacturingReport.pdf>
- 3) “National Security Aspects of the Global Migration of the U.S. Semiconductor Industry”, June 2003, <http://lieberman.senate.gov/newsroom/whitepapers/semiconductor.pdf>
- 4) “Broadband: A 21st Century Technology and Productivity Strategy”, May 2002, http://lieberman.senate.gov/newsroom/whitepapers/Broadband_Lieberman_5_28_02.pdf

INTRODUCTION

*“It is a capital mistake to theorize before one has data.”
-Sir Arthur Conan Doyle, British physician and novelist*

In May 2004, the Office of Senator Joseph Lieberman released a white paper focusing on offshore outsourcing of high technology R&D and service sector jobs.² The white paper addressed the issue of globalization and the challenges posed to the United States by fierce new competition from China, India, and many other emerging markets. While globalization is an economic reality which we cannot escape, increasingly integrated global markets are causing fundamental shifts and major dislocations to workers around the world. Offshore outsourcing is one of the major realities and challenges of globalization.

The white paper concludes that the offshore outsourcing phenomenon, ongoing in the manufacturing sector for decades, has spread to the services and R&D sectors. This trend is beginning to affect high-end services and R&D research jobs and may be contributing to historically high levels of unemployment among electronics, software and computer engineers in the United States. What we thought was our nation’s ultimate competitive advantage – our high-end services and R&D prowess – may be challenged. The loss of R&D infrastructure could have important ramifications for our ability to create high-wage, high-technology jobs in the future. What is at stake is the ability of the United States to remain a global leader in innovation, to maintain high-paying jobs, and to ensure future competitiveness and growth.

A key conclusion of the white paper is the absence of reliable data to measure and assess the offshore outsourcing phenomenon. We do not have good data on the offshore outsourcing problem. While there is more data available on manufacturing job loss – some 2.7 million jobs lost since 2000 – data on services and R&D jobs is much more difficult to track. While U.S. federal agencies like the Department of Commerce have improved their data collection on U.S. services trade (exports and imports) and foreign direct investment by multinationals (foreign and domestic), no federal agency measures services and R&D job losses which result from offshore outsourcing.

We do not have answers to such basic questions as: 1) what number and types of jobs are moving offshore (by occupation, wage and skill level); 2) what industries are being affected by offshoring; 3) to which countries are businesses shifting production; 4) what are the trends in offshoring – by industry and occupation. Estimates vary widely on the number of jobs moving overseas, and the lack of reliable data can contribute to incorrect conclusions about the impacts of offshore outsourcing, which can result in flawed policy responses. Simply put, without a clear understanding of the scope of the offshore outsourcing problem, we cannot develop effective

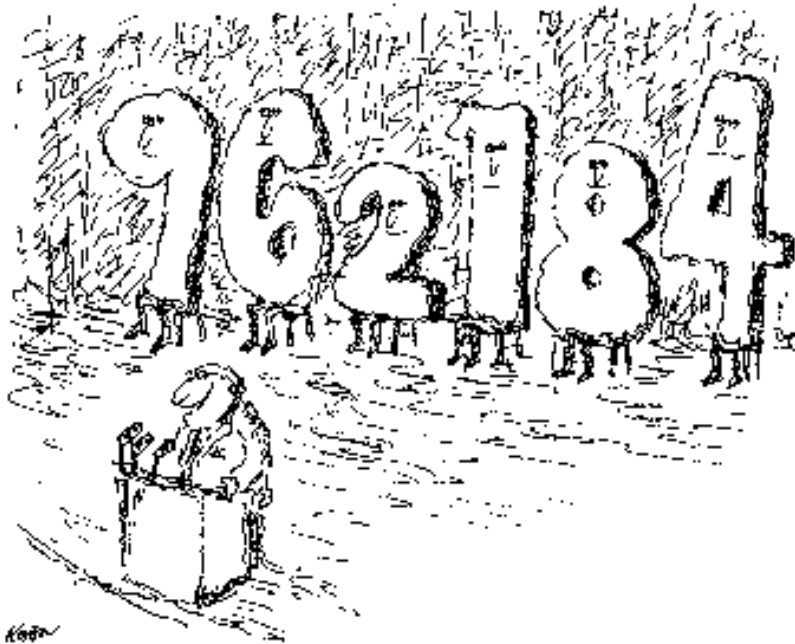
² “Offshore Outsourcing and America’s Competitive Edge: Losing Out in the High Technology R&D and Services Sectors”, Office of Senator Joseph I. Lieberman, May 11, 2004. This white paper follows on white papers issued by Senator Lieberman’s office on manufacturing jobs, semiconductors, and broadband. Web links to all white papers are contained in the executive summary of this report.

policy responses. And we must develop comprehensive policy responses – to encourage greater investments in federal and industrial R&D, K-16 education and lifelong training, enforce our trade agreements, as well as getting our fiscal house in order. Getting reliable and comprehensive data is the first step to building an effective offshore outsourcing strategy.

This paper assesses U.S. federal agency data collection of offshore outsourcing. It begins by identifying a series of questions that would be useful in measuring offshore outsourcing. The paper then summarizes ten U.S. government data sets that measure offshore outsourcing, enumerating strengths and weaknesses of each data set in measuring the offshore outsourcing phenomenon. Finally, the report identifies possible legislative recommendations for improving federal agency data to provide a more useful measure of offshore outsourcing. The report also lists potential problems that might be encountered in attempting to bring about legislative changes.

This report represents a beginning not an end. It is a first step in identifying what data should be collected by U.S. government agencies on offshore outsourcing. It is critically important that U.S. federal agencies regularly collect and analyze data on offshore outsourcing. We need to build permanent and ongoing capability in the Departments of Commerce, Labor, and other U.S. agencies to measure, track, and assess offshore outsourcing trends and the impact on U.S. wages, employment, and U.S. competitiveness.

When we have a clearer understanding of both the kind of data that would be useful in measuring offshore outsourcing as well as what data are actually being collected by U.S. government agencies, we can better identify the gaps and make improvements. Only when we successfully measure the offshore outsourcing phenomenon can we design public policies that successfully address the challenges to our workers and to our economy.



“Tonight, we’re going to let the statistics speak for themselves.”

SECTION ONE: **BACKGROUND**

A. CONTEXT FOR THE DATA DEBATE: **TWO RECENT STUDIES**

“Statistician – A man who can go directly from an unwarranted assumption to a preconceived conclusion.” - C. Kent Wright

The Government Accountability Office (GAO) issued a comprehensive report in September 2004 on government data available to measure offshoring of information technology and other services jobs.³ The GAO report is a thorough review of U.S. government data on the extent and effects of offshoring, focusing on information technology and other services. While much of the recent debate has focused on offshoring of computer software, call center, and information technology jobs, services job loss is only one aspect of offshore outsourcing. The GAO report considered three aspects of the offshoring phenomenon: 1) nature of offshoring activities and the factors that encourage offshoring; 2) what U.S. government data show about the extent of offshoring and factors encouraging it; and 3) available data on the effects of services offshoring on the U.S. economy.

³“Current Government Data Provide Limited Insight into Offshoring of Services”, Government Accountability Office, GAO-04-932, September 2004.

GAO's report made two major findings: 1) U.S. government data provide some insights into the extent of services offshoring by the private sector, but the data do not adequately capture business transactions that offshoring can encompass; and 2) government data provide only limited information about the effects of services offshoring on U.S. employment and the U.S. economy. While GAO makes no policy recommendations, the report is a thorough analysis of the current state of federal agency data on offshore outsourcing. The GAO report concluded that "a more complete understanding of the extent of this phenomenon will require further efforts."⁴

A second recent study, prepared for the U.S.-China Economic and Security Review Commission by researchers at Cornell University and the University of Massachusetts Amherst, looks at the impact of global production shifts to China and other countries on U.S. jobs and on the U.S. and global economy.⁵ The study's researchers conducted an extensive media-tracking exercise that examined a wide array of media sources for news of firm and job relocations. The study covered the period January 1, 2004 - March 31, 2004 and updated a similar report for the period October 1, 2000 - April, 30, 2001. The Cornell-UMass study highlights the lack of hard data to answer basic questions on the impact of offshore outsourcing on employment and economic security. The study states that, "Despite the attention paid outsourcing, there still exists no government agency that monitors production shifts out of the U.S. and the impact of these production shifts on U.S. wages, employment and taxpayer-supported social services, and tax revenue." The study urges governments to better monitor and track complex global capital and job shifts because of long-term effects on workers, employment, health, environment, and living standards around the globe.⁶

A few highlights of the Cornell-UMass study:

- 1) There has been a major increase in U.S. production shifts in the last three years, particularly to Mexico, China, India and other Asian countries. In January-March 2004, 255 U.S. facilities experienced production shifts out of the U.S.: 69 production shifts to Mexico, 58 to China, 31 to India, 39 to other Asian countries, 35 to Latin American and Caribbean countries. This compares to the earlier 2001 study with only 25 production shifts to China, 30 to Mexico, and 1 to India.
- 2) These shifts in production represent a global trend, with China the largest destination in terms of global production shifts (33% all global shifts), and 48% of production shifts out of the U.S. are simultaneous shifts to "near shore" countries in Latin America (mainly Mexico) as well as to offshore countries in Asia and elsewhere.
- 3) As many as 406,000 jobs will be shifted from the U.S. to other countries in 2004 compared to 204,000 jobs in 2001. This includes 99,000 jobs shifted from the U.S. to China, and 124,000 jobs shifted to Mexico.

⁴ GAO report "International Trade: Current Government Data Provide Limited Insight into Offshoring of Services" (GAO-04-932), released September 22, 2004, p. 47.

⁵ "The Changing Nature of Corporate Global Restructuring: The Impact of Production Shifts on Jobs in the U.S., China, and Around the Globe", U.S.-China Economic and Security Review Commission, prepared by Dr. Kate Bronfenbrenner and Dr. Stephanie Luce, Cornell University and University of Massachusetts, Amherst, October 14, 2004.

⁶ Cornell-UMass-Amherst study, p. 81.

- 4) The Department of Labor-Bureau of Labor Statistics' estimate of jobs lost due to shifts out of the U.S. grossly underestimates the total number of jobs lost. While BLS reported 4,633 private sector workers (in establishments with 50 or more workers) lost jobs due to offshore outsourcing in January-March 2004, the Cornell-UMass study confirmed an absolute minimum of 25,000 jobs shifting out of the U.S. during the same period.
- 5) Companies shifting jobs from the U.S. to China tend to be large, publicly held, profitable, and well established. 72% of the companies shifting jobs to China are owned by U.S. multinationals.
- 6) Three years after the original report, there continues to be no government-mandated reporting system to track production shifts out of the U.S. Absent government reporting, funding of private research is needed to track the effects of global capital mobility on U.S. workers and the U.S. economy.⁷

In preparing this report, we reviewed the GAO report, the Cornell-UMass study, Congressional Research Service reports, various Department of Commerce and Department of Labor reports, and industry publications. Staff conducted interviews with officials from the Department of Commerce (Bureau of Economic Analysis and Census Bureau) as well as the Department of Labor (Bureau of Labor Statistics and the Office of Trade Adjustment Assistance). We posed questions to both the Labor and Commerce Departments on the type of data collected, what the data measures, and whether the data is responsive to specific questions on offshore outsourcing including:

- 1) the numbers and types of jobs moving offshore (by occupation, skill level and wages);
- 2) re-employment prospects and success for U.S. workers displaced by offshore outsourcing;
- 3) number and types of R&D jobs being sent offshore (by industry category);
- 4) companies' near and long-term plans for transferring jobs overseas; and
- 5) the impact of offshore outsourcing on academic and career choices by U.S. students.

The types of questions posed to the Departments of Commerce and Labor are included in **Table 1** of this report ("Useful Data to Measure Offshore Outsourcing", p. 12).

As noted in the Introduction, this report sets out a "wish list" or "ideal template" of data that would be useful in measuring offshore outsourcing. Next, it summarizes ten existing U.S. government data sets that best measure offshore outsourcing, enumerating major strengths and weaknesses of each data set in measuring the offshore outsourcing phenomenon. The report then flags which federal government data best meet the data "wish list", noting weaknesses and gaps. Finally, the report proposes 5 legislative recommendations for improving federal agency data to provide a more useful measure of offshore outsourcing. The report also lists potential problems that might be encountered in attempting to bring about legislative changes.

This report represents a beginning. With the GAO and Cornell-UMass studies, this report is an initial effort in identifying what data are being collected by U.S. government agencies on the important issue of offshore outsourcing. When we have a clearer understanding of both the kind of data that would be useful in measuring offshore outsourcing as well as what data are actually being collected by U.S. government agencies, we can better identify the gaps

⁷ Cornell-UMass-Amherst study, pp. i-iii, p. 16, pp. 78-80.

and make improvements. Only when we successfully measure the offshore outsourcing phenomenon can we fashion public policies that successfully address the challenges to our workers and to our economy. We must work together to design strong, pragmatic public policies on offshore outsourcing.

