CGS Summary of Select Items: FY 2015 President's Budget

OVERVIEW

This document is a summary of select items in the President's 2015 Budget Request. It indicates how those resources would be impact graduate education, research and graduate students. Overall, the President's budget proposes $3.9 trillion in total outlays. In 2010, mandatory spending made up 55 percent of the total budget. That figure has grown to 63 percent and is expected to continue to do so. The expected deficit is $564 billion. The discretionary spending budget cap matches the $1.014 trillion cap recently agreed to by Congress.

With respect to Federal R&D, the President's 2015 Budget proposes $135.4 billion, an increase of $1.7 billion (1.2%) from 2014. Defense R&D is increased by 1.7% ($1.19 B) and nondefense R&D is increased by 0.7% ($477 M). Overall, basic research is reduced by $331 million (-1.0%) and applied research increased by $582 million (1.8%). Within the total however, funding for basic research is decreased by $331 million to $32 billion, while funding for applied research increases by $582 million to $32.6 billion.

However, the President's budget contains additional discretionary spending of $56 billion above the cap through the "Opportunity, Growth, and Security Initiative", to be split between defense and nondefense. This initiative would require Congress to raise the current cap and agree to the proposals in the President's budget that would fully fund it (other cuts in spending and tax increase on the wealthy). The budget request House appropriators have already stated that they are not willing to raise the cap, and Senate Republicans in a hearing on the budget, questioned the inclusion of this initiative, which makes it very unlikely that this additional discretionary spending will be made available for 2015. If agreement could be reached and these resources become available, it would be a source of funding to support some of the recommendations contained in the CGS issue briefs on the reauthorization of the Higher Education Act and America COMPETES, and Immigration Reform.

NATIONAL INSTITUTES OF HEALTH (NIH)

The National Institutes of Health (NIH) 2015 budget provides $30.4 billion, which is an increase of $211 million or 0.7 percent over the 2014 funding level, $100 million of which is to support the Brain Research through Advancing Innovative Neurotechnologies (BRAIN) Initiative. After accounting for inflation, this increase is really a cut of about 1 percent. Over half of NIH's budget will be for Research Project Grants to finance 34,197 competitive, peer-reviewed, and largely investigator-initiated projects, an increase of 329 grants over FY 2014 levels, which includes 9,326 new and competing awards. In 2015, about 83 percent of NIH's funding will go to the extramural community which supports work by more than 300,000 research personnel at over 2,500 organizations, including universities, medical schools, hospitals and other research facilities.

NIH plans to increase its emphasis on research innovation by increasing its investment in High-Risk, High-Reward projects to $100 million. The agency will also continue to implement a series of steps to enhance its efforts to recruit and advance the careers of people traditionally underrepresented in the biomedical and behavioral research workforce. A total of $767 million (approximately $9 million less than the 2014 budget request) will support the training of 15,715 (about 400 fewer than the 2014 budget request) of the next generation of research scientists through the Ruth L. Kirschstein National Research Service Awards program. More information on the NIH budget is available in pdf format at: http://officeofbudget.od.nih.gov/pdfs/FY15/FY2015_Overview.pdf

NATIONAL SCIENCE FOUNDATION (NSF)

For the National Science Foundation (NSF) the budget provides $7.255 billion, an increase of $83.08 million or 1.2 percent increase over FY 2014.NSF funds approximately 24 percent of all federally supported fundamental research conducted by America's colleges and universities. Overall, Research and Related Activities (RRA) is reduced by 0.03 percent, Education and Human Resources (EHR) is increased by 5.1 percent and Major Research Equipment and Facilities Construction is increased by 0.4 percent. Within the 2015 budget request, the number of people involved in EHR activities is projected to be 140,900, 12,300 of which are graduate students, 300 are postdoctorates, and 6,700 are researchers. Close to 110,000 are K-12 teachers and students.

