SUBCOMMITTEE ON MODERNIZATION HEARING
"THE PATH TOWARD A MORE MODERN AND EFFECTIVE CONGRESSIONAL
RESEARCH SERVICE"
April 26, 2023

Majority Questions for the Record
Questions for Director Mary Mazanec

Responses submitted May 30, 2023

Workforce

1. **How do Section Research Managers and other CRS managers assess the
    productivity of their employees? How do they evaluate when employees deserve
    a promotion?**

    CRS employee performance is evaluated in accordance with the performance
    appraisal process set out in Library regulations and the Collective Bargaining
    Agreement (CBA) between the Congressional Research Employees Association
    (CREA) and the Library of Congress. At the beginning of each rating period,
    employees meet with their immediate supervisor to discuss performance
    expectations and are provided a written performance plan, including major areas of
    responsibility, performance standards, and any specific goals to be accomplished
    during the year. Assessment of employee performance, including productivity such
    as requests handled and products prepared, is conducted continually throughout the
    year, including a midyear progress review, the review of written products and
    deliverables, and regular communication regarding the progress of ongoing
    assignments. Employees are provided a written appraisal and rating at the end of the
    rating period, applying a five-level rating scale ranging from Outstanding to
    Unsatisfactory.

    Promotion decisions for employees in career ladder positions are based on the
    employee meeting applicable time-in-grade requirements and a demonstration of
    sustained fully successful performance at the next higher grade level, applying
    relevant promotion criteria. Consistent with Article VIII of the Collective Bargaining
    Agreement with CREA, employees are notified when they would meet applicable
    time-in-grade requirements and provided information about the process by which to
    request a promotion review. Prior to their eligibility or anniversary date, employees
    are provided the opportunity to submit a work file, including records of research,
    reference, and other work performed during the evaluation period; or a written
    summary of such work, when applicable. Upon recommendation by the employee's
    Associate or Assistant Director, the CRS Director or designee determines whether
    the employee's work demonstrates fully successful performance at the next higher
    grade level.

a. **Is there a customer service element built into promotional and performance criteria? If so, how is that done?**

Work quality, responsiveness, timeliness, adherence to CRS guidelines, the scope and effect of the work, and the nature of client contacts are among the customer service-related factors evaluated when assessing employee performance and promotion eligibility. Some positions explicitly incorporate customer service in the associated performance anchors.

b. **Is feedback from congressional staff and members on the performance of individual employees part of the performance review processes?**

While direct feedback (positive or negative) from congressional clients is not explicitly incorporated as an element in the performance rating, such input is taken into account by the supervisor as a relevant indicator of how and to what extent the employee is performing the duties of the position (at the relevant grade level), as articulated in the performance plan, and is useful in the supervisor's ongoing evaluation of the employee's performance.

2. **What is the annual number of non-retirement separations within the agency and within each Division since FY2013? What is the annual number of non-retirement separations by position type (i.e., analyst, legislative attorney, reference librarian) since FY2013?**

Please see Attachment A. The information in the attachment reflects permanent employees who separated from CRS for a variety of reasons, including transferring to another federal agency and relocation to another part of the country, among others. It does not include employees who transferred to positions in another unit of the Library nor does it include employees who separated or who were on not-to-exceed temporary or indefinite appointments.

a. **What is the tenure of the average employee at CRS and within each Division? How has the average tenure changed in the previous decade? What is the average tenure by position type (i.e., analyst, legislative attorney, reference librarian)?**

Please see Attachment A, which includes information about CRS employees' Library tenure. The attachment shows minimal decrease with respect to average tenure. There is a decrease in CRS staff eligible for full retirement, from 26% in 2013 to 16% in 2023.

b. **What is the retention rate of the agency and within each Division? How has the retention rate changed in the previous decade? What is the retention rate by position type (i.e., analyst, legislative attorney,**

reference librarian)?

> Please see Attachment A. As noted above, the information in the attachment reflects permanent employees who separated from CRS for a variety of reasons, including transferring to another federal agency and relocation to another part of the country, among others. It does not include employees who transferred to positions in another unit of the Library nor does it include employees who separated or who were on not-to-exceed temporary or indefinite appointments.

3. **In 2019, you stated that a CRS working group was planned to produce a report in September of 2019 on recommendations and findings regarding the organizational structure of CRS. What were the findings and recommendations of that working group and its report? When did that working group dissolve and what work has it done since then?**

   This working group, established as part of the last directional planning cycle, was intended to evaluate how CRS should determine and operationalize priorities in its work model. The Deputy Director was briefed throughout the fall of 2019 regarding the initial phase of the group's work. The group was effectively paused later in 2019, initially because of workload demands. In the spring of 2020, CRS directed resources to the abrupt transition to 100% offsite work under the Library's pandemic flexibilities, and the associated request workload as a result of congressional response to the pandemic. During the pandemic, the two assistant directors leading the working group retired. Work has resumed under the current directional planning cycle, and is spread among multiple working groups.

   During this period, CRS has continued to review its structure and made several organizational changes designed to facilitate improved operations. For example, CRS clarified responsibilities and workflow through dissolving the Office of Congressional Information and Publishing and establishing the Office of Publishing and the Office of Legislative Information Services. Following the reorganization of information technology (IT) responsibilities within the Library, CRS identified a need for information technology project management and a liaison, and established the Information Systems Business Office. In addition, CRS effectuated other realignments of responsibilities and personnel to meet congressional needs and directives, and to optimize resources, for example, embedding research librarians in the research divisions to work more closely with analysts.

4. **According to a 2022 Bush School of Government and Public Service Capstone report for CRS, it costs between $48,000 and $128,000 to replace an analyst/attorney or librarian depending on their salary. Those costs assume that it takes only 6 weeks to fill a position. Do you agree with this cost estimate assessment?**

No. The estimate assessment does not represent a cost assessment specific to the CRS positions identified above.

The estimates referenced in this question appear to use information in Appendix D of the Capstone Report entitled "Strategies for Enhancing Diversity at the Congressional Research Service" (hereinafter "Report"). Appendix D does not reflect actual or estimated costs for replacing an analyst, attorney, or librarian at CRS. Rather, it provides an example of potential or estimated hiring costs in the context of describing decreased hiring costs as a desirable result of increased retention (Report, p. 17 and FN55).

The expenses and assumptions in the example in Appendix D of the Report do not reflect the actual merit selection process utilized by the Library, nor do they tie the example to specific positions at CRS. For example, 50% of the cost cited in the question are for "lost productivity" in the first six months. CRS offers salaries and benefits in the top range of the GS scale to attract staff with a level of knowledge and skills that allow them to be productive in a very short time.

    a. **Since employee separations can present gaps in expertise and service to Congress, how does CRS adapt to fill these gaps? What measurable effects do these separations have on the output of written products or on the ability for CRS employees to provide Congress with necessary expertise on demand?**

        CRS utilizes a number of strategies to ensure that it continues to provide subject matter expertise when employees separate and until a new employee can be brought onboard. In situations where another employee has similar or overlapping expertise, they may be assigned such coverage to avoid any gap in service to Congress. This employee may experience a temporary increase in his or her consultative workload, which CRS addresses by continuing the process of realigning work portfolios with colleagues. Given this temporary increase in his or her consultative workload, the employee may experience a temporary rebalancing of his or her workload or portfolio mix. The need to realign portfolios to avoid subject area gaps could also delay the updating of reports or the drafting and publication of new reports. CRS is careful to make decisions about topical assignments in a manner that considers congressional interest in a topic and ensures that CRS can respond to congressional requests in that area.

        Additionally, employee separations offer an opportunity for management to assess the effectiveness with which the portfolio has been handled in the past, evaluate whether to transfer and expand the portfolio of an employee broadening his or her responsibilities, or otherwise improve the effective coverage for a topic.

CRS has undertaken an expansive knowledge management effort to capture institutional knowledge and ensure smooth transitions when employees separate. For subject coverage, CRS has 48 active Research Portal sites where information on issues of interest to Congress is available to all CRS staff. For operations, each division and office in CRS has an internal and external intranet site that is used to store and share important information on official policies, and best practices that are beneficial to staff. Where departures are anticipated, CRS uses details, not-to-exceed appointments, phased retirements, and/or engages in strategic hiring to facilitate knowledge transfer.

CRS does not formally track the effect of separations of employees on the output of written products. CRS effectively manages the congressional request workload to ensure the impacts of staff separations are mitigated.

Finally, CRS staff have an average of approximately 13 years of Library tenure. The majority of employees who left CRS in 2022 for a new job had three years or less of tenure.

5. **In 2019, you stated that the selection process for section heads relied on an LOC Merit Selection Plan from 2005. Is that plan still being used today?**

Yes, the Library of Congress Merit Selection Plan applies to CRS. For section heads, section research managers, senior leaders, and non-bargaining unit positions, the plan is reflected in Library regulations; for bargaining unit positions, the plan was negotiated as part of the Library's collective bargaining obligations with CREA. Consistent with 2 U.S.C. § 166(c)(3), the Merit Selection Plan reflects that CRS positions are in the excepted service and that they must be filled without regard to political affiliation and solely with regard to fitness for the particular position. The plan is also designed to be consistent with Title VII of the Civil Rights Act of 1964. The Library's policy and procedures on merit selection are updated periodically, with the last revision in 2019. The Library is currently reviewing its merit selection procedures.

6. **Are CRS employees allowed to participate in academic or professional conferences or publish in academic journals? Are these activities encouraged by CRS management?**

Yes. CRS employees are encouraged to participate in their official capacity in academic and professional conferences and in other events when participation will enhance their capacity to serve Congress or otherwise contribute to their professional development. CRS supports attending and participating in such events, which give employees the opportunity to strengthen their knowledge base, learn other perspectives on issues of congressional interest, and develop relationships with other experts that will broaden the employee's research and analytical network. The

confidential work employees perform to serve Congress cannot serve as the basis for publication in academic or professional journals.

Many CRS employees also attend academic and professional events in their personal capacity and privately publish articles in academic journals. Under Library regulations and CRS policy, they are encouraged to do so (though not required, of course), so long as the participation does not create any actual or apparent conflict of interest with their duties at CRS.

    a. **In FY2022, how many CRS employees published articles in academic journals? In FY2019 (pre-pandemic), how many employees attended an academic or professional conference?**

    CRS does not require employees to report when they publish in their personal capacity, though CRS offers to review personal writings for compliance with CRS standards of objectivity and non-partisanship upon employee request. As noted above, CRS does not proactively monitor employees' publishing in their personal capacity.

    In FY2019 (before the COVID-19 pandemic), CRS expended $305,000.00 on training and associated travel, for 212 employees attending academic and professional events and providing direct congressional support as detailees. CRS does not monitor employee attendance in academic or professional conferences when they are attending in their personal capacity. During the pandemic, official Library travel was not permitted except in very limited circumstances. CRS resumed approving travel for professional development as soon as the Library permitted such travel.

7. **How many current CRS analysts and attorneys have previous experience as a full- time employee working in a House or Senate office?**

CRS does not track the number of analysts and attorneys who have experience as a full-time employee working in a House or Senate office prior to their employment at CRS. To the extent this question is enquiring into the number of CRS staff who have worked full-time in a House or Senate office as part of a professional development experience or at an office's request, CRS does not track this information for employees. While CRS generally would be unable to accommodate requests for CRS staff to serve in a full-time capacity for individual Representatives or Senators, CRS does provide close committee support upon request and when appropriate. Approximately 13 CRS staff have provided close committee support in the last ten years.

8. **What is the annual number of CRS employees that have been detailed since FY2013?**

Please see Attachment A, which includes information about employees who have been formally detailed internally within the Library. Additionally, employees in CRS participate in other professional development details or provide close committee support to House and Senate committees when appropriate and upon the committees' request. As noted above, approximately 13 staff have provided close committee support in the last ten years. In addition, CRS records reflect nine staff participated in 12 details or engaged in professional development rotations outside the Library in the last ten years.

    a. **By year, what was the average length of their detail?**

        Please see Attachment A, which includes information about employees who have been formally detailed internally within the Library. CRS does not maintain regular records of the length of employees' details or other professional development rotations outside the Library, however, the rotations are typically between 90 and 180 days.

    b. **How many details served congressional committees, Member offices, executive branch agencies, or any other agencies during this time period?**

        In response to congressional feedback and in close consultation with CRS oversight committees, CRS curtailed the use of exclusive formal details to committees several years ago. This action was in response to concern about CRS resources and imbalanced committee support. CRS has provided close committee support upon request, when the support is provided to both the majority and minority, and with the understanding the analyst or attorney may be needed by CRS to respond to other requests. CRS does not have a practice of detailing employees to individual Member offices. Approximately 13 staff have provided close committee support in the last ten years. CRS records reflect nine staff participated in 12 details or engaged in professional development rotations outside the Library in the last ten years.

Products and services

9. **CRS's 2019-2023 Strategic Plan states that "CRS must enhance its service offerings to present information and analysis in formats that are more accessible to congressional clients…"**

    a. **What has CRS done to address this aspect of its Directional Plan? What new products and services has CRS offered since that goal was identified?**

CRS has made ongoing improvements to its products and services. CRS developed and piloted informational videos in 2020 as an alternative option for presenting complex topics in a short, animated video format; and piloted its first interactive graphic in 2021. Responding to congressional demand for podcasts, CRS has developed more podcast series and plans to launch in FY2023 a way for congressional users to subscribe to CRS podcasts via popular audio streaming platforms. CRS is continuing to refine, enhance, and expand these product types. For example, longer videos that address a variety of topics now include clickable "bookmarks" that allow viewers to jump to selected segments that make it easier for them to quickly access content most relevant to their needs.

CRS has also expanded its offerings of seminars and programs, which included increasing offerings available in webinar and hybrid (both virtual and in-person) formats. These offerings increased program engagement during the pandemic and has responded to increased congressional interest in providing seminar-like services to congressional staff in district and state offices. Upon returning to onsite operation in 2022, CRS retained both virtual and in-person programming, including hybrid options for certain sessions, such as the Federal Law Update. In FY2022, the Service offered 264 seminars and programs, which were attended by approximately 10,000 congressional participants. Sessions covered topics such as tribal issues, national spectrum policy, tax credits for families, and the U.S. economic recovery. The Service also offered a series of introductory and advanced Defense Institutes, Legislative and Budget Process Institutes, and the Federal Law Update (FLU), which experienced a record number of registrations during the year. At Congress' request, CRS designed and launched the Congressional Legal Education Forum (CLEF) to present and discuss key legal principles with non-attorney congressional staff. Most policy seminars are recorded and made available on CRS.gov for later viewing. Based on preliminary evaluation statistics on seminars in FY2023 so far, 96% of congressional participants agreed or strongly agreed that "the information provided in this session was useful" and 93% agreed or strongly agreed that "I will recommend this seminar to others."

The CRS Director established the Products Advisory Working Group (PAWG) in 2022 to provide strategic direction in the development and maintenance of the CRS product line. The establishment of the PAWG is indicative of the Director's commitment to meet the needs of Congress. The PAWG is intended to build upon and continue the product enhancements and diversification efforts undertaken prior to the development of the 2019-2023 Strategic Plan.

By way of background, prior product enhancements and development efforts have included the launch of the Legal Sidebar in 2012, to provide Congress

with short and timely analysis of legal issues, and development and launch of an Infographic pilot concept in 2015. Infographics present information in a condensed standalone visual format that is easily understood without the need for an accompanying written product. In 2014, CRS launched its shorter-format In Focus and Insights products and developed the "In Brief" format. CRS implemented a standalone report summary format for CRS reports in 2018. These formats were developed in response to clients' requests for shorter products.

