

LEGISLATIVE BRANCH APPROPRIATIONS FOR FISCAL YEAR 2020

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

[CLERK'S NOTE.—The subcommittee was unable to hold hearings on departmental and nondepartmental witnesses. The statements and letters of those submitting written testimony are as follows:]

DEPARTMENTAL WITNESSES

PREPARED STATEMENT OF THE GOVERNMENT PUBLISHING OFFICE

Madam Chairman, Ranking Member Murphy, and Members of the subcommittee, I am pleased to offer this testimony in support of the appropriations request for the U.S. Government Publishing Office (GPO) for fiscal year 2020.

THE U.S. GOVERNMENT PUBLISHING OFFICE

The U.S. Government Publishing Office (GPO), a legislative branch agency, is the OFFICIAL, DIGITAL, SECURE resource for producing, procuring, cataloging, indexing, authenticating, disseminating, and preserving the official information products of the Federal Government.

Under Title 44 of the U.S. Code, GPO is responsible for the production and distribution of information products for all three branches of the Government, including the official publications of Congress and the White House, U.S. passports for the Department of State, and the official publications of other Federal agencies and the courts. Once primarily a printing operation, we are now an integrated publishing operation and carry out our mission using an expanding range of digital as well as conventional formats. In 2014, Congress and the President recognized this change in Public Law 113–235, which contains a provision re-designating GPO's official name as the Government Publishing Office. As of September 30, 2018, GPO employed 1,737 staff.

Along with sales of publications in digital and tangible formats to the public, we support openness and transparency in Government by providing permanent public access to Federal Government information at no charge through govinfo (www.govinfo.gov), the successor system to the Federal Digital System (FDsys), which was retired in December 2018. Today, GPO makes more than 2.5 million Federal titles available from our servers and through links to other agencies and institutions, and govinfo, together with its predecessor site FDsys, averaged approximately 31 million retrievals per month in fiscal year 2018. GPO also provides public access to Government information through partnerships with 1,125 Federal, academic, public, law, and other libraries nationwide participating in the Federal Depository Library Program (FDLP).

In addition to our newly redesigned website, gpo.gov, we communicate with the public routinely via Facebook facebook.com/USGPO, Twitter twitter.com/USGPO, YouTube youtube.com/user/gpoprinter, Instagram instagram.com/usgpo, LinkedIn linkedin.com/company/u.s.-government-printing-office, and Pinterest pinterest.com/usgpo/.

HISTORY

From the Mayflower Compact to the Declaration of Independence and the papers leading to the creation and ratification of the Constitution, America is a nation based on documents, and our governmental tradition since then has reflected that

fact. Article I, section 5 of the Constitution requires that “each House shall keep a journal of its proceedings and from time to time publish the same,” establishing Congress’s informing mission that GPO carries out. After years of struggling with various systems of contracting for printed documents that were beset with scandal and corruption, in 1860 Congress created the Government Printing Office as its official printer. GPO first opened its doors for business on March 4, 1861, the same day Abraham Lincoln was inaugurated as our 16th President. Since that time, GPO has produced and distributed the official version of every great American state paper and an uncounted number of other Government publications, documents, and forms. These documents include the Emancipation Proclamation, the legislative publications and acts of Congress, Social Security cards, Medicare and Medicaid information, census forms, tax forms, citizenship forms, passports, military histories ranging from the *Official Records of the War of the Rebellion* to the latest accounts of our forces in Afghanistan, the 9/11 Commission Report, Presidential inaugural addresses, and Supreme Court opinions. This work goes on today, in digital as well as print formats.

STRATEGIC VISION

GPO is transforming itself from a print-centric to a content-centric publishing operation. This process is consistent with the recommendations submitted by the National Academy of Public Administration to Congress (*Rebooting the Government Printing Office: Keeping America Informed in the Digital Age*, January 2013) regarding our transition to a digital future.

GPO continues to develop an integrated, diversified product and services portfolio that focuses primarily on digital to serve the Government information needs of Congress, Federal agencies, and the public. At the same time, we recognize that some tangible print will continue to be required because of official use, archival purposes, authenticity, specific industry requirements, and segments of the population that either have limited or no access to digital formats, though its use will continue to decline relative to the continued growth in the provision of and access to digital formats.

GPO AND CONGRESS

For the Clerk of the House, the Secretary of the Senate, and the committees of the House and the Senate, GPO publishes the documents and publications required by the legislative and oversight processes of Congress in digital and tangible formats. This includes the daily *Congressional Record*, bills, reports, legislative calendars, hearings, committee prints, and documents, as well as stationery, franked envelopes, memorials and condolence books, programs and invitations, phone books, and the other products needed to conduct the business of Congress. We produce all the printing work required every 4 years by the Joint Congressional Committee on Inaugural Ceremonies. We also detail expert staff to support the publishing requirements of House and Senate committees and congressional offices such as the House and Senate Offices of Legislative Counsel. We work with Congress to ensure the provision of these services under any circumstances, including emergency weather and other conditions.

Today the activities associated with creating congressional information datasets comprise the majority of the work funded by GPO’s annual Congressional Publishing Appropriation. Our advanced digital authentication system, supported by public key infrastructure (PKI), is an essential component for assuring the digital security of congressional publications. The datasets we create are made available to provide access to congressional publications in digital formats as well as to support their production in tangible formats.

GPO’s congressional information datasets also form the building blocks of other information systems supporting Congress. For example, they are provided to the Library of Congress to support its Congress.gov system as well as the legislative information systems the Library makes available to House and Senate offices. GPO also works with the Library to make House and Senate bill summary and status information in XML bulk data format on govinfo.

In addition, GPO works with the Library on a variety of digital projects supporting Congress to make congressional information more widely available, including the digitization of historical issues of the *Congressional Record*. In 2018, GPO completed the project to digitize the *Congressional Record* back to the first issue from March 4, 1873, which opens with a proclamation by President Ulysses S. Grant formally convening a special session of the United States Senate. That issue, and every subsequent issue, is now available free of charge to the public on GPO’s govinfo website. With the completion of this important digitization project, GPO has

now moved on to the digitization of other historical congressional documents, beginning with hearings.

GPO CUTS THE COST OF CONGRESSIONAL WORK

GPO's use of electronic information technologies has been the principal contributor to lowering the cost, in real economic terms, of congressional information products. In fiscal year 1980, as GPO replaced hot metal typesetting with electronic photocomposition, the appropriation for Congressional Publishing was \$91.6 million, the equivalent in today's dollars of \$285.4 million. By comparison, our approved funding for fiscal year 2019 was \$79.0 million, a reduction of more than 73 percent in constant dollar terms.

Since 2010, we have achieved a 26 percent reduction in the constant dollar value of the Congressional Publishing Appropriation, consistent with the continuing transformation of our technology profile, the control of costs, and collaboration with Congress in carrying out measures reducing print distribution in meeting the information needs of the Senate and House of Representatives. Annual appropriations for Congressional Publishing have been at or below \$79.7 million in each year fiscal year 2014–18.

Productivity increases resulting from technology have enabled us to make substantial reductions in our staffing requirements while continuing to improve services for Congress. In 1980, total GPO employment was 6,450. At the end of fiscal year 2018, we had 1,737 employees on board, representing a reduction of 4,713, or more than 73 percent, since 1980. Our workforce levels over the past 3 years remain the smallest of any time in the past century.

GPO AND FEDERAL AGENCIES

Federal agencies are major generators of information in the United States, and GPO produces their information products for official use and public access. Federal agencies and the public also rely on a growing variety of secure credentials that we produce, including travelers holding U.S. passports, members of the public who cross our borders frequently, and other users. Our digital systems support key Federal agency publications, including the annual *Budget of the U.S. Government* and, most importantly, the *Federal Register* and associated products. As it does for congressional documents, our digital authentication system, supported by public key infrastructure (PKI), assures the digital security of agency documents.

In fiscal year 2018, GPO was proud to complete a project, undertaken in collaboration with Office of the Federal Register (OFR), to digitize and make available every issue of the *Federal Register*, dating back to its inception in 1936, for free on GPO's govinfo website. This exercise required the digitization of more than 14,587 individual issues containing more than two million pages. The first issue of the *Federal Register*, dated March 16, 1936, featured an executive order of President Franklin Delano Roosevelt that expanded the boundaries of a bird refuge in South Carolina.

GPO's partnership with the National Archives and Records Administration (NARA) was further expanded in fiscal year 2018, with the completion of construction of an approximately 25,000 square foot space within GPO's Building A to serve as Phase I of NARA's Center for Legislative Archives. NARA is expected to begin moving its legislative archives material into the facility in early 2019, and GPO will continue to work with NARA on the development of Phase II, which will provide additional archival space within GPO's Building D. This work follows GPO's successful renovation of 17,000 square feet of space on the seventh floor of GPO's Building A to house the OFR and the Office of Government Information Services (OGIS).

Another promising potential collaboration for GPO is its recent work with the Architect of the Capitol (AOC) and the Library of Congress' National Library Service for the Blind and Physically Handicapped (NLS) to determine if space within GPO's main facilities can be renovated to provide high-quality DC office space for the NLS. A study was recently completed to assess the feasibility of such a collaboration, and conversations between the three agencies are ongoing. GPO holds the NLS and its personnel in high regard and is committed to doing all it can to support this prospective partnership.

PARTNERSHIP WITH INDUSTRY

Other than congressional and inherently governmental work such as the *Federal Register*, the *Budget*, and security and intelligent documents, we produce virtually all other Federal agency information products via contracts with the private-sector printing and information-product industry. This work is administered through both

our central office and regional offices throughout the country. In fiscal year 2018, this work was valued at approximately \$375.7 million, and represented 84,111 orders. More than 10,000 individual firms are registered to do business with GPO, the vast majority of whom are small businesses averaging 20 employees per firm. Contracts are awarded on a purely competitive basis; there are no set-asides or preferences in contracting other than what is specified in law and regulation, including a Buy American requirement. This partnership provides significant economic opportunity for the private sector.

SECURITY AND INTELLIGENT DOCUMENTS

For nearly a century GPO has been responsible for producing the U.S. passport for the U.S. Department of State. At one time no more than a conventionally printed document, the U.S. passport since 2005 has incorporated a digital chip and antenna array capable of carrying biometric identification data. With other security printing features, this document—which GPO produces in Washington, DC, as well as at a secure remote facility in Mississippi—is now the most secure identification credential obtainable. In fiscal year 2018 GPO produced 16 million passports for the State Department, and has produced a total of more than 166 million passports the past 11 years. In fiscal year 2020 and fiscal year 2021, GPO will continue to make investments needed to support the State Department’s next generation passport program.

This past year also marked the 10th anniversary of GPO’s production of secure identification cards for Federal agencies. Since 2008, GPO has served as an integrator of secure identification smart cards to support the credentialing requirements of Federal agencies and other Government entities. To date, GPO has produced more than 21 million secure credential cards across 11 different product lines. Among them are the Trusted Traveler Program’s (TTP) family of border crossing cards—NEXUS, SENTRI, FAST, and Global Entry—for the Department of Homeland Security (DHS), which are used by frequent travelers across U.S. borders. Another card produced for DHS is the Transportation Worker Identity Card (TWIC). In addition, GPO produces the secure law enforcement credentials for the U.S. Capitol Police that are used in Presidential inaugurations.

GPO AND OPEN, TRANSPARENT GOVERNMENT

Producing and distributing the official publications and information products of the Government fulfills an informing role originally envisioned by the Founders, as James Madison once said:

“A popular Government without popular information, or the means of acquiring it, is but a Prologue to a Farce or a Tragedy, or perhaps both. Knowledge will forever govern ignorance, and a people who mean to be their own Governors, must arm themselves with the power which knowledge gives.”

GPO operates a variety of programs that provide the public with “the means of acquiring” Government information that Madison spoke of. These programs include the Federal Depository Library program (FDLP), govinfo, Publications Information Sales, Agency Distribution Services, and Social Media.

FEDERAL DEPOSITORY LIBRARY PROGRAM

The FDLP has legislative antecedents that date to 1813 (3 Stat. 140), when Congress first authorized congressional documents to be deposited at the American Antiquarian Society in Worcester, MA, for the use of the public. Since then, Federal depository libraries have served as critical links between “We the People” and the information made available by the Federal Government. GPO provides the libraries with information products in digital and, in some cases, tangible formats, and libraries in turn make them available to the public at no charge while providing additional assistance to depository library users.

The FDLP today serves millions of Americans through a network of 1,125 public, academic, law, and other libraries located across the Nation, averaging nearly three per congressional district. In fiscal year 2018, four libraries joined the FDLP: the College of Staten Island Library in New York, the Miles City Public Library in Montana, the Pope County Library in Arkansas, and the Loudon County Public Library in Virginia.

Print and some microfiche products remain important depository library resources today, particularly in regional depository library collections nationwide, while the program has expanded significantly over the past 25 years to incorporate digital information products, and today is supported by govinfo along with other digital re-

sources. The growing reliance on digital content was underscored by the first digital-only Federal depository library designation in 2014.

GOVINFO

Under the provisions of Public Law 103–40, GPO has been providing online public access to Congressional and Federal agency publications since 1994, beginning with a site known as *GPO Access*. Fifteen years later, *GPO Access* was retired and a significantly re-engineered system debuted as GPO's Federal Digital System or FDsys. In early 2016, GPO unveiled the next generation of our public access system with the introduction of govinfo. Rolled out initially as a Beta, govinfo improved upon FDsys by providing a modern website that is aligned with the needs of today's Government information users for quick and effective online access across a variety of platforms.

Following a period of iterative development and testing, the govinfo website was moved out of Beta in December 2017. Throughout 2018, the FDsys and govinfo websites ran in parallel while GPO worked with key stakeholders to ensure a smooth transition to govinfo. In December 2018, the FDsys website was retired and replaced by the govinfo website. The govinfo website features a mobile-friendly design, current and historical content collections from all three branches, enhanced search and intuitive browse, linked related documents, curated feature articles, quick and easy social sharing, developer tools such as XML bulk data and a public API, expanded help information, support for redirects from millions of legacy FDsys links, and additional enhancements based on stakeholder feedback.

Online access to Federal documents made available by GPO has reduced the cost of providing public access to Government information significantly when compared with print, while expanding public access dramatically through the Internet. In fiscal year 2018, govinfo grew to make more than 2.5 million titles from the legislative, executive, and judicial branches available online from our servers and through links to other agencies and institutions, and govinfo averaged approximately 31 million retrievals per month.

GPO has continually added content to govinfo to provide increased public access to Government information. In fiscal year 2018, notable new content included completing the digitized volumes of the bound *Congressional Record* back to 1873, completing the digitized issues of the *Federal Register* back to 1936, adding the digitized volumes of Kappler's *Indian Affairs: Laws and Treaties*, and making various Panama Canal related publications available on govinfo. An initial set of Statute Compilations, the *Asian and Pacific Islander Americans in Congress, 1900–2017* eBook, and a new series of *Precedents of the U.S. House of Representatives* were also added to govinfo in fiscal year 2018 along with numerous other Federal publications.

