

The Science Budget in 2018: An Update

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March 14, 2018 (Happy Pi Day!)

For the ASEE Engineering Research Council

AAAS R&D Budget and Policy Program

<http://www.aaas.org/program/rd-budget-and-policy-program>



Elements in recent play:

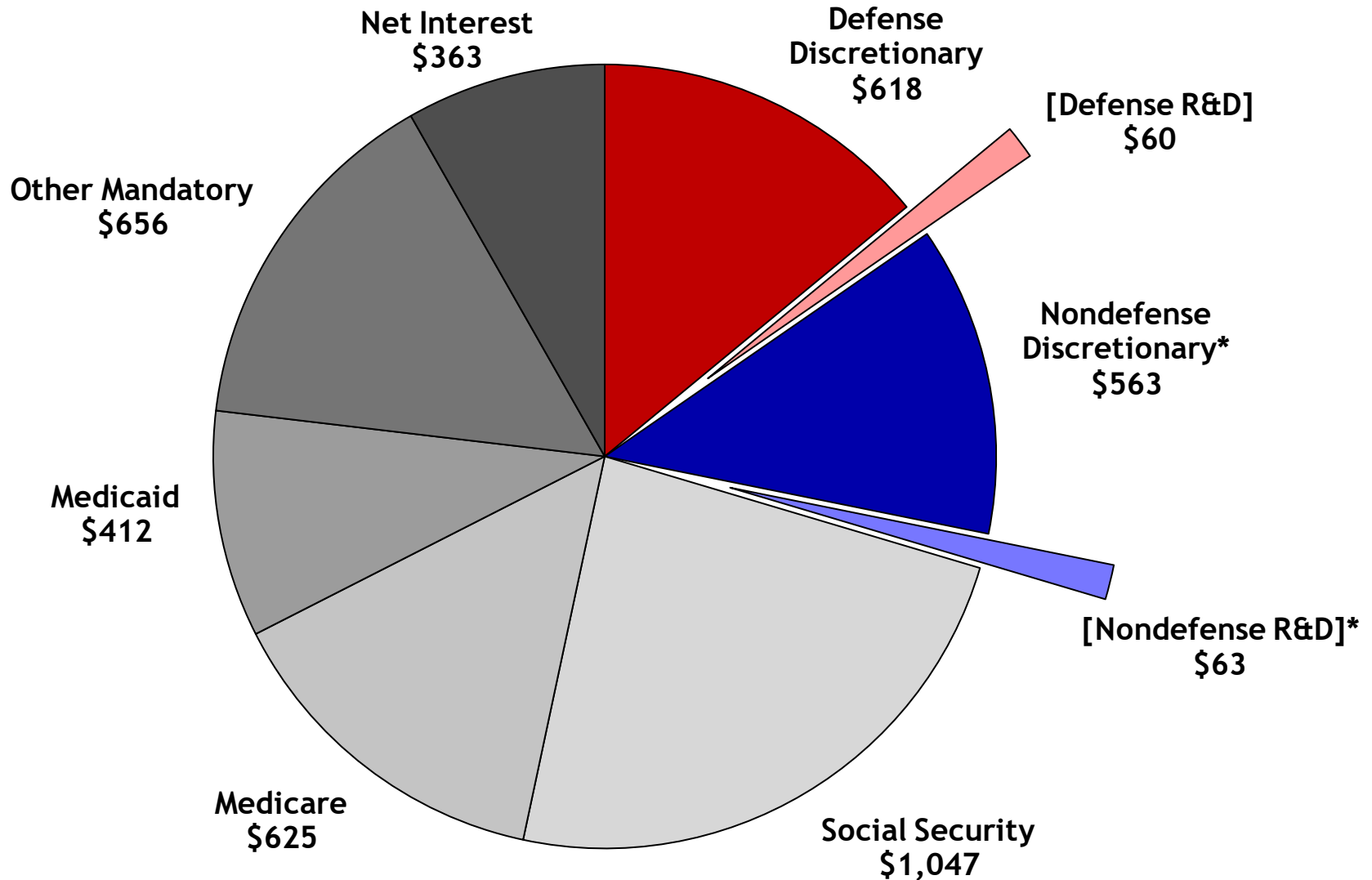


- The Budget Deal (the Bipartisan Budget Act of 2018). Which leads into...
- FY 2018 Appropriations (briefly lapsed twice, five CRs, but negotiations now underway – resolved soon?)
- The new White House budget for FY 2019, released in early February