While the Service has made significant progress in enhancing the availability of its products and services, the direct access to CRS expertise through in-person, telephone and email consultation continues to be a core service offering that is utilized by congressional clients on a daily basis. Through on-going telephone and email consultation and resumed in-person briefings, CRS staff respond to congressional needs. In FY2022 CRS experts conducted 475 in-person briefings and over 57,000 consultations via telephone and email, and this work has continued in FY2023, with more than double the amount of in-person consultation to date.

b. **What have you done to maximize visualization techniques and visual and/or interactive products or graphics?**

CRS has increased the production of graphics and GIS maps. In FY2022, PUB produced 2,035 graphics and over 200 GIS products (including maps). In FY2023, as of April 30, 2023, PUB produced over 2,300 graphics and over 500 GIS products (including maps).

CRS has had a longstanding commitment to maximizing the use of visuals in its products and services for Congress. CRS established a graphic design unit in 2008 within its then-Electronic Research Products Office. The unit initially was staffed by two permanent (full-time equivalents) FTE visual information specialists (graphic designers), following a period of several years where the graphic design function had been performed by contractors.

Over the past ten years, CRS's graphic design function, referred to as "PUBGraphics," has expanded and evolved as an integral part of what is now known as the CRS Office of Publishing. The Office of Publishing (PUB) manages the distribution of selected CRS products to congressional users and supports the congressional mandate to make CRS reports available to the public. In doing so, PUB provides oversight of editorial, quality assurance, and visual design services and provides research support in the development of Geospatial Information Systems (GIS)-based content. PUB also oversees the curation and tagging of CRS products published online; provides coordination of data analytics to measure the use of such products; and coordinates product development initiatives in collaboration

with other CRS divisional offices.

Management has demonstrated its commitment to ensuring that CRS has the appropriate resources in place to meet congressional needs for visual-based products. Additional visual information specialists have been hired. In addition, the Service's GIS function was reorganized under the Office of Publishing in 2019 and further realigned within that office in 2022 to formally work in synergy with the visual information specialists. This realignment resulted in the formation of CRS's first-ever Visualization and Geospatial Information Systems Section that combines the expertise of a team of visual information specialists and GIS analysts. This organizational realignment allows CRS to leverage and maximize the strength and capabilities of both functions in developing visual and interactive graphical content for Congress.

i. **In a related vein, does CRS have staff who serve as graphics or design experts for visualizing data or editing infographics?**

The Visualization and Geospatial Information Systems Section currently consists of a section head, four visual information specialists with recruitment underway to hire a fifth specialist, and three GIS analysts. Below is an overview of the functional expertise and work of the visual information specialist and GIS analyst.

Visual Information Specialist Skills/Expertise

Expertise in graphic design (print, web-based, digital, and video):

- **Concept development**
  Assess complex and abstract concepts and data to conceptualize visual ideas to ensure comprehension.
- **CRS brand alignment and graphics consultation**
  Provide design guidance on CRS visual materials, best practices, and graphics standards.
- **Data visualization/Interactive Graphics**
  Translate data to visual form in static, interactive, and motion-graphic format. Data visualization includes items such as charts/graphs, flowcharts, timelines, and other visual formats.
- **Infographics**
  In collaboration with CRS subject matter experts, visual information specialists translate multifaceted information into a visual, designed format that includes text, data visualization, and illustrations.
- **Illustrations**
  Create custom visual representations of concepts, processes, and terms for integration into CRS products.

- **Map design**
  Design and refine a wide-variety of domestic and international maps, frequently in coordination with GIS. Customize styles, colors, labels, and related visuals to enhance map aesthetics.
- **Print and digital design**
  Produce various designed collateral optimized for print and screens (including web). Designs include products such as the CRS Annual Report, brochures, booklets, handouts/flyers, and other CRS branded materials. In addition, support is provided for web graphics, presentation design, and formatting.
- **Strategic design**
  Identify opportunities to apply new methods and innovative design approaches, and develop solutions by assessing current and evolving technologies.
- **Video production**
  Design and develop multimedia (images, video, and audio) products, motion graphics, and animations for short videos, including informational videos.

GIS Analyst Skills/Expertise

- **Analysis**
  - Visualize and analyze geographic data to include Data Overlay; Buffer Generation; Clipping; and Proximity Search to discover what features are within or a certain distance away from another point, line, or area (or located within one's new district, etc.). Analysis can include vector and raster datasets.
  - Spatial analysis - Solve location-oriented problems, explore and understand data from a geographic perspective and determine relationships, detect and quantify patterns, and assess trends. These analyses include operations such as extracting and overlaying data; adding and calculating attribute fields; and summarizing and aggregating data.
- **Cartography and Map Production**
  Static and interactive includes projecting data with the correct map projection, dependent on data sources to highlight area of interest or perform analysis on.
- **Data Exploration and Data Extraction**
  GIS Analysts can recommend authoritative datasets and provide insight on authoritative datasets and are able to manipulate various types of geographic data (.csv, .xls, .shp, .lyr, .mpk, .gdb, .kml, and ArcGIS Online feature services, etc.).
- **Geocoding/mapping coordinates**
  Importing spreadsheets of data that have addresses or coordinates

into GIS software to conduct analysis and/or cartographically visualize into a map graphic.

- **Georeferencing/digitizing images**
  Geographically locating an image on a map or converting images to GIS shapefiles by tracing the image. The accuracy of this method largely depends on if the images contain geographic information. If the images contain specific geographic information such as latitude and longitude information (e.g., PLSS maps), it can generally be mapped with a higher accuracy. If the image does not have coordinates, but has geographic boundaries such as state/county boundaries, water bodies, etc., it can still be mapped but with less accuracy.

- **Quality Assurance/Quality Control (QAIQC)**
  CRS/Office of Publishing/PUBGraphics representatives at various points have engaged in discussions with representatives of the European Parliamentary Research Service (EPRS), who were complimentary of CRS's visual design collateral.

  The team has provided guidance and showcased custom-designed CRS visuals to CRS authors. These efforts included the development of best practice guides, graphics standards and themes to streamline visuals, and visual galleries of samples to encourage and generate ideas for visuals in CRS products. The team also educated CRS staff on the benefits of using graphics, best practices, and how to engage with the team via outreach activities such as Brown Bags and Knowledge Cafés.

  Team members also established a standard practice to research, identify, and test available and evolving technologies to gauge adaptability with the CRS technical infrastructure. For example, GIS team members assessed all available apps on ArcGIS online for feasibility with CRS GIS work. The PUBGraphics team proactively identifies existing graphics and requests that would work in an interactive format. Additionally, the team assessed data visualizations innovations and updates to interactive graphics for compatibility in CRS products. For interactive graphics, PUBGraphics established a curated interactive graphics charts library that is compatible with CRS reports and visual standards.

  PUBGraphics and GIS collaborate within the respective teams and with each other to produce sophisticated, high-level designed maps and a wide-array of visuals. PUBGraphics and GIS meet weekly to discuss CRS visuals and maps, as well as processes. Team members provide recommendations on enhancing visuals,

maximizing production techniques, and knowledge-sharing (including demonstrations).

c. How many podcasts did CRS produce in 2022? And how many have been produced in 2023? How do staff and members find them and listen?

CRS produced six podcasts in calendar year 2022 and 16 podcasts in the first half of calendar year 2023. Podcasts can either address an individual topic or be published as part of a broader series. CRS podcast series address varied topics, such as campaign finance and elections, Case Method – a series on legal topics, the Homeland Security Act at 20, and science and technology policy.

Currently, congressional staff may retrieve podcasts on CRS.gov by clicking on the "Reports" tab on the home page, then clicking on "CRS Media." From the "CRS Media" page, users should click the "Podcasts" option and then select the desired product for listening from the CRS.gov website. Users also may enter "Podcast" in the Search box for access to this product type. It also is possible for CRS to spotlight podcasts on its home page, pin them to Issue Areas, and feature them in the Hot Topics and Of Note sections of CRS.gov. In response to congressional feedback about the availability of CRS podcasts outside of the Capitol Hill network, CRS intends to launch a new way for congressional staff to subscribe to podcasts in June 2023. CRS has procured a proprietary Really Simple Syndication (RSS) feed that will enable congressional users to subscribe to CRS podcasts and listen via popular applications, including Apple Podcasts, Google Podcasts, and Overcast. Subscription will be restricted to users with an official email account from the House, Senate or authorized legislative branch agencies. Initially, CRS plans to highlight at least one podcast per week via the main account.

d. You mention in your testimony that the Service established a "Products Advisory Working Group" to thoroughly vet new product types and provide strategic guidance in the identification, development, and maintenance of CRS products. How does the committee work? Have they identified any new product lines and services to date? Are congressional staff and/or members a part of that Working Group?

The CRS Director established the Products Advisory Working Group (PAWG) in 2022. After identifying management and staff from across all CRS research divisions and applicable infrastructure offices to serve on the group, the PAWG met for the first time in April 2022 and began meeting with frequency in the ensuing months.

The PAWG is aligned with Goal #1 of the CRS Directional Plan to "Enhance service and access for all of Congress." The PAWG operates and governs itself in accordance with the objectives outlined in its project charter as follows.

Objectives:
1. Review existing product guidelines and recommend updated product guidance to the CRS Research Policy Council (senior leadership), as needed.
2. Establish a schedule for reviewing product guidance on a recurring basis to maintain relevancy of guidelines and responsiveness to client needs.
3. Provide strategic guidance, coordination, and Service-wide collaboration for developing the vision and direction of CRS new and current product offerings, whether it be for new product types from concept to development or for the repackaging, repurposing, and re-conceptualization of existing product offerings, including to support enhanced digital use.
4. Establish task forces of the PAWG to lead specific initiatives, as appropriate, and involve non-members of the working group as participants, chairs and/or co-chairs of such task forces, where helpful to achieving the PAWG's objectives.
5. Establish a Service-wide framework for the review and approval of new product concepts and the continuation of existing products.
6. Monitor client usage of CRS products and review product metrics and client feedback for data points and input that may help inform recommendations on product guidelines and product development.

In terms of new product development, the PAWG has been proceeding with a two phased approach as follows:
- Phase 1: Develop recommendations for immediate implementation that can respond to client needs for shorter products. These recommendations would fall within the current technology framework and that of CRS.gov.
- Phase 2: Comprehensively examine client needs and a range of products that could be supported by leveraging technology currently under development through the IRIS program and other emerging technologies.

The PAWG is providing overall coordination of the ongoing refinement, enhancement, and expansion of visual-based products, such as interactive graphics. In addition, the PAWG has been focused on refreshing and updating product guidelines for existing products. This process is anticipated to result in increased options and opportunities for CRS authors to use existing shorter-format products.

Congressional staff are not members of this internal working group; however, CRS welcomes engagement from the Committee on House Administration in identifying congressional staff to provide input to the PAWG in its identification, development, and maintenance of CRS products.

10. **How many new written products produced in FY2022 are classified as "Insights" – 1,000-word reports, "In Focus" – two-pagers, or "In Brief" – reports of 12 or fewer pages?**

According to a survey of congressional staff conducted by Gallup for CRS in 2020, 95% of respondent were very or extremely satisfied with shorter CRS reports. Please see the table below for FY2022.

Product Type	No. products 12 pages or fewer pages in 2022
Insights	246
In Focus	280
Report	278*
Legal Sidebar	184
Total	**988**

*In FY2022, there were 278 total CRS reports of 12 pages or fewer. Of those, 31 included "In Brief" in the title.

a. **What dates were each of these types of written products first introduced and implemented?**

The first Legal Sidebar was published on June 1, 2012 (the Legal Sidebar, produced by the American Law Division, is equivalent to the policy Insight). The first Insight product was published on April 2, 2014. The first In Focus product was published on November 19, 2014. The In Brief product is a shorter-format option of the longstanding CRS report. Product guidelines to provide for categorizing reports with 12 or fewer pages as "In Brief" were released on February 4, 2014.

b. **Is there a formal process for prioritizing what policy topics or subject areas merit an "Insight", "In Focus", or "In Brief" work product?**

While CRS does not have a single formal Service-wide process for prioritizing what policy topics or subject areas will be handled using which product type. CRS provides staff extensive guidance on each product type, including their purpose, use, and components, among other areas. CRS staff are expected to exercise judgment and utilize their independence and expertise in their portfolio, in collaboration with their management, to determine the best product or suite of products to meet

congressional needs effectively. CRS considers feedback from congressional stakeholders in evaluating which format may be best-suited to a particular issue.

c. **Are there any other types of work products that CRS plans to produce during the 118th Congress?**

New products will depend, in part, on the work of the PAWG as well as technological developments, and will be informed by congressional input.

Technology

11. **Have you considered creating a CRS app through which staff can receive information?**

Yes, CRS and OCIO have considered creating an app. Internal discussions on creating an app have highlighted certain security issues that would require collaboration across Library, House, and Senate partners to overcome. An alternative approach taken as part of the CRS technology modernization program focuses on using and creating website applications that are mobile friendly, which is a key goal of the IRIS program technology modernization program. This includes the CRS.gov application, which is used by Congress to access CRS products and reports, identify CRS experts, place requests, and register for events. In addition to being mobile-friendly, the modernized CRS.gov will also meet federal accessibility requirements.

Based upon stakeholder feedback, including from congressional users, the Library employed a User Experience (UX) design methodology to finalize the requirements to better serve Congress. The initial development phase of the modernized CRS.gov website is anticipated to be completed soon. After that phase is completed, stakeholders, including congressional users, will have an opportunity to review the new website and provide feedback before it is finalized and launched later this year. CRS expects to conduct a communications and outreach program to inform congressional stakeholders of the availability of the initial website and provide a link for them to review and provide feedback. This feedback will be reviewed with congressional users to refine the solution to better meet congressional needs.

12. **Regarding the $20 million IRIS initiative to modernize and improve technology, what products were you hoping to deliver through this initiative?**

The overarching goals of the IRIS program are to have a digital first content creation environment that emphasizes timely delivery to the client, flexibility to add or update applications and capabilities, and support ongoing innovation in CRS products and services. Based on planning conducted in FY2015 and FY2016, the IRIS program was envisioned as a major IT modernization effort to replace a range of independent

and outdated mission-specific information systems. The IRIS program will use an integrated suite of modern tools to support internal CRS operations across four key areas: 1) Information Research, 2) Policy and Data Analysis, 3) Content Creation, and 4) Product Delivery.

As noted in the Library's FY2018 Congressional Budget Justification, "Modernizing CRS's mission-specific information systems will allow technology to be leveraged as a force multiplier; enabling CRS staff to more efficiently support congressional requests by reducing the time needed to research, analyze, create, and deliver CRS products and services in the formats most useful to Congress, while protecting the security and confidentiality of congressional data."

Following extensive market analysis, in FY2019, CRS and the Library's Office of the Chief Information Officer (OCIO) jointly determined that Eidos Media's Méthode publishing platform was the most promising option to provide the core IRIS program functionality. Méthode, which was used by large news media and financial corporations, including the Financial Times and Morgan Stanley, provides content management, knowledge management, editorial workflow, and cross-channel publishing in one platform with a unified user interface. Méthode was also available as an on-premises system, which was necessary to meet the requirements then in place for managing legislative data and IT security.

