



## *Special Federal Budget Issue*

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## *Budget Analysis and Agency Summaries*

### **Budget Overview**

President Barack Obama's FY12 budget request includes fewer ambitious proposals related to TBED than his previous budgets, but his new request offers increases for many R&D programs and several new efforts to promote high-tech development at the regional level. The proposed budget eschews most of the savings measures proposed by the National Commission on Fiscal Responsibility and Reform last November (see the [November 17, 2010](#) issue of the *Digest*), which would have eliminated several agencies and reduced research funding. Instead, the Administration has proposed increases for research, particularly clean energy and renewable fuels research, and focused on reorganizing existing programs to achieve savings through efficiencies.

#### **\*\*\* A Note on Comparisons \*\*\***

Since the federal government is currently operating under a continuing resolution and no budget has been enacted for FY11, this year's *Federal Budget Special Issue* will not compare funding levels to the previous year's enacted budget. Instead, FY10 actual funding will be used as the basis for these comparisons. Where FY10 actual levels are unavailable, we have used FY10 enacted levels. All comparisons should be assumed to be from FY10 actual funding, unless noted otherwise. While we are aware that this will likely lead to some confusion, our decision is based on the use of FY10 actual levels in the White House budget request, available at the [Office of Management and Budget](#) website.



## Highlights

Among the items of interest to the TBED community:

- Federal science agencies, including the National Science Foundation (NSF), the Department of Energy (DOE) Office of Science, and the National Institute of Standards and Technology (NIST), stay on track to double their budgets.
- All of DOE's Office of Science programs would receive increases, with the exception of **Fusion Energy Sciences**. Funding for **Basic Energy Science** would grow by 22.1 percent over FY10 actual levels.
- The National Institutes of Health (NIH) would receive \$32 billion, a 3.4 percent increase over FY10 actual levels.
- Funding for the Department of Health and Human Service's (HHS) **Biomedical Advanced Research and Development Authority** would nearly double over FY10 actual levels to \$665 million. A \$100 million public-private venture capital fund for companies developing medical countermeasures is also proposed.
- The Research and Experimentation (R&E) tax credit would be expanded by 20 percent and would be made permanent.

## Manufacturing

Several federal manufacturing initiatives would receive increases or initial funding:

- Funding for the **Hollings Manufacturing Extension Partnership** (MEP) would grow 14.1 percent over FY10 actual levels to \$142.6 million.
- NIST's new **Advanced Manufacturing Technology Consortia** program, a public-private partnership to coordinate and fund industrial research, would receive \$12 million.
- A new **Workforce Innovation Fund**, a collaborative effort from the Departments of Labor (DOL) and Education (ED) would receive \$380 million to award competitive grants for innovative workforce reform initiatives.
- A total of \$190.4 million (156.6 percent increase over FY10 actual) would be provided for NSF's **Advanced Manufacturing** initiative, which supports a diverse research portfolio generating basic research discoveries that benefit advanced manufacturing.

## Entrepreneurship, Clusters and Regional Innovation

Startup America, the national competitiveness initiative announced in January, would receive support through new initiatives at the Small Business Administration (SBA), the Department of Commerce (DOC), DOE, and Treasury. Though the Administration has positioned the effort as a public-private partnership, drawing support from high-tech corporations, the FY12 budget includes funding for the effort's capital access, community innovation and mentoring initiatives. Programs associated with Startup America in the FY12 request include:

- SBA would provide \$2 billion over five years through two new funds that would operate through the Small Business Investment Company (SBIC):
  - The **Innovation Fund** would provide \$200 million in guaranteed debentures in FY12 and annually for the next four years. The fund would offer matching funds to investors who work with companies trying to survive the gap between angel and later-stage financing.
  - The SBIC **Impact Fund**, also proposed at \$200 million for FY12 and each of the next four years, would support investors who invest in high-potential businesses in underserved markets.
- The budget would expand the Department of the Treasury's **New Market Tax Credits** (NMTTC) program, which helps attract private sources of capital to underserved regions, from \$3 billion to \$5 billion.
- Smaller programs like the EDA's **i6 Green** and a mentoring pilot program from SBA, DOE and ARPE-E would receive support.
- The U.S. Patent and Trademark Office (USPTO) would introduce a three-tiered system of patent examinations that would permit applicants to receive an accelerated approval process for a fee.

Other notable investments in entrepreneurship and clusters include:

- \$16.5 billion in **7(a) loan guarantees** through SBA, including \$14.5 billion in term loans and \$2 billion in revolving lines of credit;
- \$526 million for the International Trade Administration's **National Export Initiative** to help achieve the goal the President set in the State of the Union address of doubling exports by 2014;
- \$40 million for EDA's new **Regional Innovation Program** to support cluster development and to promote innovation in distressed portions of the country;
- \$12 million for SBA's **Regional Innovation Clusters** program and \$3 million for the **Emerging Leaders** initiative; and,
- Funding for the Department of Agriculture's (USDA) **Regional Innovation Initiative** (RII), which would assist rural communities in designing regional economic strategies, through a surtax on other USDA programs.

## Clean Energy

Several agencies and programs that focus on clean energy technologies receive increase funding in the President's budget. In the State of the Union address, President Obama set the goal of producing 80 percent of the country's electricity from clean energy sources by 2035. The FY12 budget would:

- Boost funding for DOE's Office of Energy Efficiency and Renewable Energy (EERE) to \$3.2 billion, a 44.3 percent increase over FY10 actual levels;
- Within EERE, double funding for **Vehicle Technology** research over FY10 actual levels;
- Provide \$550 million for **Advanced Research Projects Agency-Energy** (ARPA-E), which would focus on clean energy projects;
- Expand funding for the USDA **Agriculture and Food Research Initiative**, which funds research on biofuels and renewable energy, to \$325 million;
- Increase funding for USDA's **Bioenergy for Advanced Biofuels Program** by 90.1 percent to \$105 million;
- Double funding for DOL's **Green Jobs Innovation Fund**;
- Eliminate tax breaks for non-renewable energy companies, a move the Administration estimates would generate \$46 billion over 10 years for renewable energy and fuels programs; and,
- Add three new DOE Energy Innovation Hubs, bringing the total to six.

## STEM Education

Education receives a large boost in the proposed budget, mostly due to increased funding for the federal Pell Grant program, but also through several STEM-oriented initiatives. A new \$206 million effective teaching and learning for K-12 STEM program would replace and expand the **Mathematics and Science Partnerships Program** at ED, along with \$300 million for ED's **Investing in Innovation** (i3) program. The i3 program would be instructed to prioritize STEM projects. NSF would administer a \$20 million science and technology workforce program that would be used to attract undergraduates from underrepresented groups to STEM fields. DOE's **Workforce Development Program for Teachers and Scientists** would receive \$36.5 million (9 percent increase) to promote STEM and energy education.

## Broadband and Wireless Infrastructure

As part of the Administration's focus on national infrastructure improvements, the budget proposes legislation to allow spectrum license auctions that could generate more than \$28 billion over the next 10 years. These voluntary incentive auctions, proposed in the [Federal Communications Commission's](#) (FCC) National Broadband Plan, would help reallocate some of the licensed spectrum from the television broadcasting sector to the wireless data industry. FCC proceeds would contribute to the **Wireless Innovation (WIN) Fund**, a government-wide initiative that would receive \$3 billion under the proposed budget. President Obama has set the goal of extending 4G wireless to 98 percent of Americans within five years. The WIN Fund would support basic research, experimentation and testbeds, and applied development in FY12 through programs at the NSF, ARPA-E, DARPA and several agencies within the Department of Commerce.

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## Department of Agriculture

The Administration's FY12 [budget request](#) for the Department of Agriculture (USDA) is \$145.4 billion, an 11.2 percent increase over the actual FY10 level. Discretionary spending would be reduced to \$23.9 billion (11.7 percent decrease), while mandatory spending, the bulk of USDA's budget, would grow to \$116.4 billion (12.9 percent increase). Major TBED-related priorities within the USDA budget include increased funding for the **Agriculture and Food Research Initiative**, and \$6.5 billion for clean and renewable energy research.



USDA [Rural Development](#) (RD), the key USDA office for encouraging rural economic growth, would be funded at \$2.4 billion (17.8 percent decrease). Within RD, the [Rural Housing Service](#) (RHS) delivers rural housing and community facility programs and the [Rural Utilities Service](#) (RUS) provides grants, direct loans and loan guarantees to suppliers of electric, telecommunications, water and wastewater services in rural areas. RHS would receive \$1.45 billion (23.6 percent decrease) in the FY12 budget and RUS would receive \$557 million (16.9 percent decrease).

RUS administers USDA's broadband programs, which have been scaled back in the FY12 budget due to carryover balances from the broadband provisions of the Recovery Act. While no funds are provided for broadband loans in the FY12 budget (\$29 million in FY10), \$1.2 billion is available in loan funds from the carryover balances. The budget includes \$18 million (same as FY10) for [broadband grants](#) and \$30 million (21.1 percent decrease) for [Distance Learning and Telemedicine](#) grants.

RD's [Rural Business-Cooperative Service](#) (RBS) delivers direct loans, loan guarantees, grants, technical assistance and payment programs to cooperatives and other rural businesses. In doing so, the service administers most of USDA's programs directly related to TBED. Under the proposal, RBS would receive \$364 million (34.3 percent decrease), including \$186 million (2.1 percent decrease) for discretionary programs and \$178 million (51.1 percent decrease) for mandatory programs. Much of the decrease in mandatory funding for FY12 is due to the elimination of funding for [Biorefinery Assistance Guarantee Loans](#). As in FY10, no funding is provided for **Rural Empowerment Zones** or **Enterprise Community Grants**.

