

APLU Priorities in the FY2011 President's Budget

Agriculture

[USDA Summary](#)

[NIFA Section from USDA Budget Appendix](#)

From The Cornerstone team:

The following table presents the proposed funding levels for the Department of Agriculture's National Institute of Food and Agriculture (NIFA). As you will note, the President proposes to leave the top-line number for the agency (essentially) unchanged at \$1.358 billion. There is large increase proposed for the Agriculture and Food Research Initiative to be paid by corresponding decreases in congressionally designated projects (earmarks) and some additional line items.

National Institute of Food and Agriculture

President's FY 2011 Budget Request Compared to Prior Years

(All \$Millions)

	FY 2009	FY 2010	FY 2011
Research and Education Activities	Enacted	Enacted	President
Hatch Act	207.106	215.000	215.000
McIntire-Stennis Cooperative Forestry	27.535	29.000	29.000
Evans-Allen Program (1890s Research)	45.504	48.500	48.500
Agriculture and Food Research Initiative	201.504	262.482	428.845
Improved Pest Control	15.945	16.185	16.185
Special Research Grants	84.499	89.029	2.021
Animal Health and Disease (Sec. 1433)	2.950	2.950	2.950
1994 Institutions Research Program	1.610	1.805	1.805
Joe Skeen Institute for Rangeland Restoration	0.983	0.983	0.983
Graduate Fellowship Grants	3.859	3.859	3.859
Institution Challenge Grants	5.654	5.654	8.154
Multicultural Scholars Program	0.981	1.241	1.241

Hispanic Education Partnership Grants	6.237	9.237	9.237
Secondary/2-year Post Secondary ¹	0.983	0.983	3.483
Capacity Building Grants (1890 Institutions)	15.000	18.250	18.250
Payments to the 1994 Institutions	3.342	3.342	3.342
Native Alaska/Hawaiian-Serving Education Grants	3.196	3.200	3.200
Resident Instruction Grants for Insular Areas	0.800	0.900	0.900
Distance Education Grants for Insular Areas		0.750	0.750
Farm Business Management and Benchmarking		1.500	
Sun Grant Program		2.250	
New Era Rural Technology Program	0.750	0.875	0.875
Veterinary Medical Services Act	2.950	4.800	4.800
Federal Administration (Total)	39.426	45.122	14.503
Alternative Crops	0.819	0.835	0.835
Aquaculture Centers (Sec.1475)	3.928	3.928	3.928
Critical Agricultural Materials Act	1.083	1.083	1.083
Sustainable Agriculture Research & Ed. (SARE)	14.399	14.500	15.000
Subtotal	691.043	788.243	838.729
	FY 2009	FY 2010	FY 2011
Extension Activities	Enacted	Enacted	President
Smith Lever Sections 3(b) and 3(c)	288.548	297.500	297.500
Smith Lever Section 3(d):			
Farm Safety	4.863	4.863	
Food and Nutrition Education (EFNEP)	66.155	68.070	68.070
Indian Reservation Agents	3.000	3.045	5.321
New Technologies for Ag Extension (eXtension)	1.500	1.750	1.750

Pest Management	9.791	9.938	9.938
Sustainable Agriculture	4.568	4.705	4.968
Youth at Risk	8.182	8.412	8.412
Youth Farm Safety Education and Certification	0.479	0.486	0.486
1890 Institutions and Tuskegee	40.150	42.677	42.677
1890 Facilities Grants (Sec. 1447)	18.000	19.770	19.770
Renewable Resources Extension Act	4.008	4.068	4.068
Rural Health and Safety Education	1.738	1.738	1.738
Extension Services at the 1994 Institutions	3.321	4.321	5.300
Food Animal Residue Avoidance Database	0.806	1.000	
Grants to Youth Organizations	1.767	1.784	
Women and Minorities in STEM fields		0.400	0.400
Federal Administration and Special Grants (total)	17.374	20.396	8.805
Subtotal	474.250	494.923	479.203
	FY 2009	FY 2010	FY 2011
Integrated Activities	Enacted	Enacted	President
Water Quality ²	12.649	12.649	
Food Safety ²	14.596	14.596	
Regional Pest Management Centers ²	4.096	4.096	
Crops at Risk from FQPA Implementation ²	1.365	1.365	
FQPA Risk Mitigation Prog. for Major Food Crops ²	4.388	4.388	
Methyl Bromide Transition Program ²	3.054	3.054	
Organic Transition Program ²	1.842	5.000	
International Science and Education Grants	3.000	3.000	3.000
Critical Issues Program	0.732	0.732	0.732