Therefore, the initial approach to implement the IRIS program was expected to deliver the Méthode platform, combined with PoolParty, an industry leading taxonomy enrichment tool, and limited upgrades for CRS.gov and other legacy CRS IT systems to enhance enterprise search and better integrate CRS data. That work would have allowed CRS to retire many of its legacy IT systems and focus internal resources on new data analysis tools and other related IT improvements.

After an extensive planning phase and initial implementation work, CRS user testing established that Méthode did not meet contractual requirements. Consistent with Library and federal contract regulations and policy, the Library canceled the Méthode development contract for cause in February 2021.

With new policies in place allowing more extensive use of cloud-based IT solutions, the Library was able to develop an alternative approach for the IRIS program and began implementation of that new approach in FY2021. The new solution leverages the Microsoft 365 (M365) Platform to provide custom applications for CRS authoring and publishing (A&P), content management (CMS), and congressional relationship management (CRM-A) with a unified user interface and shared services. These new applications are being closely integrated with a more extensively upgraded CRS.gov website, an industry leading semantic taxonomy system, an advanced Text Analysis Program (TAP) and other research and analysis tools to support CRS operations.

This new approach for IRIS builds on the lessons learned between FY2018 and

FY2021, and the initially envisioned IRIS products to better meet evolving congressional expectations and CRS business requirements. IRIS now includes dedicated work streams to provide continuous development support for seven distinct products:

1. **Taxonomy Tool** for automated metadata tagging of CRS content, which was deployed in 2023 and aims to enhance discoverability of CRS content across data sources;

2. **Authoring and Publishing Tool** to facilitate the authoring and publishing of CRS content including CRS In Focuses, CRS Insights, CRS Legal Sidebars, CRS Memoranda, CRS Reports, and other material;

3. **Content Management System (CMS)** built on the M365 platform, which provides Document Management and Collaboration, automates the CRS review and approval workflow, facilitates co-authoring, and houses the CRS Collaboration Center (CC) that hosts the internal CRS Research Portal collaboration space as well as the CRS intranet;

4. **Congressional Relationship Management Application (CRM)** built on the M365 platform, which provides congressional request management and CRS event management;

5. **CRS.gov** website redesign of the congressionally facing CRS website and supporting applications, to improve the user experience and allow integration with modernized CRS applications;

6. **Enhanced Search Engine** for CRS.gov and internal CRS applications to enhance discoverability and categorization of CRS content; and

7. **Text Analysis Program (TAP)** to support CRS in adding related bills to Congress.gov, increasing efficiency in writing summaries, and comparing legislative text. Under this project, CRS is also redeveloping the bill summary workflow to give legislative analysts better tools and support to handle the massive bill summary workload.

Together, these integrated tools will allow CRS to manage congressional requests, improve timeliness of bill summaries, and enhance content management, authoring, editing, and publishing capabilities to support new and current CRS products while improving efficiencies. The IRIS program will provide staff with a set of smart tools that will provide operational efficiencies by allowing enhanced collaboration, more effective research and analysis, and increased responsiveness to the broad spectrum of congressional interests in a wide variety of media formats.

a. **What has caused the delays? How has the Library prioritized the functionality and deliverables under development for IRIS?**

The roadmap for the IRIS program always envisioned a five-year development effort. The initial funding for the IRIS program was received late in FY2018, and used to support contracted development work conducted in FY2019. Subsequent appropriations followed that pattern. The IRIS program has been managed as an Agile IT development project, which allowed a smooth transition from the initial plan for the on-premises Méthode platform to the cloud-based M365 platform suite of tools. CRS and OCIO are now in the fifth year of the IRIS program's development, and the major products are expected to be delivered later this year.

Under the Library's agile software development methodology, Library service units are responsible as the product owner to define and prioritize the business requirements that technology must meet. OCIO leads the process to identify and implement effective technical solutions based on those business requirements. For the IRIS program, CRS established a Technical Advisory Group (TAG), consisting of CRS staff drawn from across the Service to advise on business requirements and review potential solutions. The IRIS Steering Committee, consisting of CRS and OCIO senior management and staff, was also created to provide consistent CRS oversight for the development effort.

Under the initial IRIS program development approach, the Library awarded contracts to implement the Méthode platform, which would provide a modernized authoring and publishing system, automated product workflow, and an integrated content management system (CMS), and to acquire the PoolParty advanced taxonomy tool, which provides enhanced metadata tagging. These four capabilities were prioritized for initial development because they were the foundational technologies upon which the IRIS program research environment would be built.

The acquisition process followed industry and government best practice to ensure maximum participation from the vendor community. Due to congressional concerns with cloud computing at that time, CRS limited proposals to "on-premise" solutions only. All requirements were documented in a Minimum Viable Product (MVP) specification that the mature solution needed to support. The MVP specification built upon an earlier multi-phase effort to identify the business requirements and technology options for a future-state publishing environment that reflected the contributions of more than 50 people across the CRS staff, as well as focus group discussions with congressional staff.

The winning proposal was presented by NTVI Federal, an Alaska Native corporation, and Eidos Media, a cross-media publishing company based in Milan, Italy. Notably, this contract was Eidos Media's first foray into U.S. federal contracting and their first time in a subcontractor role rather than serving as the prime contractor.

NTVI/Eidos Media successfully executed on the IRIS program in FY2019 and FY2020, delivering an initial implementation of the tool for testing. CRS staff piloted the platform, and identified more than 400 necessary refinements, corrections, and enhancements. In response to those findings, Eidos Media committed to delivering a revised solution by Q4 FY2020 that would fully meet CRS requirements. However, the updated solution that was delivered again failed to meet critical functional requirements. NTVI/Eidos Media acknowledged the deficiencies and committed to providing a fully compliant solution within two weeks. Unfortunately, the third version of the solution proved unsuccessful as well. Over the next five months, the Library worked closely with the contract team in an effort to rectify the deficiencies, but after repeated failures, the Library was forced to terminate the contract for cause in February 2021.

Following the failure of Méthode, CRS worked closely with OCIO to transition the IRIS program development to the new approach, leveraging the M365 Platform to provide custom applications for authoring and publishing (A&P), content management (CMS), and congressional relationship management (CRM). As noted above, these new applications are being closely integrated with an upgraded CRS.gov website, an industry leading semantic taxonomy system, an advanced Text Analysis Program (TAP) and other research and analysis tools to support CRS operations.

CRS and OCIO have briefed House and Senate oversight and appropriations committee staff on multiple occasions about the failure of Méthode and the necessary pivot in development approach.

The new IRIS program applications, and M365, are being tested now, and are expected to be delivered to CRS staff widely by the end of this year. As a major IT program for the Library, IRIS program applications will be maintained in continuous development following their implementation, which will ensure that they are regularly updated to stay current with evolving technology and user requirements.
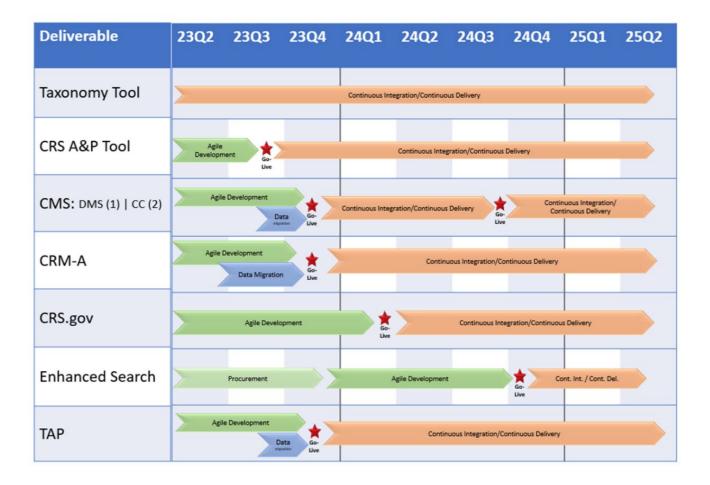
b. **How much money has been spent on the IRIS initiative? Can you list**

every modernization and product that IRIS is expected to produce and when those products are expected to be completed? What is the cost associated with each contract and product?

As noted above, the initial $20 million budget estimate for the IRIS program was based upon implementing on-premises solutions for a modernized authoring and publishing system, automated product workflow, a content management system, advanced taxonomy (enhanced metadata tagging), as well as limited upgrades for CRS.gov and other legacy CRS IT systems to enhance enterprise search and better integrate CRS data.

With the pivot away from the Méthode platform, an on-premises solution, the Library has embraced the wide ecosystem of capabilities and emerging technologies available through the cloud-based software-as-a-service (SaaS) marketplace. Authoring and Publishing (A&P), Content Management (CMS), and Congressional Relationship Management (CRM) applications are being developed on the M365 platform, and integrated with enhanced search capabilities and the PoolParty taxonomy tool to increase access and discovery for CRS content. Building on congressional feedback and CRS staff input, the effort will also modernize the underlying architecture to support an M365 cloud environment and provide fuller integration with an upgraded CRS.gov, an advanced Text Analysis Program, and other research and analysis tools to support CRS end-to-end operations.

The IRIS program implementation roadmap for each modernization effort and their associated delivery schedules are shown below. The Taxonomy tool was deployed in FY2023, and OCIO expects the Authoring and Publishing Tool, the Content Management System (CMS), the Congressional Relationship Management Application (CRM-A), and the Text Analysis Program (TAP) to be deployed by the end of FY2023.

Deliverable	23Q2	23Q3	23Q4	24Q1	24Q2	24Q3	24Q4	25Q1	25Q2
Taxonomy Tool	Continuous Integration/Continuous Delivery → → → → → → → →								
CRS A&P Tool	Agile Development	★ Go-Live	Continuous Integration/Continuous Delivery → → → → → →					
CMS: DMS (1) | CC (2)	Agile Development		Data migration / ★ Go-Live	Continuous Integration/Continuous Delivery			★ Go-Live	Continuous Integration/Continuous Delivery	
CRM-A	Agile Development	Data Migration	★ Go-Live	Continuous Integration/Continuous Delivery → → → → →				
CRS.gov	Agile Development			★ Go-Live	Continuous Integration/Continuous Delivery → → → →			
Enhanced Search	Procurement			Agile Development			★ Go-Live	Cont. Int. / Cont. Del.	
TAP	Agile Development		Data migration / ★ Go-Live	Continuous Integration/Continuous Delivery → → → → →				

Before it was determined that Méthode could not meet the CRS requirements defined in the contract, $6.8 million was invested in the research and development of the initial IRIS program solution. While most of that investment was recouped in the form of reusable project planning, business requirements, and other development resources, the Library estimates $1.1 million was ultimately lost.

With the pivot to the M365 platform cloud-based approach, a total of $23 million has been invested in implementing the originally envisioned the IRIS program functionality. That includes the initial $6.8 million invested in the planning and development of the Méthode platform; $8 million for the authoring and publishing and content management system; $4 million for the modernized congressional relationship management application (CRM); $1.2 million for the advanced taxonomy tool; $1.7 million for enhanced search; and $1.3 million for IRIS program support services.

CRS has invested an additional $13.2 million over the last five years, including FY2023 on other critical IT related functionality, including a complete redesign of the CRS.gov website, rearchitecting of existing CRS IT systems to provide integration with the new IRIS program tools, and an extensive effort to overhaul and improve the Text Analysis Program (TAP), leveraging the technology being

implemented for the House and Senate to streamline bill comparisons and congressional legislative analysis support. With those additional modernizations, the total IRIS program related investment from FY2018 to FY2023 is $36.3 million.

13. **Congress has changed in various ways over the past 20 years. And certainly, technology has changed – for example, artificial intelligence is already writing reports and is even capable of providing fairly accurate bill summaries. When you look at these changes in Congress and technology, what do you see, and what is your vision for CRS to meet this changing reality?**

The Service's vision with respect to emerging technologies, including artificial intelligence, is to adopt and leverage, as appropriate, new technologies to present our work in the most efficient, useful, and effective manner for Congress while maintaining CRS core values regarding authoritativeness and objectivity. CRS is working on a number of initiatives to support this vision. As stated above, IRIS program modernization efforts are being developed using some available and tested artificial intelligence/machine learning (AI/ML) technologies. The various solicitations released by OCIO and CRS specifically mention the desirability of proposing solutions that incorporate AI/ML capabilities to improve efficiencies and the quality of CRS services and products. This vision also involves working closely with our House and Senate colleagues in support of technological advancement.

    a. **Have you considered how artificial intelligence could be deployed to help you do your work more efficiently and cost effectively?**

        CRS is actively working with House and Senate colleagues to research and evaluate various vendor offerings that may be of interest to enhancing CRS capabilities and products. This collaboration allowed CRS to leverage information derived from the House Clerks' application of AI, to inform the acquisition process and specifications for CRS TAP/Bill Summary modernization. Additionally, CRS is using AI for certain bill summaries that are highly repeatable, such as post office naming bills, while also evaluating ways that AI could further support legislative analysis. CRS will continue to explore all available solutions to increase efficiency while not compromising the quality and accuracy of CRS products.

    b. **How are you conducting evaluations of how to best utilize data science and AI at CRS?**

        CRS continues to work with internal Library partners as well as House and Senate colleagues to research and evaluate various AI/ML vendor offerings and their applicability to supporting CRS' mission. OCIO and CRS are also assessing the offerings consistent with the National Institute of Standards (NIST) AI Risk Management Framework to ensure that CRS understands the

various risks that need be evaluated to establish the appropriate and safe application and use of this nascent technology.

In addition, at Congress's direction, CRS engaged an outside entity, the RAND Corporation, to assess CRS data science capabilities and opportunities in a congressional policy context. The RAND Corporation assessed existing and potential data science efforts and recommended that CRS pilot a program using outside experts to assist in identifying and implementing data science efforts to strengthen and build quantitative capacity and explore the ways AI can be used to accomplish the CRS mission. This recommendation underpins the FY2024 budget request for a contract-based data science effort, to enhance quantitative analysis, among other outcomes.

14. In the FY2024 budget request, you requested $3 million to start a data analysis program for Congress. What is your vision for this data analysis program?

CRS's overall vision is to be Congress's premier source of research and analysis, including data analysis for Congress. To accomplish this, CRS will enhance and expand capacity and infrastructure to leverage state of the art data science methodologies and practices to inform the Service's work in support of the Congress's decision making on legislative policy options. The pilot data analysis program in FY2024 will focus on identifying, evaluating, and validating instances where additional quantitative analysis will add value to CRS policy analysis. Potential instances include those described in the RAND report and others identified and developed through engagement during the pilot program. Working with OCIO, CRS will procure and implement the various vendor solutions and conduct a formal evaluation of each offering against the appropriate scenario.

At present, CRS regularly provides quantitative data analysis services to Congress consistent with available resources. Examples include:

- Preparing datasets for congressional clients, who they seek to analyze on their own (which can involve merging, cleaning, and sorting data from large publicly available data sources or, when available, administrative data);
- Conducting quick turnaround small scale analyses (which might answer questions such as what percentage of individuals in a congressional district are covered by health insurance, or how many and which schools within a congressional district or school system serve a high concentration of low income students);
- Conducting more substantial original research to help frame an issue that congressional clients are seeking to understand better. For example, CRS has examined the following:
  - What are the characteristics of gig workers and where do they work,

- what populations have limited access to hospitals and how pervasive is this issue,
- what are the primary sources of income for those 65 and older,
- how have the income characteristics of college students changed in recent decades examined in relation to degree pursuits,
- what were the labor market implications of the pandemic on women, and
- to what extent is the eligible population receiving benefits under certain federal programs;
- Conducting ongoing iterative quantitative analyses—working closely with Congressional clients over a series of months or years—are integral to the development of the technical design of new federal programs and benefits or to simulating the effects of refining the design of existing programs and benefits. This work can involve clients coming to CRS to help develop a technical design (for example, if an allocation formula is involved, identifying factors and requisite data for constructing the factors that serve as the basis for allocations, and introducing design elements that can provide for minimum grants or provide limits on the volatility of changes in funding levels from year to year). This work often plays an important role in helping refine proposals and foster compromise as proposals are being negotiated. CRS also uses a microsimulation model TRIM (Transfer Income Model) to model the impact of certain legislative proposals on family incomes (for example, how should social programs be designed; or what is the impact of a phase-out). CRS uses publicly available data sets from statistical agencies and restricted access data sets maintained by academic entities, as well as administrative data when such data are made available.