Graduate education program funding levels of interest within EHR include:

- For Graduate Research Fellowships (GRFs) the President's budget request allots $166.72 million to Education and Human Resources (EHR) which will provide 2,000 new awards, a cost of education allowance of $12,000 and a stipend increase of @2,000 to $34,000.
- For the second year of NSF Research Traineeships there is $28.3 million. NRT investments aim to advance research on priority themes as well as develop and conduct research on new approaches and models for educating the next generation of scientists and engineers. NRT funding also includes $7.0 million for a new track within NRT, supporting Innovation in Graduate Education (IGE). IGE will invite proposals for model design, innovation, and research in graduate education student training and professional development. IGE will not support trainees directly, however it will allow institutions that have traineeship programs, or that offer other types if support for graduate students, to serve as testbeds. IGE is an effort that parallels recommendations made by the Commission on Pathways in the *Pathways Through Graduate School and Into Careers* report[1].
  This request also includes $20.32 million for continuing grant increments for the Integrative Graduate Education and Research Traineeship Program (IGERT), which transitioned to NRT in FY 2014.
- The Alliances for Graduate Education and the Professoriate (AGEP) is level funded at the FY 2014 level.
- STEM Professional Workforce Preparation is increased by $1 million. The program will expand the knowledge base to improve STEM professional

workforce development (at all educational levels) through development of models, research, and evaluation, and allow translation of the results of this research for adoption and/or adaptation in workforce and education programs. The Excellence Awards in Science and Engineering (EASE) includes up to $500,000 to initiate a new STEM Teacher Leader Corps activity in collaboration with the NOYCE program in the Division of Undergraduate Education.

More information about the NSF budget request is available at:
http://www.nsf.gov/news/news_summ.jsp?cntn_id=130728

DEPARTMENT OF ENERGY (DoE)

The DoE budget request is $27.9 (2.6 percent increase over 2014), with $5.111 billion for the Office of Science (SC), an increase of 0.9 percent over 2014 enacted levels. The budget request assumes a reorganization of the Department into three Under Secretaries – Science and energy, Nuclear Security and Management and Performance. As the largest federal sponsor of basic research in the physical sciences, DOE's SC supports 22,000 researchers at 17 National Laboratories and more than 300 universities. The budget request provides $1.8 billion for basic energy sciences activities, $744 million for high energy physics, $628 million for biological and environmental research, $594 million for nuclear physics research, $541 million for advanced scientific computing research, and $416 million for fusion energy sciences. There is continued support for the energy Frontier Research Centers that involves over 600 researchers from multiple institutions. These centers have produced 3,400 peer-reviewed publications, 60 invention disclosures, 200 patents, and numerous instances of technology transfer in just three years. In the Fossil Energy Program there is a special recruitment program, the Mickey Leland Energy Fellowship Program, to provide students majoring in science, technology, engineering and mathematics (STEM) disciplines with the opportunity to enhance their education and knowledge of fossil fuels. The goal of the program is to support an increase in the number of females and underrepresented minorities entering the scientific and engineering career fields in the U.S. workforce.
More information is available at:
http://www.energy.gov/cfo/downloads/fy-2015-budget-justification.

NATIONAL INSTITUTE OF STANDARED AND TECHNNOLOGY (NIST)

Under the president's FY 15 budget proposal, NIST would receive $900 million, a $50 million increase over the 2014 enacted levels to expand and strengthen programs in a number of key areas such as forensic science, lightweight vehicle alloys and bioengineering measurement tools. Of the $900 million, $680 million is designated for Scientific and Technical Research and Services; $161 million is for Industrial Technology Services; and $59 million is for Construction of Research Facilities. Six million dollars is included for NIST to accelerate and expand technology transfer across the federal government, which will enhance the competitiveness of U.S. industry by sharing innovations and knowledge from federal labs.
For more information on the NIST budget request check:
http://www.nist.gov/public_affairs/.

DEPARTMENT OF EDUCATION (ED)

The President's Budget Request is $68.6 billion in discretionary appropriations for the Department of Education overall, which is an increase of $1.3 billion, or 1.9 percent, more than the 2014 level. With respect to higher education, the President's budget proposal calls for making college more affordable and helping borrowers manage their student loan debt. However, most of the emphasis in the ED higher education budget request continues to be on undergraduate education.

