
*Testimony of Dr. Timothy M. Persons¹ Before the U.S. House
Committee on Administration, Subcommittee on Modernization*

September 27, 2023

Chairwoman Bice, Ranking Member Kilmer, and Members of the Committee:

Thank you for inviting me today to discuss Legislative Branch Advancement with a specific focus on the recent past and potential future modernization of the U.S. Government Accountability Office (GAO) and legislative support agencies as well as the ongoing efforts to build science and technology (S&T) capacity and capabilities for the Congress. As you know, for over 100 years, the GAO has strengthened congressional oversight and provided invaluable services to Congress, the Nation, and taxpayers. This ensures efficiency and accountability in government operations. It is considered the premier public sector auditing agency, and deservedly so. It has built one of the most trusted public sector brands in the world by living out the three words that summarize its values: accountability, integrity, and reliability.

GAO consistently demonstrates a strong return on investment. In fiscal year 2022, GAO's work yielded about \$55.6 billion in financial benefits for the federal government, which is a return of approximately \$74 for every dollar invested². In fiscal year 2021, GAO's work generated \$66.2 billion in financial benefits for Congress and the American people. The average return on investment for GAO over the past 5 years is between \$145 to \$158 for every dollar invested. These figures highlight the significant value that GAO provides in its role of helping the government save money and work more effectively.

As you also know, the U.S. and the world are experiencing an accelerating trend in the impacts of science, technology, and innovation on our society, the environment, and the economy. Within just the past 36 months, we have witnessed some of the fastest and most powerful technological revolutions in human history. For example, messenger RNA (mRNA) – which saved an estimated tens of millions of lives through the pandemic - went from stage one clinical trials to large-scale production and distribution in a mere ten months. Compare this to the normal vaccine development and licensure timeline of about ten years. Another example is fusion ignition – *i.e.*, the generation of more energy produced than the amount put in – which has now been realized, fulfilling the decades-long hopes for a clean energy future. A final example is generative AI³ – an outcome of decades of digital research and development – which is currently reshaping the business, societal, and governmental landscapes at an

¹ The views, thoughts, and opinions expressed in this work belong solely to the author, and not necessarily to the author's employer, organization, committee or other group or individual.

² GAO Performance and Accountability Report, Fiscal Year 2022, GAO-23-900398, Nov 15, 2022

³ Artificial intelligence (AI) is the science and engineering of creating machines and systems that can perform tasks that normally require human intelligence, such as perception, reasoning, learning, decision making, and natural language processing. AI has been advancing at an exponential rate in recent years, thanks to the availability of massive amounts of data, powerful computing resources, and increasingly sophisticated algorithms.

All of the legislative support agencies have been operating according to this schematic whether they realize it or not. The key question is the extent to which they've considered their respective mission in the context of data being the foundation – *i.e.*, does the organization treat data as a core asset, and to what extent has it built its business architecture around it – especially in today's cloud-powered, digital environment? Building a data governance strategy that plans, monitors, and enforces policies, standards, and procedures – but ones that reinforce the idea of data as an asset vs. data as a liability – is a critical first step...one that needs to serve the idea of a digitally-powered, agile, flexible knowledge-building, wisdom-delivering business operation to increase and maintain competitive advantage (*i.e.*, clockspeed). The Congressional Data Task Force (formerly Bulk Data Task Force) is already working along these lines. Reinforcing and further enabling their work would be beneficial to the ideas presented here.

Once a robust data governance strategy is developed and implemented, agencies can then ask themselves how they might best leverage things technologies such as data analytics, AI, digital ledger technologies, and zero-trust architectures to deliver sustainable value to clients in today's fast-changing world (*i.e.*, dramatically reduce service delivery time from years/months to months/weeks or even months/weeks to days/hours – without sacrificing quality, compromising data, and remaining ethical and legal). I believe the legislative support agencies can and should be modernized in this way so that they can be best positioned to continue their respective legacies of success in delivering value to Congress.

III. Perspective on certain recommendations from the House Select Committee on the Modernization of Congress

Regarding my view on legislative support agency-related recommendations of the House Select Committee on the Modernization of Congress, I agree with them in part if not the whole, and will focus my remarks on #135, #139, #140, #141, and #142

Regarding #135:

135. Enhancing the customer experience at GAO: GAO should boost initiatives to meet Congress's information needs and assess member and staff awareness of and satisfaction with its products and services.