Regional Rural Development Centers	1.312	1.312	1.312
Sustainable Agriculture Federal-State Matching			10.000
Food and Agriculture Defense Initiative	9.830	9.830	9.830
Subtotal	56.864	60.022	24.874
	FY 2009	FY 2010	FY 2011
Other NIFA Accounts	Enacted	Enacted	President
Tribal Colleges Endowment Fund	11.880	11.880	11.880
Interest (Estimated) on Tribal Colleges Endowment	3.700	3.700	3.700
	FY 2009	FY 2010	FY 2011
NIFA (Agency Total)	Enacted	Enacted	President
TOTAL	1,237.737	1,358.768	1,358.386

1. President's Budget Request adds funds for: "Agriculture in the K-12 classroom"
2. President's Budget Request would move Sec. 406 Integrated Activities funding lines to AFRI.

Preliminary Analysis

As traditionally happens, the President's Budget Request proposed elimination of most of the special research grants and the research and extension federal administration grants (earmarks). Also, as we have seen in most recent fiscal years, the Budget proposed to move seven of the funding lines in the Integrated Activities portion of the NIFA budget to the Agriculture and Food Research Initiative (AFRI).

AFRI would receive a \$166.363 million increase, rising from the FY 2010 enacted level of \$262.482 million to \$428.845 million.

Several NIFA line items would see modest increases (e.g. the 1994 Institutions' Extension Services) over their FY 2010 enacted levels and several line items are proposed for elimination. (Again, this is common in the President's Budget Request.) There are three significant additions: (1) the Secondary/2-year Post Secondary grant program under the Research and Education heading would receive a \$2.500 million increase to add an "Agriculture in the K-12 classroom" element; (2) there is a new (proposed) \$10.000 million "Sustainable Agriculture Federal-State Matching Grants" program under the Integrated Activities heading; and (3) Institution Challenge Grants would receive a \$2.500 million increase.

Finally, the Budget Request does not touch funding for the four NIFA mandatory programs established in the 2008 Farm Bill.

Department of Defense

[DOD Summary](#)

The Administration requests \$1.998 billion for Department of Defense Basic Research (6.1) programs, including Defense-wide and military services basic research programs. This is approximately a 65 increase over the FY2010 appropriated level for 6.1 Basic Research of \$1.882 billion. (Note: The DoD RDT&E R-1 budget document states the 6.1 research spending was \$2.1 billion in FY2010 but that differs from the appropriated amount of \$1.882 billion.)

The Administration requests \$3.1 billion for the Defense Advanced Research Projects Agency (DARPA) up from \$2.99 billion in FY2010..

The National Defense Education Program (NDEP) is requested to increase to \$110 million in FY2011 from \$79 million in FY2010.

Education

[Department of Education Summary](#)

For the Department of Education overall, in discretionary appropriations the Administration requests \$49.7 billion, a \$3.5 billion increase, or 7.6 percent, over FY2010. Much of the President's FY2011 Education budget request assumes the passage of the Student Aid and Fiscal Responsibility Act (SAFRA), which has passed the House of Representatives and is still pending in the Senate. Highlights include:

- **Pell Grants**
The Administration's budget requests \$34.8 Billion (an increase of 29.2%) for Pell Grants, with a maximum Pell award of \$5710 (up from \$5550 in 2010). The budget would make Pell Grant funding mandatory rather than discretionary and would index the maximum award to increase annually to the consumer price index plus one percentage point.
- **Federal Work Study**
Funding for the Federal Work Study Program is level funded by the Administration's request at \$980 Million.
- **Javits Fellowships**
The budget requests level funding of \$9.7 Million for the Javits Fellowship program. The request would support 218 fellowships in 2011.
- **Graduate Assistance in Areas of National Need (GAANN)**
The budget requests level funding of \$31.7 Million for the GAANN Fellowship program. The request would support 702 fellowships in 2011.
- **Income-based Repayment (IBR) Program**
The Administration request would reduce the required monthly loan repayments to 10 percent of their discretionary income (down from 15 percent) and allow remaining debt to be forgiven

after 20 years (down from 25 years). Remaining debt for persons in special fields would be forgiven in 10 years.