CRS expects to extend the current data analysis work as well as streamline processes to be more efficient. Areas of attention are the ability to store, manage and work with very large "big datasets" and certain restricted access and administrative datasets. While CRS routinely uses large publicly available data from statistical agencies (for example, Census, BLS, and NCES) and program administrative data made available to CRS, this improved capacity would enhance the range of analyses being done by CRS.

Other areas to be addressed through the pilot would include adding a cadre of skilled programmers/data scientists to streamline code, speed up data analysis work, and expand the tools being used by CRS to do simulation work.

A challenge that CRS faces is the overall volume of demand for its services. Many of the Service's staff who are most adept in these areas are simultaneously juggling many other tasks and dealing with high workloads. Piloting the use of data scientists who could fully dedicate themselves to advancing and spreading this work would allow

CRS to serve more clients with this capacity and expertise.

15. **In November 2022, RAND Corporation analysts issued a report and briefed CRS management on their findings concerning ways to improve data science, data analysis, and data visualization at CRS. Their report made several recommendations. Have any steps been taken to implement these recommendations?**

Using the feedback from the RAND report, CRS has taken steps to implement select recommendations. CRS has subscriptions to services such as DataCamp that allow staff to learn new quantitative methods at their own pace. CRS routinely offers classes in basic and advanced statistics to all interested staff. Staff subscribe to working groups to share ideas and tools to enhance data analysis.

CRS has partnered with OCIO to begin the acquisition of cutting-edge technologies to conduct the evaluations recommended in the RAND study. CRS has also initiated a procurement to secure data science expertise to assist CRS in creating models to conduct these evaluations and assist in establishing a fuller and more mature data science capability.

a. **These recommendations included policies concerning training and information sharing between knowledgeable staff that would have no financial costs to CRS. Have steps been taken to implement these recommendations?**

CRS has continued staff professional development and education in the use of statistics in policy analysis and the furtherance of a community of practitioners across research divisions focused on the use and analysis of federal datasets. CRS has offered targeted on site training in statistical analysis by outside experts, as well as over 100 licenses for DataCamp training courses. The DataCamp courses are popular and allow access to a wide variety of courses in SQL, R, Python and other programming languages. CRS also plans to host a summer series of outside and internal speakers regarding the use of data science approaches in policy analysis, focusing on AI and similar technologies, in order to increase general understanding and awareness of the use of such tools in a policy analytic context.

b. **In the CRS budget request for FY2024, your written testimony included language on a data analysis pilot program?**

Yes. The RAND report provided the basis of this budget request. The RAND report recommended that CRS deploy a pilot data science team to conduct small projects in each research division.

i. **Was this inspired by RAND's recommendations? If so, then you**

estimated that your pilot program was estimated to cost $3.08 million and yet none of their recommended pilot programs were estimated to cost this much. Can you explain this discrepancy?

In the 2024 Congressional Budget Justification (CBJ), CRS requested $2.593 million, all of which non-recurs in FY2028, to support the data analysis pilot program. An additional $485,000 is requested by OCIO to support the pilot program.

The requested funding includes:
- $1,344,000 to staff three data teams in the research divisions to develop and maintain data models and projects in a cloud-based environment;
- $1,011,000 for cloud computing, analytical tools, and a secure cloud environment;
- $238,000 for data modeling and project software, and associated training (TRIM);
- $485,000 for two OCIO FTE

The $3.08 million requested is less than the items estimated in the RAND report on page 30, in Tables 4.1 and 4.2. Table 4.2 delineates the additional cost for each recommended use case, which is not included in Table 4.1. As noted in Table 4.2, each use case is estimated to require roughly $730,000 (Cloud and developer costs) annually. The proposed CRS funding is less than that estimated by RAND. CRS and OCIO were able to identify cost savings for the government to reduce the overall budget request.

ii. **Can you provide specific details on the contents of this pilot program?**

The RAND report recommends evaluating four different use cases to include:

- Synthetic Population Model – to derive insights from survey and administrative data about individuals collected by the Census, Social Security Administration, Health and Human Services, Internal Revenue Service, and others to inform health, tax, and spending policy and assess their effect on various populations and congressional districts.

- Synthetic Firm Model – to inform policy questions where it is useful to have a deeper understanding of details about firms such as firm size, firm ownership (e.g., veteran-owned, minority-owned, or woman-owned businesses), or other firm characteristics to better

inform policy levers. Similarly, if Congress expands activity in anti-trust, trade, or industrial policy, this type of tool could provide useful information.

- Student Loan Data Model – provide Congress with important insights on student loans to include demographic, geographic, and income details on student loan borrowers when they are in the loan repayment period.

- Text Analysis and Legal Language Model – identify relevant documents, summarize documents, locate answers to questions by interpreting large bodies of text, to include legislative text and generate new text (answers to questions, draft emails, draft policy documents) based on textual knowledge provided to the system.

The budget estimate includes the evaluation of these four use cases.

16. What data analytical tools do CRS analysts have access to (e.g., STATA, SPSS, VBA, SAS, R, Python, etc.)?

CRS staff have access to a range of data analytical tools depending on their subject matter expertise and work areas. These tools include SAS, STATA, Excel, ArcGIS, R, Python, PowerBI, Tableau, VBA, PoolParty and other data visualization applications for interactive graphics. All software available to CRS staff must meet OCIO security reviews and standards before being deployed in the Library's IT environment.

a. What is the date/edition of the software that CRS analysts use?

Data Analysis Software	LOC Approved Software Version
SAS	Version 9.4M7 (Aug. 2020)
STATA	Version 16 (Jun. 2019) & 17 (Apr. 2021)
Excel	2021 and 2016
ArcGIS	Version 10.6.x (Jan. 2018)
R	Version 4.2.2 (Oct. 2022)
Python	Version 3.9.2 (Feb. 2021)
PowerBI	2.112.283.0 (December 2022)
Tableau	2021.4.2 and 2021.4.3
PoolParty	2022 R1 (9.0.1/9.0.2)

CRS is currently using Microsoft Office 2016, which is supported for enterprise use by Microsoft through October 2025. Upgrading Office versions is a significant IT project impacting CRS because the legacy CRS authoring and publishing (A&P) tool has a customized plug-in for Microsoft Word, which must be updated and extensively tested whenever a new version of the Office suite is deployed. With the IRIS program modernization effort underway, the

current CRS A&P configuration has been maintained until a new authoring and publishing and content management system could be made available for use. That development is nearly complete and the Library is working with CRS to test the new solution, which will transition CRS staff first to Office 2021in June 2023 and ultimately to the full M365 platform in August 2023.

b. Do CRS analysts have access to GitHub or an equivalent tool to share code?

Many CRS staff do not engage in the developing, writing, and editing of code. Of the CRS staff who do, access to GitLab is approved and they are able to set up accounts. The CRS Knowledge Services Group is planning a broader roll out of the software, including introductory training.

17. According to a recent newsletter, the First Branch Forecast (4/10/23), "CRS has brought on a small army of interns converting older bill summaries from PDFs to machine-readable formats." Are these interns converting these old bill summaries by manually retyping them?

The First Branch Forecast newsletter was incorrect when it stated "CRS has brought on a small army of interns." The Law Library of Congress Digital Resources Division sponsors a successful remote metadata intern program. The Law Library's metadata interns support many Congress.gov projects, including mapping metadata from the Digest of Public General Bills and Selected Resolutions volumes. Although many service units within the Library of Congress collaborate on the development of Congress.gov, the intern program is run by the Law Library and not by CRS. An example of cross-collaboration is the CRS coordination with metadata interns to establish the technical specifications required to ingest the collection of information into Congress.gov.

The Law Library's metadata interns are not manually retyping old bill summaries. As part of the effort to digitize public general bills and make them easily accessible on Congress.gov, a set of Digest of Public General Bills and Selected Resolutions (historical volumes of bill summaries produced by CRS, dating from 1935-1972) was digitized by OCIO. The digitization project produced PDF files and text generated by Optical Character Recognition (OCR). To successfully upload and locate the digital bill summaries in Congress.gov, metadata interns are populating spreadsheets with metadata (e.g., bill type, bill number, congress number, sponsor, date of introduction) from the Digest of Public General Bills and Selected Resolutions OCR text. The spreadsheets serve as a map for ingesting metadata and summaries into the Congress.gov database.

a. Have other modern methods been considered and explored for converting PDFs into better formats?

Yes, OCIO considered alternative methods for digitizing bill summaries and arrived at the decision to produce PDF files and text generated by Optical Character Resolution (OCR) to digitize the historical volumes of bill summaries was a modern method.

18. What administrative paper-based efforts have recently been moved to automated systems and what administrative paper-based efforts persist at CRS?

CRS has benefitted from the Library's transition from legacy paper-based systems to electronic versions. These include processes for travel and training, property passes, and badging.

For example, the travel and training budget for CRS congressional support and professional development was entirely paper-based, which required the use of LC form 16 (Rev. 2/2019) to request travel, GSA forms 1102 & 1164 to voucher regular and local travel, and LC form 185 for sponsored travel.

Likewise, training required filling out OPM form SF-182. As Adobe fillable forms became available across the Library, and licenses for all staff could be funded, documents were converted for easy routing and electronic storage. The documents were put into place as the Library pivoted to using the E2 travel system solution in early 2019. This system platform allows easy routing amongst levels of approval for travel and training.

More recent examples include the Library online property pass system, which is expected to be implemented in 2023. This system will cover all government issued equipment; however, removal of personal items and/or materials from the CRS-exclusive library require a written property pass be kept with the materials and shown to security at the building exits.

Most of these transitions were relatively new as the Library and CRS entered into the pandemic. The pandemic eliminated the need for many of these forms as activities were minimized for health safety, therefore the efficiencies are only now being fully realized. Additionally, during the COVID-19 pandemic, during which forms/signatures were electronically generated and stored, few paper-based practices have persisted.

During the COVID-19 pandemic, the Knowledge Services Group (KSG) developed and deployed an electronic roll call feature on several division and office intranets. The tool allows employees to sign in and out of work online rather than on a paper sign-in sheet KSG also worked with two divisions to create an electronic method to track the review of written products. Before the development of this tool, product review was tracked through a paper Product

Clearance Form.

CRS relies on non-automated processes using various software to include Outlook, Skype, and SharePoint, among others. The workflow automation component of the IRIS program solution requires the full deployment of M365 to CRS. The OCIO is currently in the process of rolling out M365 to CRS which will then enable the deployment of the IRIS program workflow automation infrastructure.

    a. **Are there plans to automate the remaining administrative paper-based efforts?**

        The roll-out of M365 will allow the deployment of the workflow automation component of the IRIS program. IRIS program solutions are built upon Microsoft SharePoint Online as well as Microsoft's Power Apps platform, which enables the rapid development of application enhancements and automation of business processes. After modernized applications are deployed, they will be continuously improved to satisfy emerging congressional requirements and further streamline operations.

19. **Can you provide the committee with data on all major network outages and other technology failures reported to the Library's technology helpdesk over the past 5 years from CRS staff?**

The Table below provides a summary of the major technology related incidents that have affected CRS staff over the last five years, organized by the affected system and fiscal year. The data was compiled by OCIO based on Business Continuity and Disaster Recovery (BCDR) record keeping.

Major IT Issues Affecting CRS	FY 23	FY 22	FY 21	FY 20	FY 19	Total Count
Access to External Websites	4	0	1	0	0	5
Confluence Collaboration Workspace	0	0	0	1	0	1
Congress.gov	1	7	6	1	1	16
CRS Publishing Tools (SharePoint, Mercury, A&P, etc.)	2	18	11	0	1	32
CRS Geospatial Hosting Environment (GHE)	0	0	0	3	0	3
CRS.gov Service Disruption	0	4	2	4	3	13
CRS.gov Content Ingest	0	16	0	0	0	16
CRS.gov Search Issue	3	4	7	2	4	20
Email	4	1	4	1	1	11
iPhone Access	0	1	0	0	0	1
LOC Intranet	5	1	2	2	0	10
LOC Network Connectivity	2	13	29	4	2	50
Network File Share Access	1	26	0	0	1	28
Enterprise Print Access	1	0	0	0	0	1
Skype	2	1	3	2	0	8
Zoom	0	2	0	0	0	2
Totals:	25	94	65	20	13	217

Major Incident Decision Grid

Legend
- Red – P1
- Orange – P2
- Yellow – P3
- Green – P4

Major IT incidents are determined by OCIO based on the criticality of the affected IT system to Library business, which is established in coordination with the business owner of the system, and the level of disruption the incident is causing. The Table above outlines the decision grid used by OCIO to determine the urgency of each IT incident.

The highest IT incident response (P1) is reserved for complete service disruptions of the most critical Library IT systems, such as core Library IT services (email, network connectivity, etc.), Congress.gov, and CRS.gov. The second level of response (P2), is

assigned when an incident with important IT systems affects a large number of users. Both P1 and P2 level incidents are responded to 24/7, and have targeted resolution time of eight hours or less. Most incidents are managed in considerably less time.

Given the CRS mission to support Congress, all CRS IT systems have a return to operations (RTO) requirement of zero to four hours and are therefore categorized at the highest criticality level: Business Criticality One.

20. **How do you advocate for technology attention for CRS within the Library of Congress?**

Under the Library's centralized IT management model, OCIO collaborates closely with Library service units, including CRS, to ensure IT requirements are identified and met. Library service units are responsible for surfacing business requirements, and OCIO leads the process to identify effective technical solutions to meet the business requirements. CRS utilizes multiple channels to advocate for IT resources to support the work its staff performs for Congress, as well as engages the appropriate resources within the organization. The CRS Director and the Library's Chief Information Officer (CIO) meet weekly, and they meet monthly with the Librarian. The CRS Deputy Director and the Library's Deputy CIO meet regularly to discuss technical issues that require attention. The Library's CIO also meets bi-weekly with the CRS Coordinator for Information Technology Projects to discuss technical issues in greater detail. Under the Library's IT Portfolio Governance model, CRS and OCIO established the CRS IT Governance Board, which the CRS Director jointly leads with the CIO. The board meets monthly with representatives from CRS and OCIO to prioritize activities and ensure coordination at the leadership level. In addition, CRS and OCIO have regular contacts with other offices in the Library, such as the Financial Services Directorate and the Office of the General Counsel, each of whom support CRS IT modernization work.

Additionally, CRS and OCIO staff collaborate daily on projects. CRS created the Information System Business Office (ISBO) in CRS to coordinate with OCIO and ensure CRS issues are managed effectively and in a timely way. The ISBO works closely with several teams in OCIO, including the IT End User Services Division, IT Design and Development, and IT Service Operations to help prioritize and implement IT services for CRS.

a. **Please provide to the Committee the Service Level Agreement (or similar document) between CRS and the Library, and please explain if the major outages are reflected in those statistics.**

Under the centralized IT model, the Library maintains a priority matrix for IT systems and services, which defines targeted resolution times based on an incident's impact to Library operations and the agency's ability to meet its mission

to Congress and the nation. The Recovery Time Objective (RTO) for Library IT systems and IT incident prioritization matrix are based on the priority of IT systems and services, not specific Library service units.