B. DEFINITIONAL ISSUES WITH OFFSHORE OUTSOURCING

It's hard to fix a problem if you have trouble identifying it. This truth is particularly glaring in coming up with a definition of offshore outsourcing. It is important to have a definition that is widely accepted and assists in producing concrete measurable data. In the May 2004 white paper by the Office of Senator Joseph Lieberman on offshore outsourcing of services and R&D jobs, distinctions were drawn between outsourcing, offshoring, and offshore outsourcing. Outsourcing is a generic term used when companies contract out certain business functions to external suppliers, eliminating the need to maintain internal staff to perform these functions. Outsourcing can be done domestically inside the United States or outside it. Offshore outsourcing is the contracting of these business functions to companies in lower-cost, primarily developing nations. Offshoring is used to describe multinational corporations relocating work from their domestic sites to foreign locations.⁸

In its report on government data on services offshoring, the Government Accountability Office correctly states that there is no commonly accepted definition of offshoring. GAO's definition is limited to the services sector (due to the scope of the GAO report), and it defines offshoring of services as "an organization's purchases from abroad (imports) of services that it previously produced in-house or purchased from another domestic source."⁹

The Department of Commerce notes that offshore outsourcing is characterized by the purchase of goods and services produced abroad as a substitute for those produced domestically. Job losses result when U.S. workers are displaced from their jobs¹⁰ by either import competition or shifts in production.

Offshore outsourcing does not include the purchase of additional goods or services which do not *substitute for* domestic products but rather *supplement* it. An example would be a U.S.-based firm expanding by investing in its overseas affiliates rather than expanding its U.S. operations. This activity results in jobs being created overseas instead of in the United States, and results in no actual job losses in the United States. While not strictly "offshore outsourcing", the U.S. firm's decision to invest overseas represents potential U.S. job gains foregone. While

⁸ "Offshore Outsourcing and America's Competitive Edge: Losing Out in the High Technology R&D and Services Sectors", Office of Senator Joseph I. Lieberman, May 11, 2004, p. 7, citing distinctions made in Ron Hira's, "Implications of Offshore Outsourcing", January 23, 2004.

⁹ "Current Government Data Provide Limited Insight into Offshoring of Services", Government Accountability Office, GAO-04-932, September 2004, p. 2.

¹⁰ The Department of Commerce defines "outsourcing" as work done for a company by another company or people other than the original company's employees. It entails purchasing a product or process from an outside supplier rather than producing it in-house. The definition specifies that the business that is outsourcing will train an outsourcing provider to form a supply-chain partnership. Source: Department of Commerce, business terms directory called "Commerce-Database.com."

these foreign expansions may not be felt in the United States in the short run, they may eventually contribute to both slower U.S. job growth and increasing shares of imports consumed in the U.S. economy.

C. CONGRESS' 30-YEAR EFFORT TO OBTAIN DATA ON OFFSHORE OUTSOURCING

“Figures won’t lie, but liars will figure.”
-Charles H. Grosvenor, American labor leader

“Offshore outsourcing” is the current term for a process that has been ongoing for at least several decades. Congress has been trying to persuade agencies to measure the extent and effects of offshore outsourcing since the 1970s. Informal requests, oversight hearings, and legislative requirements have all been used to achieve this end. In the 1970s and 1980s, U.S. businesses were shifting manufacturing operations often to locations in the Far East. In the 1990s, the popularity of offshore manufacturing sites shifted to Mexico and then to China and other developing countries.

Since 2000, Congress has been increasingly concerned about offshore outsourcing of service sector jobs – to India, China and other rapidly growing developing countries. The white paper issued in May 2004 by the Office of Senator Joseph Lieberman looked at offshore outsourcing of services and R&D jobs to countries such as India and China. The report concluded that what we thought was our nation’s competitive advantage – our high-end services and R&D prowess – may be challenged as critical portions of our innovation infrastructure move overseas. To face this challenge, the United States must rise to the competition and grow through innovation.¹¹ The white paper also concluded that to get a true measure of the offshoring phenomenon, we must collect comprehensive reliable data.

Between 1993 and 2002, the best available data on offshore outsourcing related to trade with Mexico and Canada, with the North American Free Trade Agreement (NAFTA) entering into force in 1994. The data on offshore outsourcing were produced by two agencies: the Department of Labor and the Department of Commerce. The Department of Labor data on the North American Free Trade Agreement-Transitional Adjustment Assistance (NAFTA-TAA) program created under the NAFTA Implementation Act (P.L. 103-182) could be used to estimate job “losses” from trade with Mexico and Canada since NAFTA went into effect. Department of Commerce data on job “gains” from exports to Mexico and Canada and other foreign direct investment could be used to estimate counter-balancing job gains. The NAFTA-TAA database could be sorted to show NAFTA-related job losses by industry, by state, by reason for the job loss (imports or actual relocation of production), and by the trade partner involved in the job loss (Mexico or Canada). After 2002, these data ceased to be available.

¹¹ “Offshore Outsourcing and America’s Competitive Edge: Losing Out in the High Technology R&D and Services Sectors”, Office of Senator Joseph I. Lieberman, May 11, 2004, pp.2-3.

When the Trade Act of 2002 reauthorized and expanded the Trade Adjustment Assistance (TAA) program, it combined the NAFTA-TAA and regular Trade Adjustment Assistance programs. The new legislation offered hope that the NAFTA-TAA database would be expanded to show job losses to *any* country, and that for the first time, data on job “gains” and job “losses” from trade with or foreign investment in any country would become available. However, two years after the Trade Act of 2002 went into effect, the Department of Labor has produced no comprehensive data under the new TAA program similar to the data available under the old NAFTA-TAA program. Furthermore, the type of data regularly available under NAFTA-TAA (relating to Mexico and Canada), has been discontinued as has Commerce Department data formerly used to estimate counterbalancing job “gains” from trade.

D. ALTERNATIVE TO LACK OF FEDERAL DATA: PRIVATE SECTOR ESTIMATES

Amid the apparent dearth of U.S. government data on the extent of offshore outsourcing and the number of U.S. workers affected, non-government groups have published their own estimates of the number of workers affected by offshore outsourcing. Numerous private sector groups have published reports on offshoring, and many of these studies are cited in the white paper on offshore outsourcing of services and R&D jobs released in May 2004 by the Office of Senator Joseph Lieberman.¹² One of the private sector groups that has published data on offshoring is Forrester Research Incorporated, a research and consulting firm specializing in technology trends. Forrester recently increased their prediction of the number of U.S. service jobs outsourced overseas to 830,000 by 2005, with as many as 3.4 million service jobs moving offshore by 2015. Gartner, another industry research and analysis group, predicts that 10% of U.S. technology jobs will be moved offshore by 2005.¹³ A recent study on offshoring trends in the global telecommunications industry by the consulting firm Deloitte Touche Tomatsu predicts that by 2008, 5 percent of the global technological workforce, approximately 270,000 jobs, will be located in low-cost offshore centers in India, China, and Eastern Europe.¹⁴

There are a number of limitations to private sector estimates. First of all, the range of private sector estimates on offshore outsourcing varies widely, from several thousands to Forrester’s estimate that 3.4 million services jobs will move overseas by 2015. There has been limited effort at the private sector level to gather data on offshore outsourcing. Much of the data gathered is anecdotal or focused on industry sectors of interest to the private research group, or to the organizations which fund private sector estimates. Private studies vary by the range of industries or occupations examined, economic variables measured, and time frames of the analyses.¹⁵ Private sector estimates may be non-authoritative, based on incomplete information, lacking in transparent methodologies, and subject to biases of the groups producing them. Generally, private sector firms lack the authority and resources held by the federal data agencies to undertake comparable data gathering.

¹² “Offshore Outsourcing and America’s Competitive Edge: Losing Out in the High Technology R&D and

Services Sectors”, Office of Senator Joseph I. Lieberman, May 11, 2004.

¹³ Cornell - University Massachusetts Amherst Report, p. 5.

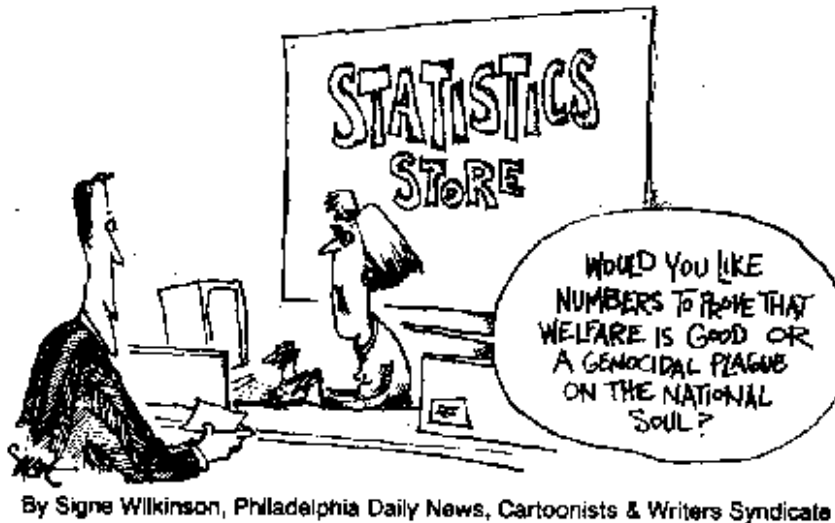
¹⁴ Cornell - University Massachusetts Amherst Report, p. 6.

¹⁵ GAO report, p. 42.

The implications of the lack of concrete, comprehensive and reliable data are significant. Lack of reliable data on the extent of offshore outsourcing may invite founded or unfounded fear among workers – especially in the services sector, which accounts for 83% of non-farm U.S. employment (86 million jobs in 2002) and 66% of U.S. GDP (including government) and 76% of private sector GDP.¹⁶ Lack of reliable, trustworthy and comprehensive data leads to an uninformed debate on effective policy options to address offshore outsourcing. With the unprecedented challenges facing the U.S. economy from globalization and the rise of competitors from China and elsewhere, having reliable data on offshore outsourcing is no longer an option but a necessity.

U.S. federal agencies, including the Department of Labor and Department of Commerce, are best able to produce the kind of systematic, comprehensive and unbiased data on offshore outsourcing. The Departments of Labor and Commerce already collect a variety of data which can be used to measure job gains and job losses from offshore outsourcing. Federal agency data is subject to regular reporting requirements, transparent data methodologies, and many of the surveys discussed in this report are mandatory, which can improve survey responses and overall data. We must take steps to identify the data needs on offshore outsourcing, which federal agencies are best capable to gather the necessary data, and how to improve federal data collection. Only then can we design effective policy options to address the offshore outsourcing phenomenon.

¹⁶ U.S. Bureau of Labor Statistics, Department of Labor, U.S. Department Commerce, International Trade Administration, Office of Service Industries.



SECTION TWO: DATA WE WOULD LIKE TO HAVE

USEFUL DATA TO MEASURE OFFSHORE OUTSOURCING

*“There are three kinds of lies: lies, damned lies, and statistics!”
-Benjamin Disraeli, British novelist and Prime Minister*

In a “perfect world”, data on offshore outsourcing and its impact on the U.S. economy would be available to answer questions about job losses from offshore outsourcing and counterbalancing job gains. An assessment of the impact of offshore outsourcing on U.S. employment levels and the overall economy must balance both job gains and job losses. **Table 1** on p. 12 sets out these questions together with short-hand answers on where the data can be found to respond to each question. This report will then analyze and assess all federal agency data on offshore outsourcing.

In prioritizing data needs, it would be most important to have data to answer the questions in Part A and Part B of **Table 1** - a total of 10 questions. Part A includes 6 questions on job losses from offshore outsourcing and Part B poses 4 questions on counterbalancing job gains. If data were available to answer all of the questions in Parts A and B in **Table 1**, the result would be a reasonably good picture of the positive and negative effects of offshore outsourcing on the U.S. economy, as well as on industries, states, and localities, and their workers. After data in Parts A and B are gathered, it would be useful to have the data in Part C of **Table 1**, which address 7 specific questions including the role of visa programs in offshoring operations and the impact of offshore outsourcing on career choices of U.S. students.

Table 1 shows that almost no data are being made available at this time to provide answers to any of the questions in **Table 1**. Much of the data is either unpublished or not being collected. Some data relating to U.S. exports and U.S. foreign direct investment (both foreign and domestic) are gathered by the Department of Commerce, but for the more detailed questions relating to offshore outsourcing (listed in Part C of **Table 1**), no U.S. government agency collects the data. The unavailability of basic data to answer the questions in Parts A and B (job losses and job gains from offshore outsourcing) is in sharp contrast to the comprehensive data that were available to answer similar questions related to Mexico and Canada under the North American Free Trade Agreement (NAFTA). These data were available between 1994 and 2003 but are no longer being published.