- **Fund for the Improvement of Postsecondary Education (FIPSE)**
The Administration's request provides \$64 million for the to support innovative projects to reform and improve postsecondary education, including \$25 million for a STEM initiative to identify and validate effective approaches for recruiting, retaining, and teaching undergraduate students in STEM fields.
- **Perkins Loan Program**
Similar to the Administration's request in FY2010, the Administration would like to see changes to the Perkins Loan program, both expanding (to \$6 billion in awards) and modifying the structure of the program to have the Department service loans instead of institutions.
- **TRIO, Supplemental Education Opportunity Grants (SEOG), GEAR UP**
TRIO, SEOG, and GEAR UP are all flat funded from 2010 at \$853 million, \$757 million, and \$323 million respectively.
- **American Competitiveness Grants/SMART Grants**
The Administration's FY2011 budget does not fund or request an extension of the ACG or SMART grant programs which sunset in the 2010-2011 school year.
- **STEM Initiatives**
In addition to FIPSE STEM funding, the Administration requests \$150 million within their Investing in Innovation (i3) program for projects involving science, technology, engineering, and mathematics education in developing, evaluating, and scaling up promising and effective models and interventions. The Administration also requests \$300 million for Effective Teaching and Learning: Science, Technology, Engineering, and Mathematics program to improve teaching of and raise student achievement in STEM fields through comprehensive instructional strategies.

Department of Energy

[DOE Summary](#)

The Administration has requested \$28.4 billion for the overall FY2011 budget of the Department of Energy (DOE). This is a \$1.8 billion, or 6.8 percent, increase over the FY2010 level of \$26.6 billion.

DOE Office of Science (SC):

The Administration requests \$5.121 billion for the DOE Office of Science, an increase of \$218 million, or 4.4 percent, above the enacted (non-ARRA) FY2010 level.

All of the Office of Science program areas will see increases to their budgets except for the Fusion Energy Sciences Program which will see a 10.8% decrease to \$380 million. Of note, the Basic Energy Sciences (BES) would be funded at \$1.84 billion, an increase of 12.1% or \$198.5 million over the FY2010

level and the Workforce Development for Teachers and Scientists program would receive a 72.2 percent \$35.6 million, a \$14.9 million, or percent, increase over the FY10 enacted amount. Of the total, \$16 million is to support 60 new Early Career Research Awards at universities and DOE national laboratories. Another \$10 million is designated for the DOE Office of Science Graduate Fellowship program, an increase for the fellowships program of \$5 million over FY10, which would support 170 additional graduate fellowships.

Energy Frontier Research Centers (EFRC) Program:

The Office of Science budget request includes \$140 million in funding for the Energy Frontier Research Centers (EFRCs) program. \$100 million of which will be continued funded for current programs and \$40 million will be for new EFRCs, likely funding between three and eight new Centers in two areas: (1) discovery and development of new materials and (2) research for energy applications not currently covered by existing EFRCs.

Energy Innovation Hubs:

The DOE overall budget requests calls for \$107 million to support four Energy Innovation Hubs, \$24.3 million for each of the existing three hubs funded in FY10, and \$34 million for a new additional hub to focus on Batteries and Energy Storage to be funded within the Office of Science.

Advanced Research Projects Agency-Energy (ARPA-E):

The FY11 request for ARPA-E is \$300 million, \$273.4 million of which is to support ARPA-E supported R&D projects. This funding request builds upon the \$400 million in Recovery Act funds provided to ARPA-E.

DOE Office of Energy Efficiency and Renewable Energy (EERE):

The Administration requests \$2.4 billion in FY 2011 for the Efficiency and Renewable Energy (EERE) research, development, demonstration, and deployment activities.