Given CRS's mission to support Congress, all CRS IT systems are rated at the Library's highest prioritization level, with a four-hour RTO. This includes CRS.gov, the Mercury CRM, and CRS SharePoint sites, including the CRS Collaboration Center.

The Table below presents the Library's IT Incident Response priority matrix:

Table Incident Response				
Priority	Significance	Response Time	Resolution Time during Core Hours M-F, 6:30AM – 8PM	Resolution Time outside Core Hours M-F, 8PM-6:30AM, Weekends and Federal Holidays
P1	Critical	15 minutes	2 hours	4 hours
P2	High	15 minutes	4 hours	Next Business Day
P3	Moderate	15 minutes	8 hours	Next Business Day
P4	Low	1 Hour	2 business days	2 business days

The prioritization criteria established by the OCIO, for reported incidents is shown below.

Prioritization Guidelines					
Work Stoppage		Service is unavailable *User is unable to work			
Work Degradation		Partial loss *User work is affected			
Work Interruption		Service is not working correctly *User is inconvenienced			
	Public Web/ Websites used by Congress (Congress.gov/LIS/ CRS.gov)	Enterprise Apps/ Infrastructure/Apps used by staff to directly support Congress	SU Business Apps	VIP	User
Work Stoppage	P1	P1	P2	P2	P3
Work Degradation/Interruption	P1	P1	P2	P2	P4

The OCIO maintains and provides CRS with access to a dashboard that portrays OCIO's compliance with these Service Level Agreements, as well as the customer satisfaction rating based upon formal documented feedback from CRS staff. Compliance with Service Level Agreements has varied over the last five years ranging from 70% to 99.9% over that period.

21. In 2018, CRS started a knowledge management initiative to create a CRS Research Portal. What is the status of that initiative? What is it intended to do? What is its role at CRS? How much has this initiative cost the agency?

Effective knowledge management (KM) techniques to identify, manage, and share information across an agency can help increase efficiency and collaboration, and break down institutional silos. CRS has several active KM initiatives, including the Research Portals, which became available in 2018. As of May 17, 2023, CRS staff had created 48 Research Portal sites. The most frequently visited sites have been on appropriations, congressional budget justifications, facts about Congress, and data. The Research Portal averages approximately 250 unique visitors a month, which shows approximately 60% of staff who conduct research and analysis at CRS use the sites regularly. Effective knowledge management (KM) techniques to identify, manage, and share information across an agency can help increase efficiency and collaboration, and break down institutional silos. Research Portal sites typically contain laws, pending legislation, documents, and links to information on a specific topic. Because they co-locate relevant information and expertise in one location, the portals allow CRS analysts and librarians to answer certain congressional requests more quickly. One long-time CRS staffer said a research portal site was one of the greatest developments the staffer had witnessed since working at CRS.

Research Portal sites are created when requested by employees in the research divisions. The Knowledge Services Group's Knowledge Management Section (KSG/KM) works with those staff to create the sites, and then research division employees become responsible for adding and maintaining the content.

Currently, knowledge management responsibilities, including the Research Portals, are primarily handled by five full-time FTEs: two GS-13 Senior Knowledge Management Librarians, two GS-11 Reference and Knowledge Management Librarians, and a GS-15 Section Head. (Some additional KM tools, such as CRS's electronic roll call and product trackers, are referenced in other responses.) However, the KM librarians also have reference responsibilities, which include staffing the La Follette Congressional Reading Room. The total annual salary cost of all non-reference activities would be $493,721.55 - $338,021.55 for the four KM librarians, and $155,700 for the supervisor. Other indirect costs include time spent by the OCIO SharePoint developer providing technical support for the sites, and the analytical staff time spent maintaining their sites.

Minority Questions for the Record
Questions for Director Mary Mazanec

Recruitment and Retention

1. **A recurring theme we have heard from CRS employees is that the rate of attrition at CRS is higher than that of comparable agencies and that employee morale has declined substantially.**

a. **What concrete steps is CRS taking to address recruitment and retention?**

CRS continues to recruit, retain, and professionally develop a diverse, highly skilled workforce to meet the evolving needs of Congress. Specific goals for developing the CRS workforce are identified in the CRS Operations Plan around recruitment, training, and communications.

CRS has taken the following steps to enhance recruitment and retention:

- The Service develops and executes a recruitment plan for merit selection positions that includes outreach to potential applicants from underrepresented groups. During FY2022, CRS participated in more than 30 recruitment events many of which were sponsored by minority-serving institutions and schools or organizations with a focus on underrepresented groups, and has participated in 15 events thus far in FY2023.
- The Service supports paid summer internship opportunities through the CRS Student Diversity and Inclusion Internship Program, which is designed to introduce a diverse and inclusive group of students to career opportunities with CRS and to position CRS as a future employer of choice. Annually, CRS recruits nation-wide through this program and employs students for 10 weeks in the summers.
- In FY2022, CRS completed its Capstone project with Texas A&M University's Bush School of Government and Public Service to research strategies for improving the recruitment and retention of a diverse workforce. The recommendations inform the work of the DWIG, including a recommendation to adjust language in vacancy announcements and on the CRS Career Opportunities webpage.
- CRS uses existing tools and flexibilities for recruitment, including salary adjustments for selectees, and retention, such as reimbursement for bar dues for attorneys, which was implemented in response to staff feedback.
- CRS continues to offer training opportunities for leadership, writing, and presentation skills. The Service has developed customized statistics and data training courses to support staff professional development.
- CRS is creating a framework to provide staff in grade levels GS-9 and below with more developmental opportunities to strengthen skillsets in their current position and provide the necessary knowledge, skills and abilities to apply for higher graded positions.
- CRS has developed and implemented a framework to provide opportunities for staff to complete internal or external developmental rotational assignments.
- CRS has updated its telework program to provide additional time and attendance flexibilities to enable staff to better balance work-life responsibilities, including situational telework, "hybrid" (in other words,

½ onsite- ½ offsite) workdays, and increased opportunities to earn credit hours. The CRS Director has exercised her authority to pilot 100% telework for legislative analysts who produce bill summaries.

- CRS uses available authorities for awards, including performance awards, on-the-spot awards, and time off awards.
- CRS has increased funds spent on professional development and associated travel for employees.
- CRS, in response to staff feedback, began reimbursing bar fees this fiscal year.
- CRS is collaborating with the Office of the Librarian to conduct a CRS-specific barrier analysis.
- In FY2022, CRS implemented a working group with participants across the divisions to identify obstacles and areas of improvement in our efforts on hiring and retention
- In FY2022, the CRS American Law Division (ALD) established the first ever CRS use of an open continuous vacancy model

b. **How will the success of these steps be evaluated?**

CRS considers the high quality of applicants, selectees, and staff as evidence of effective recruitment. With respect to the goal of increasing diversity in the applicant pools, the applicant flow analysis portion of the CRS-specific barrier analysis will provide information about the effectiveness of CRS's recruitment activities. CRS continues to closely monitor and evaluate attrition and retention rates.

c. **Does CRS conduct exit interviews?**

Yes. Departing employees are encouraged, but not required, to participate in exit interviews when they leave. Exit interviews are conducted informally and confidentially at the Service-, section- and division-levels. Formal exit interviews are conducted by the Office of Administrative Operations.

  i. *If yes*— What is done with the data from these interviews?

  Interview information is analyzed and compiled for management review. Management considers trends identified in the reports.

  ii. *If no*— Why are exit interviews not conducted?

  Not applicable.

d. **What are the most common reasons for separation given by employees leaving CRS?**

For the most recent report, covering the first two quarters of FY2023, 30 employees (excluding one death-in service) separated from CRS, of whom 12 retired and 18 resigned. Of the 30 employees, 15 participated in exit interviews: four retirees and 11 who resigned. Note that the 30 employees who separated from CRS during this time period include employees who retired, transferred to another unit in the Library, and employees who were appointed to not-to-exceed temporary or indefinite appointments.

Of the 11 who resigned: five accepted new positions with other federal government agencies; one was promoted to another Library unit; three accepted employment with the private sector, and two resigned without a new job at the time of their resignation. The most common reason for separation given by employees leaving CRS was new professional considerations. Nine of the 11 non-retiree interviewees stated this reason. The reason given by the remaining two employees for leaving CRS was relocation to a different part of the country.

e. **Please provide any notes or records from exit interviews conducted by CRS over the past five years.**

Employees who have notified CRS of their intention to leave CRS are invited to participate in a formal exit interview conducted by the Office of Administrative Operations (OPS). Staff conducting the interviews communicate to employees that their information will be anonymized and used by CRS management to inform and enhance future recruitment and retention strategies. Given the possible chilling effect of broad distribution, the process does not contemplate sharing the information further. Please see Attachment C, the interview questions used in the formal exit interview by OPS.

2. **What is the median length of service for CRS employees and how has this changed over the past ten years?**

Please see Attachment A, which provides information about CRS employees' Library length of service. The attachment shows a minimal decrease with respect to average tenure. There is a decrease in CRS staff eligible for full retirement, from 26% in 2013 to 16% in 2023.

3. **Please provide the following attrition data for employees who have departed CRS in the last five years, including year to date data: their length of service at CRS, their race/ethnicity, their gender, the type of separation.**

Please see Attachment A.

4. **The CRS results from the most recent Federal Employment Viewpoints Survey (FEVS) showed sharp declines in CRS employees' trust and confidence in the agency's senior leadership including your ability to communicate with employees, your concern with employees' health and safety, your respect for work-life balance, and your ability to motivate the workforce.**

   a. **In your opinion, what is responsible for this poor showing?**

      Anecdotal information suggests that one cause may be significant employee dissatisfaction with the amount of telework approved for their position. The FEVS provides insight into employees' perceptions of the agency at one point in time. Return to onsite operations resumed in April 2022 and the FEVS was conducted in July and August of 2022. Since then, employees have had the opportunity to interact with colleagues, management, and congressional staff, resume in-person briefings, and host in-person seminars and events. Additional telework flexibilities were granted earlier this year to address concerns of work-life balance while also preserving the mission of CRS and its service to Congress. While the FEVS may provide information that employees are satisfied or dissatisfied it does not explain why. Thus, the focus groups, described below, are intended to provide more context and actionable information to inform management decision-making.

      For further background, to support congressional needs and spur necessary collaboration, mentorship, and innovation, CRS began its return to on-site operation earlier and to a greater extent than some other parts of the Library and other legislative branch support agencies. While fully compliant with the directions of the Library's Chief Medical Officer and the Office of the Attending Physician, this requirement raised certain health and safety concerns among some CRS staff.

      With the Librarian's decision to return to regular onsite operations and end certain flexibilities at the Library level, CRS and CREA continued to engage in negotiations regarding telework and other workplace flexibilities. I firmly believe that the in person service CRS provides congressional clients is essential to our consultative responsibilities and therefore have aligned the Service's onsite presence to that of Congress's. I believe a hybrid work environment best serves the needs of Congress, while enabling employees to balance their work duties and family considerations. I also believe that there are other benefits to on-site presence, including facilitating collaboration and mentorship, which contribute to enhanced service for Congress.

      As a consequence, the negotiations with CREA, which proposed all CRS staff to be afforded essentially full-time telework, were contentious. CREA is the sole representative of CRS staff, and CRS management was not able to discuss

directly with staff the underlying rationales of negotiating positions or planned implementation of available flexibilities. This dynamic may also have shaped perceptions of senior leadership. In response to employee concerns, a variety of accommodations were made available to employees to aid in the transition of the return to on-site operations. For example, instead of a full return to on-site operations, March 2022 served as a transition period where staff were allowed to report onsite only one day per week. Management also took into consideration and cooperated with staff who had individual and/or family health concerns by allowing them an exemption to the transition period, delaying their return until April 2022. Additionally, management recognized that a complete return would have an impact on arranging childcare and allowed affected staff to utilize generous situational telework until June 2022, when the school year was scheduled to end. Staff continue to use situational telework under the Side-Agreement on Telework.

b. What actions have you already taken to identify root causes of low and declining CRS employee morale?

The Director has also engaged in more regular division and office all hands meetings, rather than Service-wide meetings, to ensure there is sufficient time to address employees' concerns and respond to their questions.

In addition, ongoing activities related to the CRS barrier analysis will potentially provide information regarding employee engagement and morale, and communication. For example, the barrier analysis review of promotion data is completed (the applicant flow analysis is ongoing).

The barrier analysis review of FEVS data undertaken so far has informed the planned focus groups (see below for more information). In response to staff feedback, the focus groups have been expanded to allow for more participation.

CRS management has been made aware of information that morale is impacted because of anecdotal concerns that women and minorities are not promoted at the same rate as men or White employees, or that women and minorities are discouraged from submitting promotion files for review. Accordingly, CRS examined this in the barrier analysis. The promotion barrier analysis compared selection rates of social science analysts and legislative attorneys categorized by gender and by race/ethnicity for fiscal years 2011 through 2022. "Selection" includes two decisions. The first is the employee's decision to submit a promotion packet for those eligible to do so. The second is the decision by managers to promote or deny promotion for those submitting promotion packets. The analysis concluded that

for social science analyst women were statistically significantly more likely to submit a promotion packet than men; and African Americans were statistically significantly less likely to submit a promotion packet than non-African Americans if one of the series was examined in isolation, but the difference was reduced and insignificant when the total series were examined together. For legislative attorneys, the analysis found that the difference in promotion packet submission rates between women and men, between African Americans and non-African Americans, between Asians and non-Asians, and between Whites and non-Whites is small and not statistically significant in any comparison.

With respect to decision by managers to promote or deny promotion for those submitting promotion packets findings for the social science analysts concluded that the difference in promotion denial rates between women and men, between African Americans and non-African Americans, between Asians and non-Asians, and between Whites and non-Whites is small and not statistically significant in any comparison. Findings for the legislative attorneys concluded there are too few promotion denials (one) to allow meaningful analysis of this selection.

The barrier analysis focus groups were expanded to address other FEVS questions that declined since 2018. However, the FEVS survey results were mixed. The following FEVS survey results pertaining to several standard measures of morale that flow directly from the tone and culture of accountability that the Director has set from the top and which CRS has directed the senior leadership team to implement effectively throughout the Service.

CRS respondents to the FEVS survey agreed with the following statements:
- 85% agreed "My work gives me a feeling of personal accomplishment."
- 84% agreed, "I know what is expected of me on the job."
- 86% agreed, "I know how my work relates to the Library's goals."
- 84% agreed, "Supervisors in my work unit support employee development."
- 85% agreed, "My supervisor listens to what I have to say."
- 88% agreed, "My supervisor treats me with respect."
- 89% agreed, "I am held accountable for the quality of work I produce."
- 89% agreed, "The people I work with cooperate to get the job done."
- 86% agreed, "My work unit has the job-relevant knowledge and skills necessary to accomplish organizational goals."
- 93% agreed, "Employees in my work unit consider customer needs a top priority."
- 80% agreed, "My supervisor is committed to a workforce representative of

all segments of society."
• 77% agreed, "My supervisor provides opportunities fairly to all employees in my work unit (e.g. promotions, work assignments)."

i. If you have not taken any actions, when do you expect to take actions?

