

## Investing in Innovation to Create the Industries and Jobs of Tomorrow

Having steered the economy back from the brink of a depression, the Administration is committed to moving the Nation from recession to recovery by sparking job creation to get millions of Americans back to work and building a new foundation for the long-term prosperity for all American families. To do this, the 2011 Budget makes critical investments in the key areas that will help to reverse the decline in economic security that American families have experienced over the past decade with investments in education, clean energy, infrastructure, and innovation.

But even as we meet the challenge of the recession and work to build an economy that works for all American families, we must also change the way Washington does business – ending programs that don't work, streamlining those that do, cracking down on special interest access, and bringing a new responsibility to how tax dollars are spent. At its core, the President's budget takes the steps to help jumpstart job creation, works to strengthen the economic security of American families, and makes the tough choices to put our Nation back on the path to fiscal responsibility.

Innovation is a central part of job creation in the 21<sup>st</sup> century economy. To spur innovation, the Budget will:

**Boost Investment in Civilian Research and Development (R&D).** Investment in science and basic research is critical to long-term economic growth. That's why the Budget invests \$61.6 billion in civilian research and development, an increase of \$3.7 billion, a 6.4 percent increase, and an amount that continues the commitment to double funding for three key basic research agencies – the National Science Foundation, the Department of Energy's Office of Science, and the National Institute of Standards and Technology. This funding includes \$1.8 billion for research in basic energy sciences to discover novel ways to produce, store, and use energy to address energy independence and climate change and \$300 million for the Advanced Research Projects Agency-Energy, to accelerate game-changing energy technologies in need of rapid and flexible experimentation or engineering. The Budget includes increased funding for research to help create the foundation for the industries and jobs of the future, such as nano-manufacturing, advanced robotics, and new tools for the design of biological systems.

**Make the R&E Tax Credit Permanent.** The 2011 Budget's proposed permanent extension of the research and experimentation tax credit will spur private investment in R&D by providing certainty that the credit will be available for the duration of the R&D investment.

**Support Transformational Clean Energy Research.** The 2011 Budget builds upon substantial clean energy R&D investments in the Recovery Act and 2010 appropriations to forge a comprehensive approach to transforming energy supply and slowing global climate change. R&D funding will support renewable energy and energy efficiency technologies such as advanced batteries, solid-state lighting, solar, biomass, geothermal, and wind power. The 2011 Budget supports research and development of advanced coal-fueled power systems and carbon capture and storage technologies as well as science-based nuclear energy R&D programs to advance nuclear technologies and improve their market competitiveness. The Budget also proposes \$170 million for bioenergy research in USDA and \$300 million for the Advanced Research Projects Agency-Energy within DOE to support transformational discoveries and accelerate the development of clean energy.

**Increase Funding for Biomedical Research.** To accelerate progress in biomedical research, the Budget continues to support research both on the campuses of the National Institutes of Health (NIH) and for approximately 300,000 scientists and other research personnel at institutions across the country.

Investments will focus on priority areas including genomics, translational research, science to support health care reform, global health, and reinvigorating the biomedical research community. The Budget also includes \$6 billion to continue to expand research related to cancer, and \$143 million to expand research related to Autism Spectrum Disorders. Finally, under the President's Executive Order and subsequent NIH Guidelines for Human Stem Cell Research, NIH approved 40 responsibly-derived stem cell lines—nearly double the previous number of lines available—for path-breaking research. Additionally, NIH will pursue the discovery, development, and pre-clinical testing of novel compounds for the prevention and treatment of symptoms associated with Alzheimer's disease.

**Recognize and Reward Excellence Through the Race to the Top.** In July 2009, President Obama issued a national challenge to reshape America's educational system to better engage and prepare our students for success in a competitive 21<sup>st</sup> century economy and workplace. Designed to spur innovation and the adoption and use of effective policies and practices, the Race to the Top is a comprehensive vision for school reform backed by a historic, \$4.35 billion investment. Not every state will receive an award under the Race to the Top but the competition has already generated an overwhelming response, with 41 states in the running and over 12 states that have altered laws or statewide policies to enhance their competitive edge and better align their practices to the competition. This year, President Obama will invest an additional \$1.35 billion in his FY 2011 budget to continue the Race to the Top among states, and to expand the program's reach through a separate competition for school districts. To develop, identify and bring to scale what works, the Obama Administration will also continue to support the Investing in Innovation Fund, the companion program to the Race to the Top.

**Restore America to First in the World in College Completion.** President Obama has set a national goal of once again having the highest proportion of college graduates in the world. To reach that goal, he has proposed nearly doubling the amount of Pell grant scholarships available to 9 million students since he took office. He signed the \$2,500 American Opportunity Tax Credit for college into law and is now working to make it permanent to give families \$10,000 over four years for college. He will ensure that student loans remain affordable by limiting payments to 10 percent of income above a basic living allowance. Any remaining debt will be forgiven after 10 years of payments for borrowers in public service and 20 years for all others. He has proposed a \$12 billion American Graduation Initiative to help community colleges improve their quality, work with businesses, improve transfer rates, and support working students. And he is investing in access and completion programs and expanding low-cost Perkins loans.

