

Comparison: Augustine Report Recommendations with President’s Competitiveness Initiative, Gordon Bills (H.R. 4434, H.R. 4435, H.R. 4596), Boehlert Bills, and Senate Bills (PACE, S.2197, S.2198, S.2199; and Lieberman, S.2109)

Augustine Report Recommendations	President’s Competitive Initiative	House Bills [Gordon]	House Bills [Boehlert]	Senate Bills [PACE, S.2197, S.2198, S.2199; and Lieberman, S.2109]
<p>Recommendation A-1: 10,000 four-year (up to \$20,000 per year) scholarships for science, math and engineering majors to become science and math teachers. Grants of \$1 million per year for up to five years to institutions of higher education to establish integrated four-year undergraduate programs leading to a bachelor’s degree in science, math or engineering with teacher certification. FY 2007, \$110 million.</p>	<p>No provision.</p>	<p>H.R. 4434 tracks A-1 provisions. Establishes program at National Science Foundation (NSF); requires grantees to set up undergraduate educational program and provide scholarships. FY 2007, \$85 million.</p>	<p>Amends existing NSF Noyce scholarship program to rename it as the “Robert Noyce Teacher Scholarship Program”; increase the minimum scholarship amount from \$7500 to \$10,000 per year; allow for part-time students; and set aside 15% of funds for educational program development and mentoring activities for recipients. FY 2007, \$50 million (up from \$9 million FY 2006 appropriation).</p> <p>[This scholarship program is for science, technology, engineering or mathematics (STEM) majors in their junior or senior year who agree to take courses necessary for teacher certification and who agree to teach for a specified period, or one year of stipend support for scientists or engineers who agree to change careers and become certified to teach.]</p>	<p>S.2198 tracks A-1 provisions. Establishes program at the Department of Education (DEd); requires awardees to set up undergraduate educational program (and requires cost sharing ramping up from 25% to 50%). Establishes scholarship program at NSF. FY 2007, \$30 million for DEd, and \$50 million for NSF.</p>

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<p><u>Recommendation A-2a</u>: One- to two-week summer teacher institutes. FY 2007, \$40 million.</p>	<p>No provision.</p>	<p>H.R. 4434 directs NSF to expand existing Teacher Institutes for the 21st Century program to include one- to two-week summer teacher institutes. FY 2007, \$37 million.</p> <p>H.R. 4434 directs the Department of Energy (DOE) to expand existing Laboratory Science Teacher Professional Development program (longer than standard teacher institutes with continued interactions during school year). FY 2007, \$3 million.</p>	<p>Amends the section of the NSF authorization act of 2002 that established the Math and Science Partnership (MSP) program, thereby de-authorizing MSP, to create a new grant program "to improve teacher content knowledge". Maintains the structure of MSP as a partnership between universities (or non-profits) and local education agencies. Authorizes teacher institutes, model teacher induction programs, and other types of teacher professional development programs. FY 2007, \$50 million.</p>	<p>S.2197 establishes two-week summer institutes at the DOE National Labs, with emphasis on K-8 teachers. FY 2007, "such sums as may be necessary."</p>
<p><u>Recommendation A-2b</u>: 2-year, part time master's degree programs for science and math teachers. FY 2007, \$46 million.</p>	<p>No exactly equivalent provision, but proposes to attract scientists and engineers to teaching careers (Adjunct Teacher Corps). FY 2007, \$25 million.</p>	<p>H.R. 4434 tracks A-2 recommendation by establishing the program at NSF. FY 2007, \$200 million (the initial National Academies estimate for the cost of this program, since dropped to \$46 million).</p>	<p>No provision</p>	<p>S.2198 tracks A-2 recommendation by directing DEd to award grants to set up three-year master's programs and directs NSF to provide \$10,000 annually for five years to teachers who complete a master's degree in math or science and who "undertake increased responsibilities". FY 2007, \$200 million.</p>

