



Side-by-Side Comparison of the U.S. Senate's National Innovation Act (NIA), its PACE Legislative Package (3 bills) and President Bush's American Competitiveness Initiative (ACI) as of February 2006

Key Issue	Agency	National Innovation Act (NIA) (S. 2109)	Protecting America's Competitive Edge (PACE) Acts – Energy (S. 2197), Education (S. 2198), and Finance (S. 2199)	American Competitiveness Initiative (ACI) President Bush 2/06
Research Funding	National Science Foundation	<p>Doubles funding for research over 5 years (\$860 M to \$840 M/yr) [\$6.44 B (15.6% increase) FY 2007; \$9.8 B FY 2011]</p>	<ul style="list-style-type: none"> • Nearly doubles the NSF Research and Related Activities budget 10%/yr over 7 years. [\$4.195 B (FY 2007); \$7.432 B (FY 2013)] • Authorizes research grants for early-career scientists and engineers for purposes of pursuing independent research with funding increasing \$6.5M/yr for 5 years [\$6.5 M (FY 2007); \$32.5 M (FY 2011)] 	<p>Doubles research funding over 10 years (~7%/yr) [\$6.02 B (7.8% increase) FY 2007; \$11.16 B FY 2016]</p>
Research Funding				
Research Funding	Department of Energy	-	<ul style="list-style-type: none"> • Nearly doubles budget for basic research, development, demonstration, and commercial application activities over 7 years [\$4.15 B (FY 2007); \$7.08 B (FY 2013)] • Establishes Advanced Research Projects Authority – Energy (ARPA-E) [\$300 M (FY 2007); \$1 B (FY 2011)] 	<p>Doubles research funding at DOE Office of Science over 10 years (~7%/yr) [\$4.10 B (14% increase) FY 2007; \$7.19 B FY 2016]</p>
Research Funding				
Research Funding	National Institute of Standards and Technology (USDOC)	<p>Increases R&D funding in collab. w. private sector over 5 years [\$20 M (FY 2007); \$100 M (FY 2011)] to support:</p> <ul style="list-style-type: none"> • Activities under the Small Business Innovation Research Program (SBIR), the Small Business Technology Transfer Program, and DoD's Manufacturing Technology Program • Development of prototypes for new technologies with the creation of Test Beds • Development of an innovation focus at the Manufacturing Extension Partnership (MEP) 	-	<p>Doubles “core” (research and construction) funding over 10 years (~7%/yr) [\$540 M (5.8% decrease) FY 2007; \$1.14 B FY 2016]</p>
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Research Funding	Department of Defense	<ul style="list-style-type: none"> • Allocates 3% of total DOD budget toward science and technology research with 20% of this amount toward basic (6.1) research. • This analysis does not cover Defense Advanced Manufacturing 	<ul style="list-style-type: none"> • Increases DoD 6.1 basic research budget 10% annually through 2013. [\$1.616 B (6.1) (FY 2007); \$2.862 B (FY 2013)] • Authorizes creation of research grants for early-career scientists and engineers for purposes of pursuing independent research with funding increasing \$2.5 M/yr for 5 years [\$2.5 M (FY 2007); \$12.5 M (FY 2011)] • Supports recommendations on “deemed export” controls at universities by defining basic R&D is exempt. 	<p>\$5.9 B for basic & applied research in FY '07 = ~ 8% increase in FY 2007 over FY 2006 budget request.</p>
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Education			<p>SoEd to award grants to departments of mathematics, science, or engineering at institutions of higher education that partner with teacher preparation programs to develop and provide part-time, 3-year master's degree programs in math and science education for current teachers. (PACE - Education)</p>	
Education				
Education				
Education			<p>SoEd to award \$122 M in grants to nonprofit entities to work with local school districts to provide training to teachers to teach Advanced Placement or International Baccalaureate (AP-IB) programs in mathematics and science, and pre-AP-IB programs in mathematics and science. (PACE - Education)</p>	
Education				
Education	National Science Foundation		<p>SoEd to convene a national panel to collect proven effective K-12 mathematics and science teaching materials, and create clearinghouse of such materials for dissemination to states and school districts. (PACE - Education)</p>	
Education	and			
Education	Department of Education		<p>Encouraging U.S. Students to Study in STEM Fields</p> <p>Authorizes SoEd to award merit-based scholarships up to \$20,000 per year for up to four years to assist STEM students in paying their college expenses. (PACE - Education)</p>	<p>NOTE: This comparison does not address existing programs at NSF which are not included in the new ACI.</p>
Education	and			
Education	Department of Energy		<p>Authorizes through fiscal year 2011 an independent research program for scientists and engineers who have completed their professional degrees within 10 years of the date of enactment of the <i>Act</i>. (PACE - Education)</p>	
Education				
Education			<p>SoEd grants to nonprofit entities to work with local school districts to increase the number of students who take pre-AP-IB and AP-IB courses in mathematics and science, and take and pass the AP-IB exams in mathematics and science. (PACE - Education)</p>	
Education				
Education			<p>Leverages the Involvement of the Business/Industry Community in Improving STEM Education</p>	<p>Leverages the Involvement of the Business/Industry Community in Improving STEM Education.</p>
Education				
Education			<p>Provides for a tax credit of up to \$500,000 annually to employers who provide qualified education to maintain or improve employees' knowledge in science or engineering.</p>	
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Immigration Immigration Immigration	H-1B Visa	<p>Sense of Senate that U.S. should continue to retain foreign nationals who have received master's or higher degrees in STEM fields from U.S. institutions either through H-1B Visa Program or as employment-based immigrants</p>	-	-
Immigration Immigration Immigration Immigration Immigration Immigration Immigration Immigration Immigration Immigration Immigration Immigration Immigration Immigration	Immigration & Visas	<p>Calls for improvements in Government's technology infrastructure to aid in processing of applicants</p>	<p>Creates:</p> <ul style="list-style-type: none"> New "F-4" student visa for doctoral candidates studying in the fields of math, engineering, technology, or the physical sciences <p>Exempts the following categories of people from the numerical limitations on employment-based immigrants:</p> <ul style="list-style-type: none"> Aliens who have earned an advanced degree in science, technology, engineering, or math and have been working in a related field in the United States under a temporary visa during the 3-year period preceding their application for an immigrant visa; Certain aliens who have shown "extraordinary" abilities in their line of work or who have received a "national interest waiver"; and Immediate relatives of aliens who are admitted as employment-based immigrants. <p>It is the sense of the Senate that DHS, State Department and related supporting agencies should:</p> <ul style="list-style-type: none"> Further improve efficiency and convenience in the granting of visas to foreign students and researchers while protecting national security; Extend MANTIS clearance for foreign researchers for the duration of a specified scientific research program while balancing security concerns; Improve review of the technology-alert list; Improve efforts to better facilitate travel for scientific conferences. 	<p>"Increases our ability to compete for and retain the best and brightest high-skilled workers from around the world by supporting comprehensive immigration reform that meets the needs of a growing economy, allows honest workers to provide for their families while respecting the law, and enhances homeland security by relieving pressure on the borders."</p>