As noted above, CRS is already taking action and will continue to do so. Current actions include partnering with Marcia Byrd, Senior Advisor, Office of the Librarian. The Office of the Librarian hired Ms. Byrd to conduct a barrier analysis for the entire Library. CRS volunteered to be the first Library service unit to participate in a service-unit specific barrier analysis. Ms. Byrd is working with CRS to conduct the CRS-specific barrier analysis. As part of this analysis, she is conducting focus groups to discuss opportunities for improvement and offer staff from across the service the ability to provide confidential feedback. The feedback will be anonymized and aggregated, and information about who is participating will not be made available to CRS management. The focus groups have been advertised and employees are currently able to register to attend sessions of their choice.

Based on the barrier analysis findings, there will be focus groups for four demographic groups, African-American/Black employees, Asian employees, Hispanic employees, and employees with disabilities. Complementing and expanding that effort will be sessions for all permanent staff broken out by senior management, other management and supervisory staff, and non-management staff. The sessions are scheduled May 30-June 14, 2023. Future focus groups will be scheduled as needed to ensure all CRS staff who wish to participate have the opportunity to do so.

c. How would you evaluate your efficacy as a leader and the quality of your senior management team?

The Director and the senior management team are formally evaluated using the performance management system described in Library of Congress Regulation 9-1610, *Senior Level Executive System*, which is currently certified in accordance with 5 U.S.C. 5307(d)(5). Senior managers are evaluated on five critical elements: Leading Change, Leading People, Business Acumen, Building Coalitions, and Results Driven. Ratings and supporting documentation are reviewed by the Library's performance review board. In the limited instances it has occurred, I have consistently and appropriately addressed senior level managers' poor performance and misconduct.

During my career, I have led by example and consistently reflected on the impact and effectiveness of my actions, adjusting course as needed. I am extremely

proud of the support CRS provides to Congress every day and believe that CRS has made significant improvements to that service throughout my tenure. In addition to this exceptional support, I view the recruitment and development of an exemplary CRS Senior Leadership team as one of my best accomplishments in my current role as the Director of CRS. Moreover, my efforts to build a diverse professional staff and to create an inclusive work environment are also among my proudest achievements. The best interests of Congress, the Library, and CRS drive my decision- making. Guided by this principle, I do not hesitate to make tough decisions even if the decisions are not popular at the time. As I am always seeking to further hone my leadership skills, the FEVS may offer insights into how I may do so. For example, the 2022 FEVs provided feedback to me about how effectively I have communicated the rationale for my actions, particularly with regard to my decision to bring CRS staff back onsite to Capitol Hill in spring 2022. I have taken steps to ensure CRS staff better understand and appreciate the factors underlying that action, but I am certain Members of Congress and staff have benefitted greatly by having experts once again working with them in person.

d. How would you change your management practices in response to the 2022 FEVS survey to improve morale?

Information from the focus groups, described above, will inform my decisions about changes to specific management practices. After receiving the FEVS, I ensured that the results were communicated to staff through the Tuesday Morning Update, an internal staff newsletter, which contained links with comparative information and the results. Although some FEVS data showed shortcomings in some areas, there was data that showed areas of strength for CRS, including questions on work experience, my supervisor, and my work unit (see above). I also encourage staff to provide feedback in a variety of ways, including direct feedback to me. In addition, I have engaged more closely with CRS staff in order to provide different opportunities to receive feedback, contextualize my decisions, and address questions or concerns. This engagement has included attending quarterly meetings at the division and office level, inviting staff to meet informally, and increasing all-staff communication through the CRS internal newsletter, the Tuesday Morning Update, and through agency-wide email communications.

5. How do you measure the success of your recruitment efforts?

Evidence of overall successful recruitment efforts include the selection of highly qualified employees who successfully complete the probationary period and contribute to the accomplishment of CRS's mission.

6. Over the last five years, what is the median length of time it takes to

fill analyst/attorney/librarian positions?

Please see Attachment A.

7. **CRS staff report that training, mentoring, and professional development is approached in an ad hoc manner.**

   a. **What is your strategic plan for the development of CRS talent and expertise?**

   Training, mentoring, and professional development is not approached in an ad hoc manner. It is governed by Article 10 of the Collective Bargaining Agreement between CREA and the Library (for bargaining unit employees) and Library of Congress Regulation 9-1330, *Employee Training and Development* and intentional strategic oversight by the senior leadership team. The planning is also informed by staff feedback. Since 2019 CRS has increased the dedicated funds available for travel and training, with an increase of over 50%.

   Strategic training and development begins for all staff when they join CRS through their participation in the Library's New Employee Orientation, which is followed by their CRS New Employee Orientation. The CRS orientation program was redesigned and expanded in FY2021 in direct response to staff feedback sessions the Director and other senior leaders held with newly onboarded staff. The revised orientation program spans two days (instead of one) and provides staff with an overview of CRS's mission and core values, organizational structure, and other important information. After analysts and attorneys onboard, their supervisors and managers ensure they complete the training and activities identified in the relevant onboarding and orientation guide, which identifies training and developmental activities to be completed over the course of their first year of CRS employment. Based on additional recent staff feedback, CRS is currently revising the New Employee Orientation again to implement changes at the beginning of FY2024.

   CRS also trains supervisors and managers with annual and as needed training sessions. For example, new and acting supervisors are provided specific training on addressing performance and conduct concerns, supervising in a union environment, and an overview of important policies and Library regulations. These efforts are focused on creating and supporting a well-educated, accountable, and effective corps of supervisors and managers.

   CRS values providing professional development opportunities, including rotations or details. Accordingly, the Service recently provided senior managers management guidelines, which provide a framework for management to consider internal and external professional development rotations of CRS staff. CRS will launch a summer series for staff on AI this year.

As noted above, CRS has significantly increased the dedicated funding for CRS employees to engage in travel and training. CRS employees may participate in the Library's Career Development Program and Leadership Development Program, as well as the Supervisor Development Program.

CRS has long operated a well-rounded mentoring program for all new employees. The Mentoring Program matches new staff with seasoned CRS colleagues to provide guidance and advice, and act as a resource to the new employee as he or she acclimates to CRS. New CRS staff may additionally be provided with an informal mentor by their division management or unit. Before the COVID-19 pandemic, the employees within the mentoring program participated in various tours such as: the Capitol Building, C-SPAN, and the Pentagon. However, these tours were discontinued during the pandemic. Now that Library operations have returned on-site, CRS is negotiating with the various organizations to offer these tours again to staff participating in the mentoring program.

Among other functions, the Diversity and Inclusion Working Group recommend diversity and inclusion training topics for staff. Since FY2019, CRS has offered staff two diversity and inclusion keynote presentations every fiscal year to educate staff on the various topics of diversity and inclusion. It is CRS's goal that as employees become more informed about diversity topics, CRS becomes a more inclusive work environment (inclusion is one of CRS's guiding principles). Some recent D&I trainings offered to staff include, but are not limited, to Invisible Disability, Understanding Everyday Bias, Managing Stress and Anxiety Related to Covid-19 Pandemic, Connecting with Respect, Micro-Aggressions in Everyday Life, Anti-Harassment Training, and Embracing Allyship. Scheduled trainings for Q4 FY2023 include Cultural Competency and Mental Health in a Post Pandemic World.

Other trainings recently offered to staff include a three-day course, Reviewing Others' Writing; a three-day course, Critical Thinking and Effective Writing; a Supervisory Leadership Module; Basic Statistics in Excel; Virtual Presentation Skills; and Advanced Statistics in Excel. Staff may also participate in the wide variety of programs offered by CRS divisions to Congress and its staff. The Federal Law Update recently concluded, and upcoming topics include Federal Rulemaking and Building Your Budget Expertise.

The Knowledge Management Working Group has focused a dedicated effort to improve the experience for new employees which includes the transfer of tacit knowledge. The Knowledge Services Group division at CRS offers services for other divisions to develop their intranet pages with checklists, standard operating procedures, reference links, and division guidance. The development of division internal intranet sites are intended to be a resource for both new and existing

employees.

Finally, all CRS employees are expected to complete an individual development plan, which identifies training and development opportunities at the individual level.

b. How will you measure the success of your plan?

Plans for successful employee training are evidenced by enhanced employee engagement and performance, employee satisfaction with training (recent FEVS scores indicate 67.8% of employees responded strongly agree or agree to the statement "I receive the training I need to do my job well."), and employee development, including possible internal advancement.

8. Does CRS have 360-degree review for management?

No, but several members of CRS management have taken leadership courses that include a 360-degree review component or conduct an individual 360-degree review.

a. If not, why not?

The Library's performance management system does not require 360-degree reviews, so they are not mandatory.

Diversity, Equity, and Inclusion

9. During the 2019 CHA hearing, you stated, "We are trying to identify specific actions that we can do and put in place to make sure that our applicant pools are diverse."

a. What were those actions?

CRS has undertaken a number of actions in the past four years to further the directional plan initiative "Support a culture of diversity and inclusion with strategic recruitment and increased awareness." Recent examples include:
- the identification and implementation of specialized recruitment plans for each merit selection position posted – to include disseminating vacancy announcements to colleges and universities, professional organizations, and affinity groups – to publicize these positions to diverse groups and potential applicants;
- participation over the past two fiscal years in 45 recruitment events to increase awareness of CRS branding, as well as internship and employment opportunities; these events engaged with Historically Black

Colleges and Universities (HBCUs), Hispanic Serving Institutions (HSIs), the Congressional Black Caucus Foundation legislative conference and various professional organizations;

- collaboration with The Bush School of Government and Public Service at Texas A&M University on a Capstone project to research best practices for diversity and inclusion initiatives, including recruitment; and collaborated with other federal agencies to discuss initiatives; and
- the ongoing barrier analysis, which will provide additional information.

b. How did you measure the success of those actions?

CRS has engaged a labor economist to conduct an applicant flow analysis of CRS's highly populated positions, which will allow CRS to measure the effectiveness of these actions. CRS has provided the labor economist with vacancy announcement specific data, to review and determine if there are any stages within the Library hiring process that present barriers for groups of applicants. CRS will use this analysis to understand where an applicant fell-out in the hiring process, which would allow the identification of trends.

c. How did the diversity of the employee applicant pools change after you took those actions?

See above.

10. **How does CRS define and measure success in terms of diversity, equity, and inclusion at CRS?**

CRS supports a broad interpretation of diversity that considers attributes beyond what one can see on the surface and leverages the diverse experiences, backgrounds, and talents of its staff. CRS defines diversity as a collection of individual attributes that can be leveraged to help organizations pursue their objectives efficiently and effectively. These attributes include, but are not limited to, national origin, language, race, disability, ethnicity, gender, age, religion, sexual orientation, gender identity, socioeconomic status, veteran status, parental status, and family structure.

CRS defines inclusion as an aspect of workplace culture that connects each employee to the organization; encourages collaboration, flexibility, and fairness; and leverages diversity throughout the organization so that all individuals are appreciated and able to apply their full potential. Inclusion encourages employees to effectively use their unique backgrounds, talents, skills, and perspectives to achieve organizational mission and goals. Along with the Service's Core Values, CRS maintains Guiding Principles, including collaboration, excellence, inclusion, innovation, and integrity.

CRS measures diversity and inclusion initiatives in several ways, including:
- Participation of employees and managers, including senior leaders, in CRS-wide training programs focused on promoting diversity and inclusion;
- Participation of managers in training on anti-harassment and obligations related to Library of Congress regulations;
- Participation by managers and employees, including members of CREA, in the CRS Diversity and Inclusion Working Group; and
- Evaluation of managers on their ability to encourage and leverage diversity with their staff.

11. The Library Office of Inspector General (OIG) conducted an administrative review last Congress that resulted in findings related to diversity and customer service. What has CRS done in the last year to address these issues? Please be detailed in your response and provide any supporting documentation you may have.

With respect to customer service, the Inspector General's Management Impact Report recommended that CRS (1) collect and report data about congressional requests in a more reliable manner so stakeholders can track the volume and timeliness of CRS responses, and (2) gather customer feedback in a more systematic and timely fashion. CRS continues to collect a variety of data with respect to the volume of congressional requests and the timeliness of CRS responses. CRS uses a Customer Relationship Management (CRM) tool, Mercury, which tracks congressional requests from receipt through the response process to completion. As part of CRS's IRIS IT modernization effort, CRS and OCIO expect to deploy a modernized CRM during FY2023. Ongoing development of the CRM is anticipated to allow better integration with other tools such as email and authoring. This change should facilitate better data entry of requests.

With respect to customer feedback, CRS has initiated several aspects of a multipronged approach. CRS has increased Director-level outreach with Members of Congress to discuss CRS products and services and request feedback on their Office and committees use of CRS. CRS utilized the feedback and findings from interviews conducted by an OCIO contractor on CRS.gov and the search function and capabilities of CRS.gov to inform the modernized CRS.gov. CRS compiled and identified deadline requests for defined periods of time for analysis on the timeliness of CRS responses. CRS implemented a mechanism on CRS.gov that directs user to "share feedback" via a survey that asks congressional users about their overall satisfaction with CRS, responsiveness, and quality of CRS work, among other factors. Congressional users may elect to participate by clicking on the survey and the survey pops up for users with a 10% sample rate.

Certain CRS research divisions provide periodic newsletters. The CRS Legal Update is typically issued twice a month, informing Members of Congress and their staff of new legal products and events available on CRS.gov. As of May 30, 2023, the

newsletter currently has more than 900 subscribers. The S&T Quickbrief is typically issued monthly, informing Members of Congress and their staff of science and technology-related products and events. As of May 30, 2023, the newsletter has more than 2,400 recipients.

Both newsletters contain a hyperlink at the bottom inviting readers to complete a one question survey. The CRS Legal Update began its survey in October 2022, asking: "On a scale of 1 to 5, how useful are the CRS products included in the CRS Legal Update to your congressional work?" A text box allows respondents to enter comments. The comments received to date have been uniformly positive. Examples of comments (received in 2023) follow:

1. "I thought that the podcast on ARP funding conditions was really well done. The episode conveyed appropriate level of info in a reasonable amount of time."
2. "I'm an attorney on one of the agriculture committees and I sincerely appreciate the CLE seminars, newsletters to highlight important breaking issues, and analysis of important upcoming SCOTUS decisions both inside and outside of my committee's area of jurisdiction. Thank you, CRS, for all of the amazing help you continue to provide! I'm also very excited to learn today that you folks have a podcast—can't wait to check it out!"

The Federal Law Update (FLU) is a series of 24 seminars delivered by CRS attorneys each year on legal issues directly related to Congress's legislative business and for which attendees may qualify for Continuing Legal Education (CLE) credits. For many years, attendees have been invited to complete a seminar evaluation after each session, which seeks feedback on: (1) the panelists' effectiveness; (2) the presentation's usefulness; and (3) the usefulness of the instructional materials. Attendees are also asked for suggestions for future seminar topics. The feedback on the seminar evaluations has consistently been overwhelmingly positive. The results from these evaluations have also been used to improve each round of FLU seminars. Enhancements resulting from the feedback have included, for example, moving FLU seminars to a hybrid format starting in spring 2022 and launching legal podcasts per attendee demand.

Regarding diversity and inclusion, the Inspector General's Management Impact Report recommended that the Library hire a subject matter expert or firm with relevant experience to conduct an analysis of diversity in CRS and make recommendations for further improvement. The Library recently conducted an agency-wide barrier analysis. During this fiscal year, Marcia Byrd, Senior Advisor in the Librarian's Office, has been conducting and overseeing a CRS-specific barrier analysis, including an analysis of applicant flow data. CRS has contracted with a labor economist who conducted an analysis of career ladder promotion outcomes for employees in selected positions and series.

