



Statement of

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Chairman Harper, Ranking Member Brady, and Members of the committee: I am R. Eric Petersen, and I have worked at the Congressional Research Service for 17 years as an analyst studying the Government Publishing Office (GPO) and government information, among other topics. Thank you for the opportunity to appear before you today.

You have asked me to discuss the historical context of government information management and the roles and activities of the Joint Committee on Printing (JCP) and GPO, and to provide information about developing an enduring framework to oversee the development of government information management approaches in the future. In a representative democracy, publicly available information about government activity is seen by many as a vital resource to inform the public, and to ensure accountability and transparency of government action. Since the 19th century, JCP and GPO have played central roles in ensuring public access to government information. Changes in governance and information technology, however, have raised questions about the roles and activities of the joint committee, as well as the capacity of GPO to carry out its mission to keep America informed.

Background

JCP was established in 1846 to oversee the management of private printers who competed to provide printing and publishing services to the government.¹ With the creation of the Government Publishing Office (GPO) in 1861,² JCP was charged with overseeing and regulating government printing in all three branches of the national government, and overseeing the new agency in its efforts to provide government-wide printing services.³

Congress has passed three measures making broad substantive changes to JCP's role and GPO's operations since 1861.⁴ The Printing Act of 1895, sometimes referred to as the Manderson Act,⁵ codified JCP's role to oversee qualifications of "journeymen, apprentices, laborers, and other persons necessary for the work" at GPO.⁶ The 1895 measure also established printing formats for congressional bills, hearings, and documents, and the *Congressional Record* that are still in use today. In 1962, Congress created the Federal Depository Library Program (FDLP) within GPO to provide permanent public access to published federal government information.⁷ In 1993, GPO was directed to maintain an electronic directory of federal digital information, and to provide online access to the *Congressional Record*, and the *Federal Register*.⁸

¹ 9 Stat. 113.

² GPO was established in 1861 as the Government Printing Office, and was renamed as the Government Publishing Office in 2014.

³ 12 Stat. 177.

⁴ Additionally, congressional consideration of GPO operations was undertaken in 1979 and 1998, but no legislation was enacted. In 1979, companion measures, H.R. 4572, and S. 1439, each entitled the Public Printing Reorganization Act of 1979, were introduced in the House and Senate, respectively. The measures would have changed the leadership of GPO by creating a board that would have been charged with overall management responsibility for the agency including the appointment of the Public Printer and labor-management relations. In 1998, S. 2298 (105th Congress), the Wendell H. Ford Government Publications Reform Act of 1998, would have replaced the Public Printer with an administrator given broad authority to manage the creation and dissemination of government's publications and to enhance permanent public access to those publications. The bill would have transferred various functions of JCP to other entities.

⁵ Senator Charles Frederick Manderson of Nebraska chaired the Committee on Printing in the 48th-52nd Congresses (1883-1893), and retired from Congress shortly after the Printing Act of 1895 was enacted.

⁶ 44 U.S.C. 305. The statute sets a minimum rate of pay for journeymen printers, pressmen, and bookbinders employed at GPO "at the rate of 90 cents an hour for the time actually employed."

⁷ 44 U.S.C. Ch. 19.

⁸ 44 U.S.C. Ch. 41.

Current statutory authorities governing the creation, dissemination and long-term retention of government information have been called into question by some due to changes in technology and governance practices. The way ahead is complicated by the lack of a stable, robust set of technology and information management practices similar to those that were in place when Congress enacted the bulk of current government information policies in the 19th century.

Technological Transition

In the past half-century, information creation, distribution, retention, and preservation have transitioned from a tangible, paper-based process to digital processes managed through computerized information technologies. Information, whether a newspaper, government communication, or congressional bill, is most typically created as a word processed document, spreadsheet, database or other digital object which then may be rendered as a text, image, or video file. Those files are then distributed through a myriad of platforms that include particular software applications, websites, or social media platforms. The material may be produced in tangible, printed form, but more typically remains in digital formats.

Government publishing authorities, generally codified in some chapters of Title 44 of the *United States Code*,⁹ have in large part remained in substantially the same state as they were when first enacted in the 19th century, despite governance and technological changes. The current version of the *U.S. Code* available online¹⁰ mentions current JCP authorities in 60 sections; 37 of those sections were originally enacted a century or more ago. Similarly, GPO is subject to 129 *Code* sections in Title 44, of which 105 were first enacted during or prior to 1917.¹¹ As a consequence, the law makes reference to the trades that were necessary to make printed products in the 19th century, but is silent on the contemporary corps of software engineers, data entry technicians, and website designers whose efforts support the creation and distribution of much of the digital material that comprises government information. The law also contains detailed requirements for distribution of paper copies of a variety of documents, including bills under consideration throughout the legislative process and other congressional materials,¹² but little detail on the specifics of digital collection, distribution, retention or preservation. In addition, the current business model under which GPO operates is arguably over-reliant on printing as a means of generating income, and there are no explicit provisions to meet the costs of upgrading technological infrastructure upon which electronic distribution and preservation relies.

