HIGHLIGHTS

– The FY 2015 budget request would increase the National Institute of Standards and Technology’s (NIST) budget by 5.9 percent from FY 2014 estimated levels, to $900 million. An additional $115 million in Opportunity Growth and Security Initiative (OGSI) funding would bring the total base budget to just over $1 billion, a 19.4 percent increase from FY 2014, plus an additional $2.4 billion from the OGSI for an advanced manufacturing network administered by NIST. R&D funding would increase by 3.5 percent from FY 2014 levels to $690 million.

– The National Oceanic and Atmospheric Administration (NOAA) requests $5.5 billion, an increase of 3.2 percent over FY 2014. The National Environmental Satellite, Data, and Information Service (NESDIS) would see the bulk of the increase and rises to $2.25 billion in the request. NOAA R&D would increase 3.4 percent to $689 million.

– The U.S. Geological Survey (USGS), the largest research agency in the Department of the Interior, would increase by $41.3 million to $1.1 billion in the request. R&D would see a larger percentage increase of 5.5 percent to $685 million. Other Interior agencies would see large R&D increases in the request, such as the Bureau of Land Management (up 100 percent to $58 million) and Fish and Wildlife Service (up 67 percent to $50 million).
White, Spizzirri, and Kelly

– The President’s budget requests $537 million for the Environmental Protection Agency’s (EPA) R&D efforts. This is a 0.1 percent decrease from FY 2014 levels. Total discretionary funding would decline by 3.8 percent from FY 2014, to $7.9 billion.

– The Department of Transportation (DOT) R&D programs would receive $897 million, which is a 2.9 percent increase from FY 2014 levels. An additional $186 million in OGSI funding would go toward the FAA’s NextGen air traffic control technology program.

– The Department of Veterans Affairs (VA) requests $588.9 million in direct R&D appropriations for the VA Medical and Prosthetic Research account in FY 2015, a slight increase of 0.55% over the current enacted level.

NATIONAL INSTITUTE FOR STANDARDS AND TECHNOLOGY

The National Institute of Standards and Technology (NIST) is a non-regulatory agency that operates under the Department of Commerce, and its mission is to “promote U.S. innovation and industrial competitiveness by advancing measurement science, standards, and technology in ways that enhance economic security and improve our quality of life.” The FY 2015 request would increase NIST’s budget by 5.9 percent from FY 2014 estimated levels, to $900 million. An additional $115 million in Opportunity Growth and Security Initiative (OGSI) funding would bring the total base budget to just over $1 billion, a 19.4 percent increase from FY 2014. R&D funding would increase by 3.4 percent from FY 2014 levels to $690 million. Perhaps most notably, OGSI funding would provide $2.4 billion for the National Network for Manufacturing Innovation (NNMI), which is designed to facilitate co-investing in advanced manufacturing by government and private companies.

The Scientific and Technical Research Services (STRS) account, which houses all of NIST’s research laboratories and performs all of the agency’s basic research, would receive $680 million; this is a 4.5 percent increase from FY 2014 enacted levels. This would fund a variety of programs, including Measurement Science and Standards for Forensic Science Infrastructure (increased by $3.5 million); Cyber-Physical Systems (increased by $7.5 million); Advanced Materials (increased by

1 http://www.nist.gov/director/scientific_integrity_summary.cfm
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$5 million); Synthetic Biology (increased by $7 million); and Lab-to-Market initiatives (increased by $6 million).

The Industrial Technology Services (ITS) account supports two major projects: the Hollings Manufacturing Extension Partnership (MEP) and the Advanced Manufacturing Technology Consortia (AmTech). ITS would receive $161 million in total, a 12.6 percent increase from FY 2014. MEP is comprised of 1,200 experts from every state who work with local manufacturing communities to facilitate commercialization of new technologies; the program would account for $141 million of the ITS budget, which is a fairly significant increase of $13 million or 10 percent from FY 2014. AmTech provides grants to consortia that identify long-term needs of the industrial community and fund research to address these needs; funding for this program would remain flat at $15 million.