Additionally, CRS contracted for a Capstone project with the Bush School of Public

Service and Administration at the University of Texas A&M, which provided a report and presentation on information about potential pools of job candidates from historically under-represented communicates, effective job recruiting tactics for qualified candidates from under-represented communities, and best practices for recruiting and retaining a diverse workforce at CRS. CRS provided training opportunities so that the co-leads of that working group could complete the Cornel Diversity and Inclusion certificate program. Finally, CRS continues its efforts at recruiting and retaining a diverse workforce, including opportunities for CRS staff on the Diversity and Inclusion Working Group and others to attend recruiting events.

12. **Please provide the Committee with all internal communications (including emails) related to your diversity efforts.**

Please see Attachment B. The attached materials were identified by viewing the internal Diversity and Inclusion website; searching the Tuesday Morning Update (TMU) the weekly CRS newsletter, CRS Director email, and CRS Announcement email for "DIWG" and "Diversity"; reviewing an all-staff presentation, and conducting a broader Insider search for "Diversity."

In FY2022, CRS launched its internal diversity and inclusion website. The website highlights the initiatives and actions completed related to diversity and inclusion. Staff receive notifications about the website, training, and diversity and inclusion initiatives through the Tuesday Morning Update (TMU), the weekly CRS newsletter.

Communication

13. **Data from the Federal Employee Viewpoint Survey (FEVS) seems to indicate that communication between CRS senior management and CRS employees remains an issue. In 2022, only 33% of your employees were satisfied with the information they received from management about what is going on at CRS, compared to 50% in 2018. Also, according to the FEVS data, only 35% of your employees are satisfied with their involvement in the decisions that affect their work, down from 54% in 2018.**

   a. **What concrete steps have you taken to improve communication between CRS management and employees?**

      CRS management leverages a variety of platforms to communicate with CRS staff and solicit input. These platforms include all-staff town halls, division/office-wide meetings, brown bag sessions, working groups, emails from the Director and other senior managers, a Service-wide intranet and weekly newsletter – including a Director's Notes column, and a Director's Idea Box email address, as well as regular one-on-one conversations. CRS also utilizes consultative management in its divisions and work units. These

methods complement communications by the Library of Congress at-large.

Over the past several months, the CRS Director hosted division- and office-level meetings to provide updates about the Service and to hear directly from staff. Meetings have already occurred for each of the research divisions and are underway for the infrastructure offices. A second round of these meetings will begin in June.

Additionally, CRS management is leveraging feedback from working groups established by the CRS Director that focus on issues including data, diversity and inclusion, technology, outreach, and products, among other topics.

b. **How do you measure the effectiveness of these actions?**

CRS measures effectiveness by evaluating staff engagement. This engagement is tracked through participation rates at CRS meetings and periodic evaluation of staff-wide email views. An additional measure is the FEVS survey, which asks "How satisfied are you with the information you receive from management on what's going on in your service unit?" The 2022 results were comparable to the 2016 results, and followed a roughly 39% increase in satisfaction between 2016 and 2018.

c. **Have these actions been effective?**

The FEVS also provide insight into the effectiveness of efforts to improve employee communication.

CRS respondents to the 2022 FEVS survey results indicated:
- 84% agreed, "I know what is expected of me on the job."
- 86% agreed, "I know how my work relates to the Library's goals."
- 84% agreed, Supervisors in my work unit support employee development."
- 85% agreed, "My supervisor listens to what I have to say.
- 88% agreed, "My supervisor treats me with respect."
- 89% agreed, "I am held accountable for the quality of work I produce."
- 89% agreed, "The people I work with cooperate to get the job done."
- 86% agreed, "My work unit has the job-relevant knowledge and skills necessary to accomplish organizational goals.
- 93% agreed, "Employees in my work unit consider customer needs a top priority.
- 80% agreed, "My supervisor is committed to a workforce representative of all segments of society."
- 77% agreed, "My supervisor provides opportunities fairly to all employees in my work unit (e.g. promotions, work assignments).

14. Do you allow staff to provide feedback anonymously?

Yes. Bargaining unit employees may provide feedback anonymously through CREA, their exclusive representative. Employees may make anonymous reports to the Inspector General. Staff may provide anonymous feedback through the Federal Employee Viewpoint Survey.

Additionally, feedback from staff who participate in the focus groups will be kept confidential. Feedback will be anonymized and aggregated, and information about who is participating will not be available to CRS management.

a. **If so, how is such feedback collected and how often?**

A primary mechanism for receiving anonymous feedback is through contact with CREA, the sole representative of CRS staff. The Director has had a long-standing practice of meeting regularly with the President of CREA to discuss matters of mutual interest and to hear feedback through the President from bargaining unit employees. Note that the CREA President resigned in March when the President was promoted, and CREA has not identified an acting President.)

Division management engages with CREA representatives at consultative management and other meetings. The CREA President also meets regularly with the CRS Office of the Counselor to the Director and the Library's Office of General Counsel and may share feedback on behalf of employees (the CREA positions of President and Chief Steward are vacant). In addition, Federal Employee Viewpoint Surveys are administered by the Library approximately every two years.

Employee Evaluation

15. We understand that the American Law Division (ALD) is in the process of implementing what some CRS employees have called numerical "quotas" for congressional requests and written products as part of the annual performance appraisal of attorneys irrespective of content areas or legislative activity.

a. **Understanding that CRS management takes issue with these thresholds being deemed quotas, how does CRS management define them?**

CRS and ALD management have described these changes as "clarified performance measures" expressed in the "performance anchors" documents for legislative attorneys from Grades 13 – 15. The numerical benchmarks,

expressed as ranges, are only one aspect of these clarifications, which include clarifications regarding quality, workload, and weight of major areas of responsibility. In other words, these categories of achievements are already required under the existing system of performance assessment. ALD seeks to clarify the performance anchors with these changes.

More recently, in bargaining sessions between management and the union, the latter has described the ranges as "quantitative output" clarifications to the anchors. Management regards these ranges as expressions of an appropriate workload at the quality level that CRS expects.

b. **Why are these thresholds being imposed?**

ALD management would like to update legislative attorney performance anchors documents to promote transparency, consistency, and results orientation to achieve high quality and productivity.

- Management regards quality as ALD's top priority. A number of the clarifications, partly in response to attorney inquiries seeking a clearer understanding of how their performance was being evaluated, include more specificity regarding quality (for example, the number of rewrites expected of work product from some of the Service's most senior professionals, the use of primary source material, citations to research, the relevance of an attorney's work to the congressional agenda, collaboration, proper scoping of a project, timeliness, time management, and recordkeeping). The clarifications to the performance anchors will be published to legislative attorneys and provide them greater clarity, at the beginning of the performance year, of management expectations for quality.

- Management regards consistency as an important value. That means applying an objective standard to the work and assessing performance fairly among staff within the same seniority level of a job description—here, legislative attorneys from GS 13–15. Staff in any legal section should anticipate being reviewed fairly, and consistently, by any supervisor in ALD. The standards for quality and workload promote that equity transparently. Further, they provide information regarding any evolving division objectives, such as those regarding the importance of outreach.

- Management would like to promote an orientation toward achieving results. ALD has a highly capable work force. Management believes that with the right performance anchors, including appropriate benchmarks, all of ALD can work together to deliver consistently the best quality written and consultative support to as many congressional staff as possible.

c. **How do you intend to measure the impact of these thresholds on service to Congress?**

ALD measures success as a division in a number of ways. Management reviews the total request load at various points in the year to determine both the number and nature of the requests for legal support made by lawmakers and their staff. ALD management reviews all written work of the division at multiple points to determine whether the analyses reflect authoritativeness, objectivity, and nonpartisanship. Management also ensures that ALD delivers a variety of products (short and timely pieces, longer or more in-depth work, and confidential written work) in response to consistent congressional demand for a full range of legal analysis. ALD supervisors review how Congress may be using ALD products, including the readership of general distribution products and the topics that receive frequent requests. Management solicits feedback from congressional staff in many ways—through the Federal Law Update seminar polling questions; through the feedback feature on the *CRS Legal Update* newsletter; through direct outreach from the management team to congressional staff; and through the feedback of attorneys who share their interactions. If management learns from these engagements that Congress would like new analytical services from ALD, then the division works to deliver those changes. For example, frequent feedback from seminar polling suggested that the audience wanted to hear legal podcasts. Since that time, ALD has launched a legal podcast series that has reached many listeners. ALD also is spearheading an initiative to make podcasts more readily available for Members and congressional staff from their mobile devices. Attorney participation in attainment of these goals is recognized in performance evaluations.

d. **To what extent have you considered potential unintended consequences of these thresholds?**

ALD management has thought extensively about unintended consequences and pernicious incentives. These clarifications to the performance anchors for GS 13–15 legislative attorneys are intended to provide greater specificity regarding the performance anchors that are already in place. Consistent with the position description, CRS already requires that its analytical staff engage in consultations and presentations and write analysis as the primary components of performance plans. ALD is providing greater specificity regarding some of the high quality features and is providing ranges for how much written analysis would be successful in a typical year (which signals that there are some years that could be atypical).

The list that follows offers some of the feedback management collected regarding unintended consequences and our consideration of these issues:

- *What happens if attorneys only do enough work to meet the lowest level of a benchmark and then do nothing else so that they can turn to another benchmark?* ALD management's observation of the attorney workforce is that it seeks to surpass goals. ALD management has anticipated ranges that are below what a typical attorney does in a typical year, but not unreasonably so. Quality and productivity in both consultations and written work are a current feature of performance plans, even without the clarifications to the performance anchors. Further, under the proposed clarifications to the anchors, every supervisor has the discretion to substitute an unexpected or unusual assignment for those contemplated in a "typical year."

- *What happens if the benchmarks incentivize attorneys to avoid collaboration?* ALD management has removed any requirement for solo work and has added language regarding collaboration. Instead, ALD expects the rated employee to show a substantial contribution to any jointly authored work.

- *Will quantitative clarifications degrade the quality of ALD work?* ALD's performance in the past year since the clarified anchors have been discussed has shown quite the opposite of degraded service. ALD has maintained a consistently high quality, including careful deliberation and thoughtful research, while also achieving more consistent and timely productivity (more detail on this below).

- *How do we know that these changes are consistent with what Congress wants?* CRS, including ALD, solicits feedback from congressional requesters in a number of ways (see the response to 15(c), above). ALD management intends to update the anchors periodically to reflect the changing needs of Congress.

- *Will these clarifications increase the administrative burden of attorneys in tracking their work?* Employees already were expected to document their work for Congress, and several attorneys have commented that ALD management's effort to clarify the performance anchors has made them more mindful of this expectation. To make this task easier, ALD has implemented an electronic product clearance form in place of the more cumbersome paper or pdf-based system previously employed. ALD management has also offered re-training on use of the CRS request recordkeeping system.

- *How can we achieve these results without help and more staff?* With the Director's approval, ALD has hired 11 attorneys since the introduction of the clarified performance anchors. Further, ALD has added a talented and robust team of administrative support professionals, all of whom support the analytical work of attorneys in ways unprecedented for the division. ALD management developed and hired a paralegal unit, which now supports the attorneys on cite-checking and formatting so that they can focus on their

analytical work.

e. Are the thresholds in the law division a pilot for other divisions at CRS?

No. This initiative is an effort of the ALD management team.

> **i.** *If yes—* **How do you plan to gather feedback from CRS staff or Congress before these thresholds are implemented?**

> Not applicable.

f. Have you solicited feedback from your staff comprehensively and systematically in developing these thresholds? If so, how?

Yes. Please see the timeline (as well as the substantive discussion) that follows:

- March 11, 2022: CRS notified the union about ALD's intention to implement updated performance plans for GS 13–15 legislative attorneys and attached the updates. The notice included an implementation date of July 1, 2022, which would have meant that the updates would not be considered in evaluations until July 2023. Three months were contemplated for any needed adjustments to the plans.

- March 25, 2022: The union acknowledged the March 11, 2022, notice from CRS and requested a briefing.

- March 29, 2022: CRS and ALD management briefed the union and answered questions about the performance plans.

- March 31, 2022: The ALD management team held an all-hands meeting for all legislative attorneys to introduce them to the clarified performance measures. Several attorneys offered feedback and suggestions during and after the meeting. The ALD management team considered all of them. See below for additional information regarding management's consideration of feedback.

- April 4, 2022: The ALD management team paused the initiative regarding performance measures to solicit additional feedback and to engage with a newly formed consultative management group permitted under the collective bargaining agreement with the union.

- May 2022: Per a request made by some attorneys, ALD management facilitated the CRS human resources group's re-training of all ALD attorneys, section by section, on the existing performance anchors—even those that would not be affected by the proposed performance anchor clarifications.

- June 7, 2022: ALD's consultative management group provided detailed feedback regarding concerns about benchmarks, which ALD then incorporated (see below).

- July 11, 2022: CRS provided notice to the union regarding ALD section meetings about revisions to clarified anchors following adaptation of concerns from consultative management meeting.

- July 19, 2022: ALD provided notice to attorneys regarding further revisions to clarified anchors based on consultative management feedback and notice about individual section meetings to discuss.

- July 2022: ALD management held meetings with sections to discuss revisions to clarified anchors—the revisions were made in response to suggestions made in consultative management meetings with union representatives.

- August—September 2022: ALD held continued consultative management meetings with bargaining unit employees, who provided further feedback to ALD.

- September 2022 – present: CRS continues bargaining with the union.

During the course of these discussions, attorneys made several suggestions. ALD management incorporated all but one suggestion provided during the course of consultative management discussions on the clarifications introduced in March 2022 (although there is no legal requirement to do so in the collective bargaining agreement or under federal labor law). A list of those efforts follows:

- Attorneys commented that a requirement for solo authorship would undercut their efforts to collaborate. ALD management removed a requirement for solo authorship of a minimum threshold of written products and replaced with a demonstration of substantial contribution to jointly authored work.

- Attorneys commented that there were too many individually tracked items. ALD management consolidated and streamlined quantifiable benchmarks to allow attorneys to show their contributions in more flexible ways.

- Attorneys appreciate information about how Congress uses ALD's work and requested division-wide briefs including this information. The division instituted a quarterly all-hands meeting where management regularly shares this information. ALD also asked KSG to create a digital product tracker that allows attorneys to seek CRS clearance for written products at the same time they track their written progress. Attorneys further asked for an enhancement to the digital

product log that allowed them to mark complete items. Management added this feature.

• Many attorneys did not fully understand the performance review process as it exists currently. ALD management requested and executed retraining from the CRS human resources group for attorneys, section by section, in May 2022.

• Attorneys requested that substantive emails qualify to the same extent as short confidential memoranda because a growing number of congressional requesters prefer the delivery of written responses in that format. ALD management agreed and included substantive emails in the clarified anchors as written products as well as an expectation that such analysis be included in our recordkeeping system.

• Attorneys requested more help. The CRS Director approved and ALD management executed hiring to address the hiring backlog and to add positions to the division. ALD management added a sixth ALD section of attorneys to the original five. ALD management added a paralegal unit and hired several paralegals. ALD management added a robust administrative unit.

• Attorneys requested for any numerical benchmarks to be considered as ranges. ALD management made this change to better accommodate the nature of different practice areas.

• Attorneys requested that the numerical benchmarks remain within their control. ALD management made this change by explicitly including outreach efforts as requests in the description of the request workload and also changing the writing benchmark to focus only on the writing (not publication) of the work.

