

SO, WHAT'S HAPPENING IN DC?

Peter Harsha

CRA Dir. of Government Affairs

CRA Computing Community Consortium Council Meeting

April 2018



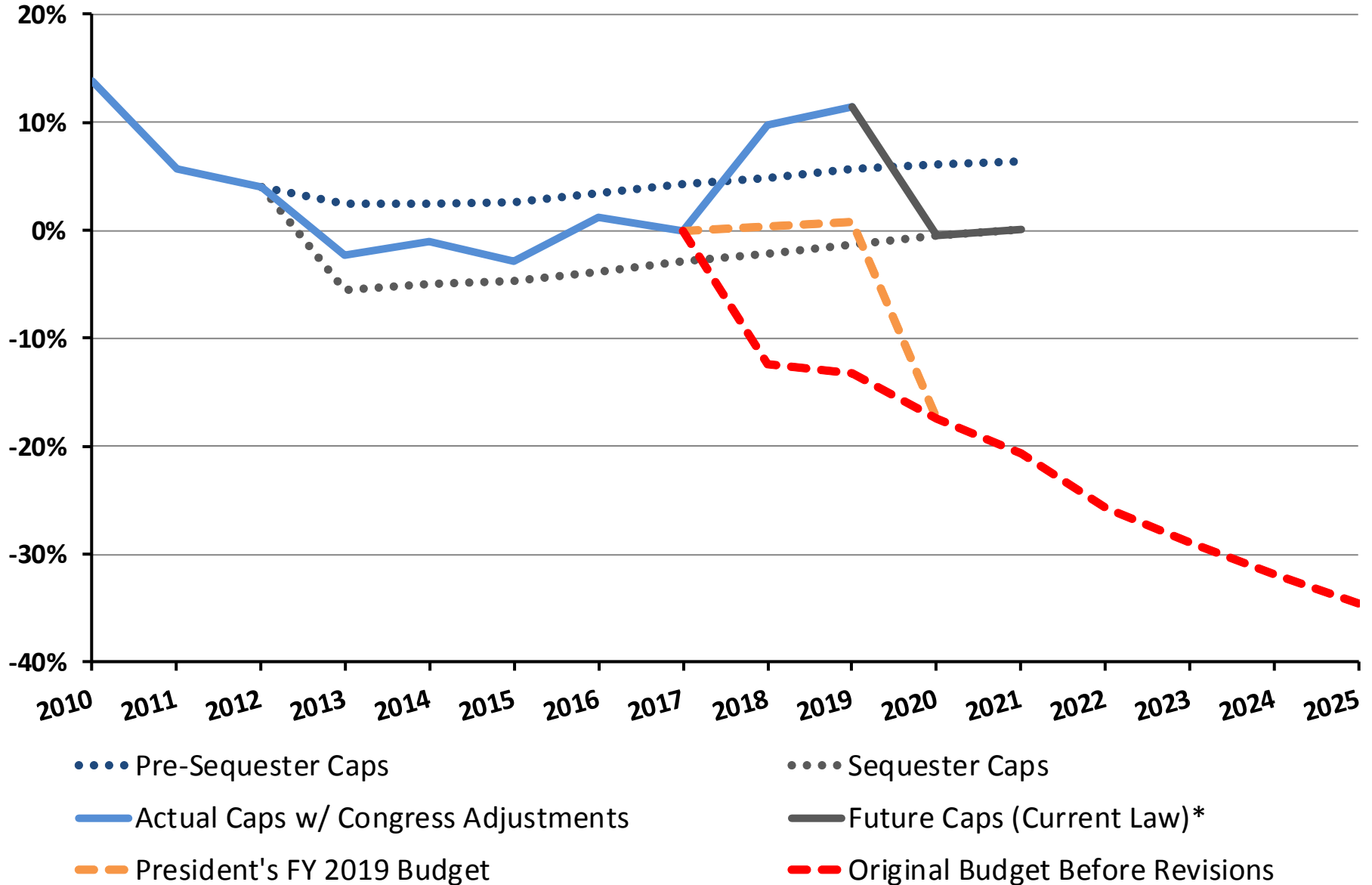
STRUCTURE OF TALK

- President's Request FY 2019
- Final FY 2018 Numbers
- Other things

BACKGROUND

Limits on NONDEFENSE Spending

Estimated percent change from 2017, inflation adjusted



*Current caps last through 2021. Based on past and current budget resolutions, the Budget Control Act and subsequent legislation, and the FY 2019 OMB summary tables. © AAAS 2018

PRESIDENT'S FY2019 BUDGET REQUEST

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"If you were in Congress, would you have voted for this budget that you're presenting?" asked Sen. Patty Murray, D-Wash.

"As a member of Congress representing the 5th District of South Carolina, I probably would have found enough shortcomings in this to vote against it," said Mulvaney.



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- Congress not committed to President's numbers
- Mulvaney doesn't seem terribly committed to it either
- Congress will spend that \$57 billion



FY 2019 BUDGET SUMMARY (FOR NOW)

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- **Defense S&T** – Basic research up 0.5 percent; Applied down 4.4 percent; Adv. Tech Development down 0.9 percent. DARPA would increase 19 percent.

FY 2018 FINAL OMNIBUS APPROPRIATIONS

OVERVIEW

- Overall, science does well in this budget.
- Could certainly have been much worse.