The emergence of digital technologies has led some observers to question the capacity of Title 44 and other information dissemination authorities to enable the provision of government information in an effective and efficient manner. In 1994, for example, what was then designated as the General Accounting Office (GAO)¹³ stated that

⁹ These include Chapters 1, 3, 5 and 39, which focus on JCP and GPO organization, authorities, oversight, and the agency's office of inspector general; Chapters 7 and 9, covering congressional printing including production of the *Congressional Record*; Chapters 11 and 13 governing executive and judicial printing and production and distribution of the *Federal Register* and *Code of Federal Regulations*; Chapter 17, governing the GPO sales operation; Chapter 19 establishing the Federal Depository Library Program (FDLP); and Chapter 41, which mandates GPO to provide access to some federal electronic information. Other policy issues addressed in Title 44, in which GPO has no significant role, including federal and presidential records, electronic government, and government advertising, are excluded from consideration in my testimony.

¹⁰ <http://uscode.house.gov/>.

¹¹ The earliest authority affecting GPO is 44 U.S.C. 1908, which requires a copy of the public journals of the Senate and of the House of Representatives, and of the documents published under the orders of the two chambers, respectively, to be transmitted for the use of the American Antiquarian Society of Massachusetts.

¹² 44 U.S.C. 701, 706, 713, 720, 721, and 728.

¹³ GAO is now the Government Accountability Office.

“...for all practical purposes, the framework of laws and regulations used to manage many aspects of government publishing has become outdated...” and that “... [t]he additional technological changes that are expected will only exacerbate this situation.”¹⁴

In 2013, the National Academy of Public Administration (NAPA), noted that “...GPO’s statute is outdated and precedes current technology...”¹⁵ Earlier this year, in testimony before this committee Davita Vance-Cooks, who serves as the Director of GPO, suggested that 44 U.S.C. Ch. 19, governing the operations of FDLP “has been eclipsed in some areas by technology, which today provides for more flexibility and innovation in meeting the public’s needs for access to Government information.”¹⁶

A relevant question that might arise is the extent to which those authorities grounded in industrial technologies and work patterns are sufficiently flexible to enable Congress, GPO, and U.S. Government agencies to meet the challenges of digital information management in the 21st century.

Governance Transitions

JCP’s authority to oversee and enforce statutory authorities that mandate government printing through GPO was essentially unchallenged for more than a century. This began to change in the 1980s and 1990s following a 1983 Supreme Court decision in *Immigration and Naturalization Service v. Chadha*.¹⁷ The Court ruled unconstitutional a one-chamber veto because it deviated from the constitutionally specified lawmaking process of bicameral consideration and presentation of legislation by Congress to the President for signature or veto. Soon thereafter, a number of executive branch entities, including the Department of Justice (DOJ), Department of Defense (DOD), and the Office of Management and Budget (OMB), began to question JCP’s regulatory and statutory authority on the basis of *Chadha* and enduring concerns about separation of powers. Of particular interest to those agencies was the requirement specified in 44 U.S.C. 501 that all printing, binding, and blank-book work for every government entity other than the Supreme Court is to be done at GPO. DOJ’s Office of Legal Counsel (OLC) concluded that many of JCP’s authorities, particularly provisions mandating the joint committee’s prior approval before an executive agency could have materials printed outside of GPO, were invalidated by *Chadha*, and that executive agencies were able to procure printing services from providers other than GPO.¹⁸ With executive agencies free, from the perspective of DOJ and OMB, to fulfill their printing services elsewhere, GPO workloads and revenues declined, and the production and distribution of government

¹⁴ U.S. General Accounting Office, *Government Printing: Legal and Regulatory Framework is Outdated for New Technological Environment*, GAO/NSAID094-157, April 15, 1994, p. 2, www.gao.gov/assets/220/219439.pdf.

¹⁵ National Academy of Public Administration, *Rebooting the Government Printing Office: Keeping America Informed in the Digital Age*, Washington, DC, January 2013, p. 30, www.napawash.org/wp-content/uploads/2013/02/GPO-Final.pdf.

¹⁶ Davita Vance-Cooks “Remarks before the Committee on House Administration,” hearing on Transforming GPO for the 21st Century and Beyond: Part 2, July 18, 2017, docs.house.gov/meetings/ha/ha00/20170718/106258/hhrg-115-ha00-wstate-vance-cooksd-20170718.pdf.