Composition of the Proposed FY 2019 Budget

Total Outlays = \$4.4 trillion

outlays in billions of dollars

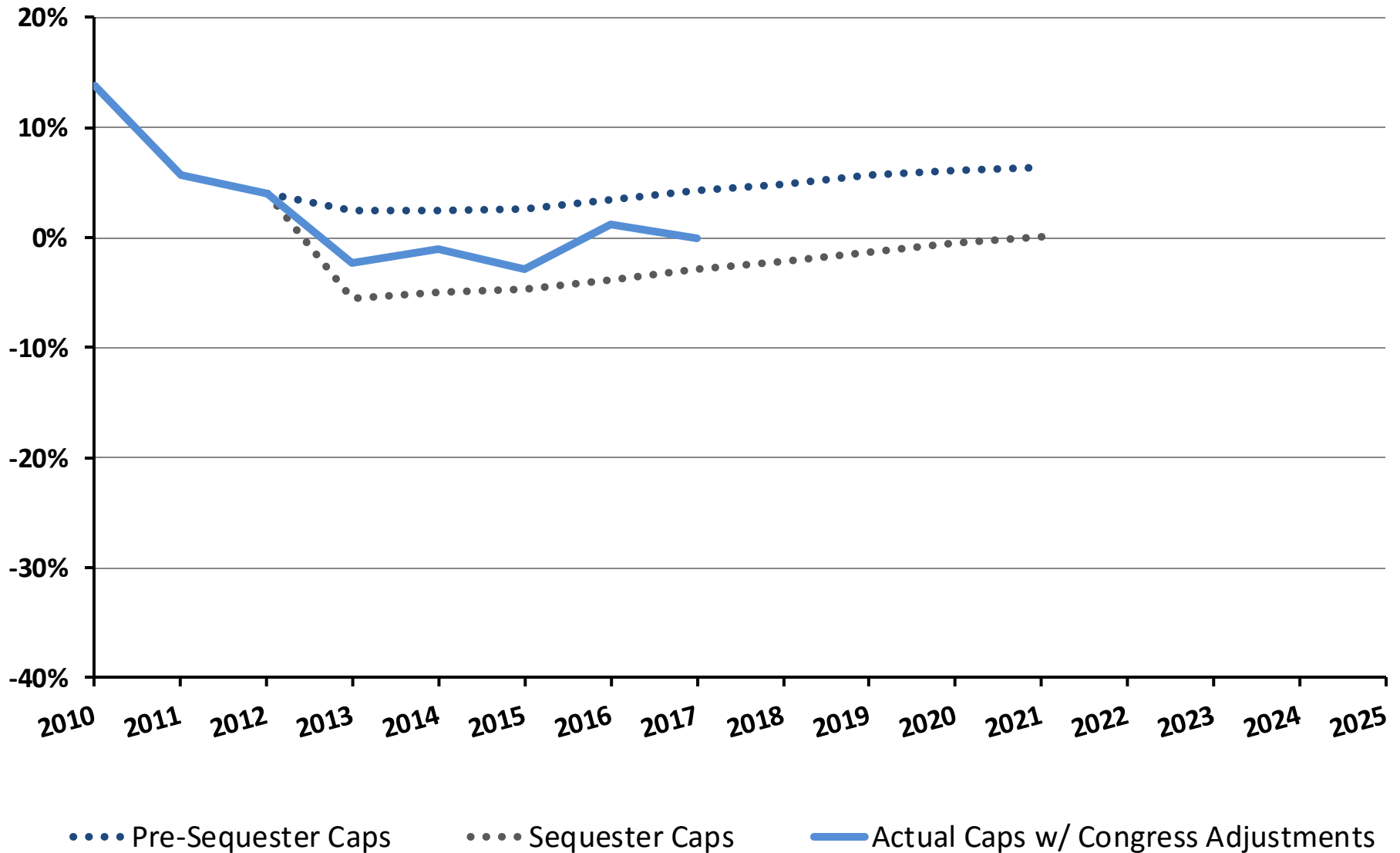


*Totals do not include last-minute additions of several billion dollars in response to passage of the Bipartisan Budget Act of 2018.

Source: *Budget of the United States Government FY 2019*. Projected deficit is \$984 billion. © AAAS 2018