#### TBED Highlights

RBS programs provide support for several initiatives related to rural economic development, as well as energy research, production and entrepreneurship. Proposed spending levels for RBS programs include:

- [Bioenergy for Advanced Biofuels](#) — \$ 105 million (all mandatory, 90.1 percent increase) to provide payments to eligible advanced biofuel producers in rural areas. This program helps to ensure an expanding production of advanced biofuels.
- [Business and Industry Guaranteed Loan Program](#) — \$53 million (same as FY10) to provide protection against loan losses so that lenders are willing to extend credit to establish, expand, or modernize rural businesses.
- [Rural Energy for America Loans and Grants](#) — \$37 million (\$34 million mandatory and \$3 million discretionary, 48 percent increase) for loans and \$70 million (\$36 million mandatory and \$34 million discretionary, 20.7 percent increase) for grants to support for the purchase of renewable energy systems and energy efficiency improvements. These funds can now be used for energy audits and feasibility studies.
- [Rural Cooperative Development Grants](#) — \$16 million (14.3 percent increase), including \$13 million for grants to nonprofit corporations and institutions of higher education to fund centers for rural cooperative development. The remaining \$3 million would fund the **Appropriate Technology Transfer to Rural Areas** program to provide information and technical assistance to agricultural producers to adopt sustainable practices.
- **Rural Microentrepreneur Assistance Loans and Grants** — \$5 million for loans (\$1 million mandatory and \$4 million discretionary, 80.8 percent decrease) and \$4 million (\$2 million mandatory and \$2 million discretionary, same as FY10) for grants to support microenterprise development organizations. This program provides training, technical assistance and financial support to rural microenterprises.

The **Regional Innovation Initiative**, first proposed in last year's Administration request, has been reintroduced for FY12. The initiative would coordinate efforts by USDA and other agencies to provide assistance to rural communities and to plan new activities. The initiative would be funded by receiving a portion of the appropriations of several existing USDA programs, mostly within the RBS. RD would lead the effort to create regional economic development strategies. Last year's request sought a five percent surtax on 20 USDA program allocations. The same arrangement is again proposed this year, with additional funding being provided through the **Rural Community Development Initiative (RCDI)** and the **Rural Business Opportunity Grant (RBOG)** program.

### Research Funding

USDA's four research agencies would receive \$2.8 billion under the proposed budget. These agencies include:

- [National Institute of Food and Agriculture](#) (NIFA) — \$1.4 billion (8.1 percent increase) to link federal and state components of national agricultural research, extension, and the higher education system. NIFA is responsible for administering USDA's primary competitive research grants program, the **Agriculture and Food Research Initiative**, which supports investigator-initiated research with strong potential to contribute to major breakthroughs in agricultural science.
- [Agricultural Research Service](#) — \$1.2 billion (8.6 percent decrease) to develop new scientific knowledge and transfer technology for the private sector to solve high priority technical problems related to agriculture.
- [National Agricultural Statistics Service](#) — \$165 million (1.9 percent increase) to provide timely, accurate, and useful statistics in service to U.S. agriculture.
- [Economic Research Service](#) — \$86 million (4.9 percent increase) to provide economic and other social science information and analysis on agriculture, food, the environment, and rural development.

The proposed budget would increase funding for the [Agriculture and Food Research Initiative](#) within NIFA to \$325 million (23.6 percent increase). The initiative offers a competitive grant program to provide funding for fundamental and applied research, extension, and education to address food and agricultural sciences. AFRI grants support research into biofuels, food security, climate change and renewable energy.

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## Department of Commerce

The Administration's FY12 discretionary budget request for the Department of Commerce (DOC) totals \$8.8 billion (36.8 percent decrease). The \$5.1 billion reduction from FY10 enacted levels may be attributed to the [Bureau of the Census](#) wrapping up the 2010 Decennial Census. The President's request for mandatory spending is \$1.9 billion (1,530.4 percent increase), which includes \$1.4 billion for the DOC portion of the Wireless Innovation and Infrastructure Initiative that would require passage of new legislation by Congress.



Within discretionary spending, most DOC research and economic development programs are slated to receive budgetary increases in the Administration's request. New TBED-related initiatives proposed include **Growth Zones** in the [Economic Development Administration](#) (EDA) and the **Advanced Manufacturing Technology Consortia** under the [National Institute of Standards and Technology](#) (NIST). The budget request by component breaks down as follows:

<b>DOC Component</b>	<b>FY12 Request (millions)</b>	<b>Percent Change from FY10</b>
National Oceanic and Atmospheric Administration	5,498	13.3
Patent and Trademark Office (100% fee-based)	2,706	30.9
Bureau of the Census	1,025	(85.8)
National Institute of Standards and Technology	1,004	16.3
International Trade Administration (net)	517	15.7
Economic Development Administration	325	9.1
Economics and Statistics Administration	113	16.5
Bureau of Industry and Security	111	11.0
National Telecommunications and Information Administration	56	40.0
Minority Business Development Agency	32	-
Departmental Management	95	(12.8)

#### **Economic Development Administration**

The President's FY12 request for EDA is divided between grant/assistance programs and agency administration expenses. The request for economic development assistance programs is \$284 million (11.4 percent increase), while salaries and expenses account for the remaining \$41 million (7.9 percent increase).

EDA's budget proposal calls for creation of a \$40 million **Regional Innovation Program** that, in partnership with the departments of Housing and Urban Development and Agriculture, would provide new competitive planning and seed capital grants to 20 regional zones around the country. Entitled a "Race to the Top" for Regional Economic Growth, these funds are targeted for "rigorous economic development analysis, additional strategic planning, capacity building, and implementation."

EDA's budget also reflects new names for several of the grant program accounts. The following table presents the new names, the FY12 funding request and the percent change from FY10 enacted levels:

<b>EDA Grant Category/ New Program Names</b>	<b>FY12 Request (millions)</b>	<b>Percent Change from FY10</b>
21 <sup>st</sup> Century Innovation Infrastructure ( <i>nee</i> Public Works)	89	(40.3)
Economic Adjustment	81	84.1
Regional Innovation Program (Growth Zones)	40	New
Partnership Planning ( <i>nee</i> Planning)	31	(3.1)
Technical Assistance	18	63.6
Sustainable Economic Development ( <i>nee</i> Global Climate Change Mitigation Incentive Fund)	16	(40.7)
Research	2	-
Trade Adjustment	-	(\$17 million)





## **National Institute of Standards and Technology**

The Administration's FY12 request for NIST includes \$766.8 million (14.7 percent increase) for laboratories, including Scientific and Technical Research and Services (STRS) and construction funds.

The budget for Industrial Technology Services includes:

- **Technology Innovation Program (TIP)** — \$75.0 million (2.6 percent decrease) to support collaborative high-risk, high-reward technology development projects.
- **Hollings Manufacturing Extension Partnership (MEP)** — \$142.6 million (14.1 percent increase) to support reinventing domestic manufacturing and creating jobs.
- **Baldrige Performance Excellence Program (BPEP)** — formerly the Baldrige National Quality Program. \$7.7 million (22.2 percent decrease) for criteria development and best practices reporting. The reduction in funding is a response to the Administration's goal to transition BPEP from federal funding to external financial support.
- **Advanced Manufacturing Technology Consortia (AMTech)** — \$12.3 million for a new program, which would provide grants to leverage existing consortia or establish new industry-led consortia to develop long-term industrial needs and fund research at education and government laboratories.

## **National Oceanic and Atmospheric Administration (NOAA)**

The Administration's FY12 request for NOAA includes realignment of several offices to create the new office of Climate Service.

- **National Ocean Service (NOS)** — \$511 million (1.5 percent decrease) to support coastal and marina planning, oil spill response and restoration, and coastal ecosystem science.
- **National Marine Fisheries Service (NMFS)** — \$911 million (1.8 percent decrease) to assess fish stocks and promote fishery management.
- **Office of Oceanic and Atmospheric Research (OAR)** — \$212 million (51.8 percent decrease) to support ocean exploration and wind energy planning. The large results from the shift of climate research and modeling activities out of OAR and into the new Climate Service.
- **Climate Service** — \$321 million, a new office with the goal of consolidating climate research, modeling, and data management from other offices.
- **National Weather Service (NWS)** — \$897 million (0.6 percent increase) to continue to provide meteorological, hydrologic, and oceanographic forecasts and warnings. The Climate Prediction Center will be moved to the new Climate Service office.
- **National Environmental Satellite Service (NESS)** — a shortening of the former name, **National Environmental Satellite, Data, and Information Service**. NESS would receive \$118 million (40.7 percent decrease), as well as \$1.89 billion to fund the development of NOAA geostationary and polar-orbiting satellites, which will also be operated by NESS.

## **International Trade Administration (ITA)**

Reflecting the Administration's goal of doubling exports over five years through the **National Export Initiative**, ITA would receive a net increase of 15.7 percent in FY12. ITA promotes small business exports, enforces free trade agreements, and eliminates barriers to trade of US products. The increase is borne most substantially by the **U.S. and foreign commercial services** line item, which would grow to \$314 million (19.4 percent increase).





### **National Telecommunications and Information Administration (NTIA)**

NTIA would receive \$56 million (40.0 percent increase) to continue to manage the radio frequency spectrum. This funding would include, as part of the Wireless Innovation and Infrastructure Initiative (WI3), \$32 million for helping to create a public safety broadband network and to support spectrum reform.

The Administration's request for **U.S. Patent and Trademark Office (USPTO)** would provide the office with full access to its fee collections. The budget proposal calls for an increase in the USPTO's discretionary spending to \$2.7 billion (42.1 percent increase) for reforming and expediting the patent application and approval system, including the establishment of a three-tiered system for patent applications.

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## **Department of Defense**

The Administration's [FY12 budget request](#) for the Department of Defense (DOD) totals \$670.9 billion (2.9 percent decrease over FY10 enacted levels), which includes \$553.1 billion for the base budget (4.8 percent increase), and an additional \$117.8 billion for overseas contingency operations (OCO) (27.8 percent decrease).

Research, Development, Testing and Evaluation (RDT&E) would receive \$76.7 billion (4.2 percent decrease) in FY12. This includes \$12.2 billion for early-stage science and technology programs. Research and development priorities include bio-defense, cybersecurity, information access, and cleaner and more efficient energy. Specifically, \$2.3 billion would be used to support improved cybersecurity within the DOD as well as greater interaction with the Department of Homeland Security. An additional \$119 million would be dedicated for the operations of U.S. Cyber Command.