Table 1. Useful Data to Measure Offshore Outsourcing

Question	Location where answers can be found
A. Questions about job “losses” from offshore outsourcing:	
1. How many business operations are moving offshore?	Unpublished Trade Adjustment Assistance (TAA) data for covered countries; minimal data available in Bureau of Labor Statistics (BLS) Mass Layoff Survey.
2. What industries are affected?	Unpublished TAA data
3. From what states and localities are they moving?	Unpublished TAA data
4. To which countries are businesses shifting production?	Unpublished TAA data
5. How many workers are affected, by state, by industry, by cause (imports vs. production shift) and by country to which the plant is relocating or from which imports are arriving?	Unpublished TAA data
6. What is the re-employment experience of those workers displaced by offshore outsourcing (level and new wages and type of new jobs)?	BLS worker displacement surveys (some useful estimates)
B. Questions about counterbalancing job “gains” from offshore outsourcing:	
1. How much are exports increasing?	Available Department of Commerce export data; Census & BEA data.
2. What is the extent of job gains associated with increased exports?	Unpublished DOC jobs multiplier
3. What is the extent of new foreign direct investment in the United States?	Available DOC- BEA data.
4. What is the extent of job “gains” from foreign direct investment in the United States?	Available BEA data.
C. Additional questions for which data on offshore outsourcing would be useful include:¹⁷	
1. What are the number and types of jobs moving offshore by occupation, skill level, and wages?	No data are available.
2. What are the number and types of jobs created overseas by U.S.-owned companies for the purpose of exporting to U.S. markets compared to those created to serve foreign markets?	Some BEA data are available by affiliates, employment data are not.
3. What are the numbers and types of jobs created in the United States by foreign-owned companies for the purpose of selling in the U.S. market compared to those created to produce exports for overseas market?	Some BEA data are available by affiliates, employment data are not.
4. What are the companies’ near-term and long-range plans for relocating facilities and transferring jobs to overseas locations?	No data are available.
5. What is the impact of offshore outsourcing on academic and career choices by American students?	No data are available.
6. What is the role of H-1B and L-1 temporary visa programs on offshore operations by U.S. and foreign companies?	No data are available.
7. How many and what types of research and development jobs are being sent offshore?	No data are available.

Table prepared by Congressional Research Service

¹⁷ The first six questions on the list, plus the question on re-employment prospects of dislocated workers (Pt. A, question 6), were developed by Dr. Ron Hira, P.E., Assistant Professor, Public Policy, Rochester Institute of Technology.



SECTION THREE: **EXISTING FEDERAL DATA**

A. SURVEY FEDERAL DATA: STRENGTHS & WEAKNESSES

No federal government agency produces a unified measure of the entire offshore outsourcing data picture. At least two U.S. government agencies, the Department of Labor and the Department of Commerce, measure some aspects of the phenomenon, in a total of at least ten data sets.

This section identifies ten sets or series of government data collected or produced by the Department of Commerce or Department of Labor which are potentially useful for measuring offshore outsourcing.¹⁸ For each set, useful data for measuring offshore outsourcing are identified, assessing strengths and weaknesses of the data. **Appendix A** on pp. 36-37 is a side-by-side comparison of these ten federal government data sets.

¹⁸For an overview of Department of Commerce data potentially addressing issues of offshore outsourcing, see *Outsourcing and Insourcing Jobs in the U.S. Economy: Evidence Based on Foreign Investment Data* by James K. Jackson. CRS report RL32461.

Attempting to use existing government data to measure offshore outsourcing raises some problems. In general, these data sets were not designed to measure offshore outsourcing, and to the extent that they may be used to measure the phenomenon, their usefulness may be incidental or provide only partial answers. In addition, some of the data sets are from voluntary surveys, thus accuracy is limited by what businesses are willing to reveal about offshore outsourcing activities and the knowledge of the survey respondent. Offshore outsourcing has direct effects on U.S. employment that available data can partially capture. The Department of Labor collects a broad range of labor market data that provide information on employment trends. However, the Labor Department's data series were not designed to identify the causes for employment changes, thus the data do not provide information on the employment effects of offshore outsourcing.¹⁹

The Department of Labor has five basic data sets useful for measuring offshore outsourcing. Three are from the Bureau of Labor Statistics (BLS), and two are from the Employment and Training Administration (ETA). The Department of Commerce has two broad measures useful for measuring offshore outsourcing: 1) data on foreign direct investment by multinational corporations (both foreign and domestic); and 2) data on exports and imports of goods and services. Within these two broad measures are five separate data sets: four from the Bureau of Economic Analysis (BEA) and one from the Bureau of the Census. These ten data sets are discussed below, beginning with five data sets from the Department of Labor, followed by five data sets from the Department of Commerce.

B. DEPARTMENT OF LABOR DATA

- 1) The DOL-BLS Quarterly Mass Layoffs Associated with Domestic and Overseas Relocations Survey (MLS Survey).** This is a quarterly national survey measuring plant closings and layoffs in establishments with 50 or more workers, which report at least 50 layoffs (as measured by initial state claims filings for unemployment insurance) during a consecutive 5-week period, and the unemployment must last at least 30 days. The Mass Layoff Survey collects a wide array of economic and demographic information (including the total number of job separations and reasons for the separation) through use of administrative data and employer interviews. To enhance collection of offshoring-related data, in January 2004 BLS expanded the employer interview to include information on job loss associated with "movement of work", within the work establishment and to another establishment, both domestically and out of the country.

The term "moving work" means the company experiencing the layoff has reassigned work activities performed at a worksite by the company's employees: 1) to another worksite within the company; 2) to another company under formal arrangements at the same worksite; or 3) to another company under formal arrangements at another worksite. "Overseas relocation" is movement of work from within the U.S. to locations outside the U.S. and can occur within the same company or to a different company.

¹⁹ GAO report, p.32.

Movement of work questions are asked only after BLS analysts verify that the layoff has occurred, has lasted more than 30 days, and the reason for the separation is other than “seasonal work” or “vacation period”. If these criteria are met, the following three questions are asked:

- 1) “Did this layoff include your company moving work from this location(s) to a different geographic location(s) within your company?”
- 2) “Did this layoff include your company moving work that was performed in-house by your employees to a different company, through contractual arrangements?”

A “yes” response to either question is followed by:

- 3) “Is the location inside or outside of the U.S.?” and “How many of the layoffs were a result of this relocation?”

Layoff actions are classified as “overseas relocation” if employers respond “yes” to either question 1 or 2 and the location was outside the United States. A fourth question would be useful for BLS analysts to ask on movement of work: “What types of jobs are going offshore – by occupational and industry classifications, skill level, and wages?” Better occupational data on offshore outsourcing would assist policymakers develop more targeted job training, educational, and R&D investments to assist workers displaced by offshore outsourcing and to ensure that the U.S. economy remains competitive in the future.

Although Mass Layoff Survey data have the potential for being useful in measuring offshore outsourcing, as the GAO report notes, “due to the [survey’s] coverage limitations, its data should be viewed as an imperfect indicator of offshoring-caused job losses.”²⁰ While the movement of work questions were designed to better measure offshore outsourcing, they may not fully capture all business activity constituting offshore outsourcing. Further, the questions are asked only after a determination is made that the layoff does not result from seasonal work or vacation period, so some offshore outsourcing events will not be captured and measured.

Another serious limitation is that the Mass Layoff Survey does not include small establishments or layoffs involving fewer than 50 employees. The establishment size requirement is seen as a particular limitation in smaller states where employment is concentrated in establishments with 50 or fewer employees. In fact, the 2003 Mass Layoff Survey covered just 4.6% of all U.S. establishments and 56.7% of all U.S. workers.²¹

While the Extended Mass Layoff Survey does provide some data on industry distribution, state-level, and regional data associated with movement of work, the data aggregate domestic outsourcing with offshore outsourcing in almost all categories. For example, BLS gathers data on reasons for extended mass layoffs associated with movement of work. Reasons listed include automation, bankruptcy, contract completed, import competition, and reorganization within the company. “Reorganization within the company”, which accounted for 42 of the 80 reported mass layoffs associated with movement of work in the

²⁰ GAO report, p. 34.

²¹ GAO report, p. 34.

2nd quarter of 2004, is a broad category which could include domestic outsourcing or offshoring within the same company. Importantly, offshore outsourcing is not listed as a reason for extended mass layoffs.²²

Results for the Extended Mass Layoff Survey depend to a large degree on the quality of survey respondents, and some employers may be unwilling to provide information on the reasons for layoffs. In the first quarter of 2004, 7.2% of firms refused to participate in the Mass Layoff Survey.²³ In discussions with Bureau of Labor Statistics officials, concerns were raised about additional burdens placed on survey respondents if more detailed information on movement of work offshore is requested on the Mass Layoff Survey.

Despite these limitations, the Mass Layoff Survey does provide some information on offshore outsourcing, and enhancements made in January 2004 to the movement of work questions may yield improved data in the future. BLS has also prepared cost estimates of expanding survey results to cover layoffs of 25 or fewer employees (see p. 31 of this report). To date, data show that “overseas relocation” was given as a reason for mass layoffs for a small fraction of workers layed off during 1996-2003. Of 1.5 million layoffs reported in the 2003 MLS, 13,000 (0.9%) were reported as due to overseas relocation, and almost all layoffs (roughly 96%) occurred in the manufacturing sector.²⁴ It is worth noting that movement of work data was not collected by BLS until 2004, thus survey responses prior to 2004 do not provide the same quality and consistency as the movement of work data.

Between January–March 2004, BLS reported 126 total layoff actions attributable to movement of work. Of the 126 layoff actions, 38 were designated “out of country relocations” – 21 within the company and 17 to a different company – the latter would be considered offshore outsourcing.²⁵ BLS found that only 4,633 workers were separated from their jobs for at least 31 days as a result of movement of work outside the U.S. during the first quarter of 2004 – amounting to only 2.5% of the 239,361 private sector non-farm workers layed off due to overseas job relocations.²⁶

The Cornell-UMass study concludes that the BLS estimate of jobs lost due to overseas relocations grossly underestimates the total jobs lost. Cornell-UMass researchers were able to confirm that an absolute minimum of 25,000 jobs shifted out of the United States to other countries during the first quarter of 2004.²⁷ According to the Cornell-UMass study, the under-reporting reflects the limitations of “self-reporting by employers in a climate where there has been significant negative pushback from the media, politicians, and the general public on the outsourcing of U.S. jobs overseas.”²⁸

²² BLS News Release, Table 2, August 26, 2004.

²³ GAO report, p. 34.

²⁴ GAO report, p. 34.

²⁵ BLS News Release, Table C, August 26, 2004.

²⁶ Cornell-UMass Study, p. 7.

²⁷ Cornell-UMass Study, p. 56.

²⁸ Cornell-UMass Study, p. 7.

- 2) **The DOL-BLS Quarterly Business Employment Dynamics (BED).** This report is published quarterly and provides a broad picture of expansions and contractions, net job gains and losses by industry, for the U.S. economy, based on unemployment insurance records. The BED report does not include job gains or losses for government employees or private households. BED data provides a broad scope of business growth and contraction for any reason, not just offshore outsourcing. It is of limited use in measuring offshore outsourcing because it does not identify either discrete layoff or expansion events.
- 3) **The DOL-BLS Monthly Job Openings and Labor Turnover Survey (JOLTS).** This provides detailed monthly estimates of job openings, employee hires, and worker separations by industry and geographic region in all private non-farm establishments in 50 states and the District of Columbia. The survey covers approximately 16,000 establishments each month. While it provides considerable detail about job “gains” and “losses,” and is thereby useful as a backdrop against which to compare offshore outsourcing data, it does not specifically measure aspects of offshore outsourcing.
- 4) **The DOL-BLS Biennial Worker Displacement Survey.** This survey is published by BLS and conducted every other year, reports on re-employment experience of workers displaced from full-time jobs they have held for at least three years. This survey shows the job status and new salary experience three years later. It shows whether people are re-employed full-time, part-time, or alternatively, whether they have dropped out of the labor force. For those re-employed full-time, it also shows the new salary relative to the old salary: 20% or more below, 1-19% below, 1-19% above, or 20% or more above. These data are useful in measuring aspects of offshore outsourcing. However, they could be even more useful if they could show specific re-employment experience of those who lost their job to offshore outsourcing as a separate subset of all those who lose jobs held at least three years.
- 5) **The DOL-ETA Office of Trade Adjustment Assistance (TAA).** The TAA Office collects application forms of all workers applying for certification to determine eligibility for TAA benefits, which include income replacement and job training benefits. The Labor Department-Employment and Training Administration receives approximately 3,000-4,000 TAA petitions each year and certifies roughly 200,000 workers eligible for TAA benefits.