RE-ENERGYSE Energy Education Program:

The Administration requests a total of \$55 million for the DOE RE-ENERGYSE (REgaining our ENERGY Science and Engineering Edge) program, which is less than the Administration's FY2010 request of \$115 million that never appropriated by Congress. RE-ENERGYSE funded will come from EERE (\$50 million), Office of Nuclear Energy (\$5 million) with additional funding of \$19 million being sought in the FY2011 budget of the National Science Foundation (NSF). Of the DOE portion of RE-ENERGYSE, \$35 million will fund higher education programs like scholarships, fellowships, masters programs in clean energy, and the DOE Solar Decathlon; \$15 million is designated for technical training, mostly at community colleges and technical centers; and lastly \$5 million will support undergraduate and graduate fellowships in nuclear, science and engineering fields.)

Proposed Cuts in DOE Budget:

Savings in the DOE budget come from reductions to the fossil energy subsidies, the assumed elimination of Congressional earmarks, and of potential interest to universities, a \$55 million cut to the ITER Project.

Environmental Protection Agency (EPA)

[EPA Budget](#)

The Administration's FY2011 request for the EPA Office of Science and Technology was nearly flat from 2010 at \$846.7 million. However, EPA saw a substantial increase (40%) to its Science to Achieve Results (STAR) grants program, gaining \$25M over 2010. Within that, the Research Fellowships portion also increased substantially by \$6.2M. University researchers in environmental sciences and ecology often utilize these grants.

Science to Achieve Results (STAR)

(FY 2011 PB: \$87.2M, FY 2010 Enacted: \$61.4M, FY 2011 Change: +\$25.8M)

- Requests a \$25.8 million increase for a total of \$87.2 million to support research in key areas in support of the Administrator's priorities.
- STAR contains EPA's primary competitive grants program for funding extramural research in environmental science and engineering for universities and nonprofit organizations. Through STAR fellowships, EPA supports the Science Technology Engineering and Mathematics (STEM) government wide initiative.

Highlights of the STAR program include:

§ Hydraulic Fracturing Research (FY 2011 PB: \$4.3M, FY 2010 Enacted: \$1.8M, FY 2011 Change: +\$2.5M)

§ Endocrine Disruptors Research (FY 2011 PB: \$17.4M, FY 2010 Enacted: \$11.4M, FY 2011 Change: +\$6.0M)

§ Green Infrastructure Research (FY 2011 PB: \$10.4M, FY 2010 Enacted: \$4.4M, FY 2011 Change: +\$6.0M)

§ Air Quality Research (FY 2011 PB: \$85.3M, FY 2010 Enacted: \$81.9M, FY 2011 Change: +\$3.4M)

§ Research Fellowships (FY 2011 PB: \$17.3M, FY 2010 Enacted: \$11.1M, FY 2011 Change: +\$6.2M)

International Programs

In terms of the International Education programs, HEA Title VI (Part A&B) and Fulbright-Hays would be flat funded at \$108 million and \$15.6 million respectively.

The International Science and Education Grants in USDA-NIFA are level funded at \$3.0 million.

The Paul Simon Study Abroad program, the Higher Education in Africa Program and Collaborative Research Support Programs (CRSPs) are not referenced in the President's FY2011 budget.

National Aeronautics and Space Administration (NASA)

[NASA Budget Summary](#)

The Administration requests an overall budget of \$19 billion for NASA, an increase of 1.5% over FY2010 enacted levels. The NASA Science Mission Directorate request is for \$5.005 billion, up from \$4.49 billion in FY2010 enacted. Within the Science Mission Directorate, as compared to 2010 enacted (non-ARRA) levels:

- Earth Science sees a 26.85% increase to \$1.8 billion
- Planetary Science sees a 10.8% increase to \$1.49 billion
- Astrophysics is cut by 2.5% to \$1.07 billion
- Heliophysics is increased by 2.3% to \$642 million

The Administration requests for the NASA Aeronautics and Space Research and Technology account \$1.152 billion, up almost 130% from the FY2010 level of \$507 million. New for this year is that this account now breaks down between Aeronautics Research (\$579.6 million) and Space Technology (\$572.2 million). The Space Technology account funds “advancements in next-generation technologies, to help improve the Nation’s leadership in key research areas, enable far-term capabilities, and spawn game-changing innovations to make NASA, other government and commercial space activities more capable and affordable. Involves a broad array of participants including academic, commercial and international partnerships.”