Limits on NONDEFENSE Spending

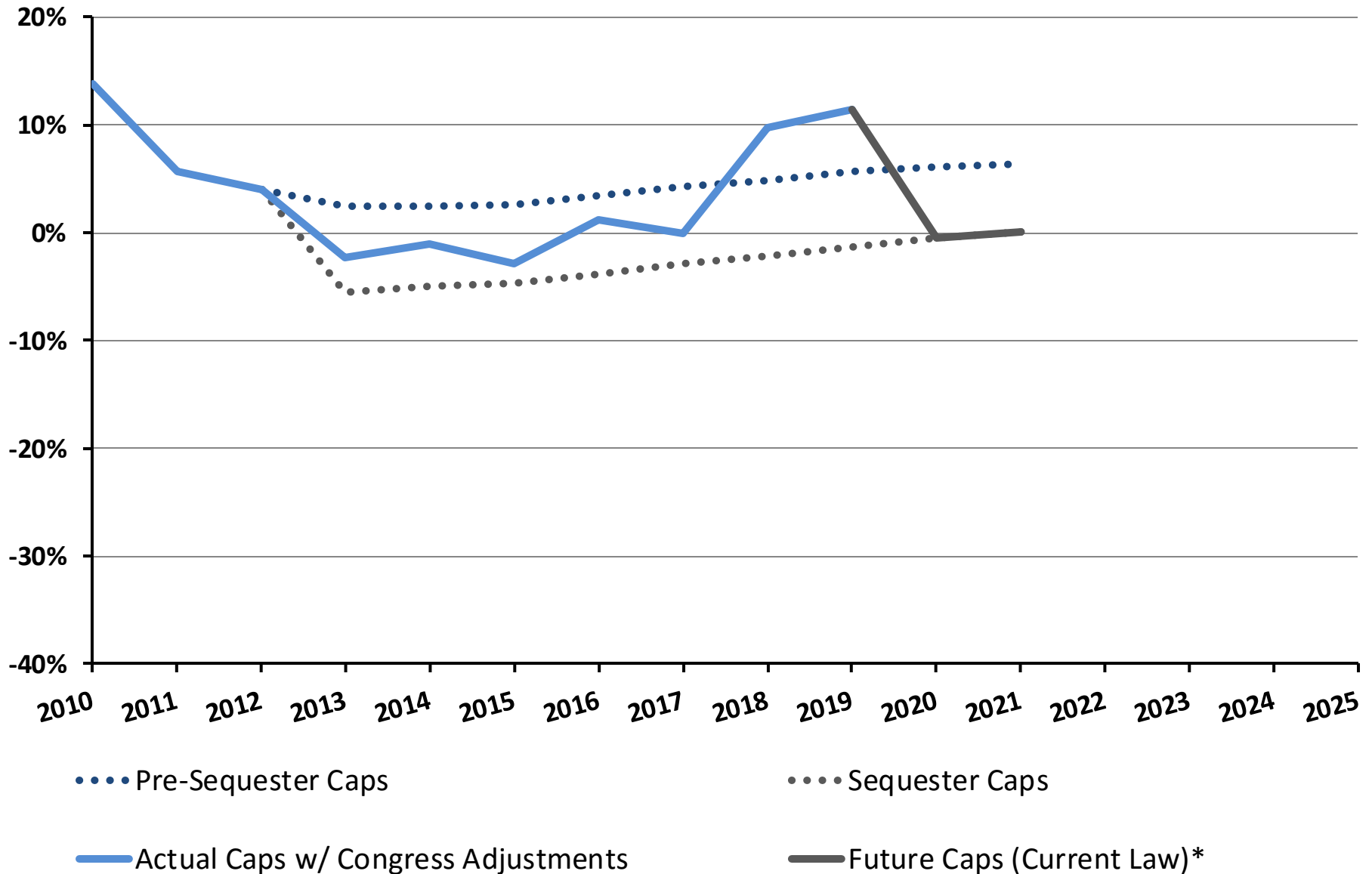
Estimated percent change from 2017, inflation adjusted