Workers eligible for TAA benefits must be involved in producing “articles.” In addition, among other requirements, the actual or threatened job separation must result from: 1) increased imports; or 2) a shift in production to: a) a country which is a party to a free trade agreement with the United States; b) a beneficiary country under the Andean Trade Preference Act (ATPA), the African Growth and Opportunity Act (AGOA), or the Caribbean Basin Economic Recovery Act (CBERA),²⁹ or c) any other country if there has

²⁹ TAA provisions are included in P.L. 107-210, Div. A, Sec. 113. Countries referenced by 2a or 2b above total 72, as follows: **Andean Trade Preference Act:** Bolivia, Colombia, Ecuador, and Peru (4 countries). **African Growth and Opportunity Act:** Angola, Benin, Botswana, Cameroon, Cape Verde Islands, Chad, Congo, Djibouti, Ethiopia, Gabon, Gambia, Ghana, Guinea, Guinea Bissau, Ivory Coast, Kenya, Lesotho, Madagascar, Malawi, Mali, Mauritania, Mauritius, Mozambique, Namibia, Niger, Rwanda, Sao Tome and Principe, Senegal, Seychelles, Sierra Leone, South Africa, Swaziland, Tanzania, Uganda, and Zambia (35 entities). **Caribbean Basin Economic Recovery Act:** Antigua, Barbuda, Aruba, Bahamas, Barbados, Belize, British Virgin Islands, Costa Rica, Dominica, Dominican Republic, El Salvador, Grenada, Guatemala, Guyana, Haiti, Honduras, Jamaica, Montserrat, Netherlands Antilles, Nicaragua, Panama, St. Christopher and Nevis, St. Lucia, St. Vincent and the Grenadines, and Trinidad and Tobago (25 entities). **Countries with**

been or is likely to be an increase in imports of articles like or directly competitive with articles produced by the worker's firm or subdivision.³⁰ All these TAA provisions are contained in P.L. 107-210, Sec. 113(a), which discusses eligibility requirements for the Trade Adjustment Assistance Program.

Determining eligibility for TAA benefits and understanding the TAA statute are no easy tasks. Provision 2 (c) in the prior paragraph is arguably confusing. It specifies the only other condition under which a person whose production operation shifts to a country that is not covered by 2(a) or 2(b) would be eligible for TAA benefits: if U.S. imports "like or directly competitive with" those articles the worker's firm produces are likely to *increase*. The requirement for an increase in imports makes no reference to any time period by which this must occur. Moreover, provision 2(c) does not appear to require that the increase in imports must come from the country to which the production relocates.

Another limitation of the TAA law is seen in provisions 2(a) and 2(b) which deal with shifts in production to certain countries. In reviewing those countries to which production shifts determine worker eligibility for TAA benefits – a total of 72 countries listed on the TAA website and included in footnote 28 – we see that the list does not include China and India which are major destinations of offshore outsourced jobs. **Appendix B** to this report is a chart containing a complete listing of U.S. trading partners – a total of 230 countries ranked in importance by bilateral trade flows with the U.S. **Appendix B** highlights the lack of country coverage for TAA benefits – those countries marked with an "X" meet the requirements for TAA shifts in production, as these countries either have a free trade agreement with the United States or are beneficiaries of a trade preference program – a total of 72 countries. Limiting TAA benefits for production shifts to these 72 countries is a major weakness in the TAA law, which Congress should change. At a minimum, workers should be eligible for TAA benefits if they lose their jobs due to production shifts to any of the 148 countries that are members of the World Trade Organization. Section Four of this report proposes five legislative recommendations to improve data collection, including several changes to the Trade Adjustment Assistance Program.

Despite TAA's statutory limitations, the TAA data forms themselves provide a rich source of information on workers who lose their jobs to offshore outsourcing, since eligible workers under the TAA program are essentially those whose jobs are outsourced offshore. Data in the TAA database include product produced, company name and address, and estimates of the number of workers affected in the layoff. A major problem with these data is that they are not being made available. This is in sharp contrast to full data sharing which

which the United States has free trade agreements: Canada, Mexico, Singapore, Israel, Australia, Chile, Jordan, and Morocco (8 countries).

³⁰ Some major developing country trading partners which are not referenced by 2(a) or 2(b) (shifts in production to countries with trade agreement or trade preference agreement with the U.S.), but might be covered by 2(c), and their *ranking* in total merchandise trade with the United States (exports plus imports in 2003) are: China, (3) Korea (7), Taiwan (8), Malaysia (10), Brazil (15), Saudi Arabia (17), Hong Kong (18), Thailand (19), Venezuela (20), Philippines (24), India (25) – India's real increase in trade with the United States has been in services rather than goods). For a complete listing of trading partner countries, their trade volume, and status in the World Trade Organization, under the African Growth and Opportunity Act, the Caribbean Basin Economic Recovery Act, the Andean Trade Preference Act, as partner to a U.S. free trade agreement, see **Appendix B** to this report on pp. 38-43. 18

occurred under the NAFTA-TAA program, which was subsumed under the reauthorized TAA program in November 2002 under the Trade Act of 2002. (P.L. 107-210.)

Other weaknesses of the TAA data set are: a) the TAA program, for the most part, does not cover service sector workers – only workers producing goods (“articles”); b) the TAA program does not cover workers who lose their jobs due to production shifts to *all* countries. Of 148 member countries of the World Trade Organization, TAA benefits are available for jobs lost as a result of production shifts to 72 countries. Key offshoring destinations (including India and China) are not on the list of TAA eligible countries; c) there is no annual reporting requirement for TAA; and d) there are no sanctions for failing to produce or share data. This lack of enforcement for TAA data contrasts with the Workforce Investment Act which does have sanctions for failure to produce data.

The Cornell-UMass study noted that the TAA process is neither simple nor guaranteed, and filing a successful TAA petition can be challenging for small groups of workers who may not have the assistance of union representatives, supportive employers, or local politicians. The study found that workers filed TAA petitions in only 31 percent of cases where researchers identified production shifts out of the United States.³¹ TAA petitions were most commonly filed for production shifts to China (43% of all TAA petitions during the January-March 2004 period) and least commonly filed for shifts to India (7%) and Eastern Europe (17%).³²

C. DEPARTMENT OF COMMERCE DATA

The Department of Commerce produces data in two broad categories which is useful in providing some measure of the extent of offshore outsourcing: 1) trade (imports and exports) in goods and services between U.S. and foreign entities; and 2) investment by multinational corporations, both direct investment abroad by U.S. multinationals and foreign multinationals’ investment in the United States. The Bureau of Economic Analysis’ foreign direct investment data tracks levels and changes in domestic and foreign employment, average wages paid by U.S. parent companies and their foreign affiliates, production, and capital expenditures of both U.S. multinationals and foreign-owned companies in the United States.

However, the data do not provide a complete picture of offshore outsourcing. The GAO report notes that while Commerce data show an increase in U.S. imports of services associated with offshoring (including information technology and business and professional services), the data do not identify whether these imports were previously produced by U.S. employees.³³

- 1) **DOC-BEA Data on U.S. Direct Investment Abroad.** Data on U.S. direct investment abroad are part of an extensive data set on multinational corporations, from which data at fairly aggregated levels are published on employment levels, gross product, intra-firm trade and research and development expenditures. Multinational investment data can provide information of some aspects of offshoring, including supplier countries and the distribution of labor and assets between a U.S. parent company and its foreign affiliates.³⁴

³¹ Cornell-UMass Study, p. 32.

³² Cornell-UMass Study, pp. 31-32.

³³ GAO Report, p. 15.

³⁴ GAO Report, p. 24.

The GAO report found that the majority of U.S. foreign direct investment is concentrated in developed countries (60% of U.S. FDI accounted for by the European Union, Canada and Japan in 2002), while U.S. direct investment in countries cited as suppliers of offshore services (e.g. India, Philippines, and Malaysia) accounted for about 4% or less of total U.S. foreign direct investment in each country.³⁵ BEA data also suggest that U.S. multinationals invest in their foreign affiliates primarily to serve overseas markets and not to supply services back to the United States. While this data is useful, it does not provide a direct measure of U.S. job losses as a result of offshore outsourcing.

There are several weaknesses in BEA's multinational foreign direct investment data for purposes of measuring offshore outsourcing. First, the data do not show whether multinational direct investments replace U.S.-based operations or substitute for exports to foreign markets that would have been supplied by U.S.-based operations.³⁶ If the investment represents sales or growth foregone and does not replace a U.S. job, this is not considered offshore outsourcing.

BEA multinational data does provide information on the number of employees U.S. companies have in foreign countries (as well as the number of U.S. employees of foreign multinationals in the U.S.), however this aggregate data does not measure job gains or job losses resulting from offshore outsourcing. While BEA has designed a benchmark survey of U.S. direct investment abroad (which will break down employment of U.S. parent companies and foreign affiliates into separate categories for managerial, professional and technical employees), similar limitations apply as a measure of offshore outsourcing. Finally, while BEA has made some progress in accelerating the release of its data, publication of these data typically lags 18 months behind the economic activity reported.

- 2) **DOC-BEA Data on Foreign Direct Investment in the United States.** Data on foreign direct investment in the United States are part of the Department of Commerce data set on multinational corporations. These data include U.S. employment estimates for foreign corporations from various countries. These data lag economic activity by 18 months. This data may provide information on the “insourcing” phenomenon – jobs created in the United States as a result of foreign sales and investment in the United States. It is important to have this data to counterbalance the jobs lost to offshore outsourcing and to get a complete picture of employment effects of offshore outsourcing.
- 3) **DOC-BEA Data on Services Sector Exports and Imports.** These data are part of an extensive data set on the U.S. economy. BEA collects data on trade in private services between U.S. and foreign entities (including companies or individuals). These data can be used to track job gains and losses resulting from the export and import of services. These data are most useful as inputs into other analyses. BEA data shows that U.S. imports of business, professional and technical services – many of the services associated with offshore outsourcing (including accounting, computer processing, and engineering services) - grew 76.9% between 1997-2002 (from \$21.2 billion to \$37.5 billion). However, the BEA data do not show whether the U.S. entities that imported the foreign services had previously purchased these services from domestic U.S. sources.³⁷ Thus, the data do not provide a complete measure of offshore outsourcing. Further, despite the focus on India and China as leading offshore outsourcing centers, Canada and the United

³⁵ GAO report, p. 24.

³⁶ GAO report, p. 27.

³⁷ GAO report, p. 18.

Kingdom are the leading exporters of business, professional and technical services to the United States, together accounting for 46.3% of all imports of unaffiliated business, professional and technical services to the U.S. Only 1.9% of total U.S. imports of business, professional and technical services came from India.³⁸

BEA data on services differentiate between affiliated and unaffiliated trade, with affiliate trade occurring between foreign affiliates and their U.S. parent companies or between foreign parent companies and their U.S. affiliates. While affiliate trade accounted for 71% of all U.S. imports of business, professional and technical services (BPT), BEA data does not break down affiliate trade data by country or by sub-category of BPT services (computer, legal, engineering, etc.)³⁹ This absence of country data and services categories is a limitation of BEA data. Data on affiliated entities in the “other private services” category are available by country, and trade between unaffiliated entities is broken down by country and services sub-category. However trade between unaffiliated entities amounts to a much smaller percentage of services trade than trade between affiliated entities.

4) DOC Jobs “Multiplier” based on Input-Output tables of the U.S.

Economy. The jobs “multipliers” are derived from an input-output table of the U.S. economy, which shows the relationship of inputs to outputs in the various production processes. Multipliers incorporate employment-output ratios for various sectors. Multipliers typically reflect the number of jobs required to produce a billion U.S. dollars worth of goods and/or services exports. The product of the multiplier and the total value of exports, in billions, yields an estimate of the total number of workers required to produce those exports. For NAFTA’s first nine years, multipliers were quite useful in estimating job “gains” from exports to Mexico and Canada that counterbalanced job “losses” to new imports or production shifts.⁴⁰ While multipliers are useful in estimating job growth from new exports, they have not been published by the Department of Commerce since 2000.

5) DOC-Bureau of the Census Data on Goods Exports. The Bureau of the Census produces an enormous variety of data (350 reports annually), including an economic census every five years and annual data on goods and services produced. Collecting offshoring data is less a focus for Census, where data tends to measure economic activity rather than employment levels. Census does produce monthly data on exports and imports of goods that parallel Bureau of Economic Analysis data on services. These data can be used to track gains and losses in exports and imports in specific industries. These data can also be used with the BEA multiplier to estimate job “gains” from exports. Publication of the Census data lags economic activity by about a year.

³⁸ GAO report, p. 20.

³⁹ GAO report, p. 18.

⁴⁰ U.S. Department of Commerce, Economics and Statistics Administration. *U.S. Jobs Supported by Goods and Services Exports, 1983-94*, November 1996, updated through 2000 first by the Department of Commerce and later by the Office of the U.S. Trade Representative.

D. SUMMARY: BEST DATA FOR OFFSHORE OUTSOURCING

“He uses statistics as a drunken man uses lamp-posts - for support rather than for illumination.” – Andrew Lang

Existing published federal data provide very little information on the extent of offshore outsourcing, and resulting job losses, and on counterbalancing job gains. Thus, the data offer little useful information to answer the questions in **Table 1** about how many business operations are moving offshore, what industries they represent, what states they are moving from, where they are relocating to, and how many workers are affected.

In assessing the ten data sets discussed in the previous section, the greatest potential source of comprehensive data on offshore outsourcing is the application forms for worker certification under the Trade Adjustment Assistance Program of the Department of Labor-Employment and Training Administration. Data from these forms, however, which were available between 1994 and 2002, are no longer being made available.