During fiscal year 2018, the govinfo repository underwent an audit for certification as a Trustworthy Digital Repository in compliance with International Organization for Standardization (ISO) 16363. In December 2018, GPO made history by becoming the first organization in the United States and second organization in the world to achieve the highest global standard of excellence for digital repositories. GPO's govinfo was evaluated against 109 criteria covering all aspects of a digital repository including organizational infrastructure, digital object management, and infrastructure and security risk management. Certification provides assurance to GPO stakeholders that govinfo is a standards-compliant digital archive in which Government information is preserved, accessible, and usable now and into the future.

In support of the Legislative Branch Bulk Data Task Force, throughout fiscal year 2018, GPO worked with the Clerk of the House and the Secretary of the Senate on initiatives to convert legacy file formats into United States Legislative Markup (USLM) XML. In early fiscal year 2019, the first project was completed with the release of a subset of enrolled bills, public and private laws, and Statutes at Large in Beta USLM XML on govinfo. USLM offers a standard XML schema to promote interoperability among documents as they flow through the legislative and regulatory processes. USLM also promotes international interoperability with documents produced by governments world-wide.

GPO has also continued to invest in the IT infrastructure supporting GPO's digital information system. This includes bandwidth, storage, and servers needed for Production, COOP, Test, and Development environments.

PUBLICATION AND INFORMATION SALES PROGRAM

Along with the FDLP and our online dissemination system, which are no-fee public access programs, GPO also provides access to official Federal information through public sales featuring secure ordering through an online bookstore (book-

store.gpo.gov), a bookstore at GPO headquarters in Washington, DC, and partnerships with the private sector that offer Federal publications as eBooks. As a one-stop shop for eBook design, conversion, and dissemination, our presence in the eBook market continues to grow. We now have agreements with Apple iTunes, Google Play, Barnes & Noble, OverDrive, Zinio, EBSCO, ProQuest and other online vendors to make popular Government titles such as *Your Guide to Breastfeeding*, *My Future, My Way—First Steps Towards College*, and *Dietary Guidelines for Americans* available as eBooks. We also offer a print-on-demand service for sales titles through Amazon and others, which enables us to offer more titles and avoid the expense of additional warehousing.

AGENCY DISTRIBUTION SERVICES (ADS) PROGRAM

GPO operates two distribution facilities which are strategically located in Laurel, MD and Pueblo, CO. Through these facilities, GPO administers distribution programs for the information products of other Federal agencies. Today, over 55 Federal agencies utilize the comprehensive services provided through the Pueblo and Laurel facilities, which together offer more than 160,000 square feet of climate-controlled distribution, storage, and fulfillment space.

Among the services provided through GPO's ADS program are website hosting, consulting services, fulfillment and distribution, address validation services, call center operations, and printing optimization, just to name a few. These services are all designed to help Federal agencies achieve savings in the distribution of their information products.

The ADS program experienced significant growth in fiscal year 2018, with revenues climbing to nearly \$13 million, up from \$9.2 million in fiscal year 2017. Similarly, the total copies of agency materials distributed through the ADS program increased to 69.2 million in fiscal year 2018—an 11 million increase over the 58 million copies distributed in fiscal year 2017.

GPO AND SOCIAL MEDIA

We use Facebook, Twitter, YouTube, Instagram, LinkedIn, Pinterest, and a blog to share information about GPO news and events, and to promote specific publications and products. By the end of 2018, we had 9,828 likes on Facebook and 9,500 Twitter followers. On Instagram we had 819 followers and 1,699 posts and posted our first-ever Instagram Story. By the end of 2018, 1,100 people were subscribed to our YouTube channel, which has nearly 265,000 views across our 78 videos. On Pinterest, we had 899 followers pinning on 22 boards of Federal Government information. We had 3,498 followers on LinkedIn. Our blog, *Government Book Talk*, focuses on increasing the awareness of new and classic Federal publications through reviews and discussions.

GPO FINANCES

BUSINESS OPERATIONS REVOLVING FUND

All GPO activities are financed through our Business Operations Revolving Fund, established by section 309 of Title 44, U.S.C. This business-like fund is used to pay all of our costs in performing congressional and agency publishing, information product procurement, and publications dissemination activities. It is reimbursed from payments from customer agencies, sales to the public, and transfers from our two annual appropriations: the Congressional Publishing Appropriation and the Public Information Programs of the Superintendent of Documents Appropriation.

RETAINED EARNINGS

Under GPO's system of accrual accounting, annual earnings generated since the inception of the Business Operations Revolving Fund have been accumulated as retained earnings. Retained earnings make it possible for us to fund a significant amount of technology modernization. However, appropriations for essential investments in technology and plant upgrades are requested when necessary.

APPROPRIATED FUNDS

GPO's Congressional Publishing Appropriation is used to reimburse the Business Operations Revolving Fund for the costs of publishing the documents required for the use of Congress in digital and tangible formats, as authorized by the provisions of chapters 7 and 9 of Title 44, U.S.C. The Public Information Programs of the Superintendent of Documents Appropriation is used to pay for the costs associated with providing online access to, and the distribution of, publications to Federal de-

pository libraries, cataloging and indexing, statutory distribution, and international exchange distribution. The reimbursements from these appropriations are included in the Business Operations Revolving Fund as revenue for work performed. Congress has also, in years past, appropriated funds directly to the Business Operations Revolving Fund in support of specific capital investments. In recent years such appropriations have been provided in support of information technology and cybersecurity investments.

ANNUAL INDEPENDENT AUDIT

Each year, GPO's finances and financial controls are audited by an independent outside audit firm working under contract with GPO's Office of Inspector General. For fiscal year 2018, the audit concluded with GPO earning an unmodified, or clean, opinion on its finances, the 22nd consecutive year GPO has earned such an audit result.

FISCAL YEAR 2018 FINANCIAL RESULTS

Revenue totaled \$874.5 million and resulted in a net income of \$20.4 million, excluding income planned to be invested in passport-related capital assets and funds resulting from a downward adjustment to GPO's long-term workers' compensation liability under the Federal Employees Compensation Act (FECA).

Funds appropriated directly by Congress provided nearly \$119.5 million (including funds from the Congressional Publishing and Public Information Programs appropriations, along with appropriations to the Business Operations Revolving Fund), or about 13.7 percent of total revenue. All other GPO activities, including in-plant publishing (which includes the production of passports), procured work, sales of publications, agency distribution services, and all administrative support functions, were financed through the Business Operations Revolving Fund by revenues generated by payments from agencies and sales to the public.

FISCAL YEAR 2020 APPROPRIATIONS REQUEST

GPO is requesting a total of \$117,000,000 for fiscal year 2020. This is the same level of funding GPO requested in fiscal year 2019, and the same amount appropriated in fiscal year 2019. Through fiscal year 2019, total GPO appropriations have declined by 21 percent since fiscal year 2010 and are currently at their lowest level since then.

GPO's continued transition to digital technologies and products has increased our productivity and reduced costs. Additionally, maintaining financial controls on our overhead costs, coupled with a buyout in fiscal year 2015 that reduced GPO's workforce by 103 positions, has helped make this funding request possible. Finally, the utilization of the unexpended balances of prior year appropriations, which we are able to transfer to GPO's Business Operations Revolving Fund with the approval of the Appropriations Committees, has made it possible in recent years to hold the line on the level of new funding we request.

TOTAL APPROPRIATIONS TO GPO
Fiscal Year 2010–2019 and Fiscal Year 2020 Request

| Fiscal Year | Appropriation |
|-------------|---------------------------|
| 2010 | \$147,461,000 |
| 2011 | \$135,067,324 |
| 2012 | \$126,200,000 |
| 2013 | \$117,533,423 |
| 2014 | \$119,300,000 |
| 2015 | \$119,993,000 |
| 2016 | \$117,068,000 |
| 2017 | \$117,068,000 |
| 2018 | \$117,068,000 |
| 2019 | \$117,000,000 |
| 2020 | \$117,000,000 (Requested) |

Our fiscal year 2020 request will enable us to:

- meet projected requirements for congressional publishing;
- fund the operation of the public information programs of the Superintendent of Documents; and

—develop information technology, including IT cybersecurity measures, and perform facilities maintenance and repairs that support our congressional publishing and public information programs operations.

CONGRESSIONAL PUBLISHING APPROPRIATION

GPO is requesting \$79,000,000 for this account. This is the same amount requested in GPO's fiscal year 2019 budget submission for the Congressional Publishing account, and the same amount Congress appropriated in fiscal year 2019.

Overall, the annual appropriations for Congressional Publishing been flat since fiscal year 2014 and have declined by more than 15 percent since fiscal year 2010 as the result of our continuing transition to digital technology and products, as well as actions taken in cooperation with the House of Representatives and the Senate to control congressional publishing costs. Unspent prior year balances from this account that have been transferred to GPO's Business Operations Revolving Fund are available for the purposes of this account.

CONGRESSIONAL PUBLISHING APPROPRIATION

Fiscal Year 2010–2019 and Fiscal Year 2020 Request

| Fiscal Year | Appropriation |
|-------------|--------------------------|
| 2010 | \$93,768,000 |
| 2011 | \$93,580,464 |
| 2012 | \$90,700,000 |
| 2013 | \$82,129,576 |
| 2014 | \$79,736,000 |
| 2015 | \$79,736,000 |
| 2016 | \$79,736,000 |
| 2017 | \$79,736,000 |
| 2018 | \$79,528,000 |
| 2019 | \$79,000,000 |
| 2020 | \$79,000,000 (Requested) |

House Report 114–110, accompanying the Legislative Branch Appropriations bill for fiscal year 2016, requires the presentation of budget requirements from a zero base. However, GPO has no control over the workload requirements of the Congressional Publishing Appropriation. These are determined by the legislative activities and requirements of the House of Representatives and the Senate as authorized by the applicable provisions of Title 44, U.S.C. GPO utilizes historical data incorporating other relevant factors to develop estimates of likely congressional publishing requirements. These requirements are used as the basis of the budget presentation for this account.

In GPO's fiscal year 2019 budget submission for the Congressional Publishing account, a non-recurring amount of \$3.7 million was included to fund the production of the 2018 Edition of the *U.S. Code*, which is carried out every 6 years in accordance with law. While the fiscal year 2020 request for the Congressional Publishing account excludes this item, all other congressional activity in 2020 is expected to exceed the fiscal year 2019 level by \$2.8 million. In addition, price-level and wage increases (if implemented), are expected to increase expenses to the Congressional Publishing account by an additional \$3.4 million. In order to accommodate these increases and hold the fiscal year 2020 request for the Congressional Publishing account to \$79,000,000, GPO plans to use about \$2.0 million of prior-year transfers in GPO's Revolving Fund to support its Congressional Publishing work in fiscal year 2020.

As shown on page D–4 of our budget justification for fiscal year 2020, the unexpended balances of prior year appropriations that have been transferred to GPO's Business Operations Revolving Fund will be used to offset anticipated requirements for fiscal year 2020, so that appropriation requirements can remain stable. The balance of these funds is earmarked for several ongoing and future projects, including GPO's critically important Composition System Replacement (CSR) project, involving the development of an XML-based composition system to replace our 30+ year-old Microcomp system used in the preparation of congressional documents for digital and print access, and other congressional information projects as indicated on page F–6. Those initiatives, which include anticipated projects in support of the Legislative XML Working Group and Bulk Data Task Force, including the Documents in

USLM Projects and USLM Project for Statute Compilations, are further described on page F-7.

PUBLIC INFORMATION PROGRAMS OF THE SUPERINTENDENT OF DOCUMENTS

GPO is requesting \$31,296,000 for this account, which is a reduction of \$704,000 from the amount GPO requested, and Congress appropriated, in fiscal year 2019. This account pays for the cost of providing Federal Government publications in digital and tangible formats to 1,125 Federal depository libraries nationwide, cataloging and indexing, the distribution of documents to recipients designated by law, and international exchange distribution.

This appropriation request represents a nearly 24 percent reduction from the amounts appropriated in fiscal year 2010. This reduction has been made possible by our continuing transition to digital technology and products which has made the increased dissemination of official Government information to the public less costly and more efficient. The requested amount is based on the outcome of using zero-based budgeting to determine the proper levels of funding needed to perform program activities at minimum levels, as directed by House Report 114-110.

PUBLIC INFORMATION PROGRAMS OF THE SUPERINTENDENT OF DOCUMENTS APPROPRIATION

Fiscal Year 2010-2019 and Fiscal Year 2020 Request

| Fiscal Year | Appropriation |
|-------------|--------------------------|
| 2010 | \$40,911,000 |
| 2011 | \$39,831,178 |
| 2012 | \$35,000,000 |
| 2013 | \$31,437,000 |
| 2014 | \$31,500,000 |
| 2015 | \$31,500,000 |
| 2016 | \$30,500,000 |
| 2017 | \$29,500,000 |
| 2018 | \$29,000,000 |
| 2019 | \$32,000,000 |
| 2020 | \$31,296,000 (Requested) |

The funding we are requesting for fiscal year 2020 will cover mandatory pay and related cost increases, and support GPO's efforts to maintain a 100 full-time-equivalent (FTE) workforce to support the Superintendent of Documents' Public Information Programs.

Last year, GPO's fiscal year 2019 budget request for \$32,000,000 to support the Public Information Programs account included funding to enable an increase of 11 FTE positions to achieve a 100-FTE level. GPO had requested this staffing level increase in order to handle significant increases in program activities dealing with historic document digitization and collection management, web harvesting, inventory, cataloging, and preservation of tangible collections in FDLP libraries. GPO continues to work toward that goal and the funding requested in fiscal year 2020 would support that level of staffing.

A significant difference between GPO's fiscal year 2020 and fiscal year 2019 requests for the Public Information Programs account is that in fiscal year 2019 GPO had to budget for a non-recurring \$2.0 million cost to support the production of the 2018 Edition of *U.S. Code*, which is required by statute to be carried out every 6 years. Without the need to provide for that cost in fiscal year 2020, GPO has been able to request \$31,296,000 for the Public Information Programs account. This figure represents a net reduction of \$704,000 from GPO's fiscal year 2019 request, even though GPO estimates that mandatory pay and related increases of approximately \$882,000 and price-level increases of \$414,000 for this account in fiscal year 2020.

GPO plans to utilize carry-over balances from funds transferred to the Business Operations Revolving Fund to support high-priority information services and products funded by this account as indicated on page F-6 of our budget justification for fiscal year 2020, including the collection preservation of new and historic documents and continued development of govinfo content and capabilities.

BUSINESS OPERATIONS REVOLVING FUND

GPO is requesting \$6,704,000 for this account, to remain available until expended, to support continued investment in information technology and cybersecurity projects. This compares with the \$6,000,000 GPO requested, and Congress appropriated, for these same purposes in fiscal year 2019. Funding provided to this account represents an increase to working capital for specified projects.

Since fiscal year 2013, these projects have consistently included improvements to GPO's FDsys website and its successor govinfo, which have expanded public access to congressional and other Government information products in digital formats while decreasing the costs of distributing traditional print formats. They have also included efforts to harden and secure GPO's IT infrastructure from persistent external cybersecurity threats.