NASA budget does recommend a cancellation of the Constellation program.

National Endowment for the Humanities (NEH)

[NEH Summary](#)

The Administration requests \$161,315,000 to fund the National Endowment for the Humanities (NEH) for FY2011. This represents a decrease of a little over 6 million less than or a 3.7% cut from the FY2010 appropriated amount of \$167.5 million.

National Institutes of Health

[NIH Summary 2011](#)

The Administration’s FY 2011 budget request for the National Institutes of Health (NIH) is \$32.25 billion, a 3.2% increase over the FY 2010 appropriated level of \$31.25 billion. (Of this amount, \$32.16 billion is requested through the Labor-HHS-Ed appropriations bill and \$82 million is requested through the Interior appropriations bill for Superfund activities.)

The request highlights NIH Director Francis Collins’ five scientific opportunity priorities: innovative high throughput technologies, translational medicine, benefiting health care reform, global health, and

reinvigorating and empowering the biomedical research community. The request proposes to fund 9,052 competing research project grants (a decrease of nearly 200 below the FY 2010 estimated level). For non-competing continuation awards, the request proposes to provide inflationary increases of 2 percent; the average competing awards would also increase by 2 percent over the average FY 2010 competing awards. Under the request, the Common Fund would increase by \$17.5 million and the National Children's Study would be funded at \$194 million. The request includes no funding for the extramural research facilities construction program, which received no funding in the regular FY 2010 appropriations process.

Additionally, the request outlines many trans-NIH programs for increases, including

- Clinical and Translational Science Awards (CTSAs): \$500 million for CTSAs
- Ruth Kirschstein National Research Service Awards: \$824.4 million for the Kirschstein awards, a 6% increase targeted to training stipends
- Basic Behavioral and Social Sciences Opportunity Network (OppNet): \$20 million for this trans-NIH initiative which was launched in the current fiscal year with ARRA funds
- Therapeutics for Rare and Neglected Diseases (TRND) program: \$50 million, an increase of \$26 million, for the TRND program to help bridge the gap between basic research and human testing of new drugs for rare and neglected diseases
- National Nanotechnology Initiative: \$382 million, a 6% increase, to the National Institute of Environmental Health Sciences to focus on technological advancements for human health, environmental protection, and safety issues of nanotechnology
- National Synchrotron Light Source-II (NSLS-II): \$33 million for the Department of Energy's construction of the NSLS-II, a promising tool for the biomedical community
- AIDS Research Program: \$3.18 billion, an increase of \$99 million, for the largest AIDS research effort in the world
- Cancer and Autism Spectrum Disorders Research: Continuing and reinforcing cancer research and investigations into the causes of and treatments for autism spectrum disorders

National Institutes of Standards and Technology (NIST)

[NIST Budget 2011](#)

The Administration requests \$918.9 million for NIST in FY2011, a 7.3% increase over the FY 2010 enacted level. Of particular importance to universities:

- Hollings Manufacturing Extension Partnership (MEP) budget request is \$129.7 million. This represents an increase of \$5 million over FY 2010 levels to support the Administration's policy initiatives for reinventing domestic manufacturing.

- Technology Innovation Program (TIP) budget request is \$79.9 million, an increase of \$10 million over FY 2010 levels.

National Oceanographic and Atmospheric Administration (NOAA)

[NOAA Summary](#)

NOAA's Oceanic and Atmospheric Research (OAR) account receives \$465 million in the 2011 Budget, a 3.5% increase over the 2010 funding level to support expanding efforts in competitively awarded climate research grants and a robust Climate Data and Information effort.

Sea Grant will see a slight decrease in budget of \$504,000 to \$62.5M. The Sea Grant Base, however, actually increases by \$965,000. The decreases come from the Aquatic Invasive Species Program (\$996 decrease) and the Marine Aquaculture Program (\$473,000).