The second most potentially useful source of data is the Department of Labor -Bureau of Labor Statistics quarterly survey on Extended Mass Layoffs Associated with Domestic and Overseas Relocations. However, because the results of this survey do not sufficiently differentiate between domestic and offshore “movement of work” (a measure of outsourcing), these data are of limited use and include only summary numbers of businesses which shift production abroad. Confidentiality requirements, which prevent BLS from publishing information which could lead to the identification of individual employers, also limit detailed data reporting on movement of work. In addition, BLS data miss production-shifting businesses which let go fewer than 50 workers within a five-week period. Other surveys produced by the Department of Labor are not specifically focused on offshore outsourcing. The Dislocated Worker Survey offers some information on re-employment experience of displaced workers, but displaced workers include those who lose jobs for all reasons, and are not limited to displacement resulting solely from offshore outsourcing.

Department of Commerce data on counterbalancing job gains are also limited, primarily because the Commerce Department no longer publishes the jobs multiplier – the vehicle through which the number of jobs supporting total U.S. exports may be determined from export data. If this jobs multiplier were available, counterbalancing job gains could be determined, since good data exist on U.S. exports – and thus on new exports from expanded trade. BEA data are also available on U.S. jobs supported by foreign direct investment in the United States, by industry.

A more detailed analysis of the best available U.S. government data on offshore outsourcing is included in the next section.

E. ASPECTS OF OFFSHORE OUTSOURCING POTENTIALLY MEASURABLE WITH EXISTING DATA

*“The facts, all we want are the facts.”
- Jack Webb, American actor, as Sergeant Joe Friday in “Dragnet”*

Of the ten data sets, three from the Department of Labor and four from the Department of Commerce are among the most useful in measuring job losses from offshore outsourcing and counterbalancing job gains from exports and foreign direct investment. These seven data sets come closest to answering at least some of the questions listed in **Table 1** (p. 12). The strengths and weaknesses of these seven data sets are summarized in **Appendix A** (pp. 36-37).

THREE DEPARTMENT OF LABOR DATA SETS MEASURING LOSSES FROM OFFSHORE OUTSOURCING

1) Trade Adjustment Assistance Data

Trade Adjustment Assistance (TAA) data provide some estimates of the extent of business movement offshore, the states and localities they are moving from, the countries they are shifting production to, the industries affected, and the number of workers affected by state, industry, cause (imports or production shift) and country involved (i.e. to which the plant is relocating or from which the imports are arriving). These data are collected from applications to determine eligibility for benefits under the TAA program.

There are several problems with the TAA data. First and foremost, TAA data are not being made available. This is the case even though application forms which grant or deny certification for TAA benefits are being filed with the Department of Labor, Employment and Training Administration, Office of Trade Adjustment Assistance. This current lack of availability of TAA data contrasts to what occurred under the NAFTA-TAA program which existed between 1994- 2002. During that 8-year period, all the data listed in the above paragraph were available from the TAA database.

Second, the TAA data do not capture the offshore outsourcing of services. This is because the TAA legislation itself covers only workers who produce goods.⁴¹ For the TAA data to cover the extent of services that are offshore outsourced would require Congress to amend the Trade Adjustment Assistance legislation.

Third, the TAA data do not capture the offshore outsourcing of all workers producing goods. While the legislation covers most workers producing articles, it does not include workers who fall between the definitional “cracks.” This group includes primarily job losers producing

⁴¹ In some cases, workers providing services closely connected with goods-producing operations are also eligible for TAA benefits.

for export, whose plant relocates to a country other than those specifically covered by the TAA legislation,⁴² and that country is not one from which an increase in imports is likely.

2) Extended Mass Layoff Survey

An alternate source for gross estimates of the number of businesses undertaking new offshore outsourcing activities is the Survey on Extended Mass Layoffs Associated with Domestic and Overseas Relocations, prepared by the Department of Labor-Bureau of Labor Statistics. This survey provides aggregate totals on the movement of work abroad.

There are several limitations with the BLS data previously discussed, among them the extended mass layoff data are obtained by voluntary reporting, rather than required records as under the Trade Adjustment Assistance Program. The survey covers only layoffs that include 50 or more workers laid off at the same time. Thus, this survey would exclude layoffs and closings in smaller plants, and layoffs characterized by periodic layoffs of smaller numbers of workers. Another significant limitation is that the data are not broken out to show details on movement of work abroad – such as distribution of layoffs by industry or region of the country affected by the layoff.

3) Worker Displacement Survey

The Department of Labor-Bureau of Labor Statistics Worker Displacement Survey reports on re-employment experience (one to three years later) for all workers who held full-time jobs for at least three years before being laid off. These data show the extent of displaced workers who are re-employed full-time or part time, or who have dropped out of the labor force. In addition, for all full-time workers, the data show the new salary levels relative to salary levels in the previous position, specifically measuring wages more than 20% below, 1-19% below, 1-19% above, or more than 20% above.

One limitation with the Worker Displacement Survey is the data include all long-term job losers, and not just those whose job loss resulted from offshore outsourcing. This is a limitation of much of the federal agency data on offshore outsourcing. Nevertheless, Worker Displacement Survey data offer a reasonable perspective on the re-employment experience of workers displaced from full-time jobs held for three or more years.

FOUR DEPARTMENT OF COMMERCE DATA SETS MEASURING GAINS FROM OFFSHORE OUTSOURCING

Data on job “gains” is necessary to provide a balance for job “losses” from offshore outsourcing. Available data on job “gains” comes from both U.S. exports and foreign direct investment in the United States. The Department of Commerce collects data on both U.S. exports (of goods and services) and foreign direct investment data in the United States.

1) – 3) Extent of “Gains” including Job “Gains” from New Exports

⁴²For a list of the 72 countries to which shifts in production give workers eligibility for TAA benefits, see footnote 29. These 72 countries either have a trade agreement or a trade preference agreement with the United States.

The Department of Commerce has at least three sets of data that provide detail on exports of goods (Census Bureau) and services (Bureau of Economic Analysis). The three data sets include:

- 1) U.S. goods exports (Census Bureau);
- 2) U.S. services exports (BEA); and
- 3) estimates of “jobs multipliers” (shows the number of jobs supported by \$1 billion worth of U.S. exports, Economics and Statistics Administration and International Trade Administration have done work relating to the jobs multipliers).

These jobs multiplier data are provided both in the aggregate and by industry. In addition, export data can be multiplied by the jobs multiplier to estimate the total number of jobs that produce those exports. The major issue is that the jobs “multipliers” themselves (produced by a BEA model of the U.S. economy), are not currently published. This is in contrast to multipliers that were published to estimate job “gains” from exports in the 1990s. Accuracy of the multipliers is also dependent on regular updating of the model.

4) Extent of “Gains” from Foreign Direct Investment (FDI)

The Department of Commerce (Bureau of Economic Analysis) produces annual data on foreign direct investment in the United States. This extensive data on multinational corporations can be used to establish the number of U.S. jobs supported by foreign direct investment. BEA data on foreign direct investment in the United States are limited because publication of data lags economic activity by 18 months.

F. SUMMARY OF PROBLEMS WITH FEDERAL DATA ON OFFSHORE OUTSOURCING

A closer look at the data potentially available to answer questions in **Table 1** (Useful Data to Measure Offshore Outsourcing, p.12) shows several problems. The major problem with the Trade Adjustment Assistance data is that they are not being made available as they were between 1994 and 2002. An additional data problem stems from the law which authorized the TAA program. First, the TAA law does not provide benefits to service sector workers who are displaced because their jobs are outsourced offshore.

A second limitation of the TAA law is that it does not provide benefits to all goods-producing workers whose jobs are outsourced offshore. Specifically, the law does not authorize TAA benefits for workers whose jobs are outsourced to countries which are not eligible for benefits under the Africa Growth and Opportunity Act (AGOA), the Caribbean Basin Economic Recovery Act (CBERA), the Andean Trade Preferences Act (ATPA), or countries which have a trade agreement with the United States, *unless* U.S. imports of the type of product produced by the displaced worker are expected to increase. The TAA law contains no reference to a specific time period within which that increase must occur.

A review of the TAA law shows that benefits are available for workers who lose their jobs as a result of production shifts to countries with which the United States has a free trade agreement or has a trade preference agreement, namely the African Growth and Opportunity Act, the Caribbean Basin Economic Recovery Act, and the Andean Trade Preference Act. The TAA website lists 72 countries that meet these requirements (footnote 29 of this report lists the 72

countries). Importantly, the TAA law does not specifically include China, India and other key U.S. trading partners on the list of countries to which production shifts give TAA eligibility.

China and India are also major offshore outsourcing destinations and their apparent exclusion for TAA benefits is a significant weakness with the TAA law. **Appendix B** (pp. 38-43) is a complete listing of U.S. trading partners, 230 countries ranked by their bilateral trade with the United States. **Appendix B** indicates which countries are WTO members, and denotes with an “X” the 72 countries that meet TAA’s production shift requirements. The list highlights the limitations in the TAA program as key trading partners are not covered. Congress should consider expanding the TAA statute to cover shifts in production to all WTO Members (currently 148 countries), not just those countries that have a free trade agreement or trade preference agreement with the United States.

The Bureau of Labor Statistics’ Extended Mass Layoff Survey data are of limited usefulness in estimating the number of jobs lost to offshore outsourcing. The data exclude smaller groups of workers who are let go (i.e., in establishments with 50 or fewer workers). The BLS survey is also done quarterly which means that the number of offshore outsourcing events may be too small (a minimum of three events are needed) to be reported without violating confidentiality requirements. Another significant limitation is that the data are not broken out to show details on movement of work abroad – such as distribution of layoffs by industry or region of the country affected by the layoff.

BLS’ Worker Displacement Survey is useful in reporting on re-employment and wage experience of workers one to three years after they have lost their job; however, the re-employment experience of workers displaced from offshore outsourcing is not disaggregated from the re-employment experience of all displaced workers.

Department of Commerce data to estimate gains, including job gains from offshore outsourcing, are missing a major useful element: a jobs “multiplier,” which is no longer being published. The jobs “multiplier” incorporates employment-output ratios and output concentrations in each industry. As such, it represents the average number of jobs required in the U.S. economy to produce a billion dollars worth of exports. When this number is multiplied by the value of exports, the result is an estimate on the total number of jobs producing for export.

Table 2. Aspects of Offshore Outsourcing Potentially Measurable with Existing Data and Problems with those Data

Useful Data	Data Set and Agency With Data	Some Problems With the Data
Data on "Losses" from Offshore Outsourcing		
<ul style="list-style-type: none"> → Number of businesses moving offshore? → What states and localities are they moving from? → What countries are they shifting production to? → What industries are affected? → How many workers are affected: by state, by industry, by cause (imports or production shift), and by country to which the plant is relocating or from which imports are arriving 	<ul style="list-style-type: none"> ✦ Trade Adjustment Assistance program data from DOL-ETA Office of Trade Adjustment Assistance 	<ul style="list-style-type: none"> ■ TAA data are not being published or made available as under the NAFTA-TAA program ■ Data do not cover most workers producing services ■ Data do not cover all workers producing goods
<ul style="list-style-type: none"> → Aggregate totals on movement of work abroad 	<ul style="list-style-type: none"> ✦ Extended Mass Layoffs Associated with Domestic and Overseas Relocations Survey from DOL-BLS 	<ul style="list-style-type: none"> ■ Data are obtained from voluntary survey rather than from required records ■ Because data are reported quarterly instead of annually, the sample size is often fewer than 3 businesses and detail on "reasons" for production shifts cannot be listed ■ Survey covers only layoffs of 50 or more workers
<ul style="list-style-type: none"> → Re-employment and new salary experience of job losers 	<ul style="list-style-type: none"> ✦ Worker Displacement Survey by DOL-BLS 	<ul style="list-style-type: none"> ■ Data are not limited to those whose job loss results from offshore outsourcing
Data on "Gains" from Offshore Outsourcing		
<ul style="list-style-type: none"> → Extent of "gains" including job "gains" from exports. The estimate uses three sets of data (see next column) 	<ul style="list-style-type: none"> ✦ Estimates of "multipliers" showing the number of jobs supported by a billion dollars worth of U.S. exports, by DOC ✦ Data on U.S. goods exports from DOC-Bureau of the Census ✦ Data on U.S. services exports from DOC-BEA 	<ul style="list-style-type: none"> ■ Multiplier estimates are no longer published as in the 1990s to estimate job "gains" under NAFTA
<ul style="list-style-type: none"> → Extent of "gains" from foreign direct investment in the United States, and the jobs that investment supports 	<ul style="list-style-type: none"> ✦ Annual data on foreign direct investment in the United States from DOC-BEA 	<ul style="list-style-type: none"> ■ Data lag economic activity by 18 months

Source: Congressional Research Service



Cartoons from the Third Edition of *Success at Statistics: A Worktext with Humor*

SECTION FOUR: **RECOMMENDATIONS**

LEGISLATIVE RECOMMENDATIONS TO IMPROVE **FEDERAL DATA ON OFFSHORE OUTSOURCING**

Five possible legislative recommendations to improve existing data on offshore outsourcing are discussed below. Retaining the status quo is also included. These legislative recommendations, including strengths and weaknesses of each recommendation, are included in a chart at **Table 3** (pp. 34-35).