¹⁷ *Immigration and Naturalization Service v. Chadha*, 462 U.S. 919 (1983).

¹⁸ Theodore B. Olson, *Memorandum for William H. Taft, IV, Deputy Secretary of Defense: Effect of INS v. Chadha on 44 U.S.C. 501, “Public Printing and Documents”*, Office of Legal Counsel, Department of Justice, Washington, DC, March 2, 1984, <https://www.justice.gov/olc/page/file/936121/download>; Theodore B. Olson, *Constitutionality of Proposed Regulations of Joint Committee on Printing: Memorandum Opinion for the Counsel to the Director, Office of Management and Budget*, Office of Legal Counsel, Department of Justice, Washington, DC, April 11, 1984, <https://www.justice.gov/file/23606/download>; and Walter Dellinger, *Involvement of the Government Printing Office in Executive Branch Printing and Duplicating: Memorandum Opinion for the General Counsel General Services Administration*, Washington, DC, May 31, 1996, <https://www.justice.gov/file/20026/download>. The positions taken on the OLC memoranda were clarified and reiterated during the George W. Bush Administration in 2002. See Mitchell E. Daniels, *M-02-07, Memorandum for Heads of Executive Departments and Agencies: Procurement of Printing and Duplicating through the Government Printing Office*, Executive Office of the President, Office of Management and Budget, Washington, DC, May 3, 2002, <https://obamawhitehouse.archives.gov/sites/default/files/omb/assets/omb/pubpress/2002-26.pdf>.

information meant to be publicly available departed to some extent from the policies specified in various chapters of 44 of the *U.S. Code*. Among other consequences, the increase in agency–controlled printing and publishing has resulted in an unknown number of “fugitive” government documents and publications that have not gotten into GPO’s Federal Digital System (FDSys) or the collections of FDLP participants, and may not be readily available to policymakers or the general public.

In light of governance and operational challenges to the joint committee’s activities, Congress in 1995 began a process to eliminate staffing and funding for JCP, with the joint committee last receiving an appropriation for its activities in FY1999. According to searches of a variety of databases conducted by my CRS colleague Jennifer Manning, JCP has held organizational meetings for every Congress since the 104th Congress in 1995, and published details of those meetings for the 108th and 113th-115th Congresses. The committee also published the proceedings of one hearing it held in 1997. Today, some of the functions related to government information management for which JCP is responsible appear to be executed by the Committee on House Administration (CHA), or the Senate Rules and Administration Committee (SRA), from which JCP draws its membership.¹⁹

In this context, questions have been raised by congressional and other observers related to the efficiency and effectiveness of JCP, and whether or not its responsibilities might formally be performed by other entities.²⁰ One option could be to maintain existing practices, as they appear to have addressed GPO management and oversight concerns that can be publicly identified. Another option might be to assess the joint committee’s authorities to identify those which may have been rendered impracticable due to separation of powers concerns expressed by the executive branch, or obsolete, following the implementation of newer GPO procurement or other more modern business practices, or due to technological or practical changes in printing and publishing. In light of such an assessment, one option might be to terminate JCP and formally reassign its responsibilities to CHA, SRA, GPO, or other government entities as appropriate.

Government Information Management in the Future

The manner in which Congress has addressed government printing and publishing practices in the past might offer ideas for how it could oversee government information creation, distribution, and retention moving forward. This does not necessarily mean that legislatively enacting a new information management process can be achieved in the same manner as past efforts.

By the time of the enactment of the Printing Act of 1895, the written word, whether on cave walls or papyrus, or from the mechanical printing press, had been a robust communication technology for 4,000 years. It is possible to see primitive drawings and glyphs in the places humankind first appeared, or early examples of printing created with mechanical presses in their original forms. The handwritten and printed versions of *Journals* of the House and Senate dating to the First Congress in 1789 are readily available in tangible (and now digitized) form.

The 1895 act was arguably an expression of the state of the art standard of printing technology, and provided a foundation which supported government information distribution for more than a century. This

¹⁹ 44 U.S.C. 101.