As an alumnus of GAO and a long-time reviewer, producer, and consumer of its high-quality information and insight, I firmly believe in the importance of GAO's outreach to Members and staff. As noted in the FY24 Legislative Branch Appropriations report, it is crucial that legislative support agencies like GAO adapt their products, services, and outreach to meet the evolving needs of Congress and to enhance the awareness, absorptive capacity, and satisfaction of its products and services.¹⁷ By expanding their outreach, they can better inform Congress about the valuable products and services they provide. This proactive approach will not only enhance congressional understanding of GAO's work but also improve

¹⁷ The FY24 Legislative Branch Act language notes the following: "Outreach to Congressional Staff: The Committee requests that legislative support agencies take steps to ensure that their products, services, and outreach are designed to adapt and meet the customer needs of an evolving Congress. As such, the Committee requests that GAO expand its outreach to better inform Congress of the products and services the agency provides."

its ability to make informed decisions, ultimately leading to a more effective and accountable federal government for the American people.

Related to my earlier remarks on digital innovation, client user experience should be a key design element of any digital-oriented transformation campaign.

Regarding #139:

139. Legislative and support agency staff directory: Congress and congressional support agencies should establish a shared staff directory to enhance the exchange of information and improve collaboration.

Establishing shared staff directories between Congress and congressional support agencies is a vital step towards enhancing the exchange of information and fostering collaboration. Shared directories facilitate clear communication, leading to efficient information exchange. They also promote enhanced collaboration by enabling staff members to easily identify and connect with their counterparts in other agencies. Importantly, such directories would increase efficiency by eliminating time-consuming searches for contact information, allowing staff to focus more on their substantive work.

Regarding #140 and #142:

140. Modernize the congressional support agencies: The committees of jurisdiction should examine support agency authorities and determine if they need to be updated.

142. Congressional Commission on Evidence-Based Policymaking: Congress should establish a bipartisan, bicameral Commission on Evidence-Based Policymaking to encourage and facilitate better use of data in the legislative process.

The examination and potential update of the authorities of legislative branch support agencies by congressional committees of jurisdiction is crucial, particularly in relation to data access, storage, and processing-related policies and statutes – especially considering their centrality to the data governance and modernization campaigns each legislative support agency should undertake. The rapid pace of technological advancements will also necessitate regular and routine updates to data policies and statutes going forward. Such updates should provide “innovation oxygen” to their respective digital and S&T teams to ensure these agencies can innovate and succeed in any current or future digital transformation campaigns. Furthermore, with the increasing volume and complexity of data, robust data storage and processing policies that are updated and contextualized considering the emergent world of cloud, AI, analytics, and other emerging technologies, are essential for ensuring data security.

Modernizing the support agencies in both authorities and toward more digital operations provides the foundation for the desired future of evidence-based policymaking (EBP) for Congress. Such a commission could provide invaluable cross-sectoral perspectives, support the construction and curation of a shared vision for EBP, and provide insights and recommendations in EBP for congressional policymaking, policy evaluation, and oversight roles. Moreover, the commission could incorporate outcomes measurement, and rigorous impact analysis – including analysis pertaining to outcomes from the legislative support agencies – and could also advise on how Congress can utilize real-time, structured, and machine-readable data in the lawmaking process.

Additionally, the commission could assess the desirability or necessity for a Congressional Chief Data Officer, their potential responsibilities, and whether they should be situated within an existing agency or a new office. This includes consideration of how such an office would collaborate with current data and information units in the House. The commission should also explore methods to enhance data expertise in Congress by incorporating technologists, data scientists, and engineers to assist in policy evaluation and legislative drafting. This new ecosystem could build on the foundational work in data science and analytics already established by the Innovation Lab within STAA and the GAO Chief Data Scientist – especially as it pertains to future oversight whereby executive branch agencies could be required to provide evidence on the effectiveness of significant new programs and reauthorizations.

Regarding #141:

141. Authorize STAA and make it a permanent part of GAO: The Science, Technology Assessment, and Analytics program at GAO should be authorized and made permanent by Congress.

Option Three of the 2019 NAPA report¹⁸ entitled: “Enhance Existing Entities and Create an Advisory Office” states the following:

Both enhance existing entities and create an S&T advisory office, led by a Congressional S&T Advisor, which focuses on strengthening the capacity of Congress to absorb and utilize science and technology policy information provided by GAO, CRS, and other sources.

GAO should further develop the capability of its Science, Technology Assessment, and Analytics mission team to meet some of the supply gaps identified in the NAPA report, including the need for technology assessments, and make appropriate changes in its organization and operating policies to accommodate the distinctive features of technology assessments and other foresight products.

CRS should enhance and expand its quick-turnaround and consultative services in S&T-related policy issues.