**FY12 budget request for DOD Research, Development, Testing, and Evaluation by military branch (in millions of dollars, change from FY10 appropriations).**

	<b>Army</b>	<b>Navy</b>	<b>Air Force</b>	<b>Defense-Wide</b>
Basic Research	436 (+3.8%)	577 (+6.3%)	518 (+9.3%)	545 (+44.5%)
Applied Research	869 (-34.2%)	784 (+7.7%)	1,182 (-2.0%)	1,852 (+7.2%)
Advanced Technology Development	977 (-28.5%)	648 (-23.0%)	585 (-23.1%)	3271 (-9.1%)
Advanced Component Development & Prototypes	753 (-23.3%)	4,483 (+4.7%)	1,684 (-20.1%)	6,808 (-4.1%)
System Development and Demonstration	4,191 (-2.2%)	6,487 (-17.5%)	4,080 (6.6%)	918 (+14.5%)
Management Support	1,057 (-29.0%)	859 (-37.4%)	1,114 (-23.4%)	962 (-39.7%)
Operational Systems Development	1,408 (-23.8%)	4,172 (-3.3%)	18,573 (+2.7%)	5,399 (-6.2%)
<b>Total</b>	<b>9,692 (17.2%)</b>	<b>18,010 (-9.7%)</b>	<b>27,737 (-0.6%)</b>	<b>19,756 (-5.4%)</b>

Programs recommended for termination include the **Marine Corps Expeditionary Fighting Vehicle** (\$2.8 billion), the **Army Surface Launched Medium Range Air-to-Air Missile Air Defense System** (\$1 billion), **Non-line of Sight Launch Systems** (\$3.2 billion), various Air Force programs (\$3.7 billion) such as the **Infrared Search and Track Program**, and the **Joint Multi-Mission Submersible** program (\$0.8 billion). Combined military services savings would total \$100 billion. A further \$78 billion would be saved over FY12-FY16 in administration and support reforms.

Budgetary changes to DOD research agencies include:

- **[Defense Advanced Research Projects Agency \(DARPA\)](#)** — \$3.0 billion (no net change from FY10) to fund innovative research through the academic and private sectors. FY12 would include funding for spectrum relocation and conversion of wireless communication systems of the DOD as part of the **Wireless Innovation (WIN) Fund**. DARPA also would receive a portion of \$415 million set aside for wounded and injured medical research.



**FY12 budget request for DOD research initiatives by military branch (in thousands of dollars, change from FY10 appropriations).**

	<b>Army</b>	<b>Navy</b>	<b>Air Force</b>	<b>Defense-Wide</b>
Defense Research Sciences	214 (+9.1%)	446 (+5.2%)	364 (+12.4%)	291 (+50.0%)
University Research Initiatives	81 (-15.6%)	113 (+14.1%)	140 (+2.2%)	—
University and Industry Research Centers	121 (+13.1%)	—	—	—
High Energy Laser Research Initiatives	—	—	14 (+16.7%)	—
Basic Operational Medical Research Science	—	—	—	38 (no FY10 funding)

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## Department of Education

The Administration has requested \$77.4 billion for the Department of Education (ED) [budget in FY12](#), including \$48.8 billion for discretionary programs (4.6 percent increase) and another \$36.1 billion for [Pell Grants](#).

Pell Grants are the single largest source of grant aid for postsecondary education. In order to keep the program on solid fiscal ground, the Administration has had to scale back some of the expansion efforts it has made within the program over the past two years. The maximum Pell award would remain at the current \$5,550, with \$4,860 from discretionary funding and \$690 from mandatory funds. The proposed plan, however, would eliminate the year-round grants that began in 2009 and would eliminate the in-school interest subsidy for loans to graduate students.

Budget items related to science, technology engineering and mathematics (STEM) include:

- \$206 million under the proposed [effective teaching and learning: STEM](#) to support competitive grants to states to implement comprehensive strategies to improve the teaching and learning of STEM subjects. The **Mathematics and Science Partnerships Program** (\$180 million in FY10) is being consolidated into the new program;
- \$300 million under the proposed [Investing in Innovation \(i3\) program](#) to develop, evaluate, and scale promising and effective models and interventions. The request includes priorities for science, technology, engineering, and mathematics (STEM) education and early learning, as well as an overall focus on increasing productivity to achieve better student outcomes.
- \$80 million under the proposed [Teacher and Leader Pathways program](#) to help prepare 10,000 new STEM teachers over the next 2 years as part of the Administration's goal to recruit and prepare 100,000 effective STEM teachers over the next 10 years.

Additionally, another significant change proposed affecting post-secondary and higher education is the request of \$150 million (5.7 percent decrease) for the **Fund for the Improvement of Postsecondary Education** to support a new "[First in the World](#)" competition, modeled on the Investing in Innovation (i3) program, which would promote and test innovative strategies for improving college access, postsecondary education quality, and postsecondary completion.

\$50 million in discretionary funding to support activities of the [Advanced Research Projects Agency-Education](#) (ARPA-ED), a new initiative modeled after similar research programs in the Department of Defense and Department of Energy that would pursue breakthrough developments in educational technology and learning systems, support systems for educators and educational tools. The Administration is seeking an additional \$40 million in mandatory funding in 2012 from the Wireless Innovation Fund for ARPA-ED to support the improvement of early childhood through postsecondary education.

The proposed budget requests \$760.5 million (15.4 percent increase) for the [Institute of Education Sciences](#) (IES), which funds programs of research, development and dissemination in areas where knowledge of learning and instruction are inadequate. Included in the budget for IES is \$260 million (30 percent increase) for [research, development, and dissemination](#).

The Department of Education would contribute \$30 million to the \$379 million [Workforce Innovation Fund](#), which awards competitive grants to test innovative strategies and replicate evidence-based practices in the workforce system. The Fund would support cross-program collaboration to improve education and employment outcomes for participants. The Departments of Labor and Education would jointly administer the Fund.

The [Women's Educational Equity program](#) would be terminated (funded at \$2 million in FY10). The program promotes educational equity for girls and women. Funds may also be used for research and development of model training programs for teachers and other school personnel. The most recent competition placed priority on activities that enabled students to achieve proficiency in mathematics and science.

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## Department of Energy

The Administration's FY12 discretionary [budget request](#) for the Department of Energy (DOE) is \$29.5 billion (11.8 percent increase over FY10 enacted levels). Energy efficiency and renewable energy programs would receive increases, as would many DOE R&D programs.

The [Office of Science](#) (SC) would receive \$5.4 billion (10.4 percent increase) to support research in basic energy sciences, advanced scientific computing, and biological and environmental sciences. The proposed budget also includes \$100.0 million for continuing support of the 46 [Energy Frontier Research Centers](#) started in 2009. Some of the SC's ongoing initiatives include:

- [Basic Energy Sciences](#) — \$2.0 billion (22.1 percent increase) for fundamental basic research to understand and control matter at the electronic, atomic and molecular levels.
- [High Energy Physics](#) — \$797.2 million (5.3 percent increase) for particle physics at accelerator and neutrino detection facilities.
- [Biological & Environmental Research](#) — \$717.9 million (18.9 percent increase) for research in biology, radiochemistry, climate science and subsurface biogeochemistry systems.
- [Nuclear Physics](#) — \$605.3 million (13.5 percent increase) to support core nuclear physics research at 85 academic institutions and 9 DOE national laboratories.
- [Advanced Scientific Computing Research](#) — \$465.6 million (13.7 percent increase) to develop and deploy the advanced computer capabilities needed by DOE.
- [Fusion Energy Sciences](#) — \$400 million (7.8 percent decrease) to understand the scientific foundations required to develop fusion energy sources.
- [Workforce Development for Teachers and Scientists](#) — \$35.6 million (9.1 percent increase) to provide a continuum of opportunities to students and teachers of science, technology, engineering and mathematics.

The FY12 budget also would include \$550 million for the [Advanced Research Projects Agency-Energy](#) (ARPA-E) to target specific high-risk and high-reward transformational energy R&D projects. ARPA-E received negligible funding in FY10, but was allotted \$400 million in the 2009 Recovery Act. ARPA-E would contribute to the government-wide **Wireless Innovation (WIN) Fund** by supporting clean energy projects.

DOE would receive \$852.5 million (7.2 percent decrease) for the [Office of Nuclear Energy](#) (NE). The [Generation IV Nuclear Energy Systems Initiative](#), [Nuclear Power 2010](#), and the **RE-ENERGYSE** program would receive no funding in the proposed budget. Research programs gaining funding through NE include:

- [Fuel Cycle R&D](#) — \$155 million (14.1 percent increase) supports long-term, science-based R&D for nuclear fuel and waste management technologies that will enable a safe, secure and economic fuel cycle.
- **Reactor Concepts RD&D** — \$125 million (1,462.5 percent increase) to support R&D of advanced fission power systems.
- **Nuclear Energy Enabling Technologies** — \$97.3 million (not funded in FY10) for a new line item addressing crosscutting technologies in multiple-reactor fuel cycle research.



The [Office of Energy Efficiency and Renewable Energy](#) (EERE) would receive \$3.2 billion (44.3 percent increase) to conduct research, development, demonstration and deployment activities in partnership with industry to advance a diverse portfolio of clean power technologies and practices. Programs within EERE include:

- [Vehicle Technologies](#) — \$588 million (92.2 percent increase) to support research to make passenger and commercial vehicles more fuel efficient and capable of operating on non-petroleum fuels.
- [Building Technologies](#) — \$470.7 million (141.5 percent increase) towards the development of technologies to make new and existing homes and buildings less energy intensive.
- [Solar Energy](#) — \$457 million (79.9 percent increase) to accelerate commercialization of solar energy technologies.
- [Biomass and Biorefinery System](#) — \$340.5 million (12.5 percent increase) to stimulate biomass R&D and provide support for companies that intend to commercialize small biorefineries and validate new biomass conversion techniques.
- [Industrial Technologies](#) — \$319.8 million (207.7 percent increase) to catalyze cost-effective transformation of the industrial sector to reduce industry's energy and carbon intensity.
- [Geothermal Technology](#) — \$101.5 million (126.7 percent increase) to establish enhanced geothermal systems as a major contributor to the power grid.
- [Hydrogen and Fuel Cell Technologies](#) — \$100.5 million (43.5 percent decrease) for portable transportation and stationary applications of fuel cells and hydrogen storage. This line item replaces the hydrogen technology grouping, which received \$170.3 million in FY10.
- [Wind Energy](#) — \$126.9 million (53.0 percent increase) to improve the performance and reliability of wind technologies.
- [Water Power](#) — \$38.5 million (44.3 percent decrease) to advanced marine and hydrokinetic technologies.