The Pell Grant maximum is increased by $100 to $5,830. Other aid programs in the Department, such as Supplemental Educational Opportunity Grants and Federal Work Study, will continue to receive current level funding. There are two new proposals in the Department's budget: a $4 billion state matching grant for graduating students from low-income backgrounds, and an $8 billion initiative to reward colleges that successfully enroll and graduate a significant number of low- to moderate-income students on time. In this political climate, neither proposal has much chance of being enacted. The budget request also provides $10 million for the development of a national college ratings system.

For student loans, the budget calls for an expansion of the "Pay as You Earn" (PAYE) income-based repayment program to all student borrowers, including graduate students, regardless of when they took out their loans. It caps monthly payments at 10 percent of the borrower's discretionary income and forgives the remaining balances after 20 years of payments. However, according to the budget documents, the Administration is proposing to trim some of the benefits that high-income, high-debt borrowers receive under this program. Additionally, the budget proposal would require borrowers with more than $57,500 in debt to make payments for 25 years before it would be forgiven. The amount of debt forgiven for public-sector workers would be limited to $57,500 as a way to prevent institutional practices that may further increase student indebtedness. Pay as You Earn is currently seen as a windfall for students at expensive professional schools who incur high debt but also get high-paying jobs that allow them to repay their debt.

The Graduate Assistance in Areas of National Need (GAANN) program is level-funded at $29.3 million, of which 8 percent would be used to make 126 new awards and the remainder to fund continuing GAANN awards. Separate funding for the GAANN and Javits programs was eliminated in the 2012 appropriations measure, subsequent to the programs being combined in the President's 2012 budget request. Continuation funds for Javits in 2012 and 2013 were made through the GAANN program. However, 2014 is the final year of Javits continuations.

The McNair Post Baccalaureate Achievement Program receives no proposed increase over the 2014 level of $35.7 million. The International Education and Foreign languages Studies programs receive an increase of $4 million (6 percent over 2014) is to support new awards to help American students develop proficiency in critical foreign languages, specifically those spoken in the Asia-Pacific and Sub-Saharan Africa regions, and new institutional mobility grants in Southeast Asia and Sub-Saharan Africa.
More information can be accessed at:
http://www.ed.gov/budget15?src=feature

OPPORTUNITY, GROWTH, AND SECURITY INITIATIVE (OGSI)

The Budget includes a separate $56 billion Opportunity, Growth, and Security Initiative (OGSI). The Opportunity, Growth, and Security Initiative, which will be split evenly between defense and non-defense funding, demonstrates how additional discretionary investments in 2015 can spur economic progress, promote opportunity, and strengthen national security.

For NIH, this fund would provide $970 million to increase the number of new grants funded and provide additional resources for activities such as the BRAIN Initiative and other innovative projects.

For NSF, this fund would provide an additional $552.0 million. At NSF this initiative would add to progress in many areas including clean energy, cognitive science and neuroscience, cyber-enabled smart systems, graduate education, and secure cyberspace. It is expected to support 1,000 additional research grants and add $34 million to support up to 3,000 graduate traineeships.

At DOE, OGSI provides funds to accelerate investment in key infrastructure and activities, in addition to the $27.9 billion requested by the base budget. OGSI would accelerate research and the development and deployment of new, high impact clean energy technologies by providing an additional $484 million for activities leading to innovative materials, processes, and system designs; validation of new technologies; and increased federal energy cost savings. In support of the President's goal to double U.S. energy productivity by 2030, OGSI includes $200 million for Race to the Top performance-based awards to support state governments that implement effective policies to cut energy waste and modernize the grid.

For NIST, $115 million is included in OGSI to strengthen its research and development capabilities and facilities by accelerating advances in top research priorities including advanced manufacturing, forensics, and cybersecurity and disaster resilience. An additional $2.4 billion is included to support the National Network for Manufacturing Innovation.

At the Department of Education OGSI would support investments of $250 million for Preschool Development Grants, $300 million for the ConnectEDucators initiative, and $200 million for Promise Neighborhoods. None of the additional funding would be used for graduate education programs.

[1]Council of Graduate Schools and Educational Testing Service. (2012). *Pathways Through Graduate School and Into Careers*. Report from the Commission on Pathways Through Graduate School and Into Careers. Princeton, NJ: Educational Testing Service.