

**Written Testimony of Zach Graves, Head of Policy, Lincoln Network
Before the Select Committee on the Modernization of Congress
Re: Strengthening Science and Technology Capacity in Congress
March 25, 2021**

Chairman Kilmer, Vice Chairman Timmons, and esteemed members of the Committee:

Thank you for the opportunity to testify. My organization, Lincoln Network, works to bridge the gap between Silicon Valley and DC. This work entails building up and future-proofing our institutions with the capacity they need to support continued American leadership in innovation.

The federal government is faced with substantial science and technology (S&T) capacity and modernization challenges across its workforce and institutions.¹ Congress, in particular, is faced with some of the most serious of these challenges, as a result of decades of governance and political pressures that have undermined its resources.

The 1990s were a pivotal decade for congressional expertise. The defunding of the Office of Technology Assessment (OTA) in 1995—along with contemporaneous cuts to committees, personal offices, and support agencies—created a deep institutional rift in the oversight and formation of federal S&T policy.² This dearth of capacity has contributed to the ongoing erosion of our technological superiority (both defense and civilian), weakening industrial capacity, a languid response to the COVID-19 pandemic, and the unchecked growth of federal spending and administrative bureaucracy.

¹ See, e.g., Candice N. Wright, “Strengthening and Sustaining the Federal Science and Technology Workforce,” Government Accountability Office, March 2021. <https://www.gao.gov/assets/gao-21-461t.pdf>.

² See, e.g., Zach Graves and Daniel Schuman, “Science, Technology, and Democracy: Building a Modern Congressional Technology Assessment Office,” Harvard Kennedy School-Ash Center for Democratic Governance and Innovation, January 2020. https://ash.harvard.edu/files/ash/files/293408_hvd_ash_science_tech_and_democracy_report.pdf.

While S&T issues have only become more important, Congress has let its capacity atrophy. Since the invention of the World Wide Web in 1989, committees have lost over 1,000 staff positions, and support agencies have lost over 2,500. Meanwhile, resource allocation within the legislative branch has disproportionately shifted to non-policy functions like the Architect of the Capitol and the Capitol Police.³ And in individual offices, an increasing share of staff are dedicated to communications and constituent engagement rather than policy.

To reverse this decline, we need to forge a new consensus to restore and strengthen this essential institution.

A Framework for S&T Expertise in Congress

Congress is one of the most advised bodies in the world. Trade associations, think tanks, academics, lobbyists, federal agencies, and special interest groups of all kinds bombard it with information on a daily basis. Why, then, does it need more expertise?

In a paper for Lincoln Network, Dr. Peter Blair provides a framework with six criteria for evaluating effective S&T advice to Congress. It must be: (1) authoritative, (2) objective, (3) independent, (4) relevant, (5) useful, and (6) timely.⁴ Different resources, both internal and external, score differently on these metrics.

External sources like advocacy groups, think tanks, and trade associations typically lack objectivity and authoritativeness. In other words, they represent a particular ideological view or special interest that can't necessarily be relied upon. Other external sources, such as academics, tend to lack relevance and timeliness,

³ Zach Graves, "Rebuilding Congress' Policy Capacity," Federalist Society, July 2020. <https://fedsoc.org/commentary/fedsoc-blog/rebuilding-congress-policy-capacity>.

⁴ Peter Blair, "Effective Science and Technology Advice for Congress," Lincoln Network, August 2020. <https://lincolnpolicy.org/2020/effective-science-and-technology-advice-for-congress-comparing-options/>.

and are often unfamiliar with the congressional context. Executive agencies also can't be Congress's primary source of expertise, as there is a constitutional need to maintain separation of powers with independent oversight and analytic capabilities. In short, sources of expertise that are external to the legislative branch are not sufficient.

Within the legislative branch, policy expertise exists in personal offices, committees, and support agencies, with each serving a different function. For instance, the Congressional Research Service specializes in timely, relevant, responsive analysis but is not as robust or authoritative as sources like the Government Accountability Office and the former Office of Technology Assessment. Beyond non-partisan support agencies, it is also essential to have absorptive capacity and expertise in personal offices and committees. This capacity provides the ability to process and evaluate analytic information, and translate it into policy in response to constituent interests and democratic pressures.