The [Office of Energy Delivery and Energy Reliability](#) (OE) would receive \$192.8 million (58.8 percent increase) for its R&D efforts to modernize the electric grid, enhance security and reliability of energy infrastructure and facilitate recovery from disruptions to the energy supply. Proposed FY12 funding for OE R&D would emphasize clean energy transmission and reliability and energy storage. R&D areas include:

- **Clean Energy Transmission and Reliability** — \$60.8 million (62.6 percent increase over FY10 enacted) with increased funding to expand the Advanced Modeling Grid Research initiative and to create a new Smart Grid Technology and Systems Energy Innovation Hub.
- **Smart Grid Research and Development** — \$45 million (42.9 percent increase) with greater funding to research the effects of plug-in electric vehicles.
- **Energy Storage** — \$57 million (319.1 percent increase) to support demonstration projects.
- **Cyber Security for Energy Delivery Systems** — \$30 million (22.9 percent decrease) with a reduction attributed to one-time funding for the National Energy Sector Cyber Organization in FY10.

The request seeks \$146 million to support the three existing [Energy Innovation Hubs](#) and establish three new hubs in the areas of batteries and energy storage; smart grid technologies and systems; and critical materials. The batteries and energy storage hub was originally proposed in the FY11 budget request.

The proposed budget would decrease funding for the **Fossil Energy R&D** program administered by the [Fossil Energy Office](#). The Office would receive \$453 million (32.6 percent decrease over FY10 actual). Programs that would be zeroed out include: **Natural Gas Technologies** and the **Unconventional Fossil Technology** program.



A new \$100 million pilot program, entitled the **Better Buildings Pilot Loan Guarantee Initiative**, would provide loan-guarantees to universities, schools and hospitals to retrofit commercial buildings with cost-effective technologies and measures. The program awaits Congressional authorization.

DOE would end operation of the [Tevatron](#), at the [Fermi National Laboratory](#), rather than extend the program through FY14 — a projected savings of \$35 million in FY12.

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## Department of Health and Human Services

The Administration's [FY12 request](#) for the Department of Health and Human Services (HHS) is \$79.9 billion in discretionary spending, reflecting a 0.14 percent increase from the FY10 enacted budget. Discretionary spending accounts for only 10 percent of the total HHS budget. Mandatory spending for programs like Medicare, Medicaid and the Children's Health Insurance Program accounts for the balance. Requested FY12 outlays for HHS total \$891.6 billion (4.4 percent increase).

While the total HHS discretionary change is negligible between fiscal years, there are several revisions in priorities within the HHS budget. For instance, among the agencies within HHS with discretionary spending (listed by FY10 size):

Agency	FY12 Request (\$ millions)	Percent Change from FY10
National Institutes of Health	31,829	3.4
Centers for Disease Control and Prevention	5,893	(8.9)
Substance Abuse and Mental Health Administration	3,649	(1.8)
Food and Drug Administration	2,744	5.7
Agency for Healthcare Research and Quality	390	(3.2)

After distributing \$1.8 billion for grants from Recovery Act (ARRA) funding and \$158 million through the FY11 Continuing Resolution, the [Office of the National Coordinator for Health Information Technology](#) would receive no additional grant funding in the President's budget request for FY12. The office, responsible for accelerating health IT adoption and electronic health records, would receive \$78 million (27.9 percent increase) for administrative oversight in the FY12 budget request.

The Affordable Care Act created the **Patient-Centered Outcomes Research Institute** to help provide relevant, high quality information to patients, clinicians and policymakers so that they can make informed health care decisions. The Patient-Centered Outcomes Research Trust Fund would fund the independent institute, and related activities within HHS. The FY12 budget includes \$620 million in the Agency for Healthcare Research and Quality, the National Institutes of Health, and the Office of the Secretary, including \$30 million from the Trust Fund, to invest in core patient-centered health research activities and to disseminate research findings, train the next generation of patient-centered outcomes researchers, and improve data capacity.

Through the Public Health and Social Services Emergency Fund, the request includes \$665 million for the [Biomedical Advanced Research and Development Authority](#) (92.8 percent increase), to improve existing and develop new next-generation medical countermeasures to mitigate the medical consequences of potential chemical, biological, radiological, and nuclear threats.

The budget also includes \$100 million to establish a strategic investment corporation that would function as a **public/private venture capital fund providing companies developing medical countermeasures** with the necessary financial capital and business acumen to improve the chances of successful development of new medical countermeasure technologies and products.





### National Institutes of Health (NIH)

NIH estimates the FY12 funding request would support a total of 36,852 research project grants, including 9,158 new and competing awards (2.4 percent decrease). The total request for 24 components of NIH and the Office of the Director breaks down as follows:

<b>Institute</b>	<b>FY12 Request (\$ millions)</b>	<b>Percent Change from FY10</b>
National Cancer Institute	5,196	1.9
National Heart, Lung and Blood Institute	3,148	1.7
National Institute of Dental and Craniofacial Research	420	1.9
National Institute of Diabetes and Digestive and Kidney Diseases	1,838	(6.1)
National Institute of Neurological Disorders and Stroke	1,664	1.8
National Institute of Allergy and Infectious Diseases	4,916	8.9
National Institute of General Medicine Studies	2,102	2.6
National Institute of Child Health and Human Development	1,352	1.9
National Eye Institute	719	1.8
National Institute of Environmental Health Sciences (see note)	701	(9.4)
National Institute on Aging	1,130	2.0
National Institute of Arthritis and Musculoskeletal and Skin Diseases	548	1.9
National Institute of Deafness and Other Communication Disorders	426	1.9
National Institute of Nursing Research	148	2.1
National Institute of Alcohol Abuse and Alcoholism	469	1.5
National Institute of Drug Abuse	1,080	1.3
National Institute of Mental Health	1,517	1.5
National Human Genome Research Institute	525	0.2
National Institute of Biomedical Imaging and Bioengineering	322	1.9
National Center for Research Resources	1,298	2.4
National Center for Complementary and Alternative Medicine	131	2.3
National Institute on Minority Health and Health Disparities	215	2.8
John E. Fogarty International Center	71	-
National Library of Medicine	387	13.8
Office of the Director (NIH)	1,298	10.4

Note: An additional \$81.1 million is requested for the National Institute of Environmental Health Sciences as part of the Interior Appropriations request.

The FY12 budget request for the Office of the Director calls for \$80 million (18.2 percent decrease) for the [NIH Director's New Innovators Awards](#) program, while at the same time it increases funding for the [NIH Director's Pioneer Awards Program](#) to \$40.6 million (8.4 percent increase) and the **Transformative R01** grant program to \$100 million (152.2 percent increase). The request also creates a \$8.4 million **Early Independence Award Program** within the director's office.

The Office of the Director's FY12 request includes up to \$100 million for the new **Cures Acceleration Network** established in the 2010 Health Reform Act to support revolutionary advances to translate scientific research into commercial practice. The CAN initiative may use up to 20 percent of its funds on flexible research authorities to enable transactions other than contracts, grants, and cooperative agreements to carry out its goals.

To help bridge the divide between basic science and therapeutic applications, NIH plans to establish in FY12 the **National Center for Advancing Translational Sciences** (NCATS), of which the new Cures Acceleration Network would be just one component.



The [Therapeutics for Rare and Neglected Diseases](#) program would receive \$50 million (100 percent increase) and is expected to be part of NCATS as is the [Molecular Libraries Program](#), which provides academic researchers access to technology for assay development, and the [Rapid Access to Interventional Development](#) program, which works to remove or reduce common barriers that block progress of therapeutic discoveries.

Also expected to be part of NCATS is the [Clinical and Translational Science Awards](#) (CTSA) program. CSTA would receive \$485 million in FY12 to support a nationwide consortium of biomedical research institutions united around the goal of accelerating therapeutics development, engaging communities in clinical research, and training clinical and translational investigators.

With the creation of NCATS, the [National Center for Research Resources](#) would be abolished and its programs transferred to the new Center or other parts of NIH.

The NIH request includes \$55 million for the newly established **Concept Acceleration Program**, which helps shepherd individual investigators who have promising, early-stage, medical countermeasure products, but limited product development experience, to more rapidly develop and test their products through the clinical evaluation stages.

Another proposed initiative is the \$11.6 million **Health Economics** program to study four areas: changing incentives for consumers, insurers and providers; science of structure, organization and practice design in the efficient delivery of healthcare; economics of prevention; and data infrastructure to enable research on health reform.

Highlights for selected NIH initiatives that would experience significant changes within the President's FY12 budget request for the NIH Common Fund include:

- **Knockout Mouse Phenotyping** – \$10.5 million (2,100.0 percent increase)
- **Protein Capture** – \$10.0 million (747.5 percent increase)
- **Center for Regenerative Medicine** – \$10.0 million (330.8 percent increase)
- **Library of Integrated Network-based Cellular Signatures** – \$10 million (233.3 percent increase)
- **Human Heredity and Health in Africa** – \$5.0 million (85.0 percent increase)
- **Nanomedicine** – \$16.0 million (20.0 percent decrease)
- **Human Microbiome Initiative** – \$24.6 million (35.5 percent decrease)
- **Molecular Libraries and Imaging** – \$71.8 million (36.6 percent decrease)
- **Gulf Long-term Follow-up of Workers Study** – \$2.5 million (50 percent decrease)
- **Technology Development in Epigenetics** – \$3.0 million (50.6 percent decrease)
- **Bioinformatics and Computational Biology** – \$8.5 million (56.1 percent decrease)
- **Genotype-Tissue Expression Resources** – \$3.0 million (86.7 percent decrease)

The President's FY12 request for the NIH [Office of AIDS Research](#), which supports research through all of the NIH institutes and centers, is \$3.2 billion (2.4 percent increase). Shifting resources to competing awards and R&D contracts (SBIR/STTR) accounts for the majority of the change.