Congress should create an Office of the Congressional S&T Advisor (OCSTA), which would focus on efforts to build the absorptive capacity of Congress, to include supporting the recruitment and hiring of S&T advisors for House and Senate committees with major S&T oversight responsibilities. OCSTA would also be responsible for horizon scanning.

Congress should create a Coordinating Council to be led by the Advisor that includes representatives from CRS and GAO’s STAA, and a National Academies ex officio member with the objective to limit duplication and coordinate available resources to most benefit the Congress.

The 2019 NAPA report identifies the most significant challenge to congressional activities related to Science and Technology (S&T) as absorptive capacity, defined as Congress's ability to effectively understand and utilize S&T information. The report outlines that this information can come from various sources, including legislative support agencies, science societies, academia, S&T literature, S&T think tanks, and science-advising peers worldwide.

¹⁸ NAPA, Science and Technology Policy Assessment: A Congressionally Directed Review, October 2019, p. 9.

Beyond merely sifting and sorting quality, timely, reliable, and accessible S&T information, NAPA emphasizes the need for in-house S&T advisors and external technical advisory groups. It also highlights the importance of expanding fellowships and federal detailees and attracting and retaining congressional staff in more permanent roles with the necessary S&T skills and experience to assist Congress in fulfilling its Article I responsibilities under the Constitution.

The report argues that a more effective and sustainable congressional S&T support function would require quick-turnaround support, networking, consultative support, detailed studies, including horizon-scanning reports. Quick-turnaround support would provide immediate answers to questions requiring facts, figures, and descriptions. Networking would offer access to a wide range of external S&T experts from academia, industry, and non-profit sectors. Consultative support would provide consistent consultation with experts who can offer personalized assistance to Members and staff and provide clear recommendations when asked. Detailed studies and analyses of S&T trends would allow for prompt addressing of critical issues. Horizon-scanning reports would identify emerging S&T trends and potential future opportunities and challenges.

Therefore, NAPA recommends creating an Office of the Congressional S&T Advisor (OCSTA) to focus on building Congress's absorptive capacity, including supporting the recruitment and hiring of S&T advisors for major committees. The OCSTA would liaise with various stakeholders, serve as Congress's S&T ombudsman, assist congressional committees in recruiting and hiring their own S&T advisors, and conduct ongoing S&T horizon scans for Congress. The report also suggests that Congress should establish a Congressional Science and Technology Coordinating Council to coordinate legislative S&T support efforts and avoid duplication of work. The Council should be led by the OCSTA and include representatives from STAA, the CRS, and *ex officio* member from the National Academies.

Although having a more expanded line of service offerings (*i.e.*, technology assessments, audits, S&T Spotlights, and other technical services) than a standard GAO team, the STAA is not designed to meet the demands of absorptive capacity at the scale and speed necessary to address today's S&T challenges. Furthermore, GAO's necessary independence rules prohibit it from being a practical solution to the absorptive capacity challenge as articulated by NAPA. Therefore, the authorization of STAA as part of GAO is a crucial step toward sustaining and enhancing congressional S&T support. This action would ensure that Congress continues to have consistent access to unbiased, high-quality S&T information necessary for decision-making.

Moreover, the Office of the Congressional S&T Advisor (OCSTA), with its focused mission on building Congress's S&T absorptive capacity - including supporting the recruitment and hiring of externally-hired scientists and engineers for major committees - would be better positioned to meet the critical S&T needs of today and tomorrow at a higher clockspeed than any of the legislative support agencies by themselves. Therefore, the OCSTA should be established according to the following design criteria:

- A semiautonomous governance structure seen in other places in the federal government such as CRS' relationship to with the Library of Congress or other examples;¹⁹
- A unique budgetary identity with oversight from the requisite committees;

¹⁹ See for example, National Academies of Sciences, Engineering, and Medicine, and National Academy of Public Administration. 2020. Governance and Management of the Nuclear Security Enterprise. Washington, DC: The National Academies Press. <https://doi.org/10.17226/25933>.

- The Congressional Science Advisor could be term limited, be a Senate-confirmed position, and screened for nonpartisanship, cross-sectoral expertise, and interdisciplinary training;
- Granted hiring authorities including those under the Intergovernmental Personnel Mobility Act, ability to host or place S&T fellows from nonprofit institutions, direct and/or special hires;
- Preserve GAO and STAA independence to continue its work in S&T oversight, insight, and foresight; and
- Work with authorizing and appropriations committees to create or adapt congressional protocols.

Chairwoman Bice, Ranking Member Kilmer, and Members of the Committee, this completes my prepared statement. I would be pleased to respond to any questions that you may have at this time.