

SAML Annual Meeting, May 2015

**FY2016 Budget and Policy Issues Facing the
Ocean, Coastal and Great Lakes Research and
Education Community**

**A Briefing to the
Southern Association of Marine Laboratories
May 2015**

NAML Public Policy Priorities for FY 2016

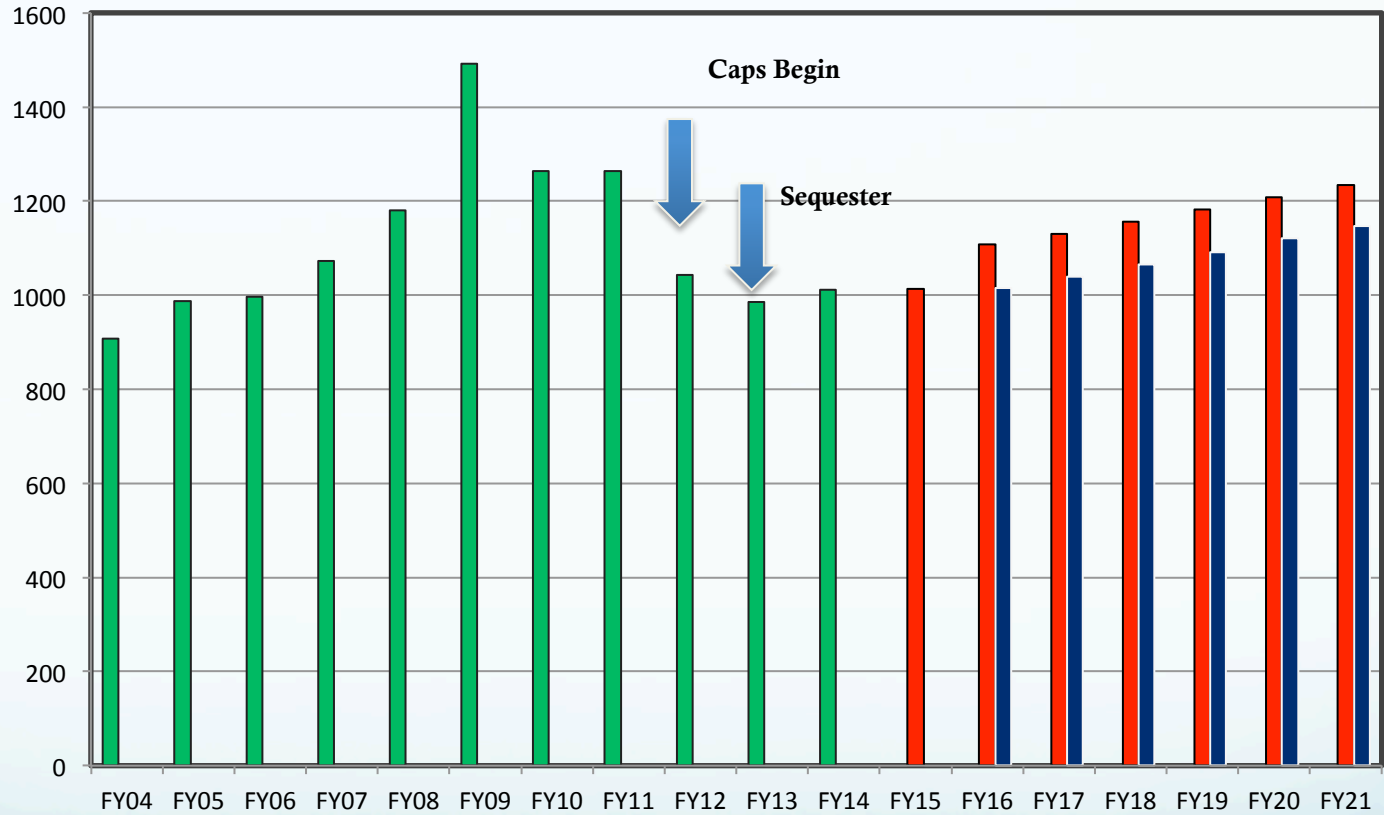
NAML's priorities are drawn from and strongly support two important reports from the National Academy of Sciences. They are: Sea Change: 2015-2025 Decadal Survey of Ocean Sciences (DSOS); and Enhancing the Value and Sustainability of Field Stations and Marine Laboratories in the 21st Century. Specific priorities germane to NAML labs are:

- Enhance science, education and public engagement at marine labs by supporting the continued development of their unique assets and qualities that allow them to prepare the next generation of scientists, expand opportunities for active learning and collaborative research, and explore a wide range of approaches to engage the public. This includes strong sustained support for competitive merit-based ocean, coastal, and Great Lakes research provided by relevant federal agencies to address the research priorities identified in DSOS;
- Promote a network for discovery and innovation via Federal and non-Federal support to build and maintain a modern infrastructure for research, education, and networking including advanced internet connectivity and cyber infrastructure;
- Pursue financial sustainability by developing business plans that foster the unique value of marine labs, creating mechanisms to establish reliable based funding, and diversifying approaches to obtain supplemental support – such as a national partnership program to co-locate federal scientists and infrastructure at NAML facilities; and
- Develop metrics for demonstrating the impact of marine labs in research, education, and public engagement.



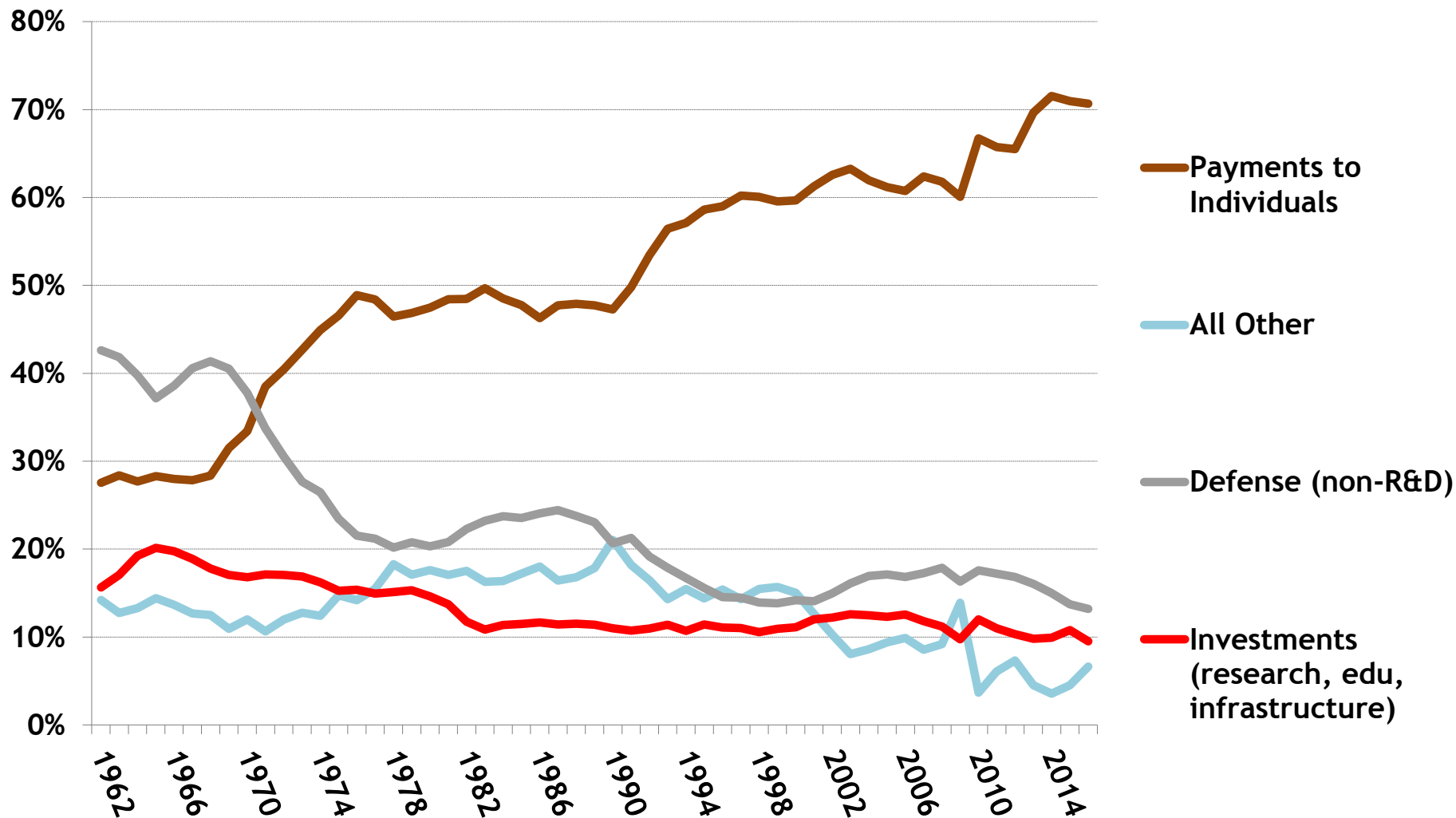


The Budget Parameters Influencing FY 2016



Composition of the Federal Budget

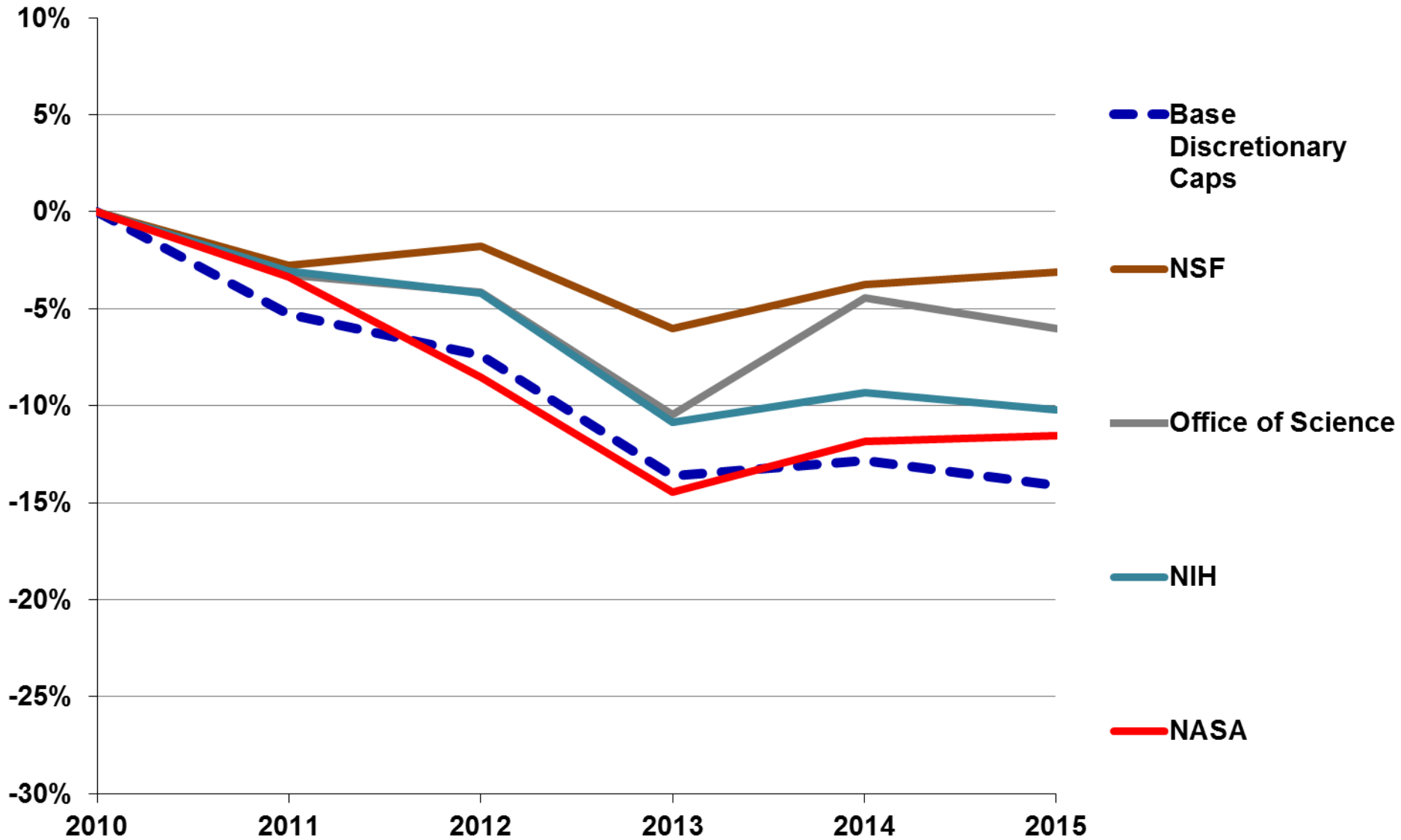
Outlays as share of total budget, 1962 - 2016