### [Centers for Disease Control and Prevention \(CDC\)](#)

The President's budget request includes a consolidation of several CDC centers and programs into a single \$705 million competitive grant program targeting chronic diseases. The proposed **Consolidated and Reformed Chronic Disease Program** would merge centers for heart disease, stroke, diabetes, cancer, arthritis, nutrition, health promotion, prevention centers, and selected other programs.

- The [National Institute for Occupational Safety and Health](#) — the primary federal agency responsible for conducting research, making recommendations and translating knowledge for the prevention of work-related illnesses and injury — would receive \$315.0 million (26.7 percent decrease). The reduction results from eliminating discretionary spending for the program World Trade Center program mentioned above.
- [Environmental Health](#) activities within CDC would be reduced to \$138 million (23.8 percent decrease). The saving are attained partially through a consolidation of asthma, childhood lead poisoning and healthy homes programs into single program with a \$33.0 million request for FY12 (50.0 percent decrease).

### [Substance Abuse and Mental Health Services Administration \(SAMHSA\)](#)

SAMHA would receive \$976 million (3 percent decrease) to support, in part, competitive grants to identify and test innovation prevention and treatment interventions. The reduction results from eliminating program areas that are fully tested.

### [Food and Drug Administration \(FDA\)](#)

The Administration proposes to implement several new fees related to supporting FDA food safety activities through existing and proposed law. The research-related line items mentioned in the HHS Budget documents include:

- the [National Center for Toxicological Research](#), which supports multidisciplinary research toward the development of new technologies in seven areas, would receive \$60 million (3.4 percent increase) in FY12; and,
- the [National Center for Natural Products Research](#), housed at the University of Mississippi, would be eliminated (\$3 million in FY10).

### [Agency for Healthcare Research and Quality \(AHRQ\)](#)

The President's request for **General Patient Safety Research** is \$65 million (28.6 percent decrease), while **Patient-Centered Health Research** would receive \$46 million (119 percent increase) to initiate projects resulting from the Affordable Care Act. The request for cross-cutting activities within AHRQ is \$92 million (17.9 percent decrease).

The reductions in the two line items of the AHRQ budget are explained as being the result of one-time research projects and one-time investments ending in FY10.

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## **Department of Homeland Security**

The Administration is requesting \$43.2 billion for the Department of Homeland Security (DHS) in [FY12](#), an increase of \$309 million (0.7 percent) over FY10 actual funding levels. Spending for the [Science and Technology \(S&T\) Directorate](#) would increase 17.8 percent under the proposed budget. Funding for core homeland security functions, such as border security and Coast Guard Assets, also would be increased; reductions of more than \$450 million would be made in lower priority areas such as consulting and professional service contracts.



The DHS S&T Directorate (S&T) would receive \$1.2 billion in FY12 (17.8 percent increase). S&T ensures DHS and the homeland security community have the science, technical information and capabilities they need to respond to and recover from homeland security threats. The Directorate has four Research, Development, Testing and Evaluation (RDT&E) program, project and activities (PPAs) and 16 thrust areas. The four PPA's and their funding recommendations for FY12 include:

- **Research, Development and Innovation (RD&I)** — \$659.9 million (5.1 percent) to provide state-of-the-art technology to meet the needs of the operational components of the department. The six thrusts of RD&I include: APEX R&D, border security, chemical, biological, radiological, nuclear and explosive defense, counter terrorist, cyber security, and disaster resilience. An increase of \$18 million is included for cybersecurity R&D projects in support of the [Comprehensive National Cybersecurity Initiative](#).
- **University Programs** — \$36.6 million (43.3 percent decrease) to support homeland security-related research and education at U.S. colleges and universities. Three thrust areas include: Centers of Excellence (COE), Education Programs, and Minority Serving Institutions (MSI). The FY12 decrease would eliminate one or more COE's, MSI's and approximately \$1.9 million from Education's scholarship and fellowship program.
- **Laboratory Facilities** — \$276.5 million (57 percent increase) to provide a coordinated, enduring core of productive science, technology and engineering labs. The increased funding is largely a reflection of \$150 million sought for construction of the **National Bio and Agro-Defense Facility**.
- **Acquisition and Operations Support** — \$54.2 million (42.3 percent) to provide expert assistance to entities across the homeland security enterprise to ensure the transition, acquisition, and deployment of technologies and procedures which improve the effectiveness of operations.

The [Domestic Nuclear Detection Office \(DNDO\)](#) would receive \$331.7 million (13.4 percent decrease from FY10 enacted). DNDO coordinates federal efforts to detect and protect against terrorism threats. Funding for Research, Development and Operations would be reduced 36.4 percent for a total \$206.3 million. The decrease is largely a reflection of the FY11 budget request transfer of \$108.5 million for the Transformational Research and Development Program to the S&T Directorate. The FY12 request again proposes this transfer and requests no funding for the program within DNDO.

The **Coast Guard's Research, Development, Test and Evaluation** program would receive \$19.8 million (19.3 percent decrease) to develop techniques, methods, hardware and systems that directly contribute to increasing the productivity and effectiveness of the Coast Guard's operating missions.

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## Department of Housing and Urban Development

The Administration's FY12 [budget request](#) for the Department of Housing and Urban Development (HUD) is \$41.7 billion (2.5 percent decrease from the FY10 enacted budget). Major reductions proposed for FY12 include a \$300 million reduction in funding for the [Community Development Block Grant \(CDBG\)](#) program relative to current funding levels. A new Growth Zone program is proposed in collaboration with the Economic Development Administration and USDA Rural Development.

The [Community Development Fund](#) would receive \$3.8 billion in FY12 (13.6 percent decrease), which includes \$3.7 billion for the CDBG program (7.5 percent decrease). Reduced funding for the CDBG program reflects the "need to balance federal budget constraints with the difficult fiscal conditions of state and local government," according to HUD budget documents.

Within the Community Development Fund, \$25 million is requested for the [Rural Innovation Fund](#), which received no funding in FY10, to provide grants to a range of entities to address the problems of concentrated rural housing distress and community poverty.



The FY12 budget requests \$150 million (no change from FY10) for the [Sustainable Communities Initiative](#) and proposes that it be funded as an independent account. The budget also would establish the **Office of Sustainable Housing and Communities**, which administers the initiative, as a separate program bureau. This program was previously funded as part of the Community Development Fund in FY10 and FY11.

In partnership with the Environmental Protection Agency and the Department of Transportation, the Sustainable Communities initiative provides incentives to regions and communities to innovate and develop comprehensive housing and transportation plans. There are three components to the initiative, including:

- \$100 million for **Regional Integrated Planning Grants**;
- \$40 million for the **Community Challenge Planning Grants**; and
- \$10 million for research, evaluation, capacity building and data collection and analysis.

A fourth component in FY12 would provide up to \$5 million to collect and analyze baseline energy consumption data.

No funding is requested for the **University Community Fund** (\$25 million in FY10), an initiative to promote revitalization in neighborhoods surrounding universities.

The FY12 budget proposes a new, national competition to identify 20 growth zones (“likely 14 urban and 6 rural”) designed to build on the success of [Empowerment Zones \(EZ\)](#) led by HUD and Economic Development Administration and USDA Rural Development. These new zones would receive flexible grants for planning, seed capital, technical assistance, or other costs. HUD’s role will be to help select the zones and provide technical assistance. Funding would come from a new \$40 million appropriation within EDA’s budget (see the Department of Commerce). No new funding is requested for the EZ or [Renewal Community \(RC\)](#) programs in the FY12 budget. The EZ’s tax incentives were extended through Dec. 31, 2011; tax incentives for RCs expired on Dec. 31, 2009.

The Administration proposes to eliminate the [Brownfields Economic Development Initiative \(BEDI\)](#), a competitive grant program targeted for redevelopment of brownfield sites for economic development and job creation. The program received \$18 million in FY10. Budget documents note that larger programs exist to address the same needs more efficiently and require lower administrative burden from HUD.

The [Office of Policy Development and Research \(PD&R\)](#) would receive \$57 million in FY12 (18.8 percent increase). This includes \$48 million to restore and enhance housing surveys and \$7 million for research and dissemination activities. PD&R is responsible for maintaining current information on housing needs, market conditions, and existing programs as well as conducting research on priority housing and community development issues.

The FY12 budget proposes to limit transfers to the [Transformation Initiative \(TI\)](#) to a maximum 0.5 percent per program and no more than \$120 million total. The TI was initiated in 2010 as an ongoing effort to increase the effectiveness of program and service delivery, facilitating an evidence-based approach to improving program outcomes, and enabling innovative approaches to address the nation’s housing and urban development problems. The budget proposes to use these funds for three purposes: (1) research, evaluation and program metrics; (2) program demonstrations; and (3) technical assistance and capacity building.

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## Department of the Interior

The Administration's [FY12 request](#) for the Department of Interior (DOI) is \$12.1 billion (no change). R&D activities within DOI are distributed among several offices and are relatively modest in spending compared to other research-oriented agencies. Highlights include:

- \$73.0 million (24 percent increase) for the **New Energy Frontier Renewable Energy** programs that are intended to create jobs, reduce the Nation's dependence on fossil fuels and oil imports, and reduce carbon impacts.
- \$1.1 billion (no change) is being requested for the [U.S. Geological Survey](#) (USGS). The USGS provides research and scientific information to support the mission of the DOI and its science requirements.
- \$99.8 million for **National Land Imaging**, including \$48 million to establish a permanent budgetary and managerial home for the Landsat series of Earth imaging satellites at USGS.

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## Department of Justice

The Administration's [request](#) for the Department of Justice (DOJ) is \$28.2 billion (1.8 percent increase above the FY10 enacted level).