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<p>Taxes</p> <p>Taxes</p> <p>Taxes</p> <p>Taxes</p>	<p align="center">Internal Revenue Service (IRS) Experimentation Tax Credit</p>	<p>Makes R&E tax credit permanent</p> <p>Employer Incentives for STEM Training of Employees</p>	<ul style="list-style-type: none"> • Doubles the current R&E credit (20% to 40%) and makes it permanent. Expands the credit to allow 100% of the cost of all research conducted by consortia, small businesses, federal laboratories and universities. • Provides for a tax credit of up to \$500,000 annually to employers who provide qualified education to maintain or improve employees' knowledge in science or engineering. 	<p>\$4.6 B for R&E Tax credits in FY '07</p> <p>\$86 B for R&E Tax credits over next ten years</p>
<p>“Sense of the Senate”</p> <p>Health Care Technology</p> <p>Patent Reform</p> <p>Export Controls</p> <p>Broadband</p> <p>Additional Immigration & Visa Issues</p>	<p>Competitiveness legislation (PACE) references to other issues</p> <p>Health Care Technology (NIA):</p> <p>A few bills have been introduced specifically on health care information technology:</p> <ul style="list-style-type: none"> • S. 1223 - (Dodd) Information Technology for Health Care Quality Act - referred to Health, Education, Labor, and Pensions Committee • S. 1952 – (Coleman, Bayh, Cornyn Luger) Critical Access to Health Information Technology Act of 2005 – referred to Health, Education, Labor, and Pensions Committee • S. 1227 (Stabenow-Snowe) Health Information Technology Act of 2005 – referred to Finance Committee <p>Immigration/Visas (NIA): Numerous bills referred to Senate Judiciary Committee, including S. 1033 (McCain, Kennedy) <i>Secure America and Orderly Immigration Act</i>. Multiple committee hearings in 2005 on the need for comprehensive immigration reform.</p>		<p>Competitiveness legislation (PACE) references to other issues</p> <p>Patent Reform (PACE): H.R. 2795 – no Senate companion bill, Senate Judiciary Committee has held hearings on the issue</p> <p>Export controls and basic research (PACE):</p> <p>No legislation</p> <p>Broadband (PACE):</p> <p>Numerous bills in Senate Commerce Committee – <i>Telecommunications Act</i> reauthorization is a priority for 2006.</p> <p>Immigration/Visas (PACE and NIA): Note PACE has specific proposal on creation of F-4 visas (see above).</p> <p>In addition, numerous bills referred to Senate Judiciary Committee, including S. 1033 (McCain, Kennedy) <i>Secure America and Orderly Immigration Act</i>.</p> <p>There were multiple committee hearings in 2005 on the need for comprehensive immigration reform.</p>	