APPROPRIATIONS TO THE BUSINESS
OPERATIONS REVOLVING FUND
Fiscal Year 2010–2019 and Requested for Fiscal Year
2020

| Fiscal Year | Appropriation |
|-------------|-------------------------|
| 2010 | \$12,782,000 |
| 2011 | \$ 1,655,682 |
| 2012 | \$ 500,000 |
| 2013 | \$ 3,966,847 |
| 2014 | \$ 8,064,000 |
| 2015 | \$ 8,757,000 |
| 2016 | \$ 6,832,000 |
| 2017 | \$ 7,832,000 |
| 2018 | \$ 8,540,000 |
| 2019 | \$ 6,000,000 |
| 2020 | \$6,704,000 (Requested) |

GOVINFO PROJECTS FOR FISCAL YEAR 2020—\$5,704,000

- General System and Collection Development (\$4,400,000)*.—Development of new govinfo features to support identified needs of key stakeholders, including developing new content collections, increasing content in existing collections, enhancing the accessibility of content, and increasing the discoverability of information.
- Infrastructure (\$1,304,000)*.—Infrastructure for the hardware, storage, and environments to manage system performance as govinfo content and usage continues to grow.

CYBERSECURITY PROJECTS FOR FISCAL YEAR 2020—\$1,000,000

- Security Enhancements for Advanced Persistent Threat (\$1,000,000)*.—The cybersecurity threat environment faced by Government agencies continues to change rapidly and presents substantive risks and dangers to organizations. The requested funding is planned to address that evolving threat environment by implementing enhanced IT security systems that are intended to reduce the risk of unauthorized data exfiltration, unauthorized access, unauthorized changes to data, and related impacts.

Madam Chairman, Ranking Member Murphy, and Members of the subcommittee, on behalf of the men and women of GPO I want to express our deep appreciation for the support you gave our fiscal year 2019 appropriations request, and for your continuing interest in the important work performed by dedicated employees of the Government Publishing Office.

Thank you for this opportunity to offer testimony in support of GPO's fiscal year 2020 appropriations request.

[This statement was submitted by John W. Crawford, Acting Deputy Director.]

PREPARED STATEMENT OF THE OFFICE OF CONGRESSIONAL WORKPLACE RIGHTS

Madam Chairman Hyde-Smith, Ranking Member Murphy, and Members of the subcommittee on the Legislative Branch, thank you for allowing me the opportunity to submit for the record this statement regarding the budget request for fiscal year 2020 for the Office of Congressional Workplace Rights (OCWR). I want to express our appreciation to this subcommittee for its continued support of the OCWR and its mission of advancing workplace rights, safety, health, and accessibility for employees in the legislative branch and visiting members of the public.

The Congressional Accountability Act of 1995 (CAA) embodies a promise by Congress to the American public that it will hold itself accountable to the same Federal workplace and accessibility laws that it applies to private sector employers and executive branch agencies. Congress established the OCWR—until recently known as the Office of Compliance—to administer the CAA.

THE OCWR'S STATUTORY MANDATE

The OCWR is a very small office with a very broad mandate. With 28 FTE positions, inclusive of a part-time Board of Directors, the OCWR serves the same functions as multiple agencies in the executive branch, including the Equal Employment Opportunity Commission, the Occupational Safety and Health Administration, the Department of Labor, the Department of Justice, and the Federal Labor Relations Authority. We enforce Federal workplace and accessibility laws that cover more than 30,000 employees in the legislative branch, including the Senate, the House of Representatives, the United States Capitol Police, the Library of Congress, the Congressional Budget Office, the Office of the Architect of the Capitol, the Office of the Attending Physician, the Office of Congressional Accessibility Services, and our own office, among others. We administer the administrative dispute resolution (ADR) system established by the CAA to resolve workplace disputes; we carry out a program of education respecting the laws made applicable to employing offices of the legislative branch by virtue of the CAA and to inform individuals of their rights under those laws; and we advise Congress on needed changes and amendments to the CAA.

Furthermore, our Office of General Counsel (OGC) is responsible for inspecting—at least once each Congress—over 18 million square feet of facilities and grounds in the legislative branch for Occupational Safety and Health Act (OSH) violations, as well as the public areas of all facilities in the legislative branch for compliance with titles II and III of the Americans with Disabilities Act (ADA). Moreover, the OGC investigates allegations of OSH, ADA, and unfair labor practice (ULP) violations filed under sections 210, 215 and 220 of the Act, and for filing and prosecuting complaints of OSH, ADA and ULP violations. With no redundant staff, the OCWR also regularly contracts for the services of other individuals such as mediators, hearing officers, and safety and health inspectors, in support of its statutory mandate.

THE CAA REFORM ACT

On December 21, 2018, the Congressional Accountability Act of 1995 Reform Act was enacted. Public Law No. 115–397. Not since the passage of the CAA in 1995 has there been a more significant moment in the evolution of legislative branch workplace rights. The new law focuses on protecting victims, strengthening transparency, holding violators accountable for their personal misconduct, and improving the adjudication process. The CAA Reform Act includes many important changes that dramatically expand the OCWR's duties and responsibilities, as well as the number of employees covered by the CAA.

These new duties and responsibilities include:

- substantially modifying the ADR process under the CAA, including creating additional procedures for preliminary hearing officer review of claims;
- developing and implementing procedures for current and former Members of Congress to reimburse awards or settlement payments resulting from harassment or retaliation claims;
- developing and implementing procedures for employing offices to reimburse payments resulting from specified claims of discrimination;
- appointing one or more advisors to provide confidential information to legislative branch employees about their rights under the CAA;
- renaming our office as the Office of Congressional Workplace Rights to more clearly inform the legislative branch community of our mission;
- extending CAA protections to unpaid staff, including interns, detailees, and fellows, as well as employees of the John C. Stennis Center for Public Service

- Training and Development, the China Review Commission, the Congressional-Executive China Commission, and the Helsinki Commission;
- significantly expanding OCWR reporting obligations;
- developing and administering a biennial climate survey of all legislative branch employing offices to collect information on the workplace environment and attitudes regarding sexual harassment;
- creating a program to permanently retain records of preliminary reviews, mediations, hearings, and other proceedings;
- establishing an electronic filing system to receive and keep track of claims; and
- developing and implementing means by which legislative branch employees who work outside of the Washington, D.C., area—such as in Members’ district offices—have equal access to OCWR services and resources.

Some of the changes in the CAA Reform Act became effective immediately upon enactment, such as the renaming of the Office, but most became effective 180 days from enactment, i.e., on June 19, 2019. The biennial climate survey, being designed in fiscal year 2019, will be administered for the first time in fiscal year 2020.

THE OCWR’S FISCAL YEAR 2020 BUDGET JUSTIFICATION

For fiscal year 2020 operations, we are requesting \$6,332,670, which is the same amount as our fiscal year 2019 enacted level. Approximately 60 percent of the requested amount provides pay and benefits to OCWR employees. The remainder focuses on supporting the OCWR’s statutory mandates and improving the delivery of services to the covered community under the CAA. It also reflects the OCWR’s implementation and administration of the changes set forth in the Reform Act, discussed above. This amount will also allow us to carry out our statutory mission to educate and train Members of Congress, their staff, and other legislative branch offices and employees on their rights and responsibilities under the CAA by developing education and training courses specifically designed for the legislative branch, which are easily understood, practical rather than legalistic, and proven effective. The education and training programs mandated by the Reform Act reflect Congress’s ongoing commitment to foster and promote a healthy workplace culture on Capitol Hill.

The OCWR received a substantial increase to its funding for fiscal year 2018 and fiscal year 2019. Using this funding, we implemented the statutorily mandated changes by June 19, 2019, including the design and development of a secure e-filing system, and revision of all publications and education and training materials that the OCWR produces to incorporate the changes set forth in the Reform Act. Although the initiatives mandated by the Reform Act required substantial funding in fiscal year 2019, many of those initiatives will also require ongoing funding in fiscal year 2020 and beyond. For instance, the e-filing system will require continuing cybersecurity upgrades and modifications. Online training and educational modules must be continually updated. New ADR procedures, such as preliminary review by hearing officers of certain claims, will affect the costs associated with adjudicating those claims.

One of the most costly and laborious tasks for OCWR is the designing, development and implementation of a biennial climate survey on the workplace environment and attitudes regarding sexual harassment in the legislative branch. Conducting the survey beginning in fiscal year 2020 and every 2 years thereafter, updating the survey, and interpreting the data resulting from the survey, will result in additional recurring costs.

Of the fiscal year 2020 requested amount, the OCWR is requesting that a total of \$1,000,000 remain available until September 30, 2021, for the services of essential contractors, including hearing officers, mediators, and safety and health inspectors and to design, develop, and implement a climate survey of the legislative branch employing offices.

ALTERNATIVE DISPUTE RESOLUTION PROGRAM

The OCWR requests a total of \$300,000 for non-personnel services for fiscal year 2020 for administration of its ADR program, which represents our best estimate for the cost of administering that program in the coming fiscal year based on past and current expenses. The CAA establishes an ADR process that provides employing offices and covered employees a neutral, efficient, and cost-effective means of resolving workplace disputes. We strive to ensure that stakeholders have full access to these ADR procedures. The OCWR enjoys a 100 percent affirmance rate in employment cases by the U.S. Court of Appeals for the Federal Circuit. We continue to do more with less, maintaining a flat rate of pay for contract mediators, a standardized

hourly fee for hearing officers, and rate limitations for other outside service providers.

In any given year, it is difficult to predict the number of cases that will be filed with the OCWR's ADR program, the complexity or duration of administrative proceedings, or the overall costs associated with case processing and adjudication. In fiscal year 2018, for example, Library of Congress employees were allowed to file claims with the OCWR for the first time. This has already added to the number of cases filed with the OCWR, and we expect that number will continue to increase. Fully implementing the CAA Reform Act in the last quarter of fiscal year 2019 adds to the difficulty of making such predictions for fiscal year 2020. The new ADR process, as required by the Reform Act, is outlined in our fiscal year 2020 budget justification. As discussed above, these changes require, among other things, that an additional hearing officer be appointed to conduct a preliminary review in each case filed on or after June 19, 2019, that involves claims arising under part A of title II of the CAA. Furthermore, the changes set forth in the CAA Reform Act required the OCWR to amend its Procedural Rules, modify its Case Management System, develop and maintain a full electronic filing system, and improve IT infrastructure and cybersecurity. Other changes in the Reform Act—such as extending CAA protections to unpaid staff, including interns, detailees, and fellows—are highly likely to add to the number of cases on the ADR docket. Our budget justification takes these considerations into account when projecting the costs for administering this program in fiscal year 2020.

EDUCATION AND TRAINING PROGRAMS

The OCWR is requesting a total of \$370,000 for non-personnel services for fiscal year 2020 for its Education and Training Programs. Our office has a statutory mission to educate and train Members of Congress and legislative branch employees on their rights and responsibilities under the CAA. In fiscal year 2019, demand for our educational and training materials on preventing harassment and other forms of discrimination in the workplace dramatically increased, and we anticipate continued demand for these educational services.

During fiscal year 2019, at the request of the Congressional Research Service, OCWR presented in-person training during District and State Staff Institute programs. During each training session, the OCWR interacted with approximately 40–50 congressional staffers new to their jobs in district and State offices located around the country. In fiscal year 2019, the OCWR delivered training to thousands of legislative branch employees in-person, via webinar, and online. Topics included the rights and protections under the CAA and OCWR procedures, as well as training on specific areas of the law including Veterans Employment Opportunities Act and the Family and Medical Leave Act. In addition, the OCWR provided training on CAA-related curricula designed to promote awareness and compliance with the Act, including training on bystander intervention and unconscious bias. The OCWR also prepared and distributed thousands of Notices to employing offices that describe the rights, protections, and procedures under the CAA.

The OCWR also reorganized and updated its website and added additional tools in fiscal year 2019, including interactive information on safety and health issues, and publications to educate the covered community. The OCWR's monthly publications and quarterly electronic newsletters are aimed at keeping the congressional community up to date on developments in the areas of safety and health and workplace rights. The OCWR continues to meet this need for education and information on the CAA.

In fiscal year 2019, the passage of the Reform Act required the OCWR to modify its publications and online training and education materials, and provide equal access to OCWR services and resources for out-of-area employees. Virtually everything that the OCWR produces, including publications and training materials, has been revised. In addition, we are developing new tools, and expanding online offerings to include videos on the CAA and OCWR procedures, as well as ADA instructional guidance. We are working with covered employing offices to support their programs to train and educate employees on their rights and protections. Our ongoing mission to provide stakeholders in the legislative branch with current, dynamic and innovative educational and outreach materials will require substantial funds in fiscal year 2020.

SAFETY AND HEALTH AND PUBLIC ACCESS

The OCWR is requesting a total of \$302,600 for non-personnel services for fiscal year 2020 for its OSH and ADA public access inspection programs. Before the OCWR opened its doors in 1996, Capitol Hill buildings had not been subject to even

the most basic building codes or regulations. The first inspections led to the discovery of serious fire and other safety hazards in House and Senate buildings and around the Capitol. As a result of OCWR inspections, Congress has abated thousands of serious hazards, reduced numerous barriers to access for individuals with disabilities, and dramatically improved the overall safety and accessibility of the Capitol Hill campus. The OCWR has been instrumental in developing and implementing cost-effective solutions to safety and access problems by working directly with the Architect of the Capitol and other offices on the Hill. It is during these inspections that our inspectors, who are trained OSH and ADA specialists, can work directly with employing offices, providing technical support at the point where assistance is needed. Our budget request will allow us to continue to provide the level of expertise and assistance that the community deserves.

ADDITIONAL SERVICES

The balance of the requested amount covers contract services, including those furnished by cross-service providers, such as the Library of Congress and the National Finance Center, and other services, equipment and supplies needed to operate the OCWR.

Thank you very much for providing us with this opportunity to brief you on our fiscal year 2020 budget request. As the Executive Director of the OCWR, I am proud of the work that our highly professional, talented, and motivated staff members perform every day. We are available to answer any questions or to address any concerns that the Chair, Ranking Member, or Members of the subcommittee may have.

[This statement was submitted by Susan Tsui Grundmann, Executive Director.]

PREPARED STATEMENT OF THE OPEN WORLD LEADERSHIP CENTER

Chairwoman Hyde-Smith, Ranking Member Murphy, and Members of the subcommittee:

Thank you for the opportunity to present testimony on the Open World Leadership Center's budget request for fiscal 2020. In this request, the Center is asking for \$5.8 million, an increase of \$200,000 or 3.6 percent over the 2019 enacted appropriation. Open World has been at the current enacted level since fiscal 2016. The increased funds are needed mostly for program costs, especially airfare, accommodations, and other logistical expenses.

The Center conducts a one-of-a-kind, peer-to-peer exchange program in the legislative branch that has hosted more than 28,000 emerging leaders from Russia, Ukraine and other post-Soviet and transitional states since 1999. In 2018, more than 140 of our participants were either Members of Parliament, Parliamentary staff, or regional and local legislators. By the end of this year, we will have hosted our 20,000th Russian participant.

