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# ANALYSIS OF THE AMERICA COMPETES REAUTHORIZATION ACT OF 2015 As Introduced in the House

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Earlier today, the House Science, Space and Technology Committee released its version of the *America COMPETES Reauthorization Act of 2015.* The bill is expected to be introduced in the House later today and possibly marked up by the Science Committee next week (a Subcommittee markup is not likely). This bill serves as *authorizing* legislation for the National Science Foundation (NSF) and other basic science agencies.

While there are some noticeable changes to the previous version of the bill that the scientific community rallied against last year, the new bill, authored by Science Committee Chairman Lamar Smith, continues to challenge the value of social and behavioral science research and restricts NSF's ability to drive its own research agenda. **COSSA opposes the legislation.** 

Described below are some the main similarities and differences between the COMPETES reauthorization of 2015 and the FIRST Act from last year.

## Title/Author

The House bill is titled the *America COMPETES Reauthorization Act of 2015*, hereby abandoning the "FIRST Act" terminology used in 2014. As a more "traditional" COMPETES bill, it not only includes an NSF title, but also titles for the Department of Energy and the National Institute of Standards and Technology. This appears to be an attempt to get back to a "clean" COMPETES bill.

Also different from the FIRST Act, COMPETES is sponsored by Science Committee Chairman Lamar Smith (R-TX). While Smith was a driving force behind the FIRST Act last year, then-Subcommittee Chairman Larry Bucshon (R-IN) was technically the lead sponsor. Conversations with staff for the new Subcommittee Chair, freshman Rep. Barbara Comstock (R-VA), indicate that Smith plans to bypass the subcommittee altogether this year. We also do not expect to see any hearings on the bill before it is marked up by the full committee, perhaps next week.

## Authorization of Appropriations

The primary objection from COSSA and the broader scientific community last year stemmed from the FIRST Act's handling of the authorization of appropriations for NSF, particularly the decision to provide specific authorizations for NSF's individual directorates (BIO, ENG, SBE, GEO, etc.). While not completely unprecedented, NSF has not been appropriated by directorate in more than 15 years and the agency's authorization legislation has never included such authorizations.

The House COMPETES bill would authorize NSF for FY 2016-2017. The authorization levels for the agency are better overall than what we saw in the FIRST Act (see below), but the bill continues to include specific directorate-level authorizations. In addition, keeping with the FIRST Act, the Social, Behavioral and Economic Sciences Directorate (SBE) would be authorized at \$150 million in FY 2016 and FY 2017, a

cut of nearly 45 percent from the FY 2015 (current year) enacted level. Further, the new bill states that \$50 million of the \$150 million would be earmarked for the National Center for Science and Engineering Statistics (NCSES) within SBE, which was not included in last year's bill. NCSES was funded at approximately \$50 million in the FY 2015 appropriations bill; this new language would protect that funding in FY 2016 and FY 2017. In other words, it would be ensure that any cuts to SBE would be felt in the directorate's research programs, not NCSES.

Also striking is that the bill proposes flat funding for NSF and all of the directorates between FY 2016 and FY 2017. Previous enacted COMPETES bills provided annual increases to NSF's budget.

(in millions of dollars)	Enacted FY 2015	Request FY 2016	COMPETES FY 2016-17	COMPETES vs. FY 2015	COMPETES vs. Request
National Science Foundation	7344.2	7723.6	7597.1	3.4%	-1.6%
Research and Related Activities	5933.6	6186.3	6186.3	4.3%	0.0%
Biological Sciences	731.0	747.9	834.8	14.2%	11.6%
Computer and Information Science and Engineering	921.7	954.4	1050.0	13.9%	10.0%
Engineering	892.3	949.2	1034.0	15.9%	8.9%
Geosciences	1304.4	1365.4	1200.0	-8.0%	-12.1%
Mathematical and Physical Sciences	1336.7	1366.2	1500.0	12.2%	9.8%
Social, Behavioral, and Economic Sciences	272.2	291.5	150.0	-44.9%	-48.5%
Office of International Science and Engineering	48.5	51.0	38.5	-20.6%	-24.5%
Integrative Activities	425.3	459.2	377.5	-11.2%	-17.8%
Education and Human Resources	866.0	962.6	866.0	0.0%	-10.0%
Major Research Equipment and Facilities Construction	200.8	200.3	200.3	-0.2%	0.0%
Agency Operations and Award Management	325.0	354.8	325.0	0.0%	-8.4%
National Science Board	4.4	4.4	3.9	-11.4%	-11.4%
Office of the Inspector General	14.4	15.2	15.7	8.5%	3.3%

### Findings (Sec. 102)

Like much of the bill, the Findings section is largely unchanged from the FIRST Act. However, the following language was added:

(11) Many of the complex problems and challenges facing the Nation increasingly require the collaboration of multiple scientific disciplines. The Foundation should continue to emphasize cross-directorate research collaboration and activities to address these issues and encourage interdisciplinary research.

This language is likely in response to arguments from advocates (including COSSA) and NSF officials that authorizing and appropriating the NSF budget according to directorate would hinder NSF's ability to fund and promote interdisciplinary, cross-directorate research.

### Accountability and Transparency (Sec. 105)

Sec. 105 is unchanged from the FIRST Act. This section continues to call on NSF to "commit itself fully to transparency and accountability and to clear, consistent public communication regarding the national interest for each Foundation-awarded grant and cooperative agreement."

### Misrepresentation of Research Results (Sec. 116)

Formerly Sec. 115 in the FIRST Act, this language previously caused major heartburn for the scientific community, especially universities. The new bill strips out language outlining an "investigation process" for researchers found to have misrepresented their research results and also removes the "10 year ban" for those caught falsifying results. However, the bill still directs NSF to make publicly available any findings of research misconduct, including the PI's name.

#### Research Grant Conditions (Sec. 118)

The new bill does not include two provisions that were problematic to the research community last year. One would have limited a PI's ability to receive NSF support to five years, unless future research was "original." In addition, it stripped out language limiting PIs to five article citations in their grant applications.

#### Greater Accountability in Federal Funding for Research (Sec. 106)

While some tweaks have been made to Sec. 106, it remains largely unchanged. This section sets standards for making awards and requires the agency to prepare a written, public justification of why a project was funded and how it is in the national interest.

#### Research Reproducibility and Replication (Sec. 117)

The House bill includes a new section calling on NSF to contract with the National Research Council on a report "to assess research and data reproducibility and replicability issues in interdisciplinary research and to make recommendations on how to improve rigor and transparency in scientific research."

### Informal STEM Education (Sec. 125)

The bill includes a new section authorizing NSF to continue to award grants for informal, out-of-school STEM learning.

#### Whistleblower Education (Sec. 109)

The House bill includes a new section that would require NSF to provide training to staff on the requirements of federal whistleblower laws, as well as provide information to grantees and contractors.

#### Large Facilities (Sec. 108)

While not pertinent to COSSA's interests, the bill includes some major changes to the section on management and oversight of large facilities, which may be of interest to university leaders and research administrators.