²⁰ For example, in the 104th Congress, Representative Jennifer Dunn introduced H.R.1024, “To improve the dissemination of information and printing procedures of the Government,” which would have eliminated JCP and transferred its functions to CHA and SRA. A similar proposal was suggested by Senate Members of the Joint Committee on the Organization of Congress in 1993, but no legislation was introduced. See U.S. Congress, Joint Committee on the Organization of Congress, *Final Report of the Senate Members of the Joint Committee on the Organization of Congress*, 103rd Cong., 1993 (Washington: GPO, 1993), pp. 10-11. See also Gabriel Kahn, “Thomas, Joint Committee on Printing’s New Chairman Wants to Abolish His Own Panel, *Roll Call*, February 23, 1995.

is due in part to the robust nature of some printed materials. Once created, many paper based documents and records are preserved for centuries because the materials used to create them do not readily deteriorate, assuming resilient materials and environmentally-appropriate storage. The technologies supporting these activities, including writing, printing, bindery, and librarianship, are non-proprietary, and skilled practitioners of those crafts are well distributed across the world. In the event of deterioration, and depending on their value among other variables, tangible materials may be preserved by applying a range of interventions that do not necessarily alter the information they provide.

By contrast, we are in the fourth or fifth decade of transitioning from the tangible written word to ubiquitous digital creation and distribution. Permanent retention or preservation appears to have been an issue for some for perhaps the last two decades, but it is challenging. Instead of a fixed standard as is available for tangible products, digital preservation relies on a combination of risk analysis, differentiated preservation techniques dictated in part by the object or goals of the preservation effort, and a relatively short track record that has not yet had time to produce a digital equivalent with the preservation capacity of tangible items.²¹ Whereas a printed document or book sits on a shelf, digital production and retention relies on three interrelated factors for its creation: hardware, an operating system, and software applications. These separate but interdependent technologies and processes interact to create a “document,” whether it is printed or retained digitally. Over the past half century, all three items have evolved, with some early hardware such as mainframes, or the non-networked personal computer; operating systems and languages, including DOS, or COBOL; and software, including WordStar word processing or Eudora email, having gone from ascendance to obsolescence. In some cases, changes to hardware, operating systems, or software have resulted in the loss of access to the digital output they were used to create.

Whenever there is a hardware, operating system, or software change, it is sometimes necessary to reformat the digital output so it can be accessed by successor systems. Some earlier digitally created materials can be retrieved from previous information technology appliances or storage media, but sometimes the newer technologies are unable to render them in their original forms. In addition to the retention challenges, this also may raise concerns about document authenticity as well as preservation, at least in the manner the term applies to tangible materials, or necessitate investigation of additional technological solutions.

As a consequence, as long as there is no stable digital equivalent to an information distribution model based on words on paper in an official format, any effort to establish standards for the production and retention of digital materials might run the risk of privileging a current standard (e.g., XML or the widespread use of PDF). A potential consequence of such an effort might be to limit the technologies that can be used only to those that conform to a standard enacted into law. This might be seen by some as replacing the current approach to printing and publication management in Title 44 with one that might reasonably be seen as unlikely to last for more than a century in the way the printing standards set in 1895 have. Further, locking in a standard might deny Congress, GPO, the rest of the United States Government and American citizens the potential benefits of further digital innovation that might arise as newer, and potentially more enduring technologies are established or demonstrated to support long-term retention.

²¹ See, for example, Jean-François Blanchette, “A Material History of Bits,” *Journal of the American Society for Information Science and Technology*, vol. 62, no. 6 (June 2011), pp. 1042-1057; Simson Garfinkel and David Cox, “Finding and Archiving the Internet Footprint,” presented at First Digital Lives Research Conference: Personal Digital Archives for the 21st Century, London, February 10, 2009, <https://simson.net/clips/academic/2009.BL.InternetFootprint.pdf>; Caroline Arms and Carl Fleischhauer, “Digital Formats: Factors for Sustainability, Functionality, and Quality,” undated, https://memory.loc.gov/ammem/techdocs/digform/Formats_IST05_paper.pdf; and Library of Congress, *Recommended Formats Statement 2017-2018*, which “identifies hierarchies of the physical and technical characteristics of creative formats, both analog and digital, which will best meet the needs of all concerned, maximizing the chances for survival and continued accessibility of creative content well into the future,” <https://www.loc.gov/preservation/resources/rfs/RFS%202017-2018.pdf>.

Instead of enacting standards, Congress could consider a process by which the potential adoption of newer technologies and approaches reflective of emerging information management practices might be specified in statute. An option to consider might be a manner of assessing the utility and effectiveness of current standards by which government information is produced, distributed and retained as a way of identifying future needs. Current practices could also be assessed against the emergence of future technological refinement, expansion, or change related to government information. These technology and management assessment efforts could be accomplished by a government agency, or by an external panel of individuals who are experts in the fields related to producing, distributing and preserving information in digital environments. If such an approach is chosen, and when a technology determination process is established, it could prove an enduring approach to facilitating the apparent need to regularly update and manage digital information technology processes, since it is unclear when or if they will reach a level of maturity that printing had by 1895.

Thank you again for inviting me to testify. I will be happy to address any questions you may have.