A. DO NOTHING

Retain the Status Quo

Some argue that no legislation is necessary – that there is no problem in not having data to measure offshore outsourcing. Proponents of the status quo argue that data on the nature and extent of offshore outsourcing are not needed as a basis for Congressional policy-making, and that private sector data are sufficient sources of data to measure offshore outsourcing.

It seems clear that more comprehensive data are needed to better inform policy-making. Better data on offshore outsourcing could demonstrate whether expansions in

existing assistance programs or additional programs may be needed to help workers adversely affected by offshore outsourcing. In the absence of federal data, private sector data of offshore outsourcing has filled the void. Limitations of private sector data include that estimates on offshore outsourcing are not widely available, may be expensive to obtain, and may also be non-authoritative, based on incomplete information, lacking in transparent methodologies, and subject to the biases of groups producing the data. Federal data has certain advantages including data gathering methodologies are transparent, many data surveys are mandatory and regularly collected (making analysis and comparisons easier), and federal agencies are less likely to be subject to bias in producing data. If federal data is viewed as less biased, the data produced will be trusted and relied upon.

B. DO SOMETHING

The next section outlines five legislative recommendations that might be taken to produce data that would offer some estimates of the extent and nature of offshore outsourcing. These recommendations range from amending existing legislation to increasing federal agency reporting requirements.

Recommendation 1: Extend the Trade Adjustment Assistance (TAA) Program

One recommendation is to extend the TAA program to cover two groups of workers not presently covered who lose their jobs to offshore outsourcing: a) all service sector workers; and b) workers producing “articles” who are currently not covered under Sec. 113 of Title I of the Trade Act of 2002 (P.L. 107-210). Sec. 113 provides TAA benefits to workers if they lose their jobs due to shifts in production to certain countries, primarily countries with which the United States has a trade agreement or a trade preference program (see footnote 29 for a list of these 72 countries).

On the first issue of covering all displaced service sector workers, there are a number of benefits in making this change to the legislation authorizing the TAA program. Aside from issues of equality in having the Trade Adjustment Assistance Program cover all workers who lose their jobs to offshore outsourcing, extending the program would result in data covering virtually the complete range of jobs lost to offshore outsourcing. From these data, analysts could estimate the effects of offshore outsourcing on the nation as a whole, on individual industries, and on states and localities. One drawback of expanding the TAA program to provide benefits to services workers whose jobs are lost to offshore outsourcing is that the program would cost more. No estimate has been made on additional costs to the TAA program resulting from covering services workers who lose their jobs due to offshore outsourcing.

Legislation has been introduced in the 108th Congress to extend the TAA program to cover service sector workers. Senator Lieberman co-sponsored “The Services Workers Fairness Act” (S. 2143), introduced by Senator Durbin, to ensure that services workers losing their jobs to offshoring are eligible for TAA benefits. Senator Lieberman also supported an amendment to the Senate version of the Foreign Sales Corporation-Extraterritorial Income Act bill (S. 1637) introduced by Senators Wyden, Coleman, and

Rockefeller to extend the TAA program to cover services workers. While the amendment failed to pass, Congress must continue efforts to extend TAA benefits to all Americans who lose their jobs due to offshoring, including services workers.

The second change to the TAA program would extend the TAA program to cover workers producing articles whose job relocates to any country. This provision was included in the Senate-passed version of the TAA reauthorization, included in the Trade Act of 2002, however it was yielded in the Conference committee.⁴³ Under existing law, TAA benefits go to workers who lose jobs when their firms have shifted production to a country which: a) has a free trade agreement with the United States; b) is a beneficiary country under the Andean Trade Preference Act, the African Growth and Opportunity Act, or the Caribbean Basin Economic Recovery Act; or c) is likely to be an increase in imports to the United States of articles like or directly competitive with those the job loser produced. (Sec. 113, P.L. 107-210).

A review of the Department of Labor-Employment and Training Agency's website on the TAA program shows that there are 72 countries that meet these requirements for shifts in production (see footnote 29 of this report for the list of countries). Yet, there are 148 members of the World Trade Organization, and important trading partners and key outsourcing destinations – like China and India - are not on the list for shifts in production. This is a significant limitation in the TAA program. At a minimum, the list of eligible countries for production shifts should be expanded to include all WTO members – currently 148 countries.

Recommendation 2: Require the Office of Trade Adjustment Assistance to Report Data

A second recommendation is to require the Office of Trade Adjustment Assistance to report data which it is already collecting on applications for TAA certification. A database for such reported data could include the following categories of information for certified workers: name of company, location of business, products produced and North American Industry Classification System (NAICS) industry code, place to which production has shifted, or from which new imports are being sourced, reason for the offshore outsourcing (imports or production shift) and number of workers affected.

Publishing data of this type would not be new for the TAA Office. Under the NAFTA-TAA program the office made available data on certifications: a) by number of workers affected; b) by industry code; c) by state and locality of the job losers; and d) by country source of the job loss (i.e., the country which was the source of imports or the target of the production shift). These data are potentially the best, most complete data available because: a) they are a direct count of the estimated number of workers potentially affected by the various offshore outsourcing events; and b) they are required, not voluntary, on the part of applicants for certification.

⁴³ See Trade Act of 2002, Conference Report 107-624, July 26, 2002, p. 122.

Despite these benefits, TAA data are an imperfect measure of the total jobs lost to offshore outsourcing. They do not measure service-producing jobs outsourced offshore (with a few minor exceptions), and they do not measure all goods-producing jobs outsourced offshore. Other imperfections are that: a) they measure *potential, not actual* job loss, some of which may not actually have occurred; and b) they fail to measure tertiary jobs lost (e.g., independent service sector jobs which support goods-production operations outsourced offshore, such as those in stores in areas hit by closures).

Recommendation 3: Require BLS to Make Changes in Mass Layoff Data Program

Three requirements could improve data being reported by the Bureau of Labor Statistics on the Extended Mass Layoffs Associated with Domestic and Overseas Relocations Survey: 1) reduce survey size to businesses with 25 layoffs; 2) disaggregate (separate into component parts) data on movement of work; and 3) report data annually instead of quarterly.

1) Reduce Survey Size to Businesses With 25 Layoffs: The Extended Mass Layoff Survey, which contains a question on movement of work, could be conducted on businesses which lay off 25 or more workers instead of businesses which lay off 50 or more workers as is currently the case. A reduction in the size of the companies surveyed would capture more layoff events and increase the share of offshore outsourcing instances reported.

BLS officials estimate that expanding the Mass Layoff Survey to layoffs of 25 workers or more would allow the program to identify more than double the number of potential layoff events requiring a telephone interview. BLS officials estimate that such an expansion in the MLS survey program will require \$3.3 million in additional funds, including 3 full time equivalent employees. Of this total, \$2.7 million would go to states for the MLS employer interview and related activity. The remaining \$600,000 would support BLS data collection, analysis, and publication activities.

Reducing the size of the business surveyed in the Extended Mass Layoff Survey does not alter the weaknesses of such data and survey methods, namely that the survey is voluntary and the quality of results depends on who in the organization responds to the survey and their knowledge of the causes of jobs going offshore. BLS officials also raised concerns about extra reporting burdens by reducing the size of business surveyed.

2) Disaggregate Data on Movement of Work: BLS could be required to disaggregate (separate into component parts) and report separately detailed data on the two categories of “movement of work” – movement of work to another location *inside* the United States versus movement of work to another location *outside* the United States. Detailed data to be reported could include distribution of layoffs by industry or region of the country affected by the layoff.

Many believe that disaggregating the data is the only way to make the data on movement of work useful. In its current form, data on offshore outsourcing are imbedded in data on movement of work within the United States, thus the data are not useful for measuring offshore outsourcing except for a few summary numbers.

Even with greater data disaggregation, the Extended Mass Layoff Survey remains voluntary. It is widely believed that companies are reluctant to reveal data on offshore outsourcing, although BLS reports a better than 90% response rate in the Extended Mass Layoff Survey in each of the first three quarters of 2004. As previously noted, the quality of survey responses depends on the company contact person who may not readily have answers about whether the “movement of work” is to an offshore location or to another location in the United States. Companies will likely argue that providing this level of detail presents additional burdens, both from a personnel and a financial point of view.

3) Report Data Annually: The Department of Labor-Bureau of Labor Statistics could be required to report the Extended Mass Layoff Survey data annually instead of quarterly. Annual reporting would enable more detail to be published, since privacy rules prohibit the reporting of survey data which represents a sample size of fewer than three businesses.

Annual reporting of data would not solve the survey’s limitations, namely that reporting is voluntary, results depend on who responds to the survey, and the additional reporting burdens placed on businesses. However, we could gain very helpful data if this recommendation was implemented.

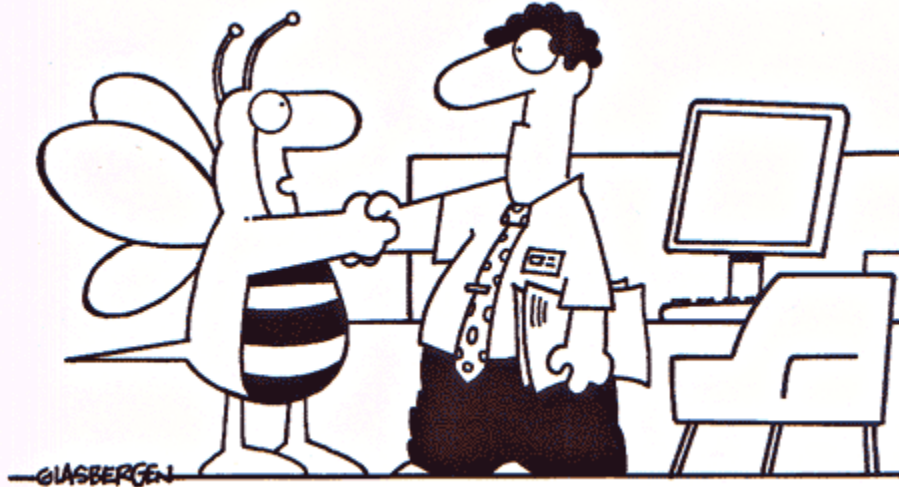
Recommendation 4: Require DOC to Publish Annual Multipliers

The Department of Commerce should be required to publish annual “multipliers” showing for goods and services separately and combined, the number of jobs supporting a billion dollars worth of exports in each category. The product of the multipliers and the value of exports can then yield an estimate of the total number of U.S. jobs producing for export. Comparing the number of workers producing for export across years yields an estimate of job “gains” from exports over time. These job gain estimates could provide an important context for estimates of job losses and are necessary to provide a full assessment of the effects of offshore outsourcing.

Some updating of the model used to prepare the job gains from trade estimates would likely be required in order to produce these data on an annual basis.

Recommendation 5: Link BEA and BLS Data Sets

The Department of Commerce-Bureau of Economic Analysis and the Department of Labor-Bureau of Labor Statistics should be required to link their data sets, which could provide synergies. BEA could link its data on multinational corporations with relevant BLS data – including occupational data and movement of work data in the Extended Mass Layoff Survey. Both BEA and BLS would be required to be transparent regarding their data collection methodologies. While there may be some value in sharing data and identifying greater detail on wages, occupation and skill level of jobs going overseas, there is no certainty that providing these data links will improve the quality of data on offshore outsourcing. Such data linkages may be more valuable after BEA and BLS improve their individual agency’s data collection on offshore outsourcing, by implementing the recommendations in this report and any other suggestions to be developed. However, data linkages could provide important additional perspectives.



"I'm the consultant they brought in to create some new statistical buzzwords."

CONCLUSION

If all of these legislative recommendations are followed, Congress would have available more accurate data on the phenomenon of offshore outsourcing. This could include better estimates of how many jobs – both goods-producing jobs and services-producing jobs – are being outsourced to other countries. From the Trade Adjustment Assistance database, that would be equivalent to the data available between 1994 and 2002 under NAFTA. Data would be available for the United States as a whole and by state, on how many jobs were being “lost”: by industry, by city, by cause (imports or production shifts), and by country to which jobs were being transferred. Congress would also have available estimates on U.S. jobs “created” to balance jobs lost to offshore outsourcing. These new jobs would represent U.S. jobs supporting new exports and U.S. jobs supported by new foreign direct investment in the United States.

These data, providing U.S. government estimates of the magnitude of job “losses” from offshore outsourcing and counterbalancing job “gains” from new exports and foreign direct investment in the United States, could assist Congress in making a variety of informed policy decisions. In a narrower sense, these policy decisions would help displaced workers become employed in new jobs or help critical U.S. industries maintain a presence in the United States. In a broader sense, the data would help Congress make more informed decisions which could affect both the short-range and long-term economic health and welfare of the United States, its industries, and its citizens.