Source: *Budget of the United States Government, FY 2016*. "Investments" include outlays for R&D, education and training, direct nondefense infrastructure, and other grants, primarily for transportation. "Payments to Individuals" are primarily entitlement programs like Medicare, Medicaid, and Social Security, but also include many other public assistance programs. © 2015 AAAS

Trends in Federal Spending Since FY 2010

Percent of FY 2010 budget authority, constant dollars

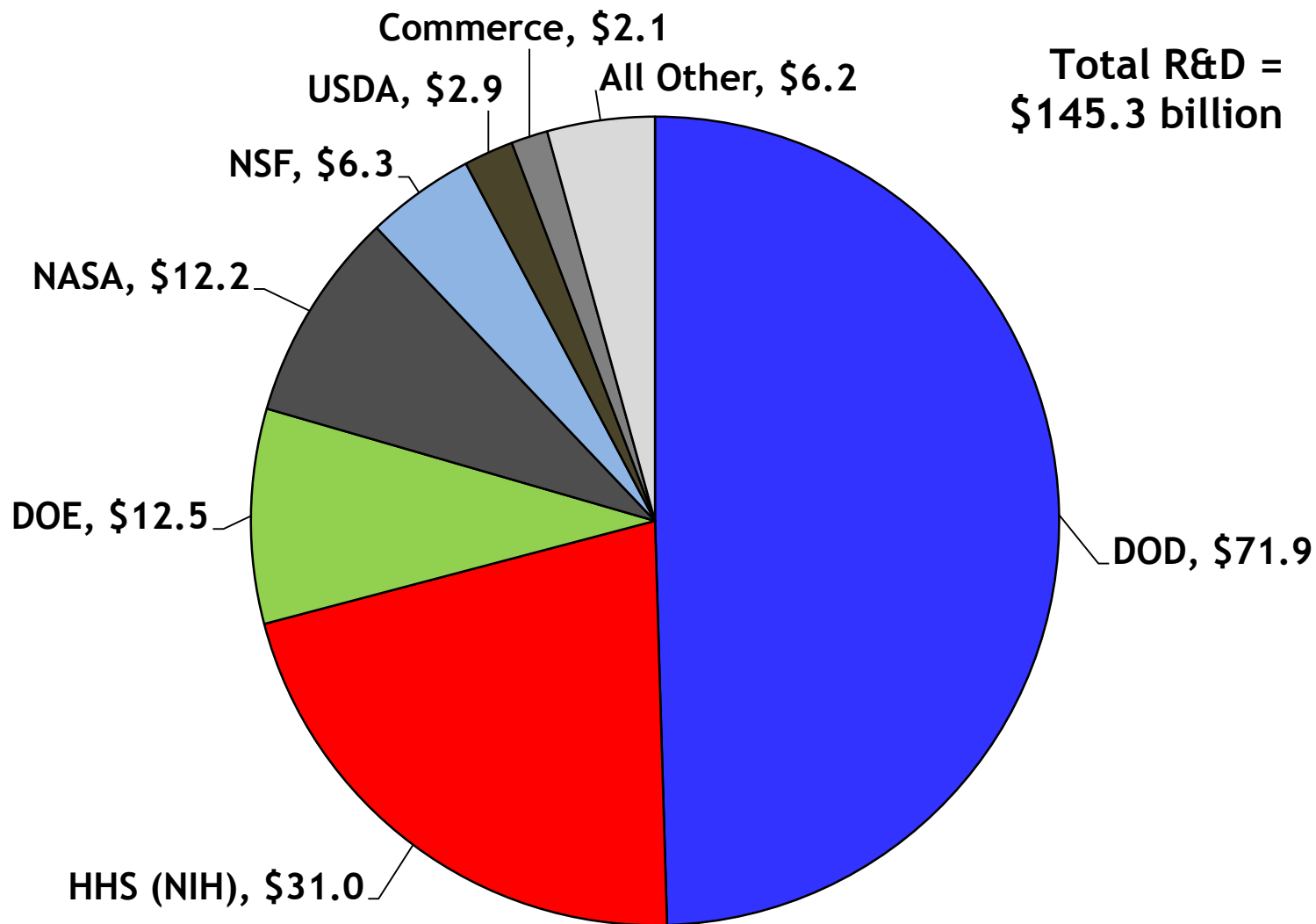


Based on OMB, agency and Congressional budget documents, and GDP deflators from the President's FY 2015 budget.

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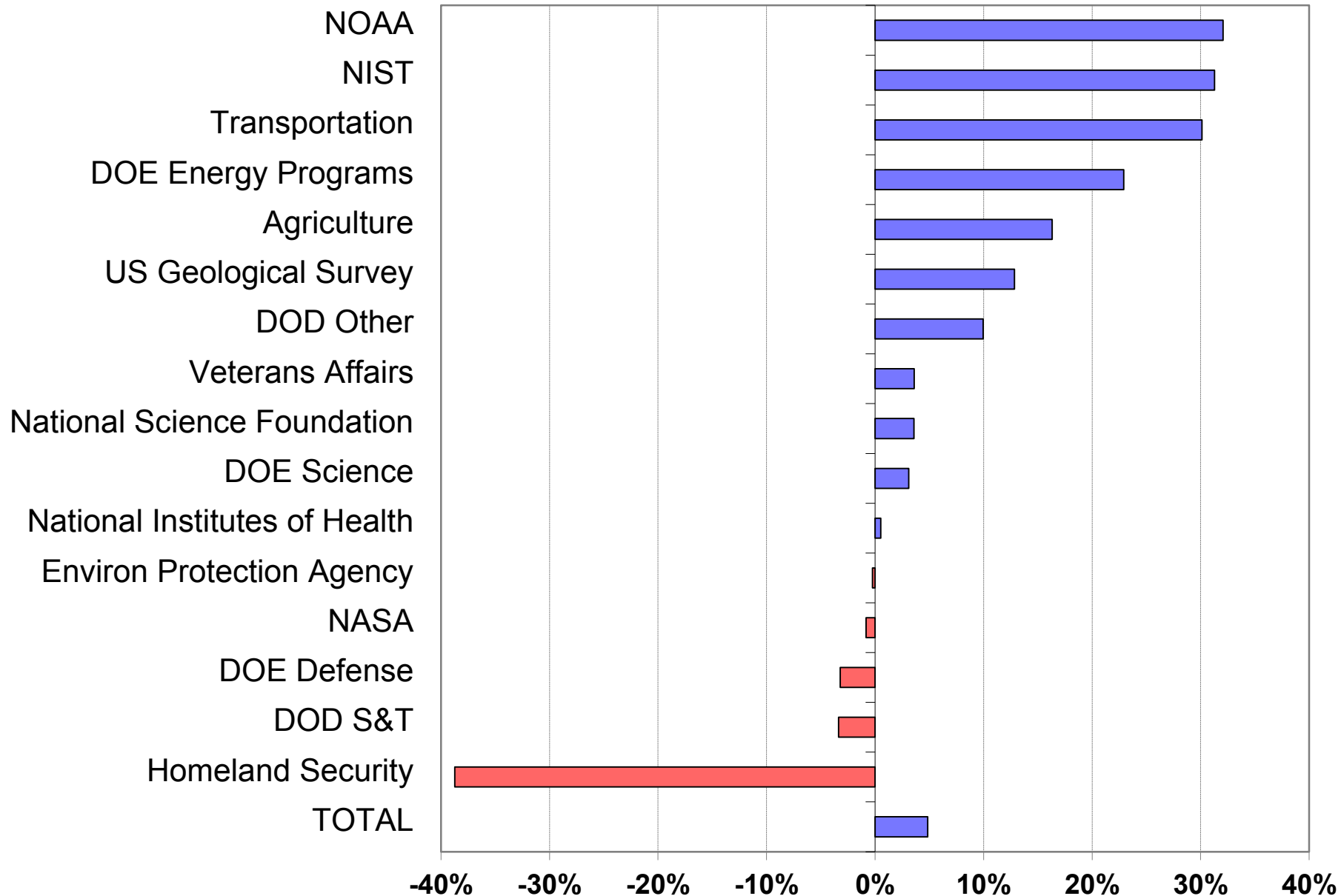
Total R&D by Agency, FY 2016