*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

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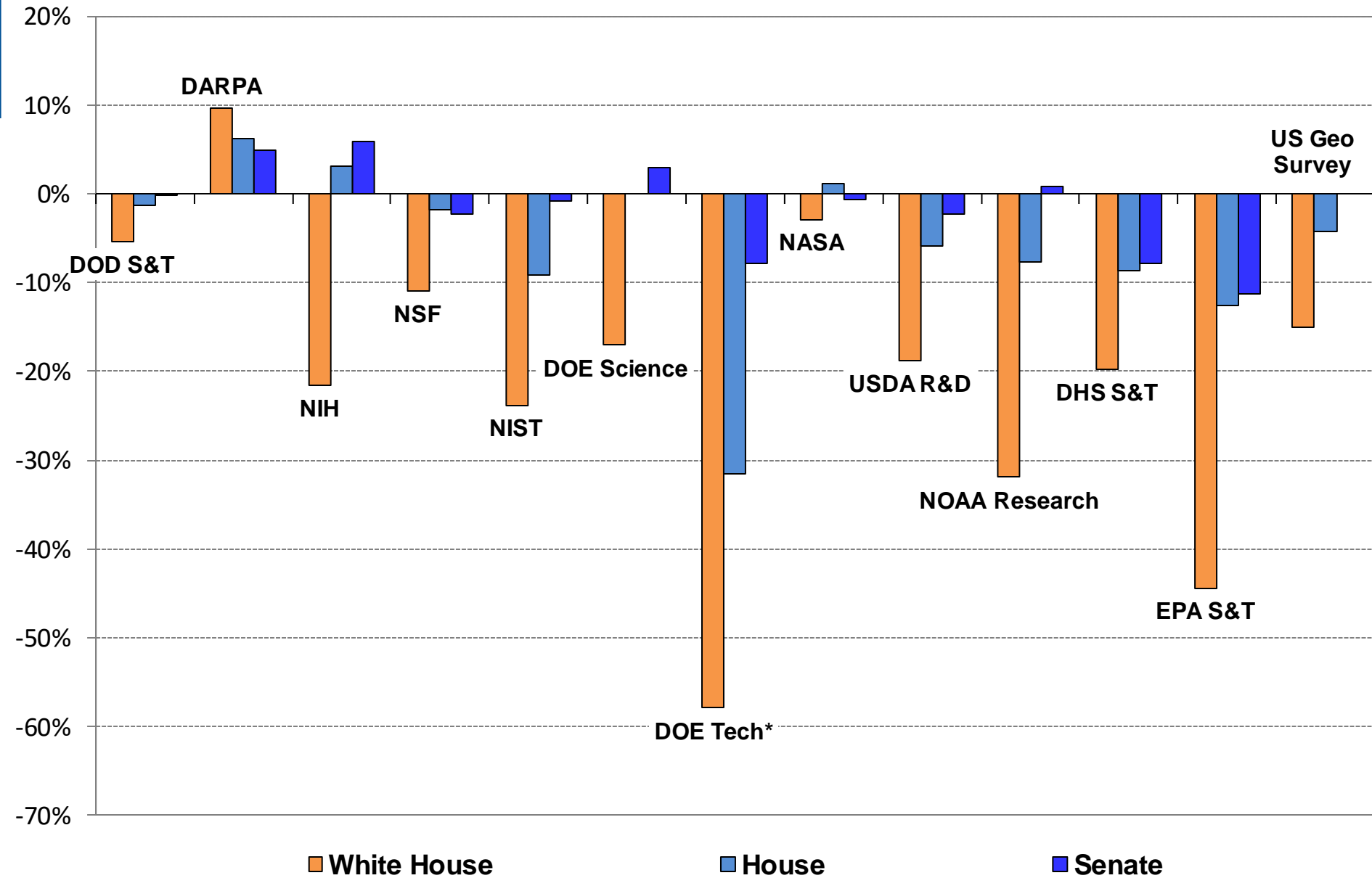
Estimated percent change from 2017, inflation adjusted



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Select Science & Tech Agencies and Programs in the FY 2018 Budget

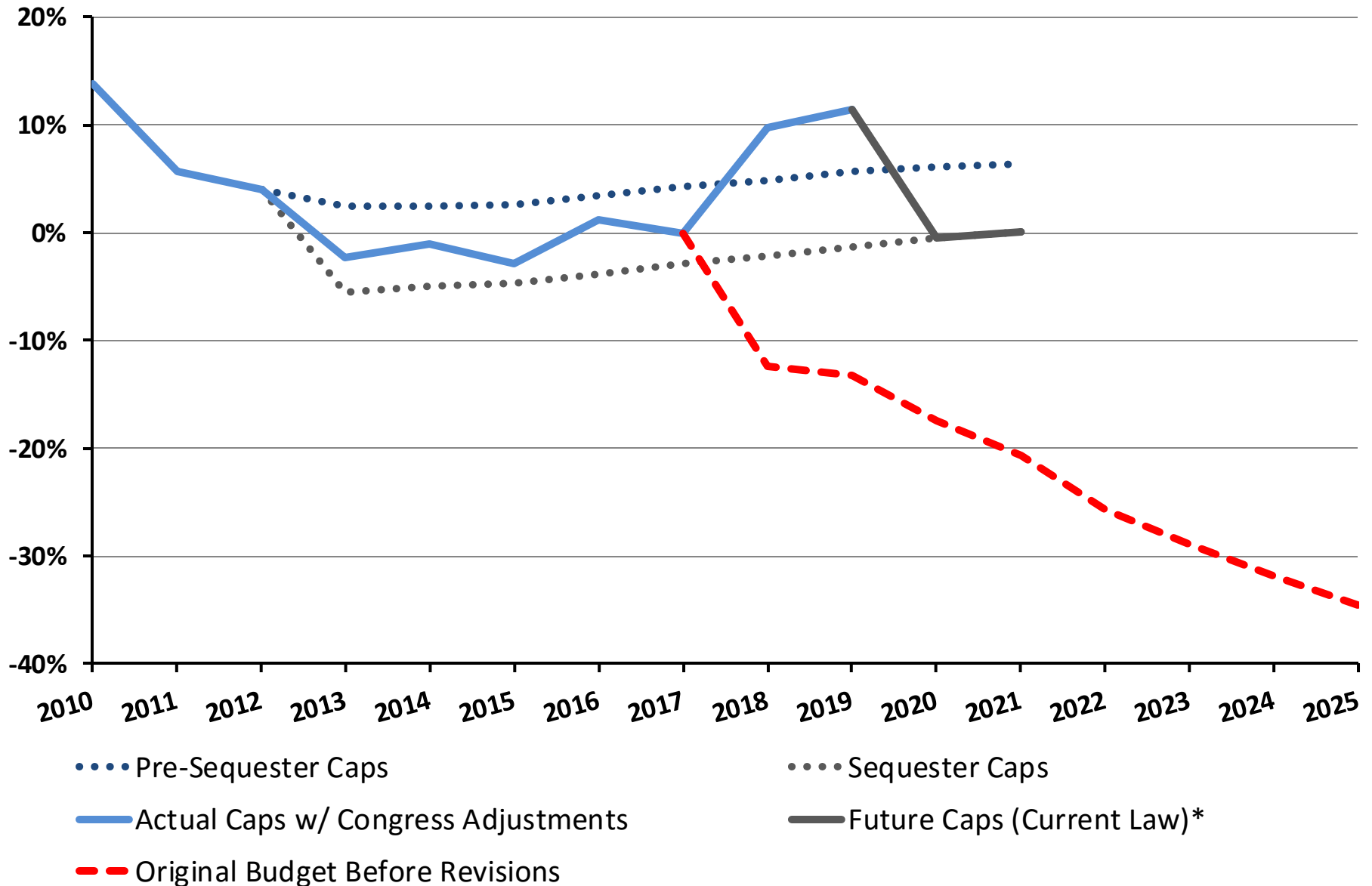
Estimated percentage change from FY 2017 enacted levels, nominal dollars