As a legislative branch agency, the Center is well-placed to provide critical support to Congress in its foreign affairs oversight responsibilities. Indeed, this placement is the leading component of the success of the Open World program in these strategically important countries. Providing programs for informed citizens and in turn for more informed legislators is universally a good thing—and we do this in an extremely critical region of the world where transparency and accountable governance are not traditions.

On the program side, Open World has an American hosting network of service clubs, local NGO's and community colleges as well as thousands of volunteer host families. In 2018, these host families lived in nearly 120 congressional districts in 48 states and contributed nearly \$2 million worth of in-kind contributions. Coupled with an increasing number of U.S. embassies working directly with Open World and other cost sharing partners, this keeps the per person cost of an Open World delegate at about \$9,000—far below the standard executive branch rate of nearly \$20,000 per person.

Open World's young leaders stay in private homes in American communities across the country. They discuss topical issues of mutual interest and experience firsthand the functioning of our democratic institutions. They talk with their counterparts during the professional program and go back to their countries with high praise for that and for their American host families. This is how the Open World program nurtures civil society that develops not only from the top down, but from the ground up and the periphery in. Each year, there are new American civic organizations such as Friendship Force, Rotary, Sister City or other clubs joining the Open World network. And because of this network, these future leaders from Eur-

asia form positive views of the United States which in turn will influence attitudes in their home countries.

But the most important work we do is to showcase the American system of governance, in particular the legislative process. Did you know that the Americans with Disabilities Act has impacted communities far beyond our borders? Last year, a delegation from Azerbaijan with three disabled participants went to Reno, Nevada to examine how that law could be replicated in their country. That the GI Bill and other Veteran-related legislation inspired the Ukrainian Parliament to establish the Ministry of Veterans' Affairs last year? An Open World delegation hosted in Maryville, Tennessee on Veterans' Issues is taking the lead to help craft legal and legislative language addressing these needs. That the Freedom of Information Act leaves an indelible impression on the many Russian journalists and media specialists that come on the Open World program? When a state journalist from Foreign Minister Sergei Lavrov's press pool expresses a favorable impression of the work of the Voice of America, acknowledging its independence, no less, we have just made an inroad in countering disinformation.

For the United States Congress, the Open World Leadership Center is a resource: our delegations are ready and willing to provide on-the-ground information—unfiltered information—about events and developments in their countries.

Open World is an asset: our Parliamentary program is unmatched in the Legislative Branch. When your counterparts in Open World countries meet with you, you are getting direct and firsthand information. This in turn becomes the basis for a more informed foreign policy.

Open World is an investment: bringing delegations of rising leaders to meet with their counterparts here creates a global network of partners united in a common goal—to endow democracies in transition with the basic ingredients of accountable governance and transparency in a civil society.

The Open World program is your toolkit for supporting democracies in transition; a toolkit that creates opportunities for Open World participants to experience how legislative action is the change agent their governments may need; a toolkit that allows America's constituents to engage personally in strengthening civil society in other countries. In these countries that do not have a tradition of open debate or legitimate opportunities to propose alternatives for their government, our participants see how the legislative process can empower them to be that force for change.

Most importantly, though, the Open World program is an effective one precisely because it is in the legislative branch. In today's geopolitical environment, legislative diplomacy emerges as a unique but no less powerful tool for engaging governments in critical regions of the world.

There are good examples of Open World success stories itemized in the Congressional justification. This unique program continues to succeed in a shifting landscape where it has achieved a special status in the successor states of the former Soviet Union and elsewhere. On behalf of all of us at the Center, I thank the subcommittee for its interest in and support of the Open World Leadership Center.

[This statement was submitted by Jane Sargus, Executive Director.]

NONDEPARTMENTAL WITNESSES

PREPARED STATEMENT OF THE AMERICAN ASSOCIATION OF LAW LIBRARIES

Chairman Hyde-Smith, Ranking Member Murphy, and Members of the Subcommittee:

The American Association of Law Libraries (AALL) is pleased to have the opportunity to submit written testimony in support of the fiscal year 2020 requests of the Government Publishing Office (GPO) and the Library of Congress.

AALL is the only national association dedicated to the legal information profession. Founded in 1906 on the belief that people—lawyers, judges, students, and the public—need timely access to relevant legal information to make sound legal arguments and wise legal decisions, its more than 4,100 members are problem solvers of the highest order.

AALL members rely on GPO, the Library of Congress, and the Law Library of Congress for access to and preservation of official, trustworthy government information. Adequate funding for these agencies ensures access to information, which supports access to justice and preserves the rule of law.

FUNDING FOR THE GOVERNMENT PUBLISHING OFFICE

Under Title 44 of the U.S. Code, GPO is responsible for the production and distribution of information products for all three branches of the Federal Government. GPO produces, authenticates, disseminates, and preserves government information in multiple formats.

Since fiscal year 2018, GPO has completed several important projects to provide greater access to digitized historical material, including working with the Office of the Federal Register to digitize and provide public access to every issue of the *Federal Register* back to 1936 and the bound *Congressional Record* back to 1873. Increased access to both historical and current content on GPO's govinfo website is beneficial to researchers, librarians, and members of the public who can view bills and statutes, budget materials, executive agency publications, and judicial opinions.

We commend GPO for recently achieving certification as a Trustworthy Digital Repository in compliance with International Organization for Standardization (ISO) 16363. GPO is the only organization in the United States and the second organization in the world to achieve the highest global standard of excellence for digital repositories.

AALL has a special interest in full funding for GPO's Public Information Programs account that supports the Federal Depository Library Program (FDLP). The requested funding level of \$31.3 million will allow GPO to provide additional support for locating and processing Federal information for inclusion in the FDLP and the Cataloging and Indexing Program, among other priorities.

GPO administers the FDLP by providing Federal Government information products in multiple formats to more than 1,100 participating libraries across the country. These libraries are charged with ensuring no-fee access to government information to the public, including residents of your districts. Members of the public visit depository libraries to access essential legal titles on topics such as health information, bankruptcy, and housing services. Approximately 200 law libraries participate in the FDLP, including my own institution, Duke University School of Law. The J. Michael Goodson Law Library, open to the public, celebrated its fortieth year as a selective depository library in 2018.

AALL also supports full funding for the Congressional Publishing appropriation and Revolving Fund so that GPO may continue to publish legislative information and support the development of govinfo to add new content collections and improve the accessibility and discoverability of information.

FUNDING FOR THE LIBRARY OF CONGRESS

AALL is grateful to this subcommittee for its approval of past requests to replace broken shelving, implement a digitization strategy to provide access to public domain U.S. legal and legislative materials, and allow the Law Library to continue to work toward completion of the K Class modern classification standard to increase public access to its law collection.

The Law Library is a treasured institution with an unparalleled collection of domestic, foreign, and international legal material. The Law Library is a world leader in providing access to reliable legal materials in print and electronic formats and it must have adequate funding to meet the needs of Congress, the Supreme Court and other court judges, attorneys, and the public.

AALL supports the Law Library's \$18 million request for fiscal year 2020 so that it may, among other priorities, complete Phase 3 of the project to archive the Law Library's Global Legal Research Directorate reports and continue its digitization efforts to provide access to historical Congressional and other public domain materials. AALL also urges continued investment in the development of Congress.gov, the official website for Federal legislative information and an essential tool for legal research.

We commend the Library of Congress for updating its information technology operations and meeting nearly all of the recommendations from the Government Accountability Office's 2015 report on the Library's information technology. We also express appreciation for modernization efforts at the Copyright Office, which has been working in close coordination with the Library's Office of the Chief Information Officer. We welcome Dr. Hayden's appointment of Karyn A. Temple as the new Register of Copyrights, and we are confident the Office's modernization will continue under her leadership.

CONCLUSION

Thank you once again for the opportunity to submit testimony on the fiscal year 2020 requests of GPO and the Library of Congress. AALL urges you to approve full funding for these legislative branch agencies.

[This statement was submitted by Femi Cadmus, President.]

 PREPARED STATEMENT OF THE AMERICAN LIBRARY ASSOCIATION

On behalf of the American Library Association, thank you for the opportunity to submit this testimony regarding Legislative Branch Appropriations for fiscal year 2020. We respectfully request the Committee's support for funding for the Library of Congress and the Government Publishing Office, which provide valuable services to libraries and the public nationwide.

LIBRARY OF CONGRESS

The Library of Congress is the largest library in the world, with millions of books and other items in its collections. In addition to serving Congress, the Library is a resource to libraries across the country and the American public. The Library's proposed visitor experience enhancements would highlight its unique collections and inspire millions of visitors to learn, create, and innovate. In addition, the Library's services support education and research far beyond the walls of its buildings.

Through its National Library Service for the Blind and Physically Handicapped, for instance, the Library of Congress serves readers who cannot see print or handle print materials. This national program provides access to books and reading materials for people across America, including through a network of regional libraries, such as the Mississippi Library Commission's Talking Book Services and the Connecticut State Library's Library for the Blind and Physically Handicapped.

The Library of Congress also provides access to a wealth of information online for users nationwide. The Library is digitizing thousands of pages of its collections and records and making that information available to anyone with an Internet connection. For instance, digitizing historical copyright records will make it easier for users to identify the rightsholder or status of works that were registered with the Copyright Office. Additionally, every year the Library creates thousands of catalog records and shares them for the use of libraries around the country.

GOVERNMENT PUBLISHING OFFICE

The Government Publishing Office (GPO) provides essential information to America's businesses, legal system, and researchers. GPO's online repository of government information and the public information programs of GPO's Superintendent of Documents benefit users and libraries nationwide.

The Federal Depository Library Program (FDLP), administered by GPO, helps people access Federal laws, regulations, and publications in communities across the Nation. More than 1,100 libraries participate in the FDLP, such as the University of Southern Mississippi's Joseph Anderson Cook Memorial Library and the University of Connecticut's School of Law Library. Modernization legislation introduced in the 115th Congress would further strengthen the program, if enacted; we hope that Congress will reintroduce and pass it in the 116th Congress.¹

In addition, GPO annually adds thousands of new government publications to its free online repository, govinfo.gov. GPO also catalogs thousands of publications every year to assist researchers in locating them. To ensure that these important documents of our republic remain available over the long term, GPO manages a cooperative preservation program with libraries across the country.

CONCLUSION

Thank you for the opportunity to testify before the subcommittee in support of the fiscal year 2020 requests of the Library of Congress and the Government Publishing Office. We ask for the subcommittee's support in meeting the requests for these important national programs that serve Congress, libraries, and the American public.

[This statement was submitted by Kathi Kromer, Associate Executive Director, Public Policy and Advocacy.]

¹ FDLP Modernization Act of 2018, H.R. 5305, 115th Cong. (2018).

The American Library Association (“ALA”) is the foremost national organization providing resources to inspire library and information professionals to transform their communities through essential programs and services. For more than 140 years, the ALA has been the trusted voice for academic, public, school, government and special libraries, advocating for the profession and the library’s role in enhancing learning and ensuring access to information for all.

PREPARED STATEMENT OF THE CENTER FOR RESPONSIVE POLITICS

Chairman Hyde-Smith, Ranking Member Murphy, and Members of the subcommittee, thank you for the opportunity to submit testimony on a simple way the Senate can improve the transparency of lobbyist disclosures.

I am executive director of the Center for Responsive Politics, a nonpartisan, non-profit research organization based here in Washington that monitors and analyzes campaign contributions in Federal elections, lobbying, and other forms of money and influence in U.S. politics and policy.

The Secretary of the Senate and Clerk of the House serve as the repositories for over 20 years of data detailing the lobbying activities of thousands of organizations that are required to file under rules set forth by the Lobbying Disclosure Act of 1995 (LDA) and Honest Leadership & Open Government Act of 2007 (HLOGA). These reports serve as the basis for important public resources that allow investigations by academics, journalists and Congress itself that contribute to the integrity of policy making processes.

Annually, these reports list more than 11,000 individual lobbyists as having undertaken significant “lobbying activities.”¹ The Center for Responsive Politics (CRP) and others rely on this data both to populate the OpenSecrets.org website, which is free and open to the public, as well as to provide additional research assistance for journalists, nonprofits, academic institutions and interested citizens.

This work includes normalizing individual lobbyist names to facilitate tracking their employment history and political campaign contributions. There is currently no publicly available identifier that makes clear that names reported as “Jane Davis,” “Jane A. Davis,” and “Jane Ann Davis” all refer to the same individual lobbyist. In fact, our research finds that over the last 20 years, an average of 12 percent of names reported annually are extraneous variations due to typographical errors, nicknames, and name changes. Recent years have been consistently in the 8 percent range. Despite this recent improvement, considerable labor is expended reconciling the different versions as well as verifying that individuals with similar or common names are in fact, different people. Changes to a lobbyist’s legal name based on changed marital status are common and present further challenges as there is often not an easily accessible way to confirm that “Jane Doe” and “Jane Buck” are, in fact, the same person.

Considerable effort goes toward creating and maintaining a version of lobbyist IDs through algorithmic matching as well as human review. Following a quarterly filing deadline, considerable effort (both algorithmic and human review) is required to reconcile variations in lobbyist IDs caused by typos, nicknames, name changes due to marriage and changes in associated registrants, delaying the release of an improved data set.

Based on official filing manuals,² the Secretary of the Senate and Clerk of the House assign a unique identifier to each lobbyist during the filing process that is used to track each person across reports (e.g., between LD-1 to LD-2; across various registrants; and in the LD-203 contribution reports). However, publicly released downloadable data does not include unique IDs. The existing non-public identifiers that are used to login can easily and programmatically be used to produce ones that are safe to disclose.

The Honest Leadership & Open Government Act’s revolving door provisions make it clear that Congress believes that tracking registered lobbyists’ employment across government and the private sector is essential to monitor for conflicts of interest and to protect the integrity of the Federal Government. The recently released Government Accountability Office annual review of LDA compliance found that 19 per-

¹Lobbying Disclosure Act Guidance, Revised January 31, 2017; https://lobbyingdisclosure.house.gov/amended_lda_guide.html#section4.

²“Employed lobbyists are assigned a unique ID when they are registered with the House and Senate to lobby and added to the Contribution Reporting System by the person in your organization who manages the registration and reporting filings.”—From the LD-203 “Help” manual for filers: <https://lda.congress.gov/LC/help/default.htm?url=WordDocuments%2Faccessingthesystem.htm>.

cent of 2018³ reports failed to fully comply with requirements to disclose previous government employment as required, up from 15 percent in 2017.⁴ The ability to easily and accurately identify individuals throughout their lobbying careers is integral to research and oversight by civil society actors that fill that compliance gap.

We respectfully request the addition of unique identifiers for individual lobbyists that are currently available only internally to the offices of the Secretary of the Senate and Clerk of the House to the publicly available data files that are updated daily. If the addition of such identifiers is not possible at this time, we request that a study be undertaken to determine the feasibility of doing so in the future.