Table 3. Legislative Recommendations for Improving Federal Agency Data on Offshore Outsourcing

Legislative Recommendation	Strengths	Weaknesses
All Data		
<p>→1. Do nothing</p>	<p>✦ Some argue that data are not needed or that private sector data estimates of the extent of offshore outsourcing are sufficient.</p>	<p>■ Private sector estimates are not widely available, are not free to the user as are government data, and may be quite expensive to obtain, may be non-authoritative, lacking in transparent methodologies, and subject to the biases of groups that produce them.</p>
Job “Loss” Data		
Recommendation to expand the Trade Adjustment Assistance Program		
<p>→ 2. Expand the TAA Program to cover all workers not presently covered, who lose their jobs to offshore outsourcing. This group includes: a) all service sector workers; and b) workers producing “articles” who are not covered under Sec. 113 of Title I of the Trade Act of 2002 (P.L. 107-210).</p> <p>Such excluded job-losers are primarily those whose firm has shifted production to a country which: a) does <i>not</i> have a free trade agreement with the United States; b) is <i>not</i> a beneficiary country under the Andean Trade Preference Act, the African Growth and Opportunity Act, or the Caribbean Basin Economic Recovery Act; and c) is not likely to export back to the United States articles directly competitive with those the job loser produced.</p>	<p>Aside from issues of equity among all trade-related job losers:</p> <p>✦ Extending the TAA program in this way, would mean that data being collected by the agency would cover virtually the complete range of jobs lost to offshore outsourcing. From these data one could estimate the effects of offshore outsourcing on the U.S., on individual industries, and on states and localities.</p>	<p>■ Expanding the TAA program to provide benefits to workers whose service-sector jobs are lost to offshore outsourcing would increase costs of the TAA program (no known estimates on additional costs).</p> <p>A provision to include all workers producing articles was included in the Senate version of the Trade Act of 2002, and was yielded in Conference committee. See the Trade Act of 2002 House Conference Report 107-624, p. 122.</p>
Recommendations to require the Department of Labor (DOL) Office of Trade Adjustment Assistance (TAA) or Bureau of Labor Statistics (BLS) to collect, disaggregate, or publish data		
<p>→ 3. Require the Office of Trade Adjustment Assistance to report data which they are already collecting on applications for TAA certification.</p>	<p>✦ Publishing data of this type would not be new for the TAA Office. Under the NAFTA-TAA Program the office made available data on certifications: a) by number of workers affected; b) by industry name and code; c) by location of the job loser; d) by country source of the job loss to imports; and e) by country to which production was shifted. Making these data available again would appear to require little extra work.</p> <p>✦ Potentially best, most complete data available – a) direct count of estimated number of workers affected by offshore outsourcing event; and b) required, not voluntary, for applicants’ certification.</p>	<p>■ Data are not a perfect measure of total jobs lost to offshore outsourcing, since a) they measure <i>potential</i> job losses, some of which may not have occurred; and b) fail to measure tertiary jobs lost (e.g., independent service sector jobs which support goods-production operations outsourced offshore, such as those in stores in areas hit by closures).</p>

Table 3. Legislative Recommendations for Improving Federal Agency Data on Offshore Outsourcing (cont’d.)

Legislative Recommendation	Strengths	Weaknesses
<p>→ 4. Require BLS to make some changes in the Mass Layoff Survey Program Associated with Domestic and Overseas Relocations and publish the results.</p> <p>→ A. Require BLS to disaggregate and report separately detailed data on two categories of “movement of work”: work moved to another location <i>inside</i> vs. <i>outside</i> the United States.</p> <p>→ B. Reduce the size of businesses surveyed from those which layed off 50 or more workers for more than 5 weeks to those that layed off 25 or more workers.</p> <p>→ C. Report the data annually instead of quarterly.</p>	<p>✦ These data, when viewed against the TAA data, could offer a reasonable picture of job “losses” from offshore outsourcing.</p> <p>✦ Disaggregating data already collected could change the data from being of little use to being of increased use in measuring offshore outsourcing.</p> <p>✦ A reduction in the size of the business would increase the total share of offshore outsourcing businesses that are captured in the survey.</p> <p>✦ Reporting the data annually instead of quarterly would enable more detail to be published about each category of reasons for the movement of work offshore. BLS does not report data for any category unless it has data for more than three establishments.</p>	<p>■ BLS argues that because the data are reported voluntarily, those surveyed might have concerns with new requirements (viewed as more burdensome).</p> <p>■ Even with the disaggregation, the quality of data are still dependent on: a) the fact that the data are voluntary rather than mandatory; and b) dependent on the knowledge of the person in the company who responds to the survey.</p> <p>■ The same two weaknesses of the survey identified immediately above would still apply.</p> <p>■ The same weaknesses identified above would still apply.</p>
Job “Gain” Data		
Recommendations to require the Department of Commerce (DOC) to collect, disaggregate, or publish data		
<p>5. → Require DOC to publish annual “multipliers” (for goods and services, both separately and aggregated) showing the number of jobs supporting a billion dollars worth of exports for each year.</p> <p>The product of the multiplier and the value of exports for that category and year yields the estimated number of U.S. jobs producing for export in that year.</p>	<p>✦ These job “gain” estimates provide an important balance to the estimates of job “losses” that come from the DOL-Office of Trade Adjustment Assistance and from BLS.</p> <p>✦ These data are a product of the BEA input-output tables and are potentially available.</p>	<p>■ Some updating of the model may be required to produce these data on an annual basis.</p>
<p>6. → Link BEA and BLS Data Sets</p>	<p>✦ Provide synergies between data sets.</p>	<p>■ Underlying agency data weak on offshore outsourcing.</p>

Source: Congressional Research Service

Appendix A Federal Agency Data: Strengths and Weaknesses for Measuring Offshore Outsourcing (read column down)

	Department of Labor (DOL) - Bureau of Labor Statistics (BLS)	DOL - BLS	DOL - BLS	DOL-BLS	DOL-ETA*
Data Sets Collected, type of data and frequency	Business Employment Dynamics Report (BED): Quarterly report covering 8.2 million establishments. Compiled from state unemployment insurance reports.	Job Openings and Labor Turnover Survey (JOLTS) Monthly estimates based on a survey of 16,000 establishments.	Extended Mass Layoffs Associated With Domestic and Overseas Relocations Quarterly survey of businesses with at least 50 unemployment insurance claims filed against them during a five-week period.	Worker Displacement Survey Biennial (i.e. every-other-year) survey of workers who lost jobs they had held for at least three years.	Trade Adjustment Assistance (TAA) Data Ongoing collection of application forms for certification of eligibility for benefits.
About the data	<ul style="list-style-type: none"> →Broadest picture of job gains and losses in U.S. economy. → For each of 15 major North American Industrial Classification System (NAICS) industries: tracks job “gains” from business openings and existing company expansions and tracks job “losses” from business contractions and business closings. 	<ul style="list-style-type: none"> → Similar to BED, but more detailed, and issued monthly rather than quarterly; a survey rather than a report. → For each of a number of major NAICS sectors: estimates job “gains” from openings and new hires; and job “losses” from total separations, quits, involuntary discharges, and “other” separations. → Also reports summary data by region (Northeast, South, Midwest, and West.) 	<ul style="list-style-type: none"> → An outgrowth of the Mass Layoff Statistics Program, tracks “movement of work” inside or outside the United States. <i>Movement of work</i> means that the plant contracted out with another company or relocated the plant inside or outside the United States. →For all companies that “move work” the reasons are catalogued. 	<ul style="list-style-type: none"> →Catalogues displacement by age, sex, race, U.S. geographic region, reason for the job loss, and re-employment experience, including new wage and salary levels relative to those in previous jobs. 	<ul style="list-style-type: none"> →Reported information includes company name, location, type of products made, whether potential unemployment results from increased imports or shift in production outside the United States, and number of workers potentially affected.
Strengths of Published Data	<ul style="list-style-type: none"> ✦ Can be used as an overview and as background against which other changes can be measured. 	<ul style="list-style-type: none"> ✦ Offers additional detail on types of job “gains” and “losses” in the U.S. economy. 	<ul style="list-style-type: none"> ✦ Most complete BLS survey to date of the reasons for the movement of work. 	<ul style="list-style-type: none"> ✦ Reports on re-employment experience of 3-year tenured workers who lost their job for any reason. 	<ul style="list-style-type: none"> ✦ Of all government data sets surveyed, TAA data offer potentially the most information on offshore outsourcing.
Weaknesses of Published Data	<ul style="list-style-type: none"> ■ Does not identify discrete layoff or expansion events or detail job “gains” and “losses” by occupational skill level. 	<ul style="list-style-type: none"> ■ Does not identify job “gains” or “losses” from offshore outsourcing. 	<ul style="list-style-type: none"> ■ Except for summary numbers, data on offshore outsourcing are mixed in, and therefore lost, among data on domestic outsourcing (to businesses within the United States.) 	<ul style="list-style-type: none"> ■ Data are not disaggregated to show re-employment experience of job losers from offshore outsourcing. 	<ul style="list-style-type: none"> ■ Data are not being published or made available as they were under the NAFTA-TAA program.

*ETA: Employment and Training Administration

Appendix A (cont'd.) Federal Agency Data: Strengths and Weaknesses for Measuring Offshore Outsourcing (read column down)

	Department of Commerce (DOC)-Bureau of Economic Analysis (BEA)	Department of Commerce (DOC)-Bureau of Economic Analysis (BEA)	DOC- Economics & Statistics Admin. (ESA)	DOC-Census Bureau	
Data Sets Collected, type of data and frequency	Data on U.S. Direct Investment Abroad and Multinational Corporations (MNCs) Annual survey of U.S. multinational corporations	Data on Foreign Direct Investment in the United States Annual survey of U.S. affiliates of foreign MNCs.	Data on Service Sector exports and imports Data on trade in private services between U.S. and foreign entities.	Input-Output Table and Multiplier for U.S. Jobs Supported by Exports Model of the U.S. economy, showing relationship of inputs to outputs in the production process.	Data on Good Sector Exports and Imports Monthly data on exports and imports of goods.
About the data	→ Data estimate output, employment, and sales of U.S. parent companies to their foreign affiliates. →MNCs data include gross product, intra-firm trade, and research and development.	→ Data estimate output, employment, and sales of U.S. affiliates of foreign MNCs.	→ Data show exports and imports of services by detailed industry sector.	→The model, which uses employment-output ratios for detailed industry sectors, can be used to produce a “multiplier” showing the number of U.S. workers supporting a billion dollars worth of exports for a given year.	→Data show exports and imports of goods by detailed industry sector.
Strengths of Published Data	➤Data sets over successive years can estimate whether U.S. parent companies are shifting jobs abroad in ways that depart from previous patterns.	➤ Data over successive years can estimate job “growth” in the United States from increased foreign direct investment.	➤ Data describe the universe of services traded and can be used to track increases and decreases in imports over time in specific industries – which can be an indicator of offshore outsourcing activity.	➤ Best data available to estimate job “gains” from exports. The product of the multiplier and total U.S. exports shows the number of U.S. workers producing for export in a given year.	➤ Like BEA data on service sector exports and imports, these data can be used to track changes in trade over time. ➤ They can also be used with the jobs multiplier (see column to left) to estimate job “gains” from U.S. exports.
Weaknesses of Published Data	■ Data do not differentiate between jobs producing for sales to foreign markets and those producing for export back to the U.S. (also offer little detail by industry). ■ Data lag economic activity by 18 months.	■ Data lag economic activity by 18 months.	■ In themselves, data offer little insight into offshore outsourcing. ■ BEA data do not break down affiliate trade by country or sub-category of services.	■ State estimates of jobs supporting exports reflect the national rather than state mix of industries. This is because the model is not detailed enough to reflect 50 state variations in output mix.	■ In themselves, these data offer little insight into offshore outsourcing. ■ Reported data lag economic activity by about one year.

Source: Congressional Research Service

Appendix B

Major U.S. Trading Partners: Ranking and TAA Coverage Status for Workers Whose Production Relocates to These Countries

Ranking	Country	Exports plus Imports \$	Covered by TAA other than by increased imports?		WTO member- ship year	Workers whose production is shifted to listed countries are covered because country is a member of the following trade preference group:			
						AGOA	CBERA	ATPA	Bilateral FTA year
	TOTAL	1,983,136,530,058			148	35	25	4	8
1	Canada	393,647,006,556		yes	1995				1993
2	Mexico	235,530,716,458		yes	1995				1993
3	China	180,797,728,862	no		2001				
4	Japan	170,092,747,472	no		1995				
5	Germany	96,894,935,311	no		1995				
6	United Kingdom	76,562,312,549	no		1995				
7	Korea	61,061,922,441	no		1995				
8	Taiwan	49,087,769,767	no						
9	France	46,289,334,415	no		1995				
10	Malaysia	36,358,258,369	no		1995				
11	Italy	36,006,791,641	no		1995				
12	Ireland	33,539,288,429	no		1995				
13	Singapore	31,733,878,600		yes	1995				2003
14	Netherlands	31,674,775,732	no		1995				
15	Brazil	29,102,281,964	no		1995				
16	Belgium	25,358,634,442	no		1995				
17	Saudi Arabia	22,664,914,030	no		observer				
18	Hong Kong	22,392,464,551	no		1995				
19	Thailand	21,022,312,752	no		1995				
20	Venezuela	19,983,668,905	no		1995				
21	Israel	19,648,648,032		yes	1995				1985
22	Australia	19,517,767,700	no		1995				2004
23	Switzerland	19,327,971,819	no		1995				
24	Philippines	18,053,112,327	no		1995				
25	India	18,039,126,120	no		1995				
26	Sweden	14,350,087,337	no		1995				
27	Spain	12,643,086,746	no		1995				
28	Indonesia	12,040,104,747	no		1995				
29	Nigeria	11,422,654,904	no		1995				
30	Russia	11,048,396,366	no		observer				
31	Colombia	10,140,191,294		yes	1995			X	
32	Dominican Rep	8,668,634,894		yes	1995		X		
33	South Africa	7,458,773,968		yes	1995	X			
34	Costa Rica	6,775,773,906		yes	1995		X		
35	Turkey	6,692,216,087	no		1995				
36	Norway	6,679,946,783	no		1995				
37	Chile	6,422,451,994		yes	1995				2003
38	Austria	6,281,697,830	no		1995				
39	Honduras	6,156,451,637		yes	1995		X		
40	Vietnam	5,879,300,056	no		observer				
41	Argentina	5,604,641,122	no						

Appendix B (cont'd.)