The ITS budget also includes $5 million for a new Advanced Manufacturing National Program Office, which would be an interagency program, hosted by NIST, that would provide the infrastructure necessary to support the growing network of advanced manufacturing hubs. AMNPO would be staffed by representatives from federal agencies, as well as fellows from private companies and universities.

The Construction of Research Facilities (CRF) account would receive $59 million, a 5.4 percent increase from FY 2014. The slight increase would go toward renovation of a 60-year-old NIST laboratory in Boulder, Colorado.

The OGSI funding of $115 million would be divided among a number of NIST programs and priorities, including cybersecurity, forensic science R&D, advanced manufacturing, and renovation of NIST facilities.

Perhaps most notably, OGSI funding would provide $2.4 billion for the National Network for Manufacturing Innovation (NNMI), which is designed to facilitate co-investing in advanced manufacturing by government and private companies. This represents a doubling in funding from past proposals—originally, in 2013, the President proposed a one-time investment of $1 billion to establish up to 15 regional Institutes for Manufacturing Innovation (IMIs). The $2.4 billion will fund an additional 36 institutes beyond the nine in existence or currently budgeted in the base budget.
President Obama's fiscal year 2015 budget requests $5.5 billion for the National Oceanic and Atmospheric Administration (NOAA), an increase of 3.2 percent over FY 2014. NOAA’s R&D would increase by 3.4 percent, to $689 million. The increase in the request comes on the heels of a 22.7 percent increase in FY 2014.

The National Environmental Satellite, Data, and Information Service (NESDIS) would see the bulk of the NOAA increase as its request rises to $2.25 billion. The budget request continues to support preparation for a Geostationary Operational Environmental Satellite (GOES)-R launch in FY 2016, GOES-S in FY 2017, and continued development of GOES-T and GOES-U launches in FY 2019 and FY 2025, respectively. The request includes $916.3 million for the Joint Polar Satellite System (JPSS), which will provide data continuity for weather prediction models. The launch of JPSS-1 is scheduled for FY 2017, and JPSS-2 is scheduled to launch in FY 2022.

The Office of Oceanic and Atmospheric Research (OAR) requests $462.2 million, an increase of $35.4 million. Increases are slated for many climate programs, NOAA’s Arctic Observing Network, and ocean acidification research. The request includes a $1 million cut that would reduce the amount of research funding available for competitively awarded Sea Grant projects and another $1 million cut that would terminate the Sea Grant Grand Challenge Program. Cuts are also proposed for marine aquaculture programs and the Ocean Exploration Program. R&D in other programs is mixed. Within the National Ocean Service, R&D would increase from $73 million to $75 million while R&D would drop from $67 million to $61 million in the National Marine Fishery Service.

The budget proposes $1.06 billion for the National Weather Service, a decline of $27 million, along with a major restructuring of its programs. R&D at the NWS would decrease 42 percent to $19 million. The request includes a cut of $6 million that would eliminate grant funding to partners for education and outreach programs through the National Tsunami Hazard Mitigation Program.

In addition to the budget request, $180 million for NOAA is included in the Administration’s Opportunity, Growth, and Security Initiative and $75 million would be allocated to NOAA in the Climate Resiliency
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Fund. If it were to be funded, the Initiative would support a new NOAA ocean survey vessel, improved climate models and predictions, and competitive grants to communities to improve coastal resilience.

DEPARTMENT OF THE INTERIOR

The U.S. Geological Survey (USGS) is largest research agency in the Department of the Interior. The USGS FY 2015 request would increase the overall budget by $41.3 million to $1.1 billion and R&D would see larger percentage increase of 5.5 percent to $685 million. Although the agency saw a $20 million increase in FY 2014, it is still below FY 2010 levels in real dollars.