Thank you for the opportunity to provide our comments. We welcome the chance to discuss them further or answer any questions the subcommittee may have. Please feel free to contact me at skrumholz@crp.org.

SHEILA KRUMHOLZ,
Executive Director.

Sheila Krumholz is the executive director of the Center for Responsive Politics, a nonpartisan watchdog group that tracks money in politics. Ms. Krumholz became Executive Director in 2006, prior to which she was CRP's research director for 8 years. As research director, she supervised data and analysis published on CRP's website, OpenSecrets.org, and research for investigative journalists and CRP's partners and clients in the media, academia and elsewhere.

Ms. Krumholz has testified before Congress and the Federal Election Commission on issues related to government transparency and accountability, and is cited frequently in prominent national news outlets. She regularly makes presentations to citizen's groups, scholars, government officials, NGOs that conduct research and advocacy, and at meetings of professional news organizations. She has a degree in international relations and political science from the University of Minnesota.

PREPARED STATEMENT OF THE DATA COALITION

Subject: Recommendation for Congress to Leverage USAspending.gov by Supporting a Congressional Research Service DATA Act Information System

Chairwoman Cindy Hyde-Smith, Ranking Member Chris Murphy, and Members of the Legislative Branch Subcommittee, thank you for this opportunity to provide written testimony on behalf of the Data Coalition. As we submitted in 2018, this written testimony describes how Congress can strengthen its operational capacity and effectiveness by utilizing the new government-wide Federal spending data openly published under the U.S. Treasury maintained USAspending.gov. Additionally, this testimony argues that Congress should invest in a *DATA Act Information System* to incorporate this new national Federal spending resource into the Legislative Branch's Budget, Appropriations, oversight, and policymaking workflows.

The Data Coalition was founded in 2012 to advocate on behalf of the private sector and public interest for the transformation of government information into standardized, open, and machine-readable data. Based in Washington D.C., the Data Coalition represent technology and data analytic companies as well as public sector focused consulting and accounting firms. We empower these data companies to help make our government more transparent and efficient.

As the Committee is aware, in 2014 Congress unanimously passed the *Digital Accountability and Transparency Act* (DATA Act) (Public Law 113-101) which charged the White House Office of Management and Budget (OMB) and the Department of the U.S. Treasury (Treasury) with the task of transforming government-wide spending information into standardized, searchable open data on a central website.

Currently the USAspending.gov website reflects the entirety of the fiscal year 2018 fiscal year's agency spending data for the public and Congressional scrutiny.

The DATA Act: Value, Function, and Vision

The DATA Act's unified open data set provides a comprehensive map of the executive branch's expenditure accounts, their balances, and funds available to be spent. Such information had never before been publicly-available in an electronic form. The

³ "GAO 2018 Lobbying Disclosure: Observations on Lobbyists' Compliance with Disclosure Requirements," March 2019: <https://www.gao.gov/assets/700/698103.pdf>.

⁴ "GAO 2017 Lobbying Disclosure: Observations on Lobbyists' Compliance with Disclosure Requirements," March 2018: <https://www.gao.gov/assets/700/690988.pdf>.

data set also connects every account with the contract and grant awards which it funds. Before the DATA Act’s mandate, this connection between accounting and award data did not systematically exist.¹

In May of 2017, nearly every CFO Act agency began reporting its spending to Treasury using this data format (beginning with fiscal year 2017–Q2). Now, as required by law, agencies are reporting, and Treasury is publishing, a unified open data set of executive-branch spending on a quarterly basis. By December 2018, the data set reflected the entirety of fiscal year 2018, its first complete fiscal year using a consistent data structure.² Over 85 Federal agencies are actively reporting across over 1,600 Federal accounts.

This spending information is centrally defined by Treasury’s *DATA Act Information Model Schema* (DAIMS).³ The DAIMS is a government-wide standardized collection of 400 interconnected data elements together representing the relational data structure by which all Federal agencies must now map their financial account systems and award reporting.

And this is merely the beginning.⁴ For instance Treasury has built a number of visualization tools in their *Data Lab* to demonstrate how the DAIMS enables a browsable government account structure or can visually represent how the purpose of spending (*Budget Function*) relates to the actual spending mechanism (*Object Class*).⁵ Furthermore, Treasury’s Strategic Plan sets a goal to expand the DAIMS to cover other “administrative data and link more domains . . . to support decisionmaking and provide metrics for evaluating program performance and outcomes”.⁶ And agencies are also seeing financial management benefits of agency-wide financial viewpoints enabled by a unified data set.⁷

In short, the DATA Act is the start to realizing a full life-cycle picture of the U.S. Government’s financial information.⁸

USAspending.gov and Congress: Real-time Insights, Better-Informed Decisions

The real value of the DATA Act as a resource for government-wide spending information is in how it can be both publicly accessed via USAspending.gov through intuitive visualizations or complete bulk data downloads⁹ and automated APIs¹⁰ for technically advanced users.

For example, the USAspending.gov data provides sufficient information, in a readily-available electronic form, for software applications to more efficiently conduct the following tasks:

- Identify the particular agency accounts funded by a Congressional appropriation, select the contract and grant awards paid out of those accounts, and map the geographic impact of those awards by State, zip-code, and potentially Congressional district;
- Identify all of the agency expenditure accounts funding a Federal grantmaking program, and assess the impact of future appropriations decisions on that program;

¹Landefeld, Frank, Jamie Yachera, and Hudson Hollister. *The DATA Act: Vision & Value*. MorganFranklin Consulting. Data Foundation. July 2016. <http://www.datafoundation.org/data-act-vision-and-value-report/>. See Section III “How Does the DATA Act Work?”.

²By May 2018, USAspending.gov will reflect a full consecutive years’ worth of Federal spending: the latter three quarters of fiscal year 2017 and the first one of fiscal year 2018.

³“DATA Act Information Model Schema (DAIMS) v1.3.1” Bureau of the Fiscal Service, Data Transparency. Accessed May 03, 2018. <https://fiscal.treasury.gov/data-transparency/DAIMS-current.html>.

⁴Mader, Dave, Tasha Austin, Christina Canavan, Dean Ritz, and Matt Rumsey. *DATA Act 2022: Changing Technology, Changing Culture*. Deloitte. Data Foundation. May 2017. <http://www.datafoundation.org/data-act-2022/>. See “Realizing the Vision” for seven Cultural and Technical DATA Act recommendations.

⁵Data Coalition. “Treasury Launches Data Lab on Revamped USAspending.gov.” News release, April 5, 2018. DataCoalition.org. <https://www.datacoalition.org/press-releases/treasury-launches-data-lab-on-revamped-usaspending-gov/>.

⁶Department of the Treasury. *Strategic Plan 2018–2022*. https://www.treasury.gov/about/budget-performance/strategic-plan/Documents/2018-2022_Treasury_Strategic_Plan_web.pdf.

⁷Landefeld. *Vision & Value*. See Section IV “Who Benefits From the DATA Act?” for a full discussion.

⁸Using the DATA Act to Restore the Power of the Purse, 114th Cong. (2016) (testimony of Hudson Hollister, Executive Director, Data Coalition). <https://oversight.house.gov/wp-content/uploads/2016/12/2016-12-01-DATA-Hollister-Testimony.pdf>.

⁹“How to Access the USAspending.gov Amazon RDS Snapshot.” USAspending.gov Database on AWS. Accessed April 16, 2018. <https://aws.amazon.com/public-datasets/usaspending/>.

¹⁰“The USAspending Application Programming Interface (API).” USAspending.gov. <https://api.usaspending.gov/>.

- Identify and track all of the unobligated balances across government, within a particular agency, or within a particular appropriations subcommittee jurisdiction, and reconcile this with approved spending allocations and supplemental budget requests;
- Make more informed appropriations decisions by comparing the annual budget request to current fiscal year government-wide agency account balances and spending activity;
- Tag spending to particular programmatic missions, track these resources over time, and pair with additional data sets to assess programmatic performance;
- Autonomously monitor the impact of Federal spending activity on a geographic region;
- Access consistent and accurate data to inform Congressionally commissioned government reform and deficit reduction decisionmaking bodies.

However, to derive such conclusions requires in-depth analysis and parsing of the bulk data and the raw agency data submissions,¹¹ where the real value and insights exist. This is often beyond the technical capabilities and time resources of Congressional staff who more often possess deep expertise in specific policy issue areas and disciplines like public administration, law, business, or policy analysis.

Recommendation: Provision a CRS Congressional Facing DATA Act Information System

Congress should fund a project at the Congressional Research Service to build a Congressional facing *DATA Act Information System*. Such a platform would pull USAspending.gov's bulk data and make it readily accessible for the unique budget, appropriations, and oversight workflows of Congressional staff, Member Offices, and Committees.

Specifically, this software-based platform could provide Congressional staff with a financial performance and accountability dashboard that organizes spending by budget function, maps the impact of spending to Congressional districts and Committee jurisdictions, includes information on known data quality issues and limitations, and links other Federal open data sets for performance analysis. Congressional staff could also track specific agency accounts and programs through a tailored dashboard equipped with custom alerts, report building functionality, and interactive data visualizations.

The implementation of the DATA Act's USAspending.gov represents a significant Congressional investment. The Congressional Budget Office originally estimated \$300 million in associated implementation costs from fiscal year 2014–2018 (though we estimate actual implementation costs were ultimately much lower).¹² For instance, more than \$30.7 million in dedicated funds were appropriated in fiscal year 2016.¹³

It is imperative that Congress now also invest in its own capacity through system upgrades that leverage newly provisioned national information resources such as USAspending.gov.

Conclusion: Data-Driven Decision Making for Congress

Congress needs to utilize this information resource to enhance the way it conducts the day-to-day work of executive branch oversight, budget formation, appropriation funding, programmatic authorizations, and constituent relations work. Otherwise the government risks this legal mandate becoming yet another Federal compliance exercise.

By fully leveraging USAspending.gov's consistent and reliable spending data with a CRS built system, Congress will enhance its ability to fully understand how Federal taxpayer funds are ultimately used. And in turn, make better, data-driven decisions on behalf of the public.

[This statement was submitted by Christian A. Hoehner, Senior Director of Policy.]

¹¹"FilesDirectory Listing for Raw Financial Assistance Files/Raw Quarterly DATA Act Files." USAspending.gov Agency Submission Files. Accessed April 16, 2018. <http://usaspending-submissions.s3-website-us-gov-west-1.amazonaws.com/>.

¹²S. Rep. No. 113–139 (2014). <https://www.congress.gov/113/crpt/srpt139/CRPT-113srpt139.pdf>. See page 12.

¹³DATA Act Implementation Check-In, 114th Cong. (2016) (testimony of David Mader Controller, Office of Management and Budget). <https://oversight.house.gov/wp-content/uploads/2016/04/2016-04-19-Mader-OMB-Testimony.pdf>. See Appendix B for a summary chart of Congressional appropriations for DATA Act implementation.

PREPARED STATEMENT OF DEMAND PROGRESS

Dear Chairman Hyde-Smith, Ranking Member Murphy, and Members of the subcommittee:

Thank you for the opportunity to submit testimony to the Senate Legislative Branch Appropriations Subcommittee. Our testimony focuses on technological innovation in the legislative branch, with a particular focus on the Bulk Data Task Force and the Library of Congress.

But before we get into the details, thank you for your bipartisan leadership in the 115th Congress in support of a number of initiatives to modernize the United States Senate. You included more than a half-dozen significant reforms—including a study on staff pay and retention, addressing child care, improving cybersecurity, evaluating and strengthening Congress's science and technology expertise, addressing the campaign e-filing requirement, and funding internships—and we can already see the positive effects. We know it was not easy to do this and we are deeply thankful for your efforts.

As you know, Congressional technological innovation is important because it implicates the very ability of the Senate to carry out its legislative, oversight, and constituent service duties in an effective, efficient, and responsive manner. The offices and agencies that support the work of Members of the U.S. Senate rely upon a complex series of interdependent technologies that together affect how easy or difficult it is for Congress to do its job. When the Legislative Bulk Data Task Force was created by Congress in 2013, we saw marked improvements in how these offices and agencies worked with one another and communicated with the general public. The Task Force had a limited purpose, but the collaboration it fostered changed the culture of Capitol Hill for the better.

We propose to build upon the accomplishments of the Bulk Data Task Force and to address a recurring concern regarding communications with the Library of Congress. We make the following four requests:

1. Create a legislative branch Chief Data Officer
2. Expand the Bulk Data Task Force into the Congressional Data Task Force
3. Establish a Public Information Advisory Committee for the Library of Congress
4. Publish the SOPOEA as Structured Data

THE BULK DATA TASK FORCE AND A CHIEF DATA OFFICER

In recent years, the legislative branch has made significant advances in releasing legislative information to the public online as data. This has served Congress well, as it has facilitated Congress's access to its own data—both as raw structured data and as data refined by third parties. These data publication initiatives have included the online publishing of bills; committee schedules; CRS reports (as PDFs); the Senators' Official Personnel and Office Expense Account (as PDFs); the new joint meetings calendar; as well as holding regular meetings of the Bulk Data Task Force. These efforts are welcome and encouraged.

Senate Webmaster Arin Shapiro has served as an excellent representative of the Senate Sergeant at Arms at the Task Force's public meetings and we are grateful to him. We are hopeful that other Senate offices will increase their participation.

With the complexity and distributed governance of information in Congress, it is helpful to have a touchstone that can help facilitate a coordinated approach to manage that data and support ongoing work to transform it into useful information.

We respectfully request that you establish a Legislative Branch Chief Data Officer. The CDO should have the responsibility for tracking datasets released by the legislative branch; providing advice, guidance, and encouragement to offices regarding the publication of legislative branch information as data; supporting the work of the Bulk Data Task Force; coordinating the annual Legislative Data and Transparency Conference; and providing assistance to the public with finding and obtaining legislative data.

We additionally recommend an expansion of the role of the very successful Bulk Data Task Force into the Congressional Data Task Force. Congress established the Legislative Bulk Data Task Force with a focus on the question of determining whether Congress should make the legislative data behind Congress's information system, THOMAS and LIS, available to the public as structured data. Ultimately the Task Force recommended and GPO implemented the publication of bill summary, status, and text information online as structured data.

Perhaps more importantly, the Task Force—which brought together many of the technology stakeholders inside the legislative branch as well as members of civil society—continues to hold public meetings on a quarterly basis as well as innumerable Congress-only meetings. This has led to ongoing collaboration among all the stake-

holders that has changed the culture of Congress and quietly led to many technological advances concerning legislative operations and transparency.

We encourage you to expand the Bulk Data Task Force into the Congressional Data Task Force. An expanded mission would formally allow the Task Force to look at how data is handled throughout the legislative branch. It would officially allow it to expand its scope beyond bills and the data attendant to them. This would allow consideration of other legislative documents, the handling of information used for oversight, and providing key insights about the operations of Congress itself.

PUBLIC INFORMATION ADVISORY COMMITTEE FOR THE LIBRARY OF CONGRESS

The Library of Congress is proud of its reputation and role as the largest library in the world. The Library plays an important role in providing information about Congress to Congress and the general public (such as through the website Congress.gov), but the Library—at least in our experience—has not prioritized its role as a source of information and is not in regular contact with civil society, especially those with expertise in facilitating public access to congressional information. This is a missed opportunity and reflects an unfortunate pattern of behavior.

