You Think It's Bad Now?

Last year, when the Congressional Super Committee failed to make $1.2 trillion in targeted cuts to the federal budget, a process of automatic, across-the-board spending cuts called sequestration went into effect. Broadly speaking, the cuts, which will begin in January 2013, will mean about an 8.4% cut to non-defense programs in the federal government, including the U.S. National Institutes of Health (NIH) and the National Science Foundation (NSF), and a 7.5% cut to defense programs in FY13. In subsequent years the rate of cuts will slowly decline.

Arguing that sequestration of defense programs would jeopardize national security, Republicans in the U.S. House of Representatives passed a FY13 federal budget plan that exempts U.S. Defense Department programs from the cuts. Any reduction in cuts to the defense department will increase cuts in other programs, including the NIH and the NSF.

In a memo to House Republicans explaining their plan, House Republican leaders cited cuts to the NIH as a reason to offer a replacement budget instead of allowing cuts to occur by sequestration, but they did not provide additional funds for the agency in their replacement budget.

A recent report published by the American Association for the Advancement of Science (AAAS) estimates the real and frightening impact of the House budget on federal research and development (R&D), including the NIH and NSF.

The AAAS report estimates that between FY13 and FY21 the portion of the federal budget in the Health category, which includes the NIH and is the largest nondefense R&D portion of the federal budget, would be cut to 22% below the levels proposed by President Obama. The General Sciences, Space, and Technology portion, which includes the NSF, could see its budget cut 29% below the Obama proposal during the same time period. The AAAS report indicates that at the same time, the defense budget would increase 3% above the amount requested by the president. ■

—Kevin M. Wilson

Difference in R&D spending Between the President's FY13 Budget and the House FY13 Budget *(Percentage change from the President's Budget to House Budget)*

Category	2013	2014	2015	2016	2017	2018	2019	2020	2021	TOTAL (FY13-21)
Defense	1%	1%	2%	2%	3%	3%	4%	4%	5%	3%
Gen Sci, Space, Tech (incl NSF)	-9%	-29%	-29%	-30%	-30%	-31%	-32%	-33%	-34%	-29%
Energy	-55%	-67%	-68%	-68%	-68%	-68%	-69%	-69%	-70%	-67%
Natural Resources	-10%	-33%	-36%	-36%	-36%	-36%	-36%	-37%	-37%	-33%
Agriculture	-4%	-24%	-24%	-24%	-24%	-24%	-25%	-25%	-26%	-22%
Transportation	-37%	-28%	-38%	-41%	-43%	-44%	-23%	-21%	-28%	-35%
Health (incl. NIH)	-2%	-22%	-22%	-23%	-23%	-24%	-25%	-26%	-27%	-22%
Veterans	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
TOTAL	-3%	-11%	-11%	-11%	-11%	-11%	-11%	11%	-11%	-10%
Total Non-defense	8%	-27%	-27%	-28%	-28%	-29%	-29%	-30%	-31%	-27%

Source: *Brief: Potential Impacts of the FY 2013 House Budget on Federal R&D.* American Association for the Advancement of Science (AAAS). http://www.aaas.org/spp/rd/fy2013/HouseBudgetRDBrief.pdf.

ASCB Proposals Included in White House Plan

Recognizing that innovation in the biological sciences is a rapidly expanding part of the global economy, last fall President Obama announced plans to craft a National Bioeconomy Blueprint. The Blueprint was to outline the steps his administration would take to harness biological research–based discoveries and innovations that can address critical health, food, energy, and environmental challenges.

At the request of the White House Office of Science and Technology Policy, the ASCB Public Policy and Education Committees provided views on a number of issues. Most importantly, the ASCB called for sustainable and dependable growth for federally funded biomedical research. Specifically, the ASCB urged the White House to commit to a long-term funding rate of at least "inflation + 2%" for biological research.

The White House report was officially released at a ceremony in the Eisenhower Executive Office Building by John Holdren, Assistant to the President for Science and Technology. Holdren was joined by Kathleen Sebelius, Secretary of the U.S. Department of Health and Human Services, and Tom Vilsack, Secretary of the U.S. Department of Agriculture.

The final report includes five strategic objectives:

- Support research and development investments that will provide the foundation for the future bioeconomy.
- Facilitate the transition of bioinventions from research lab to market, including an increased focus on translational and regulatory sciences.
- Develop and reform regulations to reduce barriers, increase the speed and predictability of regulatory processes, and reduce costs while protecting human and environmental health.
- Update training programs and align academic institution incentives with student training for national workforce needs.
- Identify and support opportunities for the development of public–private partnerships and precompetitive collaborations in which competitors pool resources, knowledge, and expertise to learn from success and failures.

The final report included a number of the ASCB's suggestions. These included the development of new approaches to meet the changing employment opportunities of the next generation of American biological researchers. With a grim federal funding outlook, it is critical that students be exposed to the various employment options available to them. Both the ASCB and the White House report call for increased participation by the private sector and greater awareness of employment options beyond academia. As suggested by the ASCB, options include industry-sponsored internships and a restructuring of training programs to meet the needs of a wider range of potential employers. Also as suggested by the ASCB, the report calls for increased public–private partnerships and the development of technologies to allow researchers to handle "big data."

You can read the ASCB's comments at www.ascb.org/ASCBblueprint2012.html. To read the National Bioeconomy Blueprint, go to www.ascb.org/blueprint2012.html. ■

—Kevin M. Wilson

CLS on Capitol Hill

The Coalition for the Life Sciences hosted a Congressional Biomedical Research Caucus on May 9. Steven Quake from Stanford University presented a briefing on "Is the Genome Useful in Medicine?" ■

Got Questions?

Labby has answers. ASCB's popular columnist will select career-related questions for publication and thoughtful response in the *ASCB Newsletter.* Confidentiality guaranteed if requested. Write us at labby@ascb.org. ■