**Invest in the Next Generation of Scientists and Engineers.** Our Nation's eighth graders are scoring below their peers from many Asian and European countries, and we are neither adequately closing the achievement gaps in math and science nor providing adequate opportunities for many students from diverse backgrounds. The Budget reflects the Administration's investment in improving science, technology, engineering, and mathematics (STEM) outcomes and creating the next generation of scientists and engineers who can help drive economic growth in the coming decades. The Budget provides \$300 million in new grants to States to develop and implement instructional practices and improve teaching and learning in science and math aligned to new high standards. The Budget also dedicates \$150 million within the Investing in Innovation Fund to competitive grants for school districts, nonprofits, and other organizations to test, validate, and scale promising strategies to improve teaching and accelerate student learning in STEM subjects. The Department of Education will work with the National Science Foundation and other Federal agencies to identify the most effective interventions that can help States, schools, and teachers improve STEM outcomes. The Budget also supports NASA programs that are designed to meet the goals of the President's "Educate to Innovate" campaign in Science, Technology, Engineering and Mathematics education. NASA's Summer of Innovation, for example, will work with thousands of middle school teachers and students to engage students in stimulating, evidence-based math and science-based education programs.

**Broaden Reach and Increase Funding to Promote Study of Science and Technology.** The Budget proposes to launch a comprehensive science and technology workforce program through the National Science Foundation to engage undergraduates at Historically Black, Tribal, and Hispanic-serving colleges and universities by realigning and building on existing programs. Funding for these activities would increase by over 14 percent to \$103 million.

**Create a National Infrastructure Innovation and Finance Fund.** The 2011 Budget includes \$4 billion to create a National Infrastructure Innovation and Finance Fund to invest in projects of regional or national significance. This marks an important departure from the Federal Government's traditional way of spending on infrastructure through grants to specific States and localities. The Fund will allocate resources based on demonstrable merit and analytical measures of performance. The Fund will provide planning, feasibility, and analytical capacity to help sponsors identify high-value projects from around the country and then carefully select the most worthwhile projects.

**Expand Access to Broadband.** During 2011, the Department of Commerce and USDA will focus on administering the \$7.2 billion program to expand broadband deployment, as well as programs to improve broadband adoption and data collection, which were funded by the Recovery Act. In addition, the Budget expands access to broadband services by offering \$418 million in USDA loans and grants to move rural communities into the modern information economy.

**Inspire Students to Pursue Clean Energy Careers.** The Department of Energy and the National Science Foundation will partner on a \$74 million RE-ENERGYSE education effort to inspire tens of thousands of young Americans to pursue careers in clean energy.

**Promote Opportunities for American Exporters in New Markets.** The Budget provides \$534 million, a 20 percent increase, to the Department of Commerce's International Trade Administration (ITA). As part of the National Export Initiative, a broader Federal strategy to increase American exports, ITA will strengthen its efforts to promote exports from small businesses, help enforce free trade agreements with other nations, fight to eliminate barriers to sales of U.S. products, and improve the competitiveness of U.S. firms.

**Help Entrepreneurs and Small Businesses Build New and Vibrant Enterprises that Lead to New Jobs and Economic Growth.** One of the lingering difficulties of the recession is that it is difficult for many small businesses to access the capital they need to operate, grow, and create new jobs. The Budget provides \$165 million in subsidy costs to support \$17.5 billion in Small Business Administration 7(a) loan guarantees that will help small businesses operate and expand. It also proposes to increase the maximum 7(a) loan size from \$2 million to \$5 million.

- Provide Incentives for Additional Investment. As another aspect of his jobs plan, the President is proposing an additional year of allowing companies (large and small) to immediately deduct 50 percent of their qualifying investments, a step that will lower the cost of making investments today, encouraging job creation today and innovation for tomorrow.
- Extend Enhanced Small Business Expensing. The Recovery Act allows small businesses to immediately write off up to \$250,000 of qualified investment in 2008 and 2009, providing an immediate tax incentive to invest in plant and equipment and create jobs. The President is proposing a one-year extension. This provision is estimated to cut small business taxes by over \$1 billion in 2009 and 2010.
- Permanently Eliminate Small Business Capital Gains. The Recovery Act encourages investment in small businesses by excluding from taxation 75 percent of the capital gains for investors in small businesses who hold their investments for five years. This provision will save small

business owners nearly \$1 billion over 10 years. The President's Budget proposes to completely eliminate the capital gains tax on small business stock.

**Encourage Innovation to Address Our Nation's Great Social Challenges.** The Budget proposes \$60 million for the Social Innovation Fund, to identify and invest in innovative solutions that are increasing economic opportunities for Americans, transforming schools and improving access to health care. For the last several decades, the rate at which we are making progress on our nation's great challenges has been too slow. Yet, there are powerful, innovative ideas being developed across the country that can make a dramatic difference on these problems. The Social Innovation Fund will find and fund nonprofit organizations that have developed innovative solutions that are demonstrating impact and are ready to move these solutions to more communities of need.

**Facilitate Public Sector Innovation.** The Budget includes funding to expand the White House Open Government Initiative, which focuses on modernizing government information technology and designing technology platforms that foster openness across the Executive branch. The Initiative has achieved many important milestones, including:

- Publishing government data online to make it easy for anyone to remix and reuse,
- Challenging thousands of Federal employees to propose ideas for slashing the time required to process veterans' disability benefits,
- Releasing information on Executive branch personnel and salaries, and
- Launching the IT Dashboard, a one-stop clearinghouse of information that allows anyone with a web browser to track government spending on technology.