The role of expertise in the legislative branch support agencies should thus be to inform Members of Congress about the social, economic, and technical implications of policy choices. Importantly, determinations about resolving values conflicts are left to elected representatives rather than expert bureaucracies, implemented by staff accountable to them. This differentiates the function of expertise in Congress as serving democratic rather than technocratic ends.⁵

Escaping the Zero-Sum Game of Congressional Funding

To address capacity gaps for S&T (as well as other policy areas), broad investment is needed across different parts of the legislative branch. This includes strengthening committees, providing more resources for support agencies, and

⁵ See also: Zach Graves and M. Anthony Mills, "Reviving Expertise in a Populist Age," *The New Atlantis*, Fall 2019. <https://www.thenewatlantis.com/publications/reviving-expertise-in-a-populist-age>.

increasing allowances for personal offices. In addition to increasing the number of staff, issues of recruitment, retention, hiring authorities (e.g. for rotators), and compensation must also be addressed.

As a starting point, Lincoln Network and Demand Progress (along with a bipartisan coalition of partners) have proposed a 10 percent increase (\$530.9 million) to the 302(b) sub-allocation for the legislative branch for FY 2022.⁶ Importantly, this increase should be accounted for separately from any increase to the facilities and security functions following the Honoré report. This should also be viewed as a downpayment for the more significant investment that will be necessary over the ensuing years.

To achieve this, we must also address the dysfunctional politics of funding Congress. Historically, legislative branch funding has lagged behind increases in federal discretionary spending. This is because there are bad optics and weak political incentives to fight for more resources for Congress.⁷ Changing this dynamic will require strong bipartisan leadership to change the political rhetoric and misaligned incentives that have contributed to institutional decline.

Restoring Technology Assessment in Congress

In the 116th Congress, this Committee endorsed the restoration and modernization of the Office of Technology Assessment, but decided to forebear on including this recommendation in H. Res. 756 because of ongoing debates as to the right approach.

⁶ “Re: Strengthening American Democracy by Increasing Legislative Branch Capacity,” Lincoln Network, Demand Progress, et al., February 2021.
<https://lincolnpolicy.org/2021/strengthening-american-democracy-by-increasing-legislative-branch-capacity/>.

⁷ See, e.g., Matt Glassman, “Who wants to chair the Legislative Branch Appropriations Subcommittee? No one.” Legbranch.org, May 2018.
<https://www.legbranch.org/2018-5-24-who-wants-to-chair-the-legislative-branch-appropriations-subcommittee-no-one/>.

Since around 2018, there has been a robust debate around restoring OTA, which I've been deeply involved in. This resulted in a congressionally-directed study by the National Academy of Public Administration,⁸ efforts to restore the office through appropriations, as well as broad support and interest from civil society.

Now, a consensus has been forming around GAO's Science, Technology Assessment, and Analytics (STAA) team⁹ as the vehicle for Congress's restored technology assessment capability. STAA was formed in 2019 at the direction of Senate appropriators, elevating a small technology assessment pilot program in GAO that existed since 2002.

STAA has since grown to have over 100 FTE staff, producing technology assessments and other analytic products to inform Congress on S&T issues. STAA is also doing important work beyond the scope of OTA's mission, such as through its Innovation Lab, which is developing innovative new approaches to oversight and data analytics.¹⁰

There are still major challenges facing STAA, including defining its own culture within GAO's bureaucracy, building its reputation in the broader S&T community, and building relationships in Congress with key offices and committees. In addition to resource needs, it may also be necessary for STAA to have additional authorities for hiring and acquisitions, its own liaison office in the Capitol, its own intranet portal, or other capabilities. This is an area where this Committee could play an important role in working through the details and keeping up momentum.

⁸ Zach Graves and Daniel Schuman, "Evaluating the 2019 NAPA Report on S&T Policy Assessment and Resources for Congress," Lincoln Network, December 2019.

<https://lincolnpolicy.org/wp-content/uploads/2019/12/Evaluating-the-NAPA-Report.pdf>.

⁹ Note: I am a member of STAA's advisory board, the Polaris Council.

¹⁰ <https://gaoinnovations.gov/>.

Beyond STAA, it may still be desirable to create an additional entity in Congress to address its S&T needs. In its report, NAPA proposed the creation of an Office of the Congressional Science and Technology Advisor (OCSTA) to engage in horizon scanning and augment absorptive capacity. There is also still interest among some Members to re-establish a version of OTA, particularly as GAO's institutional constraints limit its ability to serve rank-and-file Members.

These are important but difficult questions, and I look forward to the important work of this Committee in helping address them.

Thank you for the opportunity to testify.