NOAA announced yesterday that there will be a restructuring of the National Polar-orbiting Operational Environmental Satellite System (NPOESS) to a Joint Polar Satellite System (JPSS). In her explanation, Jane Lubchenco, NOAA Administrator, stated "The satellite system is a national priority -- essential to meeting both civil and military weather-forecasting, storm-tracking, and climate-monitoring requirements." Due to many, many problems in developing the system, however, it has fallen way behind schedule and is overbudget, so they are scrapping their original plans and turning to JPSS. JPSS separates NASA and NOAA's satellite needs from the Department of Defense's needs. "NOAA launched its final polar-orbiting satellite in February 2009. Given that weather forecasters and climate scientists rely on the data from NOAA's current on-orbit assets, efforts will focus development of the first of the Joint Polar Satellite System platforms on ensuring both short- and long-term continuity in crucial climate and weather data." The 2011 budget provides \$1.1 billion for JPSS.

National Science Foundation

[NSF Summary](#)

The Administration's FY2011 budget request for the National Science Foundation (NSF) is \$7.424 billion, an increase of \$551.89 million, or 8 percent, over the 2010 enacted (non-ARRA) level.

The Research & Related Activities account request is \$6.018 billion, an 8.2% increase and a \$454 million increase over FY2010 enacted levels. Education & Human Resources (EHR) account request is \$892 million, a 2.2% increase over FY2010 of \$872.2 million. The Major Research Equipment & Facilities Construction (MREFC) request is for \$165 million, a 40.8% increase over FY2010.

NSF's FY 2011 investments will reach nearly 215,000 scientists, engineers, teachers,

and students who are directly engaged in work at the frontiers of learning and discovery. Some NSF FY11 priorities include:

- RE-gaining our ENERGY Science and Engineering Edge (RE-ENERGYSE), (\$19.4 million) is a partnership between the Department of Energy (DOE) to fund fellowships and scholarships of undergraduates and graduates in energy related fields.
- The Graduate Research Fellowship (GRF) program would receive a 16% increase to \$158.2 million. The GRF program continues on its path to increase the number of new awards made each year to 3,000 by FY 2013. However, this is contrasted with cuts to both the Graduate STEM Fellows in K-12 Education, down \$1.46 million and Integrative Graduate Education and Research Traineeship (IGERT) programs, down \$7.4 million or 10.7%.
- Partnerships for Innovation, (109 percent increase to \$19.2 million) bring together colleges, universities, state and local governments, private sector firms, and nonprofit organizations. In FY 2011, \$12.0 million will be invested in a new “NSF Innovation Ecosystem” component, which aims to: increase the engagement of faculty and students across all disciplines in the innovation and entrepreneurship process; increase the impact of the most promising university innovations through commercialization, industry alliances, and start-up formulation; and develop a regional community that supports the “innovation ecosystem” around the university.

U.S. Geological Survey (USGS)

[USGS Summary](#)

The FY 2011 USGS budget request is \$1.133 billion, an increase of \$21.6 million or 1.9 percent over the FY 2010 enacted level. USGS items that will particularly affect university research and engagement efforts include the following Secretarial-level initiatives:

Climate Change Adaptation (\$11.0 million)

Management and policy decisions made in response to climate change impacts must be informed by science. The USGS will continue to assist the Department of the Interior in the development of regional climate science centers that provide climate change impact data and analysis geared to the needs of the fish and wildlife management community, in partnership with other Federal, State, university and other non-governmental partners. Additionally, the USGS will continue to assess biological carbon sequestration options and develop decision-support tools through the USGS Global Change program.

WaterSMART (\$9.0 million)

Water shortages and water-use conflicts have become more commonplace in many areas of the United States. Water is essential to the economic security of individual communities and the economic vitality and environmental health of our nation as a whole. The USGS will begin an assessment of the availability and use of water resources in the United States in FY 2011. The information will provide tools to address a new set of water resource challenges, including aging infrastructure, rapid population growth, depletion of groundwater resources, water quality impairments associated with land uses, and climate variability.

Landsat Data Continuity (\$13.4 million)

Scientists, educators and the general public around the globe use USGS Landsat data for a wide array of activities ranging from supporting disaster relief efforts to making agricultural crop assessments to identifying sites for cell phone towers. The USGS will accommodate ground-system requirement changes for the Landsat Data Continuity Mission associated with moving the Operational Land Imager to a free-flying satellite and the addition of a Thermal Infrared Sensor on board the spacecraft. These activities are required to meet the mission launch in December 2012.