The Library of Congress did not consult with civil society prior to releasing its Digital Strategy, which notably did not address the Library's role in collecting, organizing, preserving, digitizing, publishing, and contextualizing the legislative activities of Congress for the American people. There are significant deficiencies in the Library's implementation of the congressional calendar that you requested in last year's appropriation bill, most notably in how the information is displayed, which is a design issue. We continue to have deep concerns with its implementation of the CRS Reports website, especially in that information is published only as a PDF. For a decade we have asked that the Constitution Annotated be publicly available in a more usable format, but the Library has not engaged with us even as it apparently moves forward with plans for a major upgrade. We have trepidation concerning the Library's plan to create a Congress.gov app for \$750,000. And we note its decades-long opposition to public access to the legislative data.

This is not intended as a broadside of criticism against the Library, especially as it has been under new leadership for the last few years. We believe the Library is a pivotal institution in providing Congressional and public access to information about Congress's work. We support its funding request in full. But we in civil society are bewildered when we hear that Library staff feel discouraged from participating in the Legislative Data and Transparency Conference or in talking with its participants. We are dismayed when the Library does not fulfill a request from a Member of Congress to have someone from the Library talk with civil society about the CRS Reports website. And we are saddened when the Library's implementation of requests from Congress do not to satisfy the purposes for which the request was made. The Library's difficulties in managing its information technology are well documented by the Government Accountability Office, and we welcome the creation of the position of Chief Information Officer. There is no doubt there are good people at the Library who strive to support Congress and the Library's public mission, and we want to empower them.

It is not unusual for agencies to show reticence to talk with civil society, but there is a model that can support changing an agency's culture to one of inclusion and conversation. Other legislative and executive branch agencies and entities routinely meet with civil society stakeholders to share information and provide a foundation for collaboration. Inside the Legislative Branch, the aforementioned Bulk Data Task Force meets quarterly concerning bulk access to congressional data, the Advisory Committee on the Records of Congress semi-annually convenes congressional historians, and the Federal Depository Library Council is an ongoing point of contact for depository libraries. While we note that the Library participates in the Bulk Data Task Force, there are significant limits to its engagement that reflect its functional units and institutional reluctance.

To our knowledge, the Library of Congress does not have any regular mechanism by which it convenes external and internal stakeholders to share information on the Library's legislative information activities. Because of the Library's outsized role as an information provider, we believe it is important for it to scale its public-facing engagement to match. We recommend that such an advisory body be established with broad internal and external stakeholder representation that would hold regular public meetings where a productive interchange can take place. These stakeholders should reflect the functional units inside the Library and the civil society organizations that are well known to Congress regarding public access to congressional information.

Accordingly, we urge the creation of a Library of Congress Public Information Advisory Committee. We recommend the following report language:

The Library of Congress is encouraged to create an Advisory Committee on Public Access to Congressional Information, composed of internal and external stakeholders that may be a source, consumer, or republisher of information or data concerning Congress, with a particular focus on legislative information. The Advisory Committee shall meet no fewer than 6 times a year in open session. The Library is encouraged to consult the Advisory Committee on a regular basis, not just at its meetings, concerning the information it gathers, holds, or publishes regarding Congress, and how that information is presented and released to the public.

We understand that the Library may not initially welcome the creation of such an advisory committee. Nevertheless, we believe that deepening engagement with civil society on technology will help the Library of Congress fulfill its mission to “engage, inspire, and inform Congress and the American people with a universal and enduring source of knowledge and creativity.” Conversation across government silos and with those on the outside often results in the sharing of new approaches to addressing technology challenges, the resolution of problems before they crop-up, greater understanding of the opportunities and constraints posed by new technology, and increased adaptability of technology for more uses and for more users. In short, this would be a win for Congress, a win for the Library, and a win for the public.

PUBLISH THE SOPOEA AS DATA

The Legislative Branch Appropriations Act of 2010 (Public Law 111–68) required the Secretary of the Senate to publish the Senators’ Official Personnel and Official Expense Account (SOPOEA) Report online starting with the first full semiannual period of the 112th Congress. This twice-annual report records all the expenses of the United States Senate, and has been published and made available to the public in its current incarnation since 1964.

Publication of spending data as a PDF has significant limitations, and we request that it be published as structured data. A model could be the House of Representatives, which has published its Statement of Disbursements as a spreadsheet file (a CSV) starting in early 2016. Publication in other formats was contemplated in the 2010 legislative language and we urge the Senate to include report language directing the SOPOEA be published in a “structured data format.” This will allow an improved understanding of the information it contains.

Thank you for the opportunity to testify.

[This statement was submitted by Daniel Schuman, Policy Director.]

PREPARED STATEMENT OF GRANT TUDOR AND JUSTIN WARNER, HARVARD UNIVERSITY

Dear Chairman Cindy Hyde-Smith, Ranking Member Chris Murphy, and subcommittee Members:

We are graduate students from Harvard Business School and the Harvard Kennedy School of Government. We spent the prior 8 months engaging in research for the Technology and Public Purpose (TAPP) Project at the Belfer Center for Science and International Affairs. Led by Belfer Center Director and former Secretary of Defense Ash Carter, the TAPP Project works to ensure that emerging technologies are developed and managed in ways that serve the public good. Specifically, our work interrogated the drivers and potential solutions for the widening gap between responsive lawmaking in Congress and the deepening complexity of advancements in science and technology (S&T).

This work was based on more than 40 in-depth interviews; analysis of original datasets; a review of archival material; and a literature review on the experience of the now-defunct Office of Technology Assessment (OTA), technology assessment, and Congress’s relationship with technical expertise. Our interviews included Members of Congress and their staff; leading thinkers from science, industry, and civil society; current and former employees of legislative support bodies and executive branch agencies; and those previously affiliated with OTA.

Our report¹ finds that weakened institutional capabilities have limited the legislature’s *absorptive capacity*, or the ways by which it recognizes the value of, assimilates, and makes use of knowledge outside of itself. Congress does not lack an avail-

¹Online publication through the Belfer Center for Science & International Affairs forthcoming.

ability of expertise, but instead lacks the capabilities to make use of expertise. In this testimony, we describe the observed problem; present our most relevant findings regarding the factors handicapping Congress and the limits of currently proposed solutions; and briefly outline a recommended approach: the design of a new internal body—the Congressional Futures Office—as a potential response.

OBSERVED PROBLEM

Federal lawmaking is failing to adequately address issues of public interest associated with S&T advancements.

A 2019 report by the Congressional Research Service (CRS) details a daunting menu of S&T issues likely to confront the 116th Congress, from the proliferation of advanced gene editing tools to emerging crises in water quality and scarcity. These fast-moving and technically complex issues carry profound social, economic and security implications for the U.S. We observe that lawmakers are increasingly struggling with their complexity.

As a result, devised policies (or an absence of policies) are generating unintended consequences, permitting large-scale waste of Federal dollars, and stalling regulatory overhauls necessary for U.S. competitiveness. Legislative responsiveness to S&T issues has deteriorated as the complexity of S&T issues has considerably deepened, with far-reaching implications.

KEY FINDINGS

An overview of the report's three most important findings is featured below.

Finding #1

The critical issue facing Congress is not a lack of technical expertise but a lack of absorptive capacity: its ability to recognize the value of new, external information, to assimilate it, and to apply it to desired ends. Congressional Members and staff are inundated with information from both external (e.g., lobbyists, think tanks) and internal sources (e.g., CRS). Internal capabilities, however, have been unable to keep up. In our report, we consider three dimensions of capabilities (resources, processes, and priorities) and find severe weaknesses across each, suggesting an impaired ability to intake and make use of external knowledge. For example, resources within Congress (e.g., staffing in committees and support bodies) have significantly diminished while traditional processes for transforming expertise into legislation (e.g., hearings) are frequently circumvented. Absent adequate resources and strengthened process, Congress will continue to make inadequate use of available expertise.

This suggests that *solutions must be focused on improving the information intake and processing capabilities of Congress, not just creating and delivering analysis.*

Finding #2

Existing internal and external resources are insufficiently equipped to address the issue. External resources (e.g., industry, civil society, scientific associations) are frequently not useful, lack credibility, and are difficult to mobilize effectively. For example, qualitative research suggests that information and analysis supplied to congressional Members and staff often fails to address their needs, even if the analysis is sound. This is partly explained by the distance of external actors to Congress, making them poorly positioned to respond to the nuanced and day-to-day needs and evolving priorities of Members and staff. We find that Congress's existing internal support functions (e.g., CRS and GAO), similarly, are significantly limited in their S&T-related capabilities given their current mandates, methods, and products.

Finding #3

Currently contemplated solutions (e.g., expanding STAA at GAO, reviving OTA) are unlikely to address these institutional challenges. In our work, we identified a vast array of S&T-related needs of Members and staff across the policymaking process; for example, the need to assess the credibility of technical information provided by external sources. These needs reflect fundamental information processing challenges. STAA and OTA, however, attempt to solve the problem by producing more analysis. Given that Congress struggles to process the existing analysis available to it, more analysis is unlikely to solve the problem. More lengthy reports will not alone solve Congress's S&T-related challenges. STAA is further hamstrung by its relative distance from Congress given that accessing GAO is difficult for most Members (and unavailable to staff), and by a mandate that reflects the audit-oriented

priorities of its host institution, which may crowd-out the need for S&T-focused priorities.

Therefore, we believe that *the current debate between reinstating OTA or expanding resources for STAA is the wrong debate to be having*. Rather, a solution must be developed that better reflects the nature of the challenge: an inability to make use of expertise, not a lack of it. A new solution could coexist with STAA, but STAA alone is insufficient.

RECOMMENDATIONS

Congress should establish a new and deeply embedded internal support body better suited to Congress's needs and its contemporary context. Strengthening Congress's capabilities requires a *reinvented model for integrating external expertise into the policymaking process*, not a revival of past solutions. The rationale for such an approach is threefold.

First, support bodies deeply embedded within Congress are better positioned to have an impact. Such embeddedness allows internal bodies to ascertain the needs of Members and staff, respond to institutional challenges, and learn through day-to-day engagement.

Second, establishing a new body enables the design of a solution appropriate to the current problem and context. Specifically, the design of a new body should reflect a calibrated response to Congress's central problem of low absorptive capacity. Its mandate, strategy, operating model, and product suite decisions could be formulated accordingly. It should also draw upon the learnings and shortcomings of OTA and other support bodies, which we distill in our full report.

Third, creating an internal S&T support body is an opportunity to set a new standard for S&T policymaking. OTA exemplified a standard-setting approach in 1972, inspiring other legislatures around the world to follow suit. Congress should again engage its imagination for a novel era rather than simply revive old solutions (OTA) or give old solutions a new home (STAA).

We recommend appropriating *\$8 million in funding* to support the initial development of the organization and its products, potentially increasing to \$30 million in annual funding over time. Our report provides a detailed specification for a new congressional support body—which we call the Congressional Futures Office (CFO)—embedded within Congress. This specification is intended to be an actionable blueprint for the design and operationalization of the body.

Six features summarized here reflect the most salient departures between our proposed design and the approach of STAA or a potentially-revived OTA. These features focus on improving Congress's internal capabilities to address the fast-moving S&T issues facing the institution.

- CFO should be established with a *'problem-driven' mandate* rather than an *'activity-driven' mandate*. Activity-driven mandates pre-determine what products to produce (e.g., *'technology assessments'* mandated for OTA and STAA), whereas problem-driven mandates only articulate the problem to be solved. This approach permits needed experimentation. Specifically, CFO should be charged with *"enhancing Congress's abilities to collect, process, and make use of technological and scientific knowledge."*
- CFO should address the *proximate needs* of Members and staff. We find that Members and staff have an array of S&T-related needs. Proximate needs are those that reflect the immediate requirements of Members and staff—for example, providing rapid technical analysis of draft legislation. Given fast-moving congressional priorities, products that fail to address proximate needs are unlikely to create value for their intended audience. Most decisions will not typically be enhanced by a 2-year analytical report by STAA or OTA.
- CFO must serve a *broad constituency* of Members and staff rather than narrow audiences. Services that can be provided to many Members and staff are more likely to strengthen S&T capabilities within Congress broadly. In contrast, OTA and STAA deliver services based largely on seniority and to narrower congressional constituencies. Of note, OTA was easily defunded in 1995 in large part due to a failure to serve a broad constituency, instead focusing exclusively on serving a handful of powerful committee chairs.
- CFO should be led by an *empowered Director* rather than a board of party leaders. Elected by a newly created bipartisan and bicameral Joint Committee on Science & Technology (JCST), the Director would have broad discretion in defining, managing, and evolving the new organization. Our research suggests that OTA's Technology Assessment Board (TAB) would suffer in today's polarized en-

vironment, for example, and that it would fail to give CFO needed flexibility to experiment and adapt to evolving congressional needs.

- CFO should organize its staff by *product offerings* (i.e., specific congressional needs) rather than by domains of topical or technical expertise. Forming a product-centric organizational structure—for example, distinguishing research analysts from those responsible for the day-to-day support of Members and staff—will allow a new body to match talent to specific problems. In contrast, domain-centric structures used by OTA and STAA mirror that of universities, elevating the priorities of experts rather than congressional needs.
- CFO should cultivate and leverage *global networks* as its primary source of expertise in lieu of in-house subject matter experts. This will allow it to meet congressional demands with fewer resources, respond quickly to shifting priorities, and access expertise that is increasingly distributed, fast-paced, and global. In contrast, STAA is developing extensive technical talent in-house. Such an approach is expensive, creates organizational rigidity, and fails to consider the pace and distribution of today’s S&T knowledge.

As an alternative, OTA could be significantly adapted. If OTA were revived, *its enacting legislation must be amended* (e.g., governance, mandate) to reflect current challenges and contexts, not those of 1972. STAA, on the other hand, *would require more fundamental changes*: for example, to rethink congressional request protocols and traditional ‘technology assessment’ products that make its use by most Members and staff out-of-reach and unresponsive.

The scale, speed, and complexity of S&T advancements are escalating while law-making struggles to keep pace. As the gap between the two widens, efforts that fail to improve congressional capabilities will also fail to improve policy outcomes. We believe Congress should not only invest significantly in itself, but also devise a bold solution commensurate with the scale of the S&T challenges it must confront.

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PREPARED STATEMENT OF THE INNOVATION DEFENSE FOUNDATION

Today’s Congress has limited capacity when addressing complex scientific and technological issues. Currently, there are various proposals to bolster Congress’s abilities to conduct the necessary technological assessments. The two most prominent recommendations include reviving the Office of Technology Assessment (OTA) or strengthening the Government Accountability Office’s (GAO’s) ability to provide technological assessments for Congress. This testimony will explore these proposals to improve congressional capacity with respect to questions of science and technology, with a recommendation that bolstering the GAO’s role may be the most efficient and efficacious way to do so.¹

Congress faces two significant challenges with respect to assessing complex scientific or technological questions. First, misguided legislation can generate real economic harm, or, contrarily, proper legislation can promote dynamic and innovative markets. Second, appropriations and oversight of Federal agencies requires a degree of expertise. As the Department of Transportation, for example, prepares rulemakings on driverless cars or drones, the corresponding congressional committees need a level of informed oversight to facilitate outcomes that encourage innovation rather than bureaucratic impediments to new technologies.