The FY12 budget requests \$178.5 million (23.2 percent decrease) for the [Office of Justice Programs' Justice Assistance](#) appropriation, which includes programs that support research, development, evaluation, and dissemination of quality statistical and scientific information, victim services for children, and nationwide support for law enforcement agencies.

The [National Institute of Justice](#), which serves as the R&D agency of DOJ would receive \$55 million (14.6 percent increase from FY10 enacted with rescissions) for the Research, Evaluation and Demonstration program.

Additional research related funding in the DOJ budget includes:

- \$110 million for the **DNA initiative**. This program provides capacity building grants, training and technical assistance to state and local governments and supports innovative research on DNA analysis and use of forensic evidence. No funding was included in the FY10 enacted budget.
- No funding is included for the **Coverdell Forensic Science Improvement Grants** program (\$35 million decrease from FY10 enacted with rescissions), which provides funding to improve the quality and timeliness of forensic science and medical examiner services.

The Administration requests \$431.8 million (10.7 percent increase) for programs administered by the [Office on Violence Against Women](#) (OVW) to prevent and respond to violence against women and related victims. This includes a \$3 million appropriation to NIJ for **research and evaluation of violence against women** and related issues addressed by grant programs of the OVW and \$1 million for analysis and **research on violence against Indian women**.

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## Department of Labor

The Administration's [budget request](#) provides \$12.8 billion for the Department of Labor (DOL), a 5.2 percent decrease from the FY10 enacted level. The proposed budget includes funding to establish a competitive **Workforce Innovation Fund** in collaboration with the Department of Education to provide grants for reforms of the workforce system and a 50 percent increase for the **Green Jobs Innovation Fund**.

For training and employment services under the [Employment and Training Administration \(ETA\)](#), the Administration requests \$3.6 billion, a 5.3 percent decrease from the FY10 actual funding level. Training and employment services include the following programs:

- [Adult Employment and Training Activities](#) would receive \$860.5 million (0.1 percent decrease) to provide financial assistance to states to help prepare low-skill adult workers for higher paying jobs.
- [Dislocated Workers Employment and Training Activities](#) would receive \$1.4 billion (0.7 percent decrease) to provide employment and training services to individuals who have lost their jobs or are unlikely to return to employment in a previous industry.
- [Youth Activities](#) would receive \$923.9 million (0.02 percent decrease) to provide services to prepare low-income youth for employment and post-secondary education.
- **Green Jobs Innovation Fund** would receive \$60 million (50.0 percent increase) to award grants designed to expand the pipeline of workers with skills needed for green jobs, connect to the ongoing and changing demand of employers, and facilitate pathways to middle class careers.
- **Workforce Data Quality Initiative** would receive \$13.6 million (9.1 percent decrease) to enable state workforce agencies to build longitudinal data systems that merge workforce information with education data.

The budget eliminates the **Career Pathways Innovation Fund** (\$125 million), which the Administration argues duplicates the recently enacted **Trade Adjustment Assistance Community College and Career Training Program**. The newer program is funded by the Health Care and Education Reconciliation Act of 2010, which provides \$500 million annually in FY11-14 for competitive grants to eligible institutions of higher education to improve education and employment outcomes for students at community colleges. Budget documents note that this program will be the DOL's primary vehicle for funding community college-based workforce training programs.

A new **Workforce Innovation Fund** would be established and jointly administered by DOL and the Department of Education. Nearly \$380 million from both departments would be set aside for the initiative, according to budget documents. In the DOL budget, a portion of funds from existing programs would be directed to the new Workforce Innovation Fund, including \$68.8 million from Adult Employment and Training Activities, \$94 million from Dislocated Workers Employment and Training Activities and \$74 million from Workforce Investment Act Youth Program funds within ETA.

The [Office of Job Corps](#) would receive \$1.7 billion (0.5 percent decrease) to provide academic and career and technical training to help prepare at-risk youth for opportunities to enter the workforce, the military, or to enroll in postsecondary education.

The [Bureau of Labor Statistics](#) (BLS) would receive \$647 million (5.9 percent increase) to collect, analyze and disseminate essential economic information to support public and private decision making. The BLS concentrates its statistical activities on labor force, price and cost of living, compensation and working conditions, and productivity and technology trends.

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## Department of Transportation

The Administration's FY12 Department of Transportation (DOT) [budget request](#) totals \$129 billion (53 percent increase). A key element of the request is a \$556 billion six-year surface transportation reauthorization proposal to improve highways, transit, and rail infrastructure. In FY12, this initiative would boost road, railway and runway spending by \$50 billion, and create a **National Infrastructure Bank** (I-Bank) to provide grants and loans for transportation projects. The Administration proposes to invest \$5 billion annually for six years in the I-Bank, beginning in FY12.

The [Federal Aviation Administration's](#) (FAA) total request is \$18.7 billion (20 percent increase).

- The request for FAA research, engineering and development is \$190 million (0.5 percent decrease). Funding would support the continuation of work in both NextGen and other research areas such as fire research, and safety, propulsion and fuel systems, advanced materials research, and aging aircraft.

The FY12 budget request of \$17.6 million for the [Research and Innovative Technology Administration](#) (38 percent increase) includes a \$3 million increase to support the **Nationwide Differential Global Positioning System** program.

The [Federal Railroad Administration](#) (FRA) budget request for R&D is \$8.3 billion (91 percent increase). The request includes funds to implement a multi-year, high-speed and intercity passenger rail program.

**Research and Technology Deployment Program**, a part of the infrastructure overhaul, would receive \$166 million in FY12, and over six years, the Administration proposes to invest \$1.4 billion. The new account would align applied research and demonstration projects and combine technical assistance with workforce development. This account replaces the **Research and University Centers** account and various other accounts.

Several research programs of interest within the new program include:

- **Greenhouse Gas and Energy Reduction Deployment and Demonstration Program** —\$75 million to complement FTA capital programs with capital grants to transit agencies to implement technologies that reduce greenhouse gas emissions, improve energy efficiency, reduce dependency on fossil fuels and increase the use of environmentally sustainable practices and materials.
- **Clean Fuels and Environmental Research** —\$14.7 million to build on the **Clean Fuels and Environmental Research** and the **Research to Reduce Environmental Impacts** programs that have contributed to the deployment of low emission technologies in public transportation.
- **National Research Program** —\$20 million for discretionary research to increase transit ridership, improve operating efficiencies, understand the service needs of rural and targeted populations, improve planning and service projections, improve safety, and provide research leadership to address other major issues facing the transit industry.
- **Transit Cooperative Research** —\$9.7 million to provide funds to the National Science Foundation to conduct investigative research on subjects related to public transportation.
- **University Transportation Centers** —\$8 million to support transit research at university transportation centers through reimburseable agreements with the **Research and Innovative Technology Administration**.

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## Department of the Treasury

In the [proposed FY12 budget](#), the Department of the Treasury would receive \$17.4 billion, including \$14 billion (4.7 percent increase) for primary functions and \$ 3.4 billion for Treasury's International Programs. Another \$114.5 billion (199 percent increase) is requested for mandatory outlays, which includes **Troubled Asset Relief Program** (TARP) spending that was not present in FY10.

The [State Small Business Credit Initiative](#) (SSBCI), introduced through last year's Small Business Jobs Act, provides support for state capital access and credit support programs. Treasury was directed to create the seven-year initiative, which was appropriated \$1.5 billion (no FY10 funding) for direct support and administration. Disbursements to participating states will be issued in three tranches, with one third of the total funding to be issued in FY11. An estimated \$732 million will be disbursed in FY12. The other Treasury program created by the Small Jobs Act initiative, the [Small Business Lending Fund](#) (SBLF), encourages lending to small businesses by providing Tier 1 capital to qualified community banks. All of the program's investment activity will occur in FY11, when Treasury will disburse an estimated \$12.6 billion. The FY12 request includes \$72.6 million for administration of SBLF, but no additional funds for lending.

The [Community Development Financial Institutions Fund](#) (CDFI), which provides infusions of capital to institutions that serve economically distressed communities and low-income individuals, would receive \$227.3 million (8.1 percent decrease). The fund supports a number of programs, the largest of which is the CDFI Program, which offers monetary awards to boost economic development, affordable housing and community development financial services. This program would receive \$122 million (13 percent increase) under the proposed budget. Four former CDFI Fund programs would receive no funding: the [Bank Enterprise Award Program](#), the [Capital Magnet Fund](#), [Financial Education and Counseling](#) and [Hawaii Financial Education and Counseling](#). Continuing programs include:

- **Bank on USA Initiative** — \$41.4 million (no FY10 funding) to award grants to CDFIs to promote access to affordable financial services;
- **Healthy Food Financing Initiative** (HFFI) — \$25 million (no FY10 funding) to finance healthy food alternatives in low-income neighborhoods; and,
- **Native Initiatives** — \$12 million (9 percent increase) to provide assistance to and foster the development of Native American CDFIs.

The remaining \$23 million (27.8 percent increase) would fund administrative expenses, which has now merged with administrative expenses for the [New Markets Tax Credit](#) program. The budget requests \$5 billion in authorization authority for the NMTC program to offer tax credits to private investors to expand financing of renewable energy projects, charter schools, manufacturing facilities, retail center and other projects in low-income communities. HFFI would receive \$250 million in support from NMTC, under the proposal. The increase in NMTC authority from \$3 billion to \$5 billion is part of the government-wide Startup America initiative, and will be used to attract capital to underserved communities.

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## Environmental Protection Agency

The Administration's [FY12 budget request](#) for the Environmental Protection Agency (EPA) totals \$9 billion (13 percent decrease from FY10 enacted). The budget proposal includes \$560 million to support research and innovation into new and emerging environmental science, including a \$24.7 million increase to support research grants under the [Science to Achieve Results](#) (STAR) program. Major funding reductions in the proposed budget include decreased funding for state revolving funds (\$950 million) and reduced funding for the **Great Lakes Restoration Initiative** (\$125 million).



For [Science and Technology](#) (S&T), the Administration recommends \$825.6 million (1 percent increase from FY10 actual). Research activities within the Office of R&D would increase 9.6 percent to \$560 million. Funding for S&T represents 9.1 percent of EPA's total budget request.