NATIONAL SCIENCE FOUNDATION

- Overall, NSF grows 3.9 percent vs. FY17 to \$7.77 billion
 - Increase of \$295 million
- R&RA grows 5 percent, to \$6.3 billion
 - **Highest level of funding for R&RA since FY10**
 - (no directorate-by-directorate level detail)
- EHR grows 2.5 percent to \$902 million

DEPARTMENT OF ENERGY

- Office of Science grows **16.1 percent** to \$6.26 billion
- ASCR grows 25.2 percent to \$810 million
 - Includes 25 percent increase for Exascale (to \$205 million)
 - Increases to Argonne and Oak Ridge HPC
- ARPA-E grows to \$353 million (all-time high)

NATIONAL INSTITUTES OF HEALTH

- Grows to \$37 billion, an increase of \$3 billion or 9 percent
- \$10 billion above President's request
- Includes increase to BRAIN Initiative to \$400 million
- Does not consolidate NIDLIRR, AHRQ, NIOSH under NIH

DEFENSE S&T

- 6.1 Basic Research increases 2.9 percent to \$2.3B
- 6.2 Applied Research increases 7.3 percent to \$5.7B
- 6.3 Adv. Tech. Dev. increases 6.4 percent to \$6.9B
- DARPA increases 6.3 percent to \$3.1B
 - 20 percent increase to Basic Science account
 - Large increases for ICT and electronics research, biotech, and space technologies

OTHER AGENCIES

- **NASA** overall increases 6 percent to \$21B; Science grows 7.1 percent to \$6.2B
- **NIST** Labs increase 5 percent to \$725M
- **DHS** S&T increases 7.6 percent to \$841M
- **NOAA** increases 6.7 percent to \$549M
- **USGS** increases 5.8 percent to \$1.1B
- **EPA** S&T flat at \$706M

COMPUTER SCIENCE EDUCATION FUNDING

- Two Department of Education grant programs have new guidance specifically including CS Education efforts:
 - Student Support and Academic Enrichment (SASE) - \$700 million boost to \$1.1 billion
 - directs the program to "especially support pre-kindergarten through grade 12 computer science education programs that address the enrollment and achievement gap for underrepresented students such as minorities, girls, and youth from families living at or below the poverty line."

COMPUTER SCIENCE EDUCATION FUNDING (CON'T)

- Education Innovation and Research (EIR) carves out \$50 million for “innovative STEM education projects, including computer science education.”

INFRASTRUCTURE SPENDING

- Boosts Infrastructure spending to \$21 billion
- Includes:
 - \$265 million to increase and expedite rural broadband expansion within USDA
 - \$398 million to support “cutting-edge science at National Labs and other DOE sites”
 - \$500 million for “critical funds for cyber infrastructure resilience and protection”

SO, IN SUM...

- Gains for science agencies across the board in FY18
- Still some room for continued growth in FY19, though much more modest
- Some programmatic changes require a close watch through appropriations process
- Election year

OTHER TOPICS

INTELLIGENT INFRASTRUCTURE RESEARCH

- January 30th briefing
- Benefits of Intelligent Infrastructure and identifying critical research gaps
- Now working with other groups/ stakeholders to identify strategy and effective approaches to implementing our recommendations



TAX REFORM ISSUE – GRADUATE STUDENT TUITION WAIVERS



November 14, 2017

Joint Statement of the Computing Research Community Opposing Provisions of H.R. 1, the Tax Cut and Jobs Act, that would Increase Taxes on Graduate Students in the U.S.

As six leading organizations in computing, representing more than 30,000 graduate students and departments in the computing fields in the U.S., we oppose provisions contained in H.R. 1, the *Tax Cut and Jobs Act*, which would discourage graduate careers in computing research and reduce available research funding at a time when our national competitiveness demands it most.

Current Internal Revenue Code (Section 117(b)(5)) allows colleges and universities to reduce the cost of graduate education for students working as teaching and research assistants by providing tuition waivers without having those waivers counted as taxable income for the student. Eliminating this provision, as proposed in H.R. 1, would dramatically increase the cost of graduate student education in computing, and likely discourage students from pursuing graduate degrees while effectively reducing funding available for research.

There has never been stronger demand for graduates in the computing fields. Encouraging students to continue their educations in U.S. graduate programs ensures that America's fundamental research enterprise remains up to the task of producing the world's best talent and driving innovation in computing – and across the economy – in this increasingly competitive world. Sharply increasing the tax burden on these students, who earn only a small fraction of what they could otherwise make in industry, will either have the effect of discouraging their pursuit of a graduate education or will require the use of already constrained research budgets to offset the tax costs. Both outcomes would cause harm to an extraordinarily productive computing research ecosystem that has made the U.S. the world leader in computing technologies.

Endorsed by:

Association for the Advancement of Artificial Intelligence (AAAI) aaai.org
Association for Computing Machinery (ACM) acm.org
Computing Research Association (CRA) cra.org
Institute of Electrical and Electronics Engineers (IEEE-USA) ieeeusa.org
Society for Industrial and Applied Mathematics (SIAM) siam.org
USENIX - The Advanced Computing Systems Association usenix.org

Contact:
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<https://cra.org/govaffairs/blog/2017/11/six-leading-computing-organizations-join-oppose-provision-house-tax-bill-increase-taxes-graduate-assistants/>



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