Other Interior agencies would see large R&D increases in the request, such as the Bureau of Land Management (up 100 percent to $58 million) and Fish and Wildlife Service (up 67 percent to $50 million) even though the overall agency budget is declining (BLM) or slightly increasing (FWS).

Within USGS, the budget requests $149.1 million for Climate and Land Use Change, an increase of $17.1 million, with most of the increase going to Climate Science Centers and climate research. The Landsat satellite program would be level funded at $53.3 million. The USGS will continue to work with the National Aeronautics and Space Administration to develop a successor Landsat mission and continue its role in managing the collection, archiving, and dissemination of Landsat data.

Energy, Minerals, and Environmental Health would receive $99.1 million, an increase of $6.8 million. Within that account, Mineral and Energy Resources would receive $73.2 million, an increase of $1.3 million. Hydraulic fracturing and uranium mining studies would increase.

Natural Hazards would decline slightly to $128.3 million. Increases are proposed for induced seismicity studies related to hydraulic fracturing while coastal marine hazards are slated for decreases.

The budget request includes $210.4 million for Water Resources, up $3.1 million. Increases are proposed to support a National Groundwater Monitoring Network and WaterSMART, while cuts are proposed for Water Resources Research Act programs.
An increase of $0.6 million is proposed to bring Core Science Systems funding to $109.4 million. The largest increases are proposed for hydraulic fracturing research, the Big Earth Data Initiative, and 3D Elevation program, and are offset by proposed cuts within the program.

Ecosystems would receive $162 million, a $9.2 million increase. Increases are slated for ecosystem restoration initiatives and research on emerging and existing invasive species, such as Asian carp and brown tree snakes.

In addition to the request, $75 million would be allocated to the USGS in the Opportunity, Growth and Security Initiative for R&D in energy and mineral development, climate resilience, ecosystem management, water resources, and species protection and health.

**ENVIRONMENTAL PROTECTION AGENCY**

The President’s budget requests $537 million for the Environmental Protection Agency’s (EPA) R&D efforts. This is a .1 percent decrease from FY 2014 levels. Total discretionary funding would decline by 3.8 percent from FY 2014, to $7.9 billion, and will be divided among 5 goals: addressing climate change and improving air quality ($1.1 billion); protecting U.S. waters ($3.5 billion); cleaning up communities and advancing sustainable development ($1.9 billion); chemical safety and pollution prevention ($673 million); and ensuring compliance to protect human health ($793 million).

Most R&D is funded through the Science and Technology account. Discretionary spending for this account would decrease by .6 percent from FY 2014 levels, to $764 million, and R&D funding would remain flat at $518 million. Within Science and Technology, the Chemical Safety portfolio would receive the largest increase (8.6 percent from FY 2014, to $99 million), and Sustainable Communities would see the largest decrease (11 percent, to $144 million). The Human Health Risk Assessment portfolio would experience a small 2 percent decrease, and the rest—Homeland Security, Air, Climate and Energy, and Safe and Sustainable Water—would all receive small increases in funding.

The request also includes $1 billion in OGSI funding for a Climate Resilience Fund, which would invest in research and data analysis to better understand the impacts of climate change, and help communities adapt to those impacts. Additionally, $10 million and 24 new staff would
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support the goals of the President’s Climate Action Plan, by allowing EPA to regulate carbon emissions and other sources of pollution.

DEPARTMENT OF TRANSPORTATION

The President’s FY 2015 budget requests $897 million for R&D in the Department of Transportation (DOT), a 2.9 percent increase over FY 2014 levels. DOT is one of the few agencies that would exceed inflation.

The overall budget includes a $302 billion four-year reauthorization proposal for surface transportation programs that were originally established under the MAP-21 legislation. That funding, which would supplement the Highway Trust Fund, would be divided among highways and highway safety, mass transit, rail, and multimodal priorities. $451 million would be dedicated to Research, Technology, and Education Programs within the Federal Highway Administration—that number would more than double by 2018—and $60 million would go to Research and Training within the Federal Transit Administration; that number would more than quadruple by 2018.