budget authority in billions of dollars



Current Estimates of R&D in the FY16 Budget

percent change from FY15, constant dollars





Administration Proposes.... FY2016 Administration Priorities

- **Suspend Sequester for FY 2016 – proposes raising “the caps”**
- **Increase spending by 7% -- with defense and nondefense growing each by \$37 billion**
- **Invest in high priority activities including: accelerating manufacturing industry growth, investing in R&D; cutting carbon pollution and investing in climate preparedness and resilience; maintain natural resources; building a 21st century infrastructure; high quality affordable education from Pre K to College; maintain the nation’s security; tax reform that promotes growth and opportunity.**
- **Congressional reaction: “Thanks, but no thanks.”**



FY 2016 Administration R&D Priorities

- **World class research via NSF, DOE Office of Science, and NIST;**
- **Invest in Innovation via DOD, DARPA, NASA, Nanotechnology, etc;**
- **Improve Health via the BRAIN initiative and new precision medicine, combat anti-biotic resistant bacteria, etc;**
- **advanced manufacturing;**
- **clean energy;**
- **climate change and related resiliency actions; and**
- **STEM education.**



Issues Impacting the Public Policy Environment For NAML/SAML

- **NAS Decadal Survey on Ocean Sciences**
- **NAS Report on FSML's**
- **President's Climate Action Plan – Resiliency**
- **Global climate change, climate research, and its relationship to funding for the geosciences**
- **Congress looks to “re-balance” the level of spending on earth/geo/climate science.**



Highlights of FY16 NSF Budget

- Overall increase is 5.2% over FY15; education and human resources up by 11.2%;
- Four NSF-wide initiatives including ramp up of Risk and Resilience which includes; start up of Food-Energy-Water Systems; phase down of SEES (as planned);
- Geosciences declines by \$16M in FY15; Proposed to grow by \$61 or 4.7% in FY16;
- OCE to grow by 3.8%; EAR up by 6.2%; AGS up by 4.7%
- OCE's FY 2016 Request includes support for PREEVENTS and INFEWS. It also supports SEES.
- OCE is strongly supporting the President's Executive Order establishing a National Ocean Policy (NOP) through enablement of research, education, and infrastructure. OCE continues to support OOI.
- OCE is continuing to invest in research infrastructure and planning for potential new Regional Class Research Vessels (RCRV).
- GEO to launch new mid-scale infrastructure initiative at \$9.3M



Highlights of the FY16 NOAA Budget

- **Resiliency and Climate**
- **NOS: +\$45M for coastal resiliency grants; +\$4M for competitive research in coastal science and assessment**
- **OAR: +\$8.5M for ocean acidification (total program of \$21.4M); +\$1M for Sea Grant – for expansion of marine aquaculture program; climate research grows by 19%; O/C/GL research by 5%**
- **NMFS: Prescott program – proposed for termination, again**
- **Office of Education: Drops from \$27.67M to \$16.4M – STEM consolidation proposal continues to be pushed by Administration**