Major U.S. Trading Partners: Ranking and TAA Coverage Status for Workers Whose Production Relocates to These Countries

Ranking	Country	Exports plus Imports \$	Covered by TAA other than by increased imports?		WTO member- ship year	Workers whose production is shifted to listed countries are covered because country is a member of the following trade preference group:			
						AGOA	CBERA	ATPA	Bilateral FTA year
42	Tran & Tobago	5,385,750,819	no		1995		X		
43	Finland	5,311,767,188	no		1995				
44	Denmark	5,266,764,190	no		1995				
45	Algeria	5,240,261,496	no		observer				
46	Guatemala	5,218,840,874		yes	1995		X		
47	Iraq	4,889,497,259	no		observer				
48	Angola	4,756,282,595		yes	1996	X			
49	United Arab Emirates	4,639,414,993	no		1996				
50	New Zealand	4,252,178,407	no		1995				
51	Ecuador	4,169,232,308		yes	1996			X	
52	Peru	4,113,638,994		yes	1995			X	
53	El Salvador	3,843,136,607		yes	1995		X		
54	Egypt	3,804,019,431	no		1995				
55	Kuwait	3,785,903,859	no		1995				
56	Hungary	3,633,127,921	no		1995				
57	Pakistan	3,371,070,716	no		1995				
58	Portugal	2,830,101,801	no		1995				
59	Bangladesh	2,300,128,381	no		1995				
60	Panama	2,149,254,940		yes	1997		X		
61	Poland	2,084,487,155	no		1995				
62	Czech Republic	2,066,572,233	no		1995				
63	Gabon	2,032,519,644		yes	1995	X			
64	Jamaica	1,964,300,916		yes	1995		X		
65	Sri Lanka	1,962,159,551	no		1995				
66	Greece	1,807,115,714	no		1995				
67	Bahamas	1,563,668,084		yes	observer		X		
68	Macao	1,410,420,925	no		1995				
69	Netherlands Ant	1,367,566,741		yes	1995		X		
70	Cambodia	1,320,681,405	no		2004				
71	Aruba	1,318,872,059		yes			X		
72	Nicaragua	1,272,142,305		yes	1995		X		
73	Equatorial Guinea	1,239,858,598	no		observer				
74	Jordan	1,165,460,092		yes	2000				2001
75	Slovak Republic	1,128,212,880	no		1995				
76	Romania	1,097,116,741	no		1995				
77	Oman	1,017,968,570	no		2000				
78	Haiti	972,123,138		yes	1996		X		
79	Bahrain	887,080,997		yes	1995				signed; not yet imple- mented
80	Morocco	850,291,730		yes	1995				2004
81	Qatar	739,795,243	no						

Appendix B (cont'd.)

Major U.S. Trading Partners: Ranking and TAA Coverage Status for Workers Whose Production Relocates to These Countries

Ranking	Country	Exports plus Imports \$	Covered by TAA other than by increased imports?		WTO member- ship year	Workers whose production is shifted to listed countries are covered because country is a member of the following trade preference group:			
						AGOA	CBERA	ATPA	Bilateral FTA year
82	Slovenia	621,274,920	no		1995				
83	Bulgaria	597,200,899	no		1996				
84	Cote d'Ivoire	592,552,594		yes	1995	X			
85	Uruguay	582,642,516	no		1995				
86	Malta	574,375,569	no		1995				
87	Kazakhstan	560,524,062	no		.				
88	Luxembourg	544,040,326	no		1995				
89	Paraguay	542,051,719	no		1995				
90	Iceland	525,095,721	no		1995				
91	Ukraine	512,780,983	no		observer				
92	Congo (ROC)	511,575,530	yes		1997	X			
93	Lithuania	509,902,125	no		2001				
94	Latvia	501,380,033	no		1999				
95	Syria	472,923,756	no						
96	Brunei	458,265,072	no		1995				
97	Kenya	445,913,425		yes	1995	X			
98	Ethiopia	439,633,886		yes	ob	X			
99	Madagascar	430,078,988		yes	1995	X			
100	Bermuda	416,459,661	no						
101	Lebanon	406,615,175	no		observer				
102	Lesotho	398,409,506		yes	1999	X			
103	Croatia	377,493,958	no		2000				
104	Bolivia	366,618,132		yes	1995			X	
105	Cyprus	351,637,308	no		1995				
106	Barbados	345,291,746		yes	1995		X		
107	Uzbekistan	340,377,903	no		observer				
108	Suriname	332,921,709	no		1995				
109	Mauritius	330,074,278		yes	1995	X			
110	Cayman Is	321,337,451	no						
111	Cameroon	304,740,013		yes	1995	X			
112	Estonia	302,181,845	no		1999				
113	Belize	300,851,811		yes	1995		X		
114	Belarus	299,444,041	no		observer				
115	Ghana	291,254,771		yes	1995	X			
116	Burma (Myanmar)	282,575,135	no		1995				
117	Liechtenstein	277,877,767	no		1995				
118	Tunisia	270,622,655	no		1995				
119	Yemen	261,364,819	no		observer				
120	Cuba	261,115,392	no		1995				
121	Iran	260,053,551	no						
122	Guyana	235,457,030		yes	1995		X		
123	Congo (DROC)	205,061,056	no		1997				

Appendix B (cont'd.)

Major U.S. Trading Partners: Ranking and TAA Coverage Status for Workers Whose Production Relocates to These Countries

Ranking	Country	Exports plus Imports \$	Covered by TAA other than by increased imports?		WTO member- ship year	Workers whose production is shifted to listed countries are covered because country is a member of the following trade preference group:			
						AGOA	CBERA	ATPA	Bilateral FTA year
124	Mongolia	204,117,708	no		1997				
125	Fiji	194,993,287	no		1996				
126	Nepal	187,640,126	no		2004				
127	Georgia	185,433,333	no		2000				
128	Swaziland	170,372,069		yes	1995	X			
129	French Guiana	159,102,910	no						
130	Namibia	151,245,986		yes	1995	X			
131	Armenia	140,344,292	no		2003				
132	Antigua Barbuda	140,053,956		yes	1995		X		
133	Fr Polynesia	139,439,869	no						
134	St Lucia Is	134,126,193		yes	1995		X		
135	Azerbaijan	130,699,317	no		observer				
136	Afghanistan	116,858,565	no						
137	Turkmenistan	110,613,991	no						
138	Senegal	106,449,807		yes	1995	X			
139	Br Virgin Is	105,542,477		yes			X		
140	Guinea	105,013,932		yes	1995	X			
141	St Kitts-Nevis	103,648,678	no		1996				
142	Maldive Is	100,947,103	no		1995				
143	Zimbabwe	98,303,502	no		1995				
144	Papua New Guin	96,367,333	no		1996				
145	Malawi	93,528,235		yes	1995	X			
146	Liberia	92,854,897	no						
147	Tanzania	90,256,000		yes	1995	X			
148	Eritrea	87,362,149	no						
149	Macedonia	87,133,421	no						
150	Chad	86,816,268		yes	1996	X			
151	Turks & Caicos Is	77,984,424	no						
152	Uganda	77,643,799		yes	1995	X			
153	Grenada Is	76,050,058		yes	1996		X		
154	Monaco	71,886,468	no						
155	Mozambique	70,889,593		yes	1995	X			
156	Moldova	68,124,948	no		2001				
157	Yugoslavia	64,548,281	no						
158	Tajikistan	57,291,491	no		observer				
159	New Caledonia	55,802,465	no						
160	Marshall Is	55,237,045	no						
161	St Vinc & Gren	50,620,398		yes	1995		X		
162	Kyrgystan	50,039,746	no		1998				
163	Guadeloupe	48,188,790	no						
164	Dominica Is	39,606,053		yes	1995		X		

Appendix B

Major U.S. Trading Partners: Ranking and TAA Coverage Status for Workers Whose Production Relocates to These Countries (cont'd.)

Ranking	Country	Exports plus Imports \$	Covered by TAA other than by increased imports?		WTO member- ship year	Workers whose production is shifted to listed countries are covered because country is a member of the following trade preference group:			
						AGOA	CBERA	ATPA	Bilateral FTA year
165	Botswana	39,528,323		yes	1995	X			
166	F St Micronesia	37,955,766	no						
167	Niger	37,630,443		yes	1996	X			
168	Mauritania	35,809,650		yes	1995	X			
169	Djibouti	34,923,305		yes	1995	X			
170	Sierra Leone	34,787,498		yes	1995	X			
171	Mali	33,870,550		yes	1995	X			
172	Bosnia-Hercegovina	32,899,639	no		observer				
173	Zambia	31,929,259		yes	1995	X			
174	Benin	30,846,242		yes	1996	X			
175	Faroe Islands	30,633,597	no						
176	Sudan	28,916,734	no		observer				
177	Gambia	26,785,532		yes	1996	X			
178	Anguilla	22,602,532	no						
179	Martinique	22,250,136	no						
180	Tokelau Is	21,515,798	no						
181	Togo	20,797,945	no		1995				
182	Seychelles	20,116,737		yes	observer	X			
183	Tonga	18,880,753	no		observer				
184	Palau	17,536,133	no						
185	Greenland	16,915,583	no						
186	Gibraltar	16,900,079	no						
187	Samoa	15,575,852	no		observer				
188	San Marino	15,359,420	no						
189	Cape Verde	14,758,734		yes	observer	X			
190	Albania	14,059,666	no		2000				
191	Burkina Faso	11,846,665	no		1995				
192	Rwanda	10,526,741		yes	1996	X			
193	Central African Rep.	9,381,664	no		1995				
194	Montserrat Is	9,289,246		yes			X		
195	Laos	8,872,459	no						
196	Burundi	8,836,465	no		1995				
197	Andorra	8,463,869	no		observer				
198	North Korea	8,036,622	no						
199	St Helena	7,888,904	no						
200	Somalia	7,203,559	no						
201	Falkland Is	6,102,537	no						
202	Cook Is	5,108,801	no						
203	Br Indian O Ter	4,746,084	no						
204	Comoros	4,580,482	no						
205	Reunion	4,248,611	no						
206	Pitcairn Is	3,513,656	no						

Appendix B

Major U.S. Trading Partners: Ranking and TAA Coverage Status for Workers Whose Production Relocates to These Countries (cont'd.)

Ranking	Country	Exports plus Imports \$	Covered by TAA other than by increased imports?		WTO member- ship year	Workers whose production is shifted to listed countries are covered because country is a member of the following trade preference group:			
						AGOA	CBERA	ATPA	Bilateral FTA year
207	Vatican City	3,321,067	no		observer				
208	Guinea-Bissau	3,150,965		yes	1995	X			
209	Kiribati	3,131,330	no						
210	Solomon Is	2,823,531	no		1996				
211	St Pierre & Miq	2,731,720	no						
212	Nauru	2,148,809	no						
213	Vanuatu	1,994,380	no		observer				
214	Norfolk Is	1,914,651	no						
215	Bhutan	1,512,524	no		observer				
216	Sao Tome & Prin	1,485,827		yes	observer	X			
217	Christmas Is	1,393,372	no						
218	Gaza Strip	970,985	no						
219	West Bank	945,863	no						
220	Cocos Is	811,028	no						
221	Svalbard	619,826	no						
222	East Timor	607,643	no						
223	Wallis & Futuna	560,914	no						
224	Heard & McDn Is	490,979	no						
225	Fr S & Ant land	403,127	no						
226	Libya	225,546	no		observer				
227	Niue	179,442	no						
228	Tuvalu	83,808	no						
229	Mayotte	54,210	no						
230	Western Sahara	31,021	no						
	TOTAL								

WTO observer status; must start WTO accession negotiations within 5 years of becoming observers.

Years refer to year of WTO membership or year of signing free trade agreement with the United States.

Data source: country names and trade data are from USITC Dataweb. WTO data are from the WTO website: www.wto.org. Data on member countries for AGOA, CBERA, ATPA and trade agreements are from the USTR website: www.ustr.gov.

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[The analysis and recommendations contained in this report represent the views of Senator Lieberman and his office and not necessarily the positions of government agencies that provided information.]