*Includes renewables and efficiency, nuclear, fossil, grid research, ARPA-E. Based on the FY 2018 budget request, the FY 2017 omnibus, and current appropriations. | AAAS

Limits on NONDEFENSE Spending

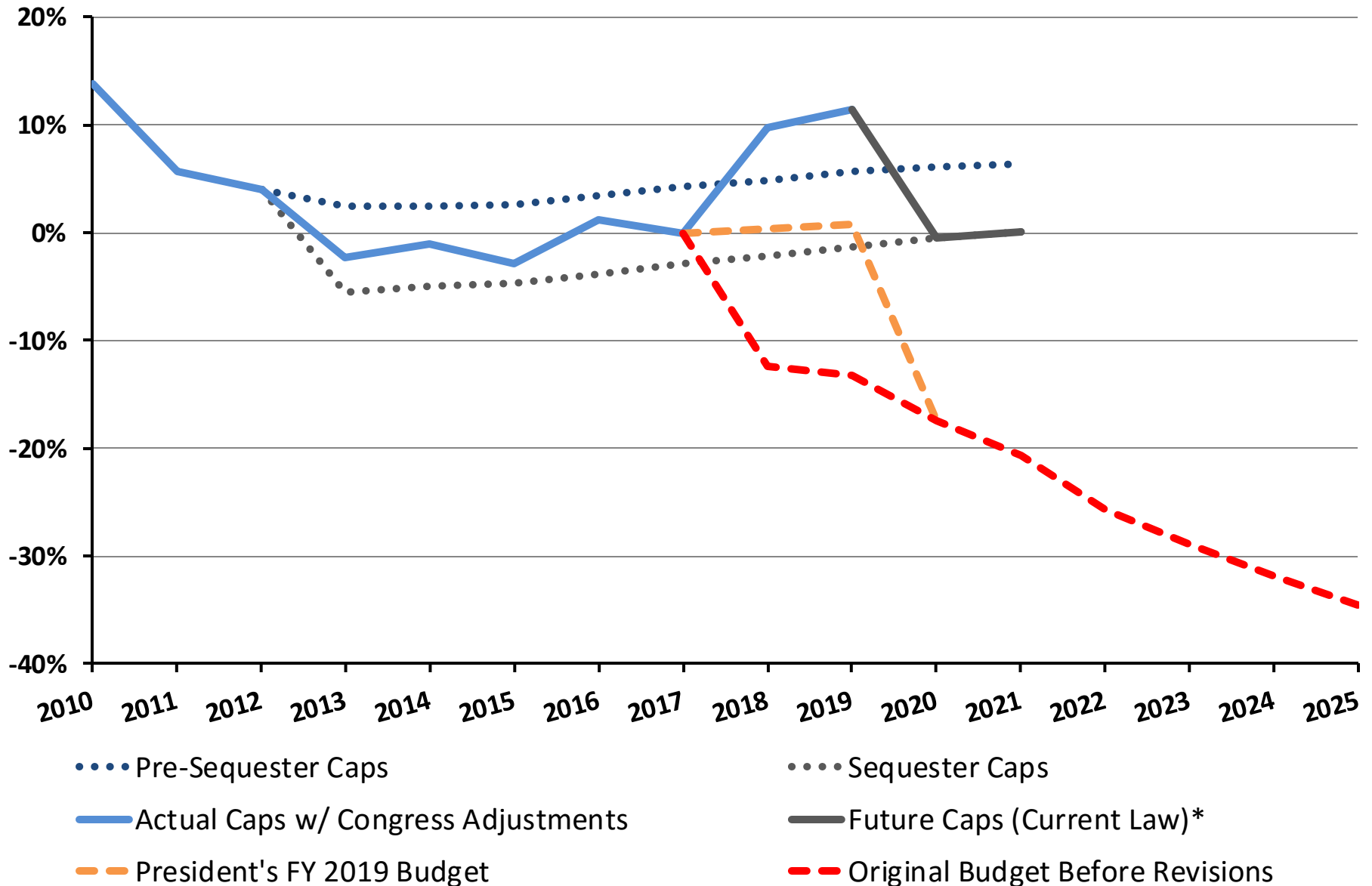