The Federal Highway Administration (FHWA) would receive $407 million for R&D. This represents a 10.3 increase from FY 2014 levels of $369 million. Highlights in the FHWA budget include a 19.1 percent increase for Highway R&D to $130 million, another 19.1 percent increase for Intelligent Transportation Systems to $113 million, and a 1.2 percent increase for State Planning and Research to $189 million. Proposed research projects include highway R&D, technology and innovation deployment, and training and education.

The Federal Aviation Administration (FAA) would receive $282 million for R&D, an 11.9 percent decrease from FY 2014. The Research, Engineering, and Development portfolio would receive $157 million, which is 1.3 percent less than FY 2014 levels, and $70 million would go to Facilities and Equipment—a 34.6 percent decrease from FY 2014.

NextGen—the FAA’s flagship R&D program geared towards modernizing the nation’s air traffic control system and improving aircraft emissions and performance—would receive $835.6 million, a 7.3 percent decrease from FY 2014 levels. Funding would be distributed among Facilities and Equipment ($774 million), Research, Engineering, and Development ($47.5 million), and Operations ($14.1 million). In addition to the $835.6 million, NextGen would receive $186 million in OGSI for
deploying data communications, increasing airspace capacity, updating collision avoidance systems, developing GPS backups, and increasing interagency collaboration.

Finally, the Federal Railroad Administration (FRA) and the National Highway Traffic and Safety Administration (NHTSA) would both receive substantial boosts. The FRA R&D programs, which focus on railroad safety improvement and high-performance rail, would receive $65 million, a 62.2 percent increase from FY 2014. NHTSA R&D programs, which focus largely on highway safety, crash data collection, new car assessments, and alternative fuels, would receive $75 million, a 15.2 percent increase. The NHTSA budget includes $122 million for behavioral research, demonstrations, and assistance to the states, as well as $5 million for alternative fuels, electronics, and emerging technologies research. The FRA would receive $35 million for safety-related R&D, as well as an additional $5 billion ($19 billion over four years) from the surface transportation proposal to improve safety and build a National High Performance Rail System.

**DEPARTMENT OF VETERANS AFFAIRS**

The Department of Veterans Affairs (VA) plays a critical role in advancing veterans’ health and well-being through investments in research. The VA’s direct appropriations request for its Medical and Prosthetics Research account in FY 2015 is $588.9 million, a $3.2 million or 0.55 percent increase over the FY 2014 level of $585.7 million. With an additional $588.9 million requested from the VA Medical Care program in support of research, and an estimate of services and grants from other federal and private sources, the combined request for FY 2015 VA research and development programs would reach $1.9 billion.

VA research is organized into four main divisions: biomedical laboratory, clinical science, health services, and rehabilitation. These areas cover a spectrum of topics ranging from lung, kidney, and autoimmune disorders, to mental health, to bioterrorism. Ongoing and more recent research priorities for the VA include pain, sensory loss, spinal cord injury, women’s health, prosthetics, Gulf War illness, aging and chronic disease, post deployment health and mental health (including traumatic brain injury, post-traumatic stress disorder, and suicide prevention), rehabilitation, employment, “big data” and bioinformatics, and genomics.
OTHER SELECTED AGENCIES

In particular, scientific groups and Veterans’ Service Organizations welcome VA’s achievement of enrollment milestones for the Million Veteran Program. This large-scale, national study seeks to understand how genes and military exposures ultimately affect health in the veteran population, and once completed, the program will contain the world’s largest repository of human genetic material.

Because the VA research program is solely intramural, research facilities also fall within the VA budget. The scientific community has argued for decades that VA construction and maintenance appropriations have failed to provide the resources needed by VA to replace, maintain, and/or upgrade aging research facilities. Despite requests from the community, the FY 2015 Administration budget does not allocate specific funding for VA research facility upgrades.