Science and Technology programs include:

- [Clean Air and Climate](#) — \$134.4 million (1.9 percent increase)
- [Indoor Air and Radiation](#) — \$6.8 million (9.9 percent decrease)
- [Forensics Support](#) — \$15.3 million (0.5 percent increase)
- [Homeland Security](#) — \$42.0 million (29.0 percent decrease)
- [IT, Data Management and Security](#) — \$4.1 million (1.3 percent decrease)
- [Pesticides Licensing](#) — \$6.8 million (1.5 percent decrease)
- [Drinking Water Programs](#) — \$3.8 million (2.6 percent decrease)
- [Research](#) — \$560 million (9.6 percent increase). EPA is restructuring its scientific research program in FY12 to be more integrated and cross-disciplinary. The new approach will be implemented by realigning and integrating the work of twelve base research programs into four new research thrusts, including:
  - [Air, Climate and Energy](#) — \$108 million (5.1 percent increase);
  - [Safe and Sustainable Water Resources](#) — \$118.8 million (9.3 percent increase);
  - [Sustainable Communities](#) — \$171 million (6.5 percent decrease); and,
  - [Chemical Safety and Sustainability](#) — \$138.1 million (18.3 percent increase).

The additional \$24.7 million would support STAR grants in key areas in support of the Administration's priorities, including [Hydraulic Fracturing](#) (\$4.2 million), [Endocrine Disruptors](#) (\$7 million), [Green Infrastructure](#) (\$6 million), and [STAR Fellowships](#) (\$6 million) in support of the Science, Technology, Engineering and Mathematics government-wide initiative.

In support of [Climate Change](#) initiatives, the Administration requests a new appropriation of \$30 million for Greenhouse Gas Permitting to support states in developing and deploying the technical capacity to address greenhouse gas emissions in permitting large sources as part of their Clean Air Act programs. The budget includes \$19.2 million to provide support for implementation of the Greenhouse Gas Reporting Rule, a 15 percent increase from FY10 enacted.

Climate protection programs total \$111.4 million (1.5 percent increase), and include:

- \$55.6 million for [Energy STAR](#) (32.0 percent increase)
- \$17.6 million for [Greenhouse Gas Reporting Registry](#) (10.4 percent increase)
- \$5.6 million for [Methane to Markets](#) (6.5 percent increase)
- \$32.5 million for other activities (29.8 percent decrease)

Other climate change and air quality investments include \$10.1 million (27.8 percent increase from FY10 enacted) for [Carbon Capture and Sequestration](#) to address critical air and climate-related issues and assist states in implementing new federal requirements for underground injection of carbon dioxide.

The proposed budget terminates the \$60 million [Diesel Emission Reduction Act](#) grant program, designed to help states reduce emissions from diesel engines by retrofitting or replacing older engines.

No funding is recommended for [Local Government Climate Change Grants](#), which received \$10 million in FY10. The Administration proposed eliminating the grants last year because of duplicative programs across the federal government targeting reduction of greenhouse gas emissions.



The FY12 budget request includes \$1.5 billion (26.2 percent decrease) for the [Clean Water State Revolving Funds](#) and \$990 million (28.6 percent decrease) for the [Drinking Water State Revolving Funds](#). These programs provide grants to states to capitalize their own revolving funds, which finance wastewater and drinking water treatment systems.

Funding for the [Great Lakes Restoration Initiative](#) is requested at \$350 million in FY12, a reduction of \$125 million below the previous enacted level. The program received initial funding in FY10 for restoration efforts, invasive species control, non-point source pollution mitigation and critical habitats protection. The budget also requests \$67.4 million for the [Chesapeake Bay program](#) (26.6 percent increase) to support implementation plans to reduce nutrient and sediment pollution. A new request of \$6.6 million is included for the **Mississippi River Basin** program to address water quality in the Gulf of Mexico.

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## NASA

The Administration has proposed an \$18.7 billion [FY12 budget](#) for NASA that has no net change in discretionary funding versus FY10 enacted levels. With the end of the [Space Shuttle](#) program in calendar year 2011, NASA will continue to shift away from manned space flight to focus on improved partnership with the commercial space industry, as well as maintaining the United States' commitment to the **International Space Station**.

Structural and management changes across the NASA directorates would result in funding shifts, particularly with the move of the **Exploration Technology Demonstration Program** from the [Exploration](#) directorate to the [Space Technology](#) directorate.

Directorate	FY12 Budget Request	Percent Change from FY10
Space Operations	\$4.3 billion	(29.5)
Science	\$5.0 billion	11.1
Exploration	\$3.9 billion	8.3
Space Technology	\$1.0 billion	272.3
Aeronautics and Space Research and Technology	\$569.4 million	14.6
Education	\$138.4 million	(23.2)

Other highlights from the NASA budget request include:

- **[Space Operations](#)** —for the Space Shuttle, **[International Space Station \(ISS\)](#)**, and Space and Flight Support programs. With the pending conclusion of the Shuttle project at the end of this calendar year, the Shuttle budget would reduce to \$664.2 million (78.6 percent decrease), which would cover retirement and transition funding only. Funding increases would be seen in the ISS and labor and expenses.
- **[Science](#)** — to support earth science, planetary science, astrophysics, and heliophysics. There is no discussion of new initiatives being launched across these four research areas. The majority of the directorate's budgetary increase comes from labor and expenses. Decreases include reduced funding for the global climate initiative and for the **[James Webb Space Telescope](#)**, which is the successor to the Hubble Telescope. The James Webb Space Telescope would receive \$373.7 million (14.8 percent reduction).
- **[Exploration](#)** — to strengthen NASA's partnership with the commercial space industry, the budget request for the commercial spaceflight line item is \$850 million (2,074.0 percent increase) to develop commercial crew capability for low earth orbit and the ISS. The increase, in part, would be offset by reductions in the \$2.8 billion funding requested for human exploration capabilities (14.5 percent decrease) and \$288.5 million for exploration research and design (3.7 percent decrease). In addition, further reductions result from the transfer of the Exploration Technology Demonstration Program to the Space Technology directorate.
- **[Space Technology](#)** — would support early stage research in technology and innovations. The Space Technology directorate administers both the NASA **[Small Business Innovative Research \(SBIR\)](#)** and **[Small Business Technology Transfer \(STTR\)](#)** programs. Space Technology would receive increased funding with the shift of the Exploration Technology Demonstration Program into the directorate. No additional new initiatives would be undertaken in the directorate.
- **[Aeronautics and Space Research and Technology](#)** — the 14.6 percent increase would support expanded research efforts in the following: high-altitude ice crystals on aircraft; effects of lightning strikes on composite materials; composite structures and materials; alternative fuels; airport surface operations; and flight research. Hypersonic flight research would be reduced.
- **[Education](#)** — to educate students at all levels in science, technology, math, and engineering (STEM). This would be accomplished through new initiatives throughout the education directorate, including: focusing K-12 improvements on educator professional development; increase internship and learning opportunities for high school and college students; increased NASA role in STEM policy discussions; and engagement with strategic partners to improve STEM outcomes. The NASA budget overview does not provide details explaining how the \$42 million decrease from FY10 appropriations will impact the directorate other than saying there will be fewer grants awarded and operational efficiencies sought.

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## National Science Foundation

The National Science Foundation (NSF) FY12 discretionary [budget request](#) is \$7.8 billion (11.4 percent increase over FY10 actual). Of that amount, \$6.3 billion (11.4 percent increase) would be designated for research and related activities, \$224.7 million (35.4 percent increase) for R&D facilities and equipment and \$911.2 million (4.4 percent increase) for education and training. Nearly 90 percent of the funding is awarded through a merit review process that determines the distribution of grants and cooperative agreements.



FY12 budget request for initiatives that cross several NSF directorates include:

- [\*\*Advanced Manufacturing\*\*](#) — \$190.4 million (156.6 percent increase) for the support of a diverse research portfolio providing basic research discoveries that benefit advanced manufacturing.
- [\*\*Cyberinfrastructure Framework for 21<sup>st</sup> Century Science and Engineering\*\*](#) (Cif21) — \$117 million (new) to develop and deploy comprehensive, integrated, sustainable and secure cyberinfrastructure (CI) to accelerate research and education and new functional capabilities in computational and data-intensive science and engineering.
- [\*\*Faculty Early Career Development Program\*\*](#) (CAREER) —\$222.0 million (1.6 percent increase) to support exceptionally promising college and university junior faculty who are committed to the integration of research and education and who are most likely to become the leaders in their fields.
- [\*\*National Nanotechnology Initiative\*\*](#) (NNI) — \$456.0 million (6.4 percent increase) is the NSF contribution to coordinate nanotech efforts across 25 federal agencies.
- [\*\*Networking and Information Technology Research and Development\*\*](#) (NITRD) — \$1.3 billion (13.8 percent increase) to support large scale networking, cybersecurity, highconfidence software and systems, human-computer interaction and software productivity.
- [\*\*Research at the Interface of Biological Mathematical and Physical Sciences\*\*](#) (BioMaPS) — \$76.1 million (new) to support interdisciplinary research that brings together researchers from the biological, mathematical and physical sciences.
- [\*\*Science, Engineering and Education for Sustainability\*\*](#) (SEES) — \$998.2 million (51.1 percent increase from FY10 enacted) to support a portfolio of climate and energy science and engineering programs to inform societal actions that lead to environmental and economic sustainability.
- [\*\*Science and Engineering Beyond Moore's Law\*\*](#) (SEBML) — \$96.2 million (14.3 percent increase) to move the U.S. to the forefront of communications and computational capability beyond the physical and conceptual limitations of current technologies.
- [\*\*U.S. Global Change Research Program\*\*](#) (USGCRP) — \$425.1 million (33 percent increase) to advance basic research, integrative modeling and product development in the areas of climate change and evolving ecosystems.