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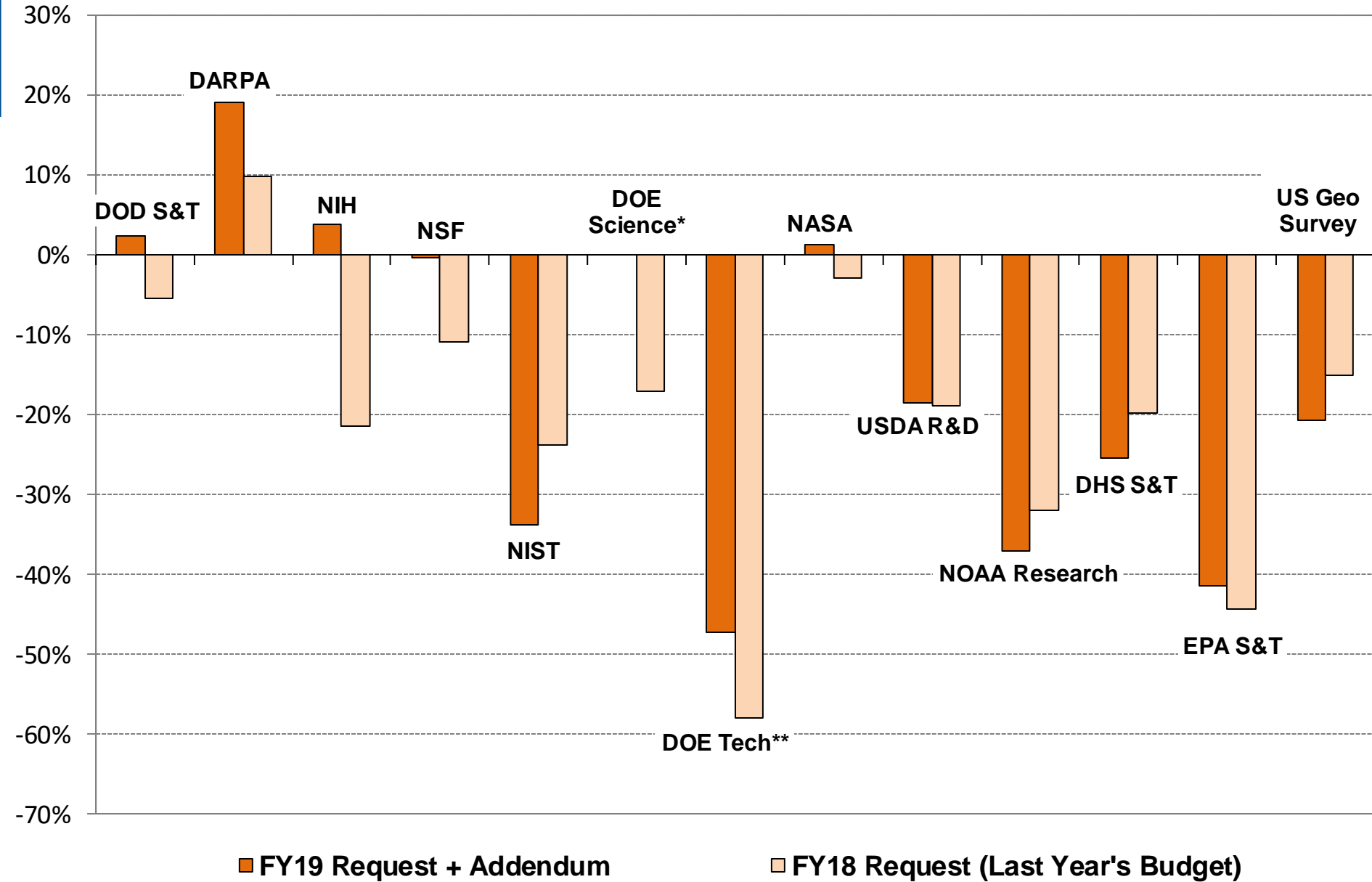
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Select Science & Tech Agencies and Programs in the FY 2019 Budget