If Congress lacks these abilities, the void in information will be filled by other actors, either in the executive branch agencies implementing legislative mandates, or special interests pursuing their own agendas. For the typical member of Congress, information can be derived from personal staff, committee staff, Federal agencies, and special interest lobbyists; a lack of congressional capacity biases the results to-

¹This testimony is drawn from a working paper by Wayne T. Brough and Josh Withrow, “Congress, Science, and Technology,” available at www.innovationdefense.org.

wards agencies of the executive branch and interest groups. Political scientists have explored in great detail how principal-agent models can be used to analyze questions of political organization and congressional control.² Political scientists such as Mathew McCubbins suggest that institutional design has allowed Congress to continue its control over the bureaucracy at a relatively low cost.

But some see a shift away from congressional control created by executive branch review of agency rulemakings by the Office of Information and Regulatory Affairs within the Office of Management and Budget, which began in the Reagan era but has been a critical tool for every president since then.³ This review mechanism provides the president and the administration an opportunity to help shape rulemakings according to their preference rather than the will of Congress.

Establishing an agency within the legislative branch that provides members of Congress with assessments of science and technological issues may be a way to address information asymmetries between the branches of government. Additional expertise could leave implementing agencies with far less discretion when it comes to interpreting legislative mandates. Additionally, the technological assessments provided to members of Congress can enrich the congressional record, should legislation or their implementing regulations face any legal challenges.

With respect to building congressional capacity to address issues of science and technology, various strategies have been proposed. One is to expand congressional staff, which perhaps may be viewed as the most simple and direct approach to the problem. Other proposals include developing a new institution responsible for providing scientific and technological oversight for Congress. Along these lines, some advocate reviving the Office of Technology Assessment, which served this role for Congress from 1972 until its dissolution in 1995. Alternatively, some suggest that science and technology assistance can be housed in an existing institution, such as the Government Accountability Office (GAO), and, indeed, the GAO has launched a new initiative to provide technological assistance to Congress.⁴ Assessing monitoring costs and principal-agent problems of these various options may provide insights into the efficacy of each approach.

It is not evident that additional staffing would improve the situation. In a recent paper, Jesse Crosson, Geoffrey M. Lorenz, Craig Volden, and Alan Wiseman determined that a larger staff does not necessarily benefit a lawmaker; rather, what does provide benefits are more experienced staff members. The authors found that those legislators (especially committee chairs) with more experienced staff were more effective and advanced more substantive legislation.⁵ Given the need for more experienced staff and the high turnover of congressional staff members, establishing a body within the legislative branch with the expertise to help members of Congress and their staff members evaluate complex policy issues may be a more effective solution.

The recognition that Congress needed an objective, expert source of technological understanding stretches at least as far back as the early 1960s. Congress finally established the Office of Technology Assessment (OTA) in 1972 to serve this role. The goal was to provide objective, unbiased analysis of complex questions of science and technology. For the next two decades, the OTA produced hundreds of reports and consulted with members of Congress and committees throughout the legislative process. Indeed, OTA offered studies of a number of important issues, from acid rain to the role of polygraphs to missile defense systems.

While the line between expert analysis and agenda control could at times be blurry, the OTA was by necessity very cognizant of the need to maintain a reputation as an apolitical agency. Nevertheless, the shadow of partisan influence dogged the OTA throughout its existence—at times more fairly than others. Thanks in large part to such partisan concerns, OTA's fate was effectively sealed by the Republican tidal wave of 1994. Part of incoming Speaker Newt Gingrich's "Contract with America" was a promise to scale back the footprint of Congress itself.⁶ While most congressional support agencies saw their belts tightened, the OTA received the axe—

²While their output is prolific, the seminal piece is M. McCubbins, R. Noll, and B. Weingast, "Administrative Procedures as Instruments of Political Control," *Journal of Law Economics and Organization*, 1987, vol. 3, no. 2: 243–247.

³"Regulatory Planning and Review," Executive Order 12866, 58 *Federal Register* 51735, October 4, 1993.

⁴Adam Mazmanian, "GAO Expands and Elevates Tech Assessment," *FCW*, Jan. 29, 2019, available at <https://tinyurl.com/y9dhwerh>.

⁵Jesse Crosson, Geoffrey M. Lorenz, Craig Volden and Alan Wiseman, "How Experienced Legislative Staff Contribute to Effective Lawmaking," Center for Effective Lawmaking, CEL Working Paper 2018–002, September 2018, available at <https://tinyurl.com/yyefgvjy>.

⁶Text of the Contract from America has been archived at: <https://tinyurl.com/yyx64oxu>.

seeing its entire \$22 million budget and full-time staff of 143 (and dozens of temporary staff) eliminated overnight in 1995.⁷

Whatever issues the OTA may have had, its core functionality was not replaced. This was exacerbated by the fact that other staff who may have had some ability to fill the void were also drastically reduced. The Government Accountability Office staff was cut by nearly 30 percent between 1993 and 1997, while the Congressional Research Service took more than a 10 percent trim.⁸ Notably, the House Committee on Science, Space, and Technology also took one of the most drastic cuts—laying off nearly half its staff members, dropping from 86 in 1994 to 45 the following year.⁹

Political challenges aside, it is useful to thoughtfully evaluate some of the ways that another body might provide not merely a replacement but even an improvement on key aspects of the OTA. One structural flaw that presented substantial principal-agent issues in the OTA was its controlling body, the Technology Advisory Board (TAB), which consisted of six members each from the House and Senate. Although the board was evenly split between the dominant parties, by law the members were all chosen by the majority leadership of each chamber, lending some automatic credence to charges of bias.

If a renewed OTA is not the best option for providing a 21st century level of objective technological and scientific expertise for Congress, the beginnings of another solution may already exist in the small technological assessment program run by the Government Accountability Office (GAO). In addition to its mission to perform audits and investigations to root out waste, fraud and abuse, the GAO's 2002 technology assessment pilot program was expanded into an official office in January 2019 to expand its analytical capabilities and advise Congress on science and technology matters. The GAO's technological assessment program immediately showed promise even with very limited reach and resources.¹⁰

Based on the pilot program's solid performance, the GAO was authorized to explore a major expansion in its assessment activities that has resulted in the opening of the new office of Science, Technology Assessment, and Analytics (STAA).¹¹ The office launched in January 2019 with 70 staffers, with plans to double that number in the near future.¹² This new STAA office brings the practical advantage of already existing as a funded entity with an existing body of high-quality reports from which to build. Which brings with it the political advantage of not adding "one more boondoggling board to what we already have," a concern voiced by Congressman H.R. Gross during the debate over creating the original OTA that would certainly be voiced again by conservatives today.¹³ Moreover, the monitoring costs are lower and the principal-agent problems are fewer when comparing the GAO to a revived OTA model.

But more than a mere matter of convenience, continuing to house technology assessment within the GAO could provide some distinct advantages over the workings of the old OTA. Eliminating the leadership-dominated TAB and its bureaucratic delays is one such advantage, as previously discussed. Instead, the new GAO program actually allows any member of Congress to submit a request, although prioritizing requests by the chairs or ranking members of the committees.¹⁴

That said, for the STAA program in the GAO to truly replace the positive attributes of the OTA, it would clearly need some modifications by Congress. It would likely require making the technology assessment program a somewhat independent sub-unit of the GAO with its own director, allowing it to develop its own culture independent from the sole oversight model of the GAO at large.¹⁵ However, these modifications are likely far easier and more realistic than efforts to merely revive the old OTA.

⁷This translates to a bit under \$37 million in December 2018 dollars. https://www.bls.gov/data/inflation_calculator_inside.htm.

⁸Thomas E. Mann and Norman J. Ornstein, *Vital Statistics on Congress*, Brookings Institution, Table 5-1, May 2018, available at <https://tinyurl.com/y8kab7w9>.

⁹*Ibid.*, Table 5-6, available at <https://tinyurl.com/yb8e92ba>.

¹⁰Jon M. Peha "Science and Technology Advice for Congress: Past, Present, and Future," *Renewable Resources Journal*, 24:2, pp. 19-23, available at: <https://tinyurl.com/y22kn558>.

¹¹Legislative Branch Appropriations Bill 2019 (Senate), Rep. 115-274, at p. 48, available at <https://tinyurl.com/ydxcx8fr>.

¹²Adam Mazmanian, "GAO Expands and Elevates Tech Assessment," *Federal Computer Week*, Jan. 2019. <https://tinyurl.com/y2t64ky3>.

¹³Kunkle, *op. cit.*

¹⁴GAO's Congressional Protocols, July 17, 2017. <https://tinyurl.com/y3nrvkzb>.

¹⁵See Zach Graves, "Technology Assessment: Can the GAO Fulfill OTA's Mission?" on LegBranch.org, April 20, 2018, available at <https://tinyurl.com/y83zcv2n>. and Will Rinehart, "Should Congress Revive the Office of Technology Assessment?" *American Action Forum Insight*, Oct. 29, 2018. <https://tinyurl.com/y5g5y93q>.

Unlike rebuilding OTA, expanding and improving GAO's capacity does not involve creating a new government bureaucracy. The GAO also has a strong reputation for maintaining political neutrality and producing impartial work. In many respects, this may prove the more feasible option by avoiding some of the political pitfalls associated with the previous incarnation of the OTA. The GAO is respected as a non-partisan organization with little political baggage that is building out its expertise in its new STAA program. If done with foresight and an understanding of the principal-agent challenges facing any new legislative agency, it may be the most efficacious approach to increasing congressional capacity in critical areas of science and technology.

[This statement was submitted by Wayne T. Brough, President.]

PREPARED STATEMENT OF THE LINCOLN NETWORK

Dear Chairman Cindy Hyde-Smith, Ranking Member Chris Murphy, and Members of the subcommittee:

My name is Zach Graves. I am the head of policy at Lincoln Network, a non-profit organization whose mission is to bridge the gap between Silicon Valley and DC. Last year, I submitted testimony on enhancing congressional capacity on science and technology.¹ Following a bipartisan effort in the last Congress, the fiscal year 2019 Legislative Branch Appropriations bill included two important provisions on this subject. One provided for a major study conducted by the National Academy of Public Administration (NAPA). The other provided for the elevation and expansion of GAO's science and technology program.

While the NAPA study is still in progress, GAO has reorganized and significantly expanded its program into a 15th mission team, called "Science, Technology Assessment, and Analytics" (STAA). While the STAA team is new, its core program goes back nearly two decades. The original technology assessment pilot at GAO was created in 2001 with \$500,000 in dedicated funding.² Its first study, "Using Biometrics for Border Security," was released in November, 2002. This report was reviewed favorably in an external evaluation, which concluded GAO "did a very good job" on its inaugural assessment, but raised concerns the nascent program would face significant challenges to build its own culture and scale its capabilities.³ In the next couple of years, funding for the pilot was expanded, allowing the production of 2–3 reports a year.

An effort came together to build off of the GAO pilot's success. In 2004, Rep. Rush Holt, D–N.J., introduced legislation (with 9 other Democrats and 5 Republicans as original cosponsors) to elevate the GAO pilot to a formal technology assessment office in GAO called the "Center for Scientific and Technical Assessment" (CSTA).⁴ This entity would have adapted major structural features from the defunct Office of Technology Assessment (OTA), such as its bipartisan, bicameral Technology Assessment Board. The CSTA proposal went through a review process that incorporated feedback from civil society experts, as well as the office of then Comptroller General David M. Walker. While the proposal was favorably received and had bipartisan support, it failed to move forward, seemingly due to its large budget requirements. Nonetheless, it showed that GAO was a viable location for this function, and that such a proposal could attract bipartisan support.

Rather than partisan politics, the primary challenge to reviving a technology assessment office has been finding the necessary resources in the constrained legislative branch budget.⁵ Thanks to the efforts of this committee and Comptroller General Gene Dodaro, this challenge appears to be in the process of being overcome—particularly if GAO's fiscal year 2020 budget request can be accommodated.

Its next challenge is figuring out how to structure a nimble, semi-independent, and forward-looking research unit within another large agency, while mitigating potential conflicts in mission, function, and process. These were concerns that Rep. Holt and others saw and spent considerable time contemplating. If these issues are

¹ See: "Written Testimony of Zach Graves before the Legislative Branch Subcommittee," April 27, 2018. <https://www.rstreet.org/2018/04/27/testimony-of-zach-graves-before-the-u-s-senate-committee-on-appropriations-subcommittee-on-the-legislative-branch/>.

² H. Rept. 107–259, 107th Congress. <https://www.congress.gov/congressional-report/107th-congress/house-report/259/1>.

³ M. Granger Morgan, Jon M. Peha, *Science and Technology Advice for Congress* (Routledge, 2003), Appendix 3.

⁴ H.R. 4670, 108th Congress. <https://www.congress.gov/bill/108th-congress/house-bill/4670>.

⁵ "The Congress's Edifice Problem," First Branch Forecast, March 1, 2019. <https://firstbranchforecast.com/2019/03/01/the-congress-edifice-problem/>.

to be resolved and adapted to the needs of our current environment, it will require the steady oversight and expert guidance of this committee and other expert stakeholders.