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<p><u>Recommendation A-2c</u>: Train 70,000 teachers to teach Advanced Placement / International Baccalaureate (AP/IB) courses and 80,000 to teach pre-AP/IB courses in math and science. FY 2007, \$100 million.</p>	<p>Increases existing DEd program that supports such teacher training by \$90 million for FY 2007.</p>	<p>H.R. 4434 tracks A-2 recommendation by expanding existing Teacher Professional Continuum program at NSF. FY 2007, \$92 million.</p>	<p>No provision.</p>	<p>S.2198 tracks A-2 recommendation by directing DEd to provide the training through "nonprofit educational entities" using master teachers. FY 2007, \$241 million (requires one-to-one matching funds from grant recipient).</p>
<p><u>Recommendation A-2d</u>: Provide K-12 curricular materials modeled on world-class standards. FY 2007, \$20 million.</p>	<p>Proposes evaluation of all Federal science ed programs (\$5 million); establishes national math panel to assess education research needs for math education (\$10 million); and proposes to develop and disseminate math educational materials for elementary and middle school students (\$250 million). FY 2007, \$265 million.</p>	<p>H.R. 4434 requires NSF to establish a national panel to identify and collect materials demonstrated to be effective and, in consultation with DEd, to develop ways to disseminate effective materials. It also increases funding authorized for NSF's long-standing Instructional Materials Development activity. FY 2007, \$30 million (+\$5 million above FY 2006 actual).</p>	<p>No provision.</p>	<p>S.2198 requires DEd to establish a national clearinghouse of proven teaching methods and materials. FY 2007, \$20 million.</p>

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<p>Recommendation A-3: Increase the numbers of students taking AP/IB courses through incentives: rebates of 50% of exam fee and \$100 mini-scholarships for each passing score. FY 2007, \$76 million.</p>	<p>No provision.</p>	<p>No provision.</p>	<p>No provision.</p>	<p>One of S.2198 provisions for AP/IB teacher training (see above), within the total funding authorized, allows for reimbursement of 50% of student exam fees and allows for scholarships to students who pass (no amount specified).</p>

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<p><u>Recommendation B-1</u>: Increase Federal funding by 10% annually over seven years for basic research in the physical sciences, engineering, mathematics, and information sciences, and all basic research at the Department of Defense (DOD). FY 2007, \$800 million additional dollars.</p>	<p>Doubles combined budgets of NSF, DOE Office of Science, and the National Institute of Standards and Technology (NIST) over ten years. FY 2007, \$910 million.</p>	<p>H.R. 4596 provides 10% increases per year for five years, based on FY 2006 levels, for the physical sciences, engineering, mathematics, and information sciences at NSF, DOE, the National Aeronautics and Space Administration (NASA), and NIST, and all basic research (6.1) at DOD. FY 2007, \$7860 million (\$715 million above FY 2006 total).</p>	<p>No provision.</p>	<p>S.2198 authorizes 10% per year increases through FY 2013 for: NASA basic research (FY 2007, \$2768 million); except 8% in the first year, NSF research accounts, except for polar research and integrative activities accounts (FY 2007, \$4195 million); and DOD basic (6.1) research (FY 2007, \$1616 million). \$721 million increase above FY 2006 total for 3 activities.</p> <p>S.2109 doubles the NSF research budget by FY 2011. FY 2007, \$6440 million (\$859 million above FY 2006).</p>
<p><u>Recommendation B-2</u>: Provide 200 early career research grants of \$500,000 each over 5 years through NSF, the National Institutes of Health (NIH), DOD, DOE, and NASA. FY 2007, \$20 million.</p>	<p>No provision.</p>	<p>H.R. 4596 tracks B-2 recommendation allocating the funding among the five agencies in proportion to their current funding for the early career program (NSF, 82 grants; NIH, 48; DOE, 36; DOD, 24; and NASA, 10). FY 2007, \$20 million.</p>	<p>Authorizes equivalent programs at NSF (based on existing faculty early development program - CAREER program) and DOE, providing \$400,000 grants over five years.</p> <p>FY 2007, 3.5% of NSF research accounts (\$163 million based on FY 2007 NSF request level, which is \$17 million above FY 2006 level for CAREER program).</p> <p>FY 2007, \$25 million DOE.</p>	<p>S.2198 tracks B-2 recommendation, except only 135 grants through NSF (65 grants), NASA (45) and DOD (25). FY 2007, \$13.5 million.</p> <p>S.2197 tracks B-2 recommendation, except only at DOE (65 grants). FY 2007, \$6.5 million.</p>