Estimated percentage change from FY 2017 enacted levels, nominal dollars



*Flat in the FY19 request. *Includes renewables and efficiency, nuclear, fossil, grid research, cybersecurity, ARPA-E. | AAAS

Quick Notes on FY19 Proposed Budget



- **NIH:** +3.8% but consolidates AHRQ, NIOSH, NIDILRR to bring NIH to 30 institutes; \$750m for opioids research
 - Salary capped at 90%, lowered to \$152k from \$187k
- **DOE:** Big increase for exascale computing while other disciplines cut; ITER funded; construction prioritized
 - Technology: ARPA-E terminated (again), deep cuts for efficiency and renewables (again); small modular reactors, advanced coal
- **NSF:** research increased 2%; two vessels instead of three; “10 Big Ideas”
 - Success rate, awards to drop; Social Science reduced by 9%
- **NASA:** WFIRST terminated, Earth Science cut, Planetary Science prioritized; moon projects and commercial space
- **USDA:** ARS and formula funds trimmed, AFRI flat from FY17, several lab closures
- Multiple agencies: Climate and environment broadly targeted
- Coming soon: the return of trillion-dollar deficits?

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**How much does
all this matter?**

TER funded;
renewables (again); small

Looking Ahead



- FY 2018: Congress has until March 23 to finalize appropriations
- FY 2019: a similar story to 2018 on appropriations?
 - Won't see spending bills until after FY 2018 is dealt with
 - Will probably be less generous than FY 2018 will be because of the caps
 - Not finalized until late fall given election?
- FY 2020: cap negotiations one more time
 - Who controls Congress next year?
 - Will widening deficit impact the negotiations?



Ogphoto/iStockphoto

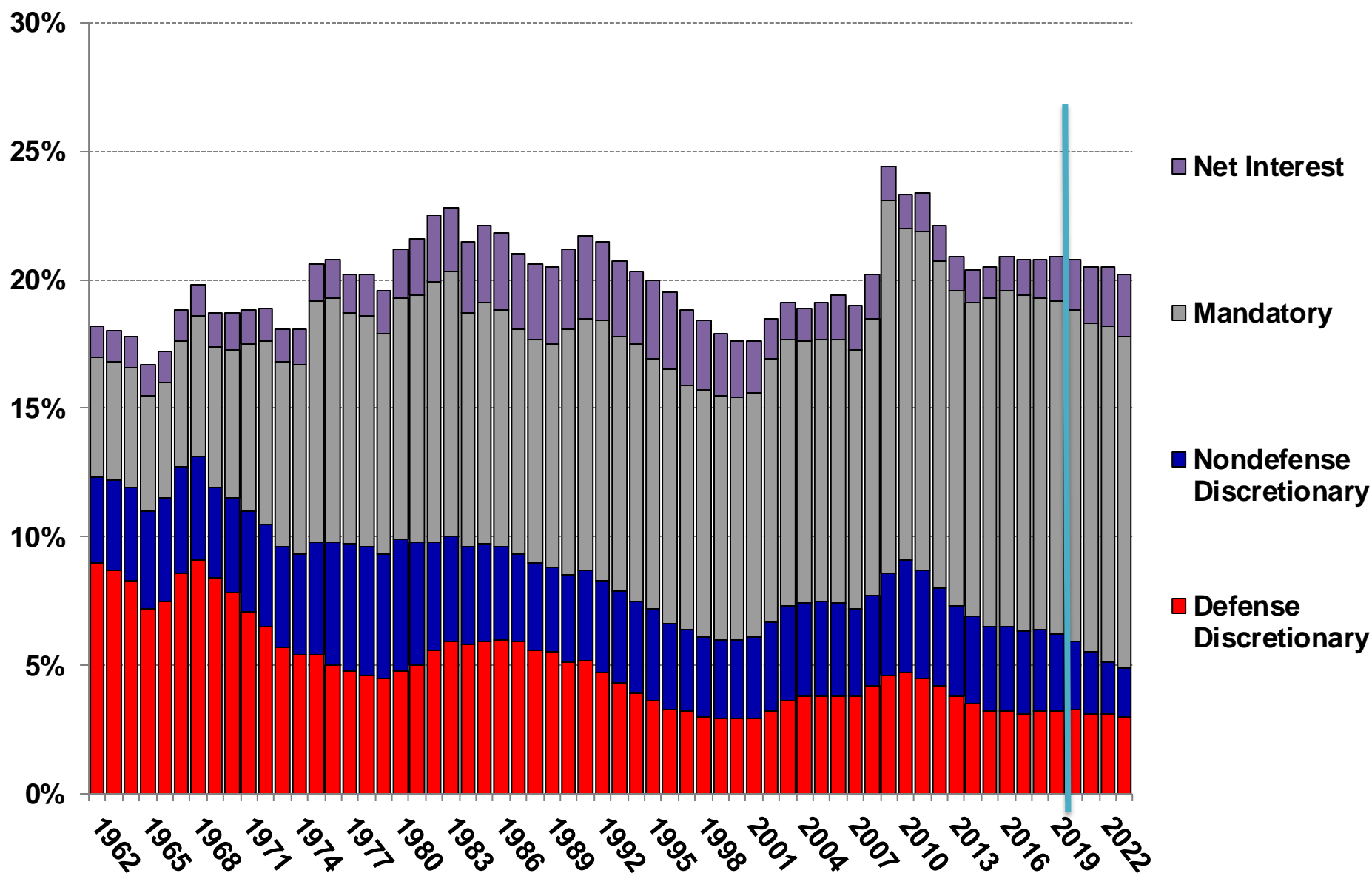
U.S. House approves 2018 spending bills, but process far from finished