## NSF Center Programs

NSF requests \$289.2 million (3.3 percent increase) for the center programs, which are the principle means by which NSF fosters interdisciplinary research. Many NSF centers receive additional support from research-based state TBED strategies. Among NSF center programs are:

- [Centers for Analysis and Synthesis](#) — \$25.8 million (13.6 percent increase) toward the development of new tools and standards for management of biological information and to support data analysis capabilities across the country.
- [Centers for Chemical Innovation](#) — \$24 million (no change) to support long-term “big questions” in basic chemical research.
- [Engineering Research Centers](#) (ERCs) — \$81 million (66.7 percent increase) to fund partnerships working towards the development of next-generation advances in engineered systems.
- [Industry/University Cooperative Research Centers](#) (I/UCRCs) — \$9.6 million (22.9 percent increase), funding for topics related to sustainable energy and cyberinfrastructure account for the increase.
- [Materials Research Science & Engineering Centers](#) — \$57 million (8.6 percent increase) to support centers that perform materials research at academic institutions across the country.
- [Nanoscale Science and Engineering Centers](#) — \$30.3 million (36.9 percent decrease) towards research to advance the development of ultra-small technology in electronics, materials, medicine, environmental science and other fields.
- [Science and Technology Centers](#) (STCs) — \$50.8 million (11.9 percent decrease) to support partnerships involving academia, industry government laboratories and other organizations to conduct innovative, potentially transformative, complex research and education projects.
- [Sciences of Learning Centers](#) — \$20.4 million (23.3 percent decrease) to conduct research that advances the understanding of learning and its societal implications.

NSF is organized into several directorates, offices and a commission. The Administration’s request for spending on research and related activities by directorate and office follows:

- [Mathematical & Physical Sciences](#) — \$1.4 billion (4.7 percent increase);
- [Geoscience](#) — \$979.2 million (9.8 percent increase);
- [Engineering](#) — \$908.3 million (17.1 percent increase);
- [Biological Sciences](#) — \$794.5 million (11.2 percent increase);
- [Computer & Information Science & Engineering](#) — \$728.4 million (17.7 percent increase);
- [Office of Polar Programs](#) — \$477.4 million (5.7 percent increase);
- [Social, Behavioral & Economic Sciences](#) — \$301.1 million (17.9 percent increase);
- [Office of Cyberinfrastructure](#) — \$236 million (9.9 percent increase);
- [Office of International Science & Engineering](#) — \$58.0 million (21.3 percent increase); and,
- [U.S. Arctic Research Commission](#) — \$1.6 million (1.3 percent increase).



Selected programs from NSF's directorates and offices include:

- [Emerging Frontiers](#) (EF) — \$124.8 million (21.3 percent increase), located within the Biological Sciences Directorate, provides funding to identify, incubate and support infrastructure and research areas that transcend scientific disciplines and/or advance the conceptual foundations of biology.
- **Partnerships for Innovation** — \$26.7 million (188.7 percent increase) within the Engineering Directorate would support the commercialization and technology transfer efforts of institutions of higher education. The [Partnerships for Innovation](#) program itself will be maintained at the same \$9.19 million as FY10.
- **Accelerating Innovation Research** (AIR) — \$19.5 million (new) to provide innovation research fellowships in small businesses and industry-defined fundamental research.
- [Office of Emerging Frontiers in Research Innovation](#) (EFRI) — \$33.2 million (14.5 percent increase) — to help NSF focus on emerging areas in a timely manner. EFRI recommends, prioritizes and funds emerging frontiers of engineering research and education.

Integrated Activities (IA) would receive \$336.3 million (22.3 percent increase). Selected programs include:

- **Communication Science Broadly** (CSB) — \$4.0 million (no change) to create products and processes through traditional and social media platforms that make learning and understanding science, technology, engineering and mathematics part of everyday life.
- **Experimental Program to Stimulate Competitive Research** (EPSCoR) — \$160.5 million (9.1 percent increase) to promote the development of eligible states' S&T resources through partnerships involving universities, industry, government and the federal R&D enterprise.
- [Integrated NSF Support Promoting Interdisciplinary Research and Education](#) (INSPIRE) — \$12.35 million (new) to support a proposed initiative for a suite of activities that will foster and support interdisciplinary research.

Proposed funding for NSF's science, technology engineering and mathematics (STEM) education initiatives includes:

- [Increasing the Participation and Advancement of Women in Academic Science and Engineering Careers](#) (ADVANCE) — \$21.7 million (3.1 percent increase).
- [Integrative Graduate Education and Research Training](#) (IGERT) — \$62.5 million (10.4 percent decrease) to prepare U.S. doctoral students for advancing knowledge in emerging areas of research and to pursue successful careers in academia industry or public sector.
- **Science, Technology, Engineering and Math Talent Expansion Program** (STEP) — \$35.5 million (12.3 percent increase).
- **Total Graduate Fellowships & Traineeships** — \$287.6 million (9.8 percent increase) to build the critical human capital base required for future STEM investigation and innovation.
- **Total [Research Experiences for Undergraduates](#)** (REU) — \$66.0 million (18.2 percent decrease).

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## Regional Commissions and Authorities

The [FY12 budget request](#) includes discretionary funding for three commissions (included in the Other Independent Agencies section of the Budget Appendices). These commissions target specific geographic areas across the United States with the goal of improving economic conditions in these regions.

The Appalachian Regional Commission, Delta Regional Authority, and the Denali Commission rely upon annual appropriations. The Tennessee Valley Authority, although generating its own income, requires the government to annually determine and reaffirm its budget authority.

- [Appalachian Regional Commission \(ARC\)](#) — \$76 million (no change) to foster development in a 420-county area across 13 states in the Appalachian region. The FY12 budget would dedicate \$10 million to work with regional partners to create sustainable economic and job growth in the region.
- [Delta Regional Authority \(DRA\)](#) — \$13 million (no change) a federal-state partnership covering 252 counties and parishes in eight states in the Mississippi Delta region. In FY12, the DRA would emphasize investments on regionally impactful projects, small business development and entrepreneurship, and green economy job creation.
- [Denali Commission](#) — \$12 million (no change) to promote infrastructure development, job training, and overall economic development in rural Alaska. The FY12 budget would add a 50 percent matching requirement for construction projects, and a 20 percent matching requirement for grants to distressed communities.
- [Tennessee Valley Authority \(TVA\)](#) — \$33 billion (10 percent increase) to develop an area of river basin across seven states. This includes water release oversight, dam maintenance, navigation locks monitoring, water quality and supply, shoreline management, and operation of public recreation areas.

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## Small Business Administration

The Administration's FY12 [budget request](#) for the Small Business Administration (SBA) is \$985.0 million (19.5 percent increase). The FY10 enacted budget was \$161.0 million higher due to supplemental recession-related appropriations. Excluding those appropriations, the FY12 request represents an increase. Much of the FY12 increase over pre-supplemental FY10 spending is due to higher estimated subsidy costs for SBA's loan programs.



The FY12 budget would generate up to \$27.0 billion in small business capital by allocating \$363.8 million for SBA's three business loan programs and loan administration.

- [Section 7\(a\) loans](#) would receive \$130.0 million in subsidies to support \$16.5 billion in loan guarantees to small businesses, including \$14.5 billion in term loans and \$2.0 billion in revolving lines of credit. Two new types of SBA 7(a) loans, the [Small Loan Advantage](#) and the [Community Advantage](#) program, would direct more loans under \$250,000 to small businesses and entrepreneurs in underserved communities.
- SBA's [CDC/504 guarantee loan program](#), which encourages economic development by helping small businesses purchase fixed assets, would receive \$82.0 million in subsidies to support \$7.5 billion in 504 loans.
- [SBA Microloans](#) would receive \$3.8 million (20 percent decrease) in subsidies to leverage \$25.0 million in loans.
- The remaining \$148.0 million would cover administrative costs (3.3 percent decrease).

The [Small Business Investment Company \(SBIC\)](#), which provides credit to support venture investment in underserved areas, would be funded to support \$3.0 billion (157.5 percent increase) in SBIC debentures. SBIC debentures support new businesses through early-stage and mezzanine financing. As part of the Startup America partnership, a new SBIC [Innovation Fund](#) would provide up to a 2:1 match to private capital raised by funds targeting startups in distressed communities and strategic industries. The SBIC [Impact Investment Fund](#) would provide a 1:1 match to private capital raised by early stage seed funds. These funds are not listed separately in the budget, but the Administration has announced it will commit \$1.0 billion over the through FY16 to each fund using the infrastructure of the SBIC program. Up to \$200.0 million in guarantees for matching funds would be available to each program in FY12. **SBIC direct microloans**, which lend to intermediaries providing small loans to entrepreneurs and other borrowers, will support \$25.0 million (34.2 percent decrease) in lending.

SBA also supports several business assistance and outreach programs. The largest, the [Small Business Development Centers \(SBDCs\)](#) program, has been set in the President's FY12 request at \$103.0 million (8.8 percent decrease). SBA budget documents note the SBDCs received supplemental funding of \$50.0 million for FY11 and FY12 through the Small Business Jobs Act.

The 110 [Women's Business Centers](#) would receive a total of \$14 million and the 370 chapters of [SCORE](#), which organizes its members to serve as mentors to entrepreneurs and business owners, would receive \$7 million in total. SBA's [Emerging Leaders](#) program would be expanded to provide intensive training and technical assistance to more owners of high-potential companies, particularly in distressed areas. The program would receive \$3.0 million under the proposed budget. (Note: FY10 comparisons for these three programs are not available at press time).



SBA's [Regional Innovation Clusters](#) program supports regional growth and job creation by funding public-private partnerships to boost strategic concentrations of businesses and industries. The FY12 budget request is \$12.0 million for the initiative, first launched in FY10 with \$10 million.

The President's FY12 request calls for elimination of the [Program for Investment in Micro-Entrepreneurs](#) (PRIME) technical assistance program, deeming it duplicative of other programs. The resulting savings would be \$8.0 million.

The budget request also establishes a new budget authority for the existing [Office of Advocacy](#), appropriating \$9 million to support research and data analysis related to small business issues.

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## State Science & Technology Institute

5015 Pine Creek Drive  
Westerville, OH 43081  
(614) 901-1690



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