RECOMMENDATIONS

The strategic plan⁶ for STAA rightly identifies some of the most important structural and methodological issues to address, including: (1) the inclusion of policy options in its reports; (2) the creation of an advisory board that includes industry, government, and civil society; (3) the development of additional product types including shorter form analysis; and (4) the refinement of its technology assessment methodology. It will be critically important to get the details right for implementing these features. I thus urge the Committee to consider the following recommendations:

External Advisory Board

STAA has said it will create a new S&T advisory board of top experts. No doubt, this will be valuable in providing ad hoc advice to the Comptroller General and STAA directors on matters such as research design, peer review, and related issues. *This board should also be encouraged to produce periodic analysis and recommendations oriented to congressional stakeholders regarding the continued evolution of STAA.*

Refining GAO's TA Methodology

Given its past resource limitations, it was likely not possible for GAO's technology assessment program to utilize in-house experts for its reports in the manner that OTA did. But the reliance on external experts has some significant limitations, inhibiting the capacity for experts to serve as "shared staff" for Congress, and detracting from the robustness of the reports themselves. I believe this methodological difference has contributed significantly to skepticism of GAO's program.⁷ *STAA should be encouraged to prioritize the recruitment of in-house experts (permanent staff and project-based contractors/detailees) and adjust its technology assessment methodology accordingly.*

Policy Options

One of the most valuable features of OTA reports was providing policymakers with an authoritative, multi-disciplinary analysis of the tradeoffs of different policy options. Yet, OTA's options methodology was not always internally consistent, and had considerable room for improvement. A 1993 OTA self-assessment suggested its options methodology warranted a "more rigorous" approach. The same report also suggested its options may have skewed towards "increased Federal intervention rather than market solutions." To address this, *STAA should be encouraged to develop a formal options methodology that prioritizes the inclusion of economic analysis and gives consideration to potential solutions from the states or private sector.*

Talent Flow and Expert Networks

OTA widely utilized temporary contractors for its reports. This helped bring in best-in-world talent and specialized experts, and facilitated the development of expert networks outside Congress. *STAA should be encouraged to explore greater utilization of the Intergovernmental Personnel Act, or other mechanisms, to bring in outside talent on an individual project-basis. It should also be encouraged to include project-specific external advisory committees to assist with individual major projects (beyond the overall external advisors noted above).*

OTA vs. GAO

The fiscal year 2020 Legislative Branch Appropriations bill in the House of Representatives included \$6 million in funding to revive OTA. While both STAA and OTA do "technology assessment," the focus and mission of each entity is quite different. Thus, each is likely to have a different comparative advantage: OTA at horizon-scanning and anticipating the social, ethical, and economic effects of emerging technologies; and STAA at evaluating Federal Government programs and expenditures on S&T, the functioning of regulatory agencies governing innovative technologies (e.g. NHTSA's approach to autonomous vehicles, or FCC's approach to spectrum policy), and the promotion of responsible utilization of new technologies by the

⁶"GAO Science, Technology Assessment, and Analytics Team: Initial Plan and Considerations Moving Forward," Government Accountability Office, April 10, 2019. <https://www.gao.gov/pdfs/about/GAOScienceTechPlan-2019-04-10.pdf>.

⁷See, e.g., Kevin R. Kosar, "GAO versus the ghost of OTA" LegBranch.org, March 20, 2019. <https://www.legbranch.org/gao-versus-the-ghost-of-ota-who-will-win-the-science-and-technology-assessment-race/>.

Federal Government. Each of these fields is massive, and critically important to our national interest. In considering this issue, *I urge the Committee to consider the value of having both OTA and STAA functions to assist the Congress.*

PREPARED STATEMENT OF JON M. PEHA¹

TESTIMONY ON FUNDING TECHNOLOGY ADVICE FOR CONGRESS

The purpose of this testimony is to urge this subcommittee to fund an organization that can provide reliable, objective and timely information to help Congress address policy issues that are infused with technology or science. Ideally, this would fill the void left by the demise of the Office of Technology Assessment (OTA), and surpass the capabilities that OTA once provided.

I am a professor of electrical engineering and public policy at Carnegie Mellon University. I have provided technology advice to policymakers in my current position, and while serving in the House Energy and Commerce Committee, at the Federal Communications Commission as Chief Technologist, and in the White House as Assistant Director of the Office of Science and Technology Policy. I am co-author of a book entitled *Science and Technology Advice for Congress*² about this very issue.

Thirteen years ago, I testified before the House Science Committee on this topic, arguing that Congress needs this capability to fulfill its role as a co-equal branch of government. It isn't possible to provide effective oversight of the executive branch while relying too heavily on executive-branch experts, any more than one can pass effective legislation that affects the private sector while relying too heavily on experts who collect their salaries from private-sector stakeholders. The ways that Congress meets this need with non-technical issues tend to work poorly in matters of technology and science. Sadly, that 2006 testimony³ is just as relevant today. Even the examples still apply. I argued that most Members of Congress lacked the technical basis to assess the arguments both for and against network neutrality, and to learn the potentially life-saving lessons of how technology failures during Hurricane Katrina cost so many lives.⁴

A few things have changed in the last 13 years. First, thanks to growing partisan skepticism, there has never been greater need to establish a set of basic facts that all sides can rely on when debating complex policy issues. Second, thanks to the Internet, it has never been easier for Members of Congress and their staffs to gain unfettered access to policy-relevant content. Third, it has never been harder to tell the accurate, rigorous and unbiased content on the Internet from dangerously misleading content. There is far more of the latter than the former, and to the untrained eye, it can all look the same. A new organization serving the Legislative Branch could greatly reduce this problem.

Congress receives extensive input, but not enough actionable info on technology issues.

Information is constantly flooding into Congress, but it is rarely the kind of information that can serve as the foundation for a policy debate on a highly technical issue. Stakeholders and the lobbyists who represent them are more than willing to provide extensive and timely information, but it is necessarily biased. Some outside experts such as myself who have no vested interest in an issue try to provide information where we can, but precisely because we have no vested interest and most of us have day jobs, we lack resources, incentive and/or ability to provide information at the time Congress needs it, in the form Congress needs, and with the depth Congress needs. The National Academies and Legislative-branch organizations such as CRS and GAO provide valuable information, but of a different sort. For some things, Congress needs a level of technical rigor that CRS and GAO cannot provide. Congress also needs foundational information that everyone from the far right to

¹Jon M. Peha, Carnegie Mellon University, Professor, Dept. of Engineering & Public Policy and Dept. of Electrical & Computer Engineering, peha@cmu.edu, www.ece.cmu.edu/~peha/bio.html.

²M. G. Morgan and J. M. Peha, *Science and Technology Advice for Congress*, RFF Press, 2003. https://www.amazon.com/Science-Technology-Advice-Congress-Granger/dp/1891853740/ref=tmm_pap_title_0.

³J. M. Peha, Testimony before House Science Committee, Hearing on Scientific and Technical Advice for Congress, July 25, 2006. http://users.ece.cmu.edu/~peha/Peha_testimony_House_Science_Committee_2006.pdf.

⁴For today's Congress, we need only replace "Hurricane Katrina" with "Hurricane Maria" to see how life-saving lessons about how technology works in disasters are not being learned.

the far left can use without making a specific recommendation as National Academy reports typically do.

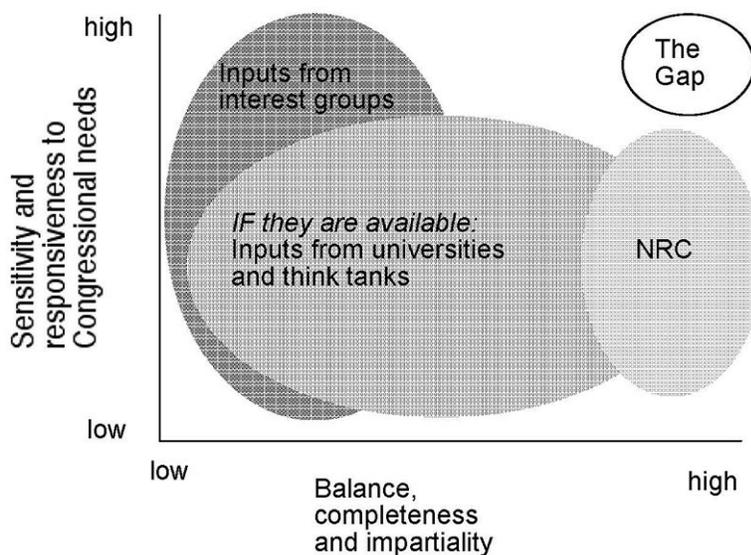


Figure 13-2 from *Science and Technology Advice for Congress*, by M. G. Morgan and J. M. Peha.²

Every Committee in Congress needs advice on science and technology.

While some mistakenly view this as an issue only for a Science Committee, a quick look at recent Congressional hearings shows that every committee in Congress must grapple with a few issues with complex technical or scientific content. For example, the Veteran's Affairs Committee must understand why telehealth has not yet met its potential to improve the lives of veterans. The Transportation Committee must understand how changes in connected vehicles and autonomous vehicles demand new public policies. The Foreign Relations Committee must understand how cybersecurity issues have changed the line between war and peace. Every committee will be more effective with a technology-savvy organization whose entire purpose is to serve Congress.

Objective technical analysis is possible, but it is not a skill most Hill staffers have.

People call what OTA did "technology assessment," but that phrase is misleading. Congress doesn't typically need an assessment of technology. Often, Congress needs an organization to clarify the policy options available, the extent to which they are technically and scientifically feasible, and the myriad pros and cons of each, while leaving it to the elected Members of Congress to make value decisions about which option is best. In an age where facts are often spun, some people even question whether such an objective assessment is possible. It is, but it requires training, and a culture of objectivity. This runs directly counter to what most lawyers must learn, as in the law framing an argument to advance the interests of one's client is usually a virtue. Engineering training is extremely valuable, but incomplete, as the goal of "technology assessment" is not to identify the best policy "design." Similarly, backgrounds in science, and in social science are helpful, but technology assessment is not a search for truth. Thus, few members of Congressional staff (or even temporary Fellows) would have the full range of skills needed today. Even if they did, such individuals would work for one Congressional office and one party, and therefore would never have the credibility to provide the factual foundation for a policy debate.

Nevertheless, there are outstanding examples of balanced assessment, some from the old Office of Technology Assessment. Those who doubt that analysts can be systematically trained for this task should visit my Carnegie Mellon University classroom in the Fall, or meet those who have graduated with a Ph.D.

A stand-alone organization would be more effective.

Some have suggested incorporating the capability for science and technology advice with an existing legislative-branch organization, i.e. GAO, CRS or CBO. This would certainly be a step forward from what we have today, but it is not the most effective approach. GAO, CRS and CBO have established methodologies that are well-honed for their specific missions, but that are not generally appropriate for advising Congress on science and technology. These organizations have recruited staffs that are well-suited for the current missions, not for technology assessment. These organizations have earned reputations on Capitol Hill, throughout government, and in the broader world that help them to do their current jobs. People who read their reports know what to expect, as do people who provide these organizations with information. However, these reputations can be a hindrance if the organization were to take on a very different mission. While the people in these organizations have made valuable contributions, there are advantages to establishing a new organization, perhaps under the old banner of OTA, or perhaps as something new.

Spending pennies to save dollars.

The Appropriations Committee must make hard decisions about how to best spend a limited budget. For this committee, technology assessment is especially important. As individuals, we know that it is sometimes wise to pay for information from a doctor as we confront a medical problem, or an accountant as we plan our financial future. The cost of a bad decision can far exceed the cost of obtaining information. This is even more true when we consider legislation, and appropriations in particular. A new organization to advise Congress may cost millions. Timely and objective information about how to spend tax-payer dollars in a cost-effective way can inform appropriations decisions in a way that saves billions.

PREPARED STATEMENT OF THE R STREET INSTITUTE

Thank you, Chairman Hyde-Smith, Ranking Member Murphy and Members of the Legislative Branch Appropriations Subcommittee for holding this open hearing, and thank you for receiving my testimony.

I am vice president of policy at the R Street Institute, and I previously spent 11 rewarding years as an analyst and acting research manager at the Congressional Research Service (CRS).

After serving CRS, I joined others in advocating for equitable public access to CRS reports. I believed that it was unfair that the public had no online source for getting authenticated copies of the reports, whereas lobbyists and others within the Beltway had easy access. I also contended that in the age of “fake news” and “alternative facts” the public and media need more objective sources of information for reference.¹

This subcommittee acted and fixed the problem. Two years ago, it wrote a law that struck down the 1954 appropriations rider that created inequitable access.² Thank you, again.

I am also pleased to see that CRS has made great progress implementing the law’s provisions. [Crsreports.congress.gov](https://www.congress.gov/crsreports) is now online and has posted 80 percent of its “active” reports.³ The agency also has committed to posting its very useful *In Focus* and *Insights* publications on this public website.⁴ CRS and the Library of Congress deserve credit for this work.

However, I would like to call your attention to one aspect of implementation that has been less than satisfactory. At present, CRS is posting reports only in PDF format. That makes them difficult to read and slow to load on mobile devices. Legislators and congressional staff, meanwhile, have access to both mobile-friendly HTML copies and PDFs through the non-public [crs.gov](https://www.crs.gov).

¹Kevin Kosar, “Where taxpayers pay (\$100 million a year) but interest groups benefit,” *The Washington Post*, Nov. 10, 2015. https://www.washingtonpost.com/news/Federal-eye/wp/2015/11/10/where-taxpayers-pay-100-million-a-year-but-interest-groups-benefit/?utm_term=.965e4c523c42.

²Consolidated Appropriations Act, 2018 (Public Law 115–141). <https://www.congress.gov/bills/115/1625/text?format=txt>.

³A report is deemed “active” if its content is current and the subject matter is of interest to Congress.

⁴Carla Hayden, letter to Rep. Mike Quigley, March 1, 2019. The statute requires public release of: “any written product containing research or analysis that is currently available for general congressional access on the CRS Congressional Intranet, or that would be made available on the CRS Congressional Intranet in the normal course of business and does not include material prepared in response to Congressional requests for confidential analysis or research.”

Why the public-facing site offers only PDF copies is unclear. These report files are not born as PDFs. Indeed, CRS analysts and experts create their reports as Microsoft Word files, which then are converted into both HTML and PDF files during the publishing process.

I and others request the subcommittee to please direct CRS to post its reports in HTML or other mobile-friendly formats on crsreports.congress.gov. This implementation shortcoming should be easily solved.⁵

And if I may raise one additional matter, CRS has a large trove of what are called “non-current reports.” These are reports that have been placed in the CRSX archive and made unavailable to Congress except upon request of a legislator or legislative staff. CRS’ rationale for this obscurity has varied. In some cases, the subject of the report is not actively being considered by Congress. In other instances, the author of the report has retired or otherwise departed from the agency, or the report has been superseded by a new report. But many reports are locked in CRSX simply because they are more than a few years old.

To date, CRS has been loath to make these reports available outside of the private CRSX archive. When Rep. Quigley asked CRS whether it would place these reports online, the Librarian of Congress replied that the task was outside the scope of the 2018 Consolidated Appropriations Act’s requirements.⁶

This is a shame. There are an enormous number of informative reports in CRSX that would benefit the public. I would encourage the subcommittee to please direct CRS to begin sharing reports from CRSX on the publicly available site this year.⁷

Finally, and on another subject, in the past couple of years CRS has stopped releasing its data on CRS employee turnover. Previously, they would report these data to Congress in their annual reports. This is concerning, as all reports I have received indicate that CRS is experiencing higher than average levels of turnover.⁸

Thank you for your time and consideration. I would be happy to answer any questions the subcommittee or its staff may have.

[This statement was submitted by Kevin R. Kosar, Vice President of Policy.]

⁵The privately created site Everycrsreport.com, which cost less than \$20,000 to build, has both HTML and PDF copies.

⁶Carla Hayden, letter to Rep. Mike Quigley, March 1, 2019. Which prompts the question: Can CRS avoid publishing a report publicly through a declaration that the report is no longer “active”?

⁷Some of these reports—especially reports published more than a decade ago—might only be available in PDF format. Although not ideal, access to PDF copies of old CRS reports would be better than no access.

⁸For additional details on CRS turnover and staff morale issues, see Kevin R. Kosar, Written testimony on more equitable access to Congressional Research Service reports and CRS employee morale, U.S. Senate, Committee on Appropriations, Subcommittee on the Legislative Branch, April 27, 2018. <http://kevinrkosar.com/kosar-written-testimony-to-CRS-Senate.pdf>.