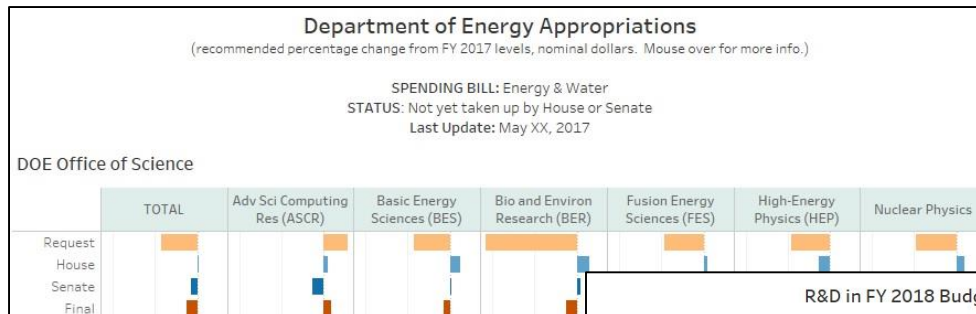
By David Malakoff | Sep. 14, 2017, 3:02 PM

The U.S. House of Representatives today took a major step toward setting federal science budgets for the 2018 fiscal year that begins 1 October. But Congress is still far from the finish line, and final spending levels aren't likely to be finalized until late this year at the earliest.

Legislators voted largely along party lines in approving a **package of 12 appropriations bills** that would provide about \$1.23 trillion in 2018 for so-called discretionary programs. That category covers about one-third of the federal budget and includes most research budgets. (The rest pays

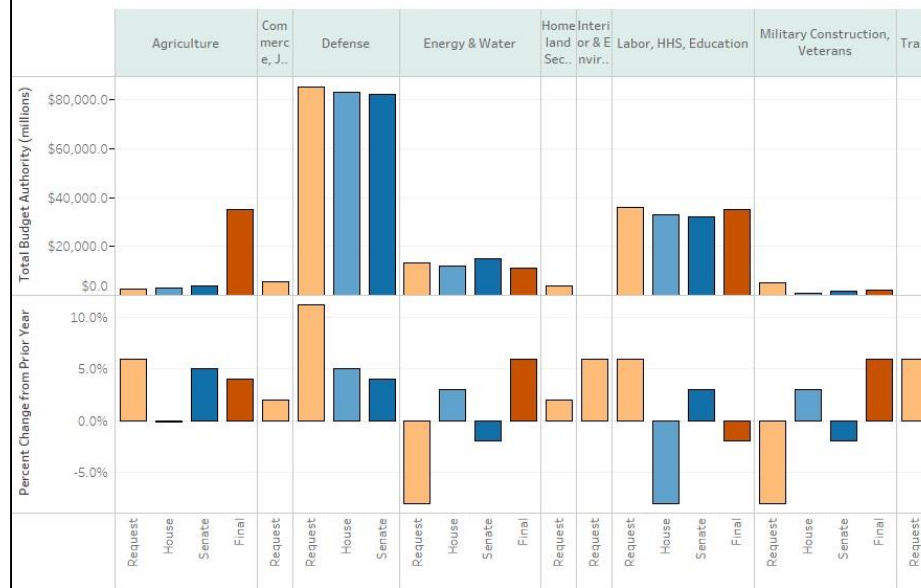
Federal Spending as a Percent of GDP, 1962 - 2023





Federal R&D funding in Congress is allocated via several spending bills, authored by the appropriations subcommittees. Current AAAS estimates of R&D by select spending bill and subcommittee are shown below.

Last Updated: May XX, 2017



Spending Bill Progress



R&D in FY 2018 Budget and Appropriations

the President's budget request are displayed below; House and Senate estimates will be added once all are released. Mouse over for more info, or use the tabs above to view appropriations by agency or by Congressional subcommittee and spending bill.

Federal R&D Total Estimates*



For more info...



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