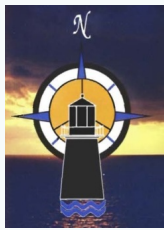
Highlights from Other Agencies

- **DOE Bio & Enviro Research: \$612.4; 3.4% increase; climate and enviro sciences grows to \$318.1M an increase of \$26M;**
- **NIH to grow by \$1 billion or 3.3% with \$200M for new precision medicine initiative and \$100M for BRAIN initiative;**
- **Smithsonian – support for Marine Global Earth Observatories to increase;**
- **US Fish and Wildlife Service – science support would nearly double to \$31.7M includes increased support for Landscape Conservation Cooperative partnerships;**
- **USGS – total budget up by 14.3% including funding for climate resilience and science infrastructure; 12.3% increase for USGS ecosystems activity; increases proposed for water resources activity;**



And the Congress Disposes....?

- **Develop budget resolution reflecting Congress' priorities for spending and taxes – austere compared to White House request for FY 2016.**
- **Budget resolution – an agreement between the House and Senate – not signed into law – will increase spending on defense programs via “off budget” emergency spending. Non-defense spending preserved at FY15 level.**
- **White House position is that relief for defense spending must be accompanied by relief for non-defense spending – adjust caps to avoid sequester in Jan 2016.**
- **Science authorization bills (America COMPETES, weather forecast improvement, NASA authorization, etc) to reflect Congressional views embodied in budget resolution**
- **Mark up in House of America COMPETES – reduce spending related to geosciences and social sciences – NAML joins with others to oppose**
- **Mark up of NASA Authorization bill in House seeks to reduce earth sciences**



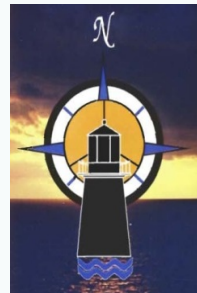
The Congress Disposes

- **NAML testimony to House and Senate Appropriations Committees**
- **House Appropriations are beginning to move – expect higher defense spending due to budget resolution**
- **Senate – it will be more difficult to move appropriations bills as Republicans need to compromise with Democrats to reach 60 vote margin to pass bills**
- **White House has said that it will oppose bills that move money from non-defense to Defense or increase defense without also increasing non-defense spending**
- **Expect to start FY 2016 this October under a continuing resolution.**
- **Negotiations over FY 2016: suspend sequester, increase spending on defense and non-defense priorities, tax reform, etc likely to take place in late fall.**



The Geosciences – Contributing to Innovation and Safety/Security of the Nation (it's not just about climate)

- Key source of the current and future work force for the oil and gas industry
- Saves lives through better weather and severe storm forecasts
- Helps communities address coastal resiliency issues
- Led to the new knowledge and advanced technologies that contributed to the growth of the fracking industry adding to the nation's supply of conventional energy resources
- Contributed to establishment and growth of an estimated \$5 billion private sector commercial weather industry (i.e. jobs) over the last 20 years
- Source of knowledge and technical talent for the minerals industry
- Improved planning and response to natural hazards



Yet In Recent Weeks....

- Some in the Senate have been critical of NASA's support for earth sciences;
- The geosciences have been described as “not hard science”;
- The FY16 Views and Estimates from the House Science Committee call for a “rebalancing” of support for earth sciences at NASA, geosciences at NSF, and climate research at NOAA;
- The America COMPETES reauthorization cut FY16 funding for NSF geosciences by nearly \$200M below the comparable level for FY 2008;
- The NASA Authorization bill just marked up in the House reduces the earth sciences by \$320 million;
- Let's not forget, however, the Administration's own FY15 budget request proposed to freeze NSF geosciences at the FY14 level and reduce NASA earth science from \$1.83 billion to \$1.77 billion.

Houston, we have a problem.