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<u>Recommendation B-3</u> : Establish National Coordination Office for Advanced Research Instrumentation and Facilities. FY 2007, \$500 million.	No provision.	H.R. 4596 tracks B-3 recommendation, establishing a national coordination office within the Office of Science and Technology Policy (OSTP) and allocating 2/3 of the funding for instrumentation and facilities awards through NSF and 1/3 through DOE. FY 2007, \$500 million.	No provision.	S.2198 establishes a national coordination office within OSTP; no new funding authorized
<u>Recommendation B-4</u> : Allocate at least 8% of the budgets of federal research agencies to high-risk research.	No provision.	H.R. 4596 specifies that not less than 8% of funds authorized under the bill for research (see above) be available for high-risk research.	No provision.	S.2198 requires OSTP and the Office of Management and Budget (OMB) to consult to ensure each agency allocates 8% of budget for high-risk research.
<u>Recommendation B-5</u> : Create in DOE the Advanced Research Projects Agency - Energy (ARPA-E). FY 2007, \$300 million.	No provision.	H.R. 4435 tracks B-5 recommendation. FY 2007, \$300 million.	No provision.	S.2197 tracks B-5 recommendation. FY 2007, \$300 million.
<u>Recommendation B-6</u> : Create Presidential Innovation Award. FY 2007, \$50 million.	No provision.	H.R. 4596 establishes an innovation award (a medal) through OSTP.	No provision.	S.2198 establishes an innovation award (a medal and cash prize) through OSTP. FY 2007, \$1 million.

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<p><u>Recommendation C-1</u>: 25,000 new four-year scholarships per year to U.S. citizens in STEM fields. FY 2007, \$375 million.</p>	<p>No provision.</p>	<p>No provision.</p>	<p>No equivalent provision.</p> <p>But increases the authorization for the existing NSF STEM Talent Expansion Program (STEP), which is not a scholarship program but can be used to provide scholarships. STEP provides grants to universities to increase the number of undergraduate STEM degrees through improved instruction, including use of digital technologies; support for undergraduate research activities; mentoring programs, and internships with industry. FY 2007, \$40 million, which is \$14 million above the FY 2006 appropriation.</p>	<p>S.2198 tracks C-1 recommendation, establishing the program at DEd. FY 2007, \$375 million.</p> <p>S.2109 expands NSF's "Tech Talent" program to increase production of STEM graduates. FY 2007, \$35 million.</p>
<p><u>Recommendation C-2</u>: 5,000 new graduate fellowships each year in STEM areas of national need, administered by NSF. FY 2007, \$225 million.</p>	<p>No provision.</p>	<p>H.R. 4596 tracks C-2 recommendation. FY 2007, \$225 million.</p>	<p>No exactly equivalent provision.</p> <p>Explicitly authorizes the existing NSF Integrative Graduate Education and Research Traineeship (IGERT) program, and authorizes NSF to accept funds from other agencies to carry out the IGERT program.</p> <p>FY 2007, 1.5% of NSF research accounts (\$70 million based on the FY 2007 NSF request, which is \$4.6 million above the FY 2006 IGERT budget)</p>	<p>S.2198 tracks C-1 recommendation, except the program is administered by DEd. FY 2007, \$225 million.</p> <p>S.2109 provides for 250 new graduate fellowships each year. FY 2007, \$34 million.</p>

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<u>Recommendation C-3:</u> Continuing education tax credit. FY 2007, \$500 million.	No provision.	No provision.	No provision.	S.2199 tracks C-3 recommendation. FY 2007, \$500 million.
<u>Recommendation C-4:</u> Improvement of visa processing for international students and scholars.	No provision.	No provision.	No provision.	S.2198, Sense of Senate resolution.
<u>Recommendation C-5:</u> Provide one-year visa extension to international students seeking employment.	No provision.	No provision.	No provision.	S.2198 tracks recommendation; creates new one-year visa.
<u>Recommendation C-6:</u> Institute skills-based, preferential immigration option. Augustine Committee now believes this recommendation satisfied under existing law.				
<u>Recommendation C-7:</u> Reform current system of "deemed exports".	No provision.	No provision.	No provision.	S.2198, Sense of Senate resolution.

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<u>Recommendation D-1</u> : Enhance intellectual property protection. FY 2007, \$323 million.	No provision.	No provision.	No provision.	S.2198, Sense of Senate resolution. S.2109, Sense of Congress resolution.
<u>Recommendation D-2</u> : Increase Research Tax Credit from 20% to 40% and make permanent. FY 2007, \$5100 million.	Makes credit permanent. FY 2007, \$4600 million.	No provision.	No provision.	S.2199 tracks recommendation. S.2109 makes credit permanent.
<u>Recommendation D-3</u> : Provide tax incentives for US-based innovation.	No provision.	No provision.	No provision.	S.2199 calls for Treasury study on effect of tax code on innovation. S.2109 calls for NAS study on barriers to private sector innovation. FY 2007, \$1 million.
<u>Recommendation D-4</u> : Ensure ubiquitous broadband Internet access.	No provision.	No provision.	No provision.	S.2198, Sense of Senate resolution.