• Attorneys wanted confirmation that supervisors could substitute work of an equal quality that may not be contemplated by the plan or that supervisors could adjust requirements for approved long-term absences. ALD management made specific reference to supervisors' ability to do these things on the front page of the anchors.

• Attorneys expressed concern about being a "Coordinator" on collaborative projects. ALD management made clear that they only need to be able to coordinate projects, not that they receive a billing as a "Coordinator."

• Attorneys requested a full year of tracking before implementation. ALD management moved the implementation date to January 2023 to allow for a full year of tracking in 2022. Although 2022 results show that our clarified anchors are reasonable for attorneys, implementation of the clarified anchors has been delayed further during the course of collective bargaining on the matter, which is ongoing.

Separately from the specifics of performance plans, attorneys have requested numerous enhancements to their work life, and ALD management delivered on everything within their abilities. Many of these substantial changes appear below:

- Attorneys requested that CRS reimburse their bar license fees. ALD management advocated for this change, which needed to be approved by the Director and by the agency, and was successful in making this change in October 2022. Now attorneys may seek reimbursement for bar fees (a benefit that is not offered at every agency).

- Attorneys requested expeditious division review. The ALD Assistant Director and Deputy Assistant Director reviews nearly everything submitted for division review in fewer than 48 business hours, maximizing attorney timeliness. This is an improvement of the previous timeframes, which could be up to several weeks for division review.

- Attorneys requested a better mechanism for assigning rush requests. ALD management established a procedure that allows supervisors to track who is working more accurately through our digital roll call.

- Attorneys requested flexibility regarding situational telework. The ALD management team has approved every situational telework request that comports with the Side Agreement on Telework.

- Attorneys requested Zoom PRO licenses. ALD management advocated for, and the Director approved, Zoom PRO licenses for all staff. These licenses are anticipated in 2023.

- Attorneys requested that CRS facilitate admission to the Supreme Court Bar. One of the ALD supervisors has begun the work to coordinate this for interested staff.

- Attorneys requested better information or guidance when their supervisor is on leave. ALD management asked KSG to create a widget on the intranet providing all staff with easily accessible information about which supervisor is assigning requests on a particular day and which are on leave, together with further information about coverage of other specific issues.

- Attorneys requested more training. ALD management advocated for, and CRS approved, twice as much training in ALD in FY2023 than the previous year.

16. **We understand that the new threshold policy requires ALD attorneys to produce a minimum number of written products per year.**

a. **How is this minimum number determined?**

The ranges are intended to be achievable. ALD supervisory attorneys agreed upon the minimum range for written products. They arrived at the range through a year-long iterative process beginning in 2021. Many factors inform the benchmarks. Supervisory attorneys reviewed available data for the previous five years to see, generally, what the division produced in terms of workload. While averages and medians during these periods were considered, they did not form the basis for the benchmarks because various factors can affect historical numbers, including outlying performers (such as long absences due to a detail, etc.) or unexpected activity in certain topics. Further, most data were not complete. For example, there was no record of essays written for the Constitution Annotated, a requirement of the Librarian of Congress, fulfilled by ALD. Attorneys had not consistently recorded the legal analysis they provided in email text, for instance. However, supervisors sought to find a level that nearly everyone either reached or could reach with reasonable changes to work habits (such as recording all of their requests, or producing a variety of products based on a body of research).

Some of this iterative effort involved considering specific attorneys and their work product, including lived experiences of supervisors who had worked as legislative attorneys in the past. Supervisors also analyzed work patterns and considered what congressional staff have been requesting of ALD, including more timely products, a full range of products, including both long-form products providing comprehensive discussion of a topic and shorter analytical content when current events reflect fast-moving news, and outreach regarding ALD's analytical content and abilities. Toward the conclusion of these discussions, the supervisory attorneys then revised benchmarks down in an effort to make them reasonable and reachable. After sharing these clarifications with attorneys, ALD management further revised the expectations down to respond to concerns of the consultative management group, in an effort to accommodate attorneys' specific remarks about their work. These efforts are described in 15(f), above.

b. **On average, how many new and updated written products do ALD attorneys currently produce per year?**

In 2022, with greater emphasis on delivering written work through multiple product lines, approximately 40 ALD legislative attorneys produced roughly 940 new or updated written products, which constitutes a more than 65% increase from the prior year despite having a similarly sized workforce. In the first five months of 2023, ALD attorneys produced about 320 new or updated written products, roughly the same amount as produced by this point last year.

Beginning in 2021, ALD has endeavored to document all new or updated written

work by attorneys. While every aspect of this information was not formally tracked previously, available records suggest that between 2017 and 2021, ALD attorneys published about 550–610 new or updated written products per year. This estimate considers new and updated CRS Reports, Legal Sidebars, In Focuses, and other general distribution written products; confidential memoranda; substantive emails cleared by CRS; written testimony; and new or revised essays for the Constitution Annotated.

Many factors inform the number of new or updated written products authored by ALD attorneys in a given year, including the overall size of the attorney workforce, the knowledge and experience level of that workforce, the demands of Congress, and the format of products used to address a particular issue. The written portfolio of a recently hired attorney new to an issue area may differ from that of a seasoned ALD attorney with comprehensive knowledge of a legal topic and an established congressional client base.

In recent years, ALD has sought to produce legal work in multiple formats to reach different audiences. For example, a CRS Report prepared to support senior staff dealing with a complex oversight issue may reflect research that could also support a two-page In Focus that gives a high-level explanation of the issue for a general congressional audience. The attorney might use components of the CRS Report to prepare multiple short-form Legal Sidebars that more fully address specific topics addressed in the report. Over the last year, attorneys have been strongly encouraged to accompany a long-form report with a podcast or seminar on the topic.

Technology

17. How does CRS systematically solicit feedback from congressional staff members, CRS staff, and other stakeholders on its technology?

CRS leverages a variety of methods to collect feedback on its technology from stakeholders, including Congress. Internally, two advisory committees meet regularly to provide guidance on IT investments and efforts as part of the IRIS program initiative – the IRIS Steering Committee and the Technical Advisory Group. The Steering Committee is comprised of managers who represent their respective organizational units. The Technical Advisory Group includes staff in a range of roles and from each division and office. They provide a user's perspective on IT and have been instrumental in the development and evaluation of IT products. For general IT concerns, staff are encouraged to contact the OCIO Service Desk as well as the ISBO Office.
 Additionally, CRS gathers feedback from staff on an ad hoc basis to obtain additional feedback. For example, a feedback form was recently sent to staff who participated in a demonstration of the Congressional Relationship Management Application to obtain

additional input about which features looked promising, what they'd like to learn more about, and what features they believe need improvement, among other topics.

For IT systems that are used directly by Congress, CRS tailors its approach based on the project. For example, all congressional staff were invited to participate in sessions designed to obtain feedback about how they use CRS.gov. CRS worked with OCIO to help ensure that staff in a variety of roles (for example, Legislative Assistant or Press Secretary) were included, as well as to ensure participation from staff in both chambers and on personal office and committee staffs.

18. **Has CRS conducted ongoing usability testing with congressional staff members and CRS staff on the new website design as the new website was being built?**

CRS and OCIO, through the CRS.gov contractor, sought and incorporated CRS and congressional staff feedback into the design of the modernized CRS.gov. As noted above, the CRS communications office solicited congressional staff interview volunteers and 11 congressional staff who volunteered were interviewed. These individuals served various functional roles in congressional offices. The contractor developed interview questions that were reviewed and approved by CRS. Topics included commonly used features or content areas, underutilized features or content areas, pain points, connecting analysts to Congressional clients, and listing comparable sources of information that the participants viewed favorably. Interviewees were also asked about the role of research in their day-to-day workflows, to inform how CRS.gov can align with their research needs. Their perspective was particularly critical to the CRS.gov redesign effort, as it was prioritized by project stakeholders and by analysts who want to ensure that the user perspective was fully represented throughout the redesign. CRS staff were also interviewed through the usability study. They will have the opportunity to test the prototype when it is released and provide feedback.

19. **When was the last time feedback from Congressional staff members saw the prototype website and were able to provide their feedback?**

The prototype CRS.gov website is still in the development process. CRS intends to conduct a communications and outreach program to inform congressional stakeholders of the availability of the initial website and provide a link for them to review and provide feedback. This feedback is to be reviewed and discussed with congressional stakeholders to refine the solution to better meet congressional stakeholder requirements. It is anticipated that the operational prototype will be available for congressional stakeholder review in mid-October or early November 2023.

20. **In your 2017 testimony before the House Appropriations subcommittee on the legislative branch you requested $20 million to modernize CRS's legacy IT systems as part of a multi-year, multi-project initiative for a new integrated research and information system, or "IRIS." It is our understanding that the intent of IRIS was**

to replace CRS's legacy IT systems (e.g., Mercury and CRS.gov).

a. **Are there any parts of IRIS that have been completed and implemented?**

Yes. The Taxonomy Tool has been placed into production. The Authoring and Publishing Tool has been re-engineered and is scheduled to be released to CRS in June 2023. The tool retains the same look and feel of the current Authoring and Publishing Tool and has been validated by CRS staff. The upgraded Authoring and Publishing Tool will position CRS for additional migration of IT services to the cloud, which will house several of the modernized CRS applications.

i. **Has CRS experienced performance improvements in areas where IRIS has been implemented?**

The Taxonomy Tool has been released and improvements in the tagging of CRS products with accurate metadata were achieved. Performance improvements for CRS staff are expected after the workflow automation components of the IRIS program have been released. The workflow associated with collaboration and review is scheduled to be released in September of 2023. The workflow for receiving, assigning, and tracking congressional requests is scheduled for release in August 2023. These workflows are expected to streamline the overall end-to-end process by improving collaboration and visibility into the status of all requests.

b. **When will IRIS be fully implemented or implemented to the extent that legacy systems can begin their retirement phases?**

Four of the major modernized applications are scheduled to be released this fiscal year. The legacy systems they replace are to be retained in a non-operational state until the burn-in period (one to three months) for the new modernized applications is complete. After that period, OCIO intends to decommission all equipment and software supporting those systems.

The remaining two modernization efforts, namely, the enhanced Collaboration Center portion of the Content Management System and Enterprise Search are to be delivered in late FY2024. The modernization for these systems is currently in the acquisition phase with contract award scheduled for September 2023.

c. **Will the Library need to request additional funding to complete IRIS?**

The Library requested additional funding in its FY2023 Congressional Budget Justification to establish a continuous development program for the IRIS program and CRS technology in general. With that funding, which was

provided in FY2023, the Library does not anticipate any additional requests for IRIS program funding.

    i. **Will maintaining IRIS require a permanent increase to CRS's budget?**

The Library requested, and received, funding in FY2023 to establish a continuous development program for IRIS. Under this approach, OCIO and CRS will collaborate closely to maintain a dedicated team working to improve the IRIS program with regular incremental software and system changes to meet ever-evolving user needs. The Library has adopted this approach for all of its major IT systems. Continuous development requires a long-term commitment in IT resources, but it also ensures the Library can stay ahead of the curve and provide the technology CRS needs to meet its mission to Congress.

d. What impact is relying on legacy IT systems having on CRS's current performance?

CRS has incurred service disruptions, some significant, over the last three years. Some of the more impactful disruptions were the result of implementing a full telework operational environment in a very short period of time to support the transition to 100% telework during the COVID-19 pandemic. OCIO worked diligently to expand telework capabilities to maintain operations while supporting a myriad of modernization efforts.

    i. **While work continues on IRIS, how is the Library mitigating these risks?**

The Library has been working expeditiously to upgrade CRS IT infrastructure and legacy IT systems and applications where necessary to support CRS operations. For example, in early FY2022 OCIO migrated all CRS data storage onto new infrastructure to address a recurring issue with aging data storage devices. Once completed, CRS staff experienced significantly improved storage connectivity. OCIO also partnered with CRS to migrate the legacy Mercury CRM system to new infrastructure, and upgraded its base operating system to mitigate recurring issues and ensure its continued operation while its replacement is developed. At the end of FY2022 OCIO undertook a major IT project to consolidate the CRS network domain into the main Library domain. While that transition included several months of intermittent technical issues as the domains were merged and optimized, the end-result has been much better IT operations for CRS since that effort was completed in October 2022.

ii. **Will these risks become more serious the longer it takes to fully implement IRIS?**

Yes. Prolonged use of legacy IT systems does increase the risk of an unexpected system failure. However, the Library is working closely with CRS to mitigate risks and complete the development of the IRIS program as planned.

21. **It is our understanding that in 2021, CRS cancelled the contract for a new authoring and document management tool citing problems with the contractor. That application was called Méthode.**

a. **What were the most frequent problems that CRS staff who tested Méthode Méthode raised when it was being tested?**

The table below provides a summary of CRS test results performed on the Méthode release (patch) delivered on September 11, 2020, by individual functional category. One of the primary issue areas was with Revision Tracking, although CRS and OCIO also identified and documented significant issues in other areas. The deficiencies listed below are those identified for the second version of the Méthode solution submitted by the contractor to remedy the issues identified in the first version the contractor submitted. During testing of this second version, CRS staff encountered numerous software errors that rendered the product un-useable.

Functional Category	Total Documented Deficiencies
System-Project Configurations (non-product related code)	8
LOC Network-related	6
Training	7
Feedback and Evaluations	4
Product-Revision Tracking	8
Product-Table/Figures	2
Product-Authoring Space	6
Product-Dashboards	1
Product-WYSIWYG	1
Grand Total	43

b. **How have you ensured that the problems with Méthode are not repeated?**

All subsequent IRIS program contracts have been awarded to medium or large federal integrators with the necessary staff, competencies, and formal strategic partnerships to successfully deliver the proposed solution. The current IRIS program contracts have proceeded consistent with the requirements and schedule delineated in the accepted proposals. The development process follows the Library's agile methodology which permits frequent reviews by staff to assess and provide feedback as the applications are developed. The feedback received from staff is captured and used to refine the solution in an iterative process to ensure the solution meets CRS management and staff requirements. CRS also conducts validation testing and pilots prior to solutions being placed into production to validate the solution and make any last refinements to meet staff requirements. Any requirements not delivered in the initial release of the application are captured and prioritized for subsequent releases.

22. It is our understanding that CRS staff are using a version of Microsoft Office that is 7- 8 years old and two generations out of date. Why?

CRS is currently using Microsoft Office 2016, which is supported for enterprise use by Microsoft through October 2025. Upgrading Office versions is a significant IT project impacting CRS because the legacy CRS authoring and publishing (A&P) tool has a customized plug-in for Microsoft Word, which must be updated and extensively tested whenever a new version of the Office suite is deployed. With the IRIS program modernization effort underway, the current CRS A&P configuration has been maintained until a new authoring and publishing and content management system could be made available for use. That development is nearly complete and the Library is working with CRS to test the new solution, which will transition CRS staff first to Office 2021 and ultimately to the full M365 platform as of late summer 2023.

    a. Does CRS have any plans to provide staff with the current version of Microsoft Office? If so, when will this occur?

    Yes. CRS users are testing Office 2021, and the suite is expected to be fully deployed to all CRS staff by the end of June 2023, including the necessary Authoring and Publishing application plug-in to support CRS operations.

23. Does CRS management track the impact outdated and unreliable technology has on its service to Congress?

OCIO maintains and tracks all reported service disruptions in the ServiceNow ticketing system. CRS can view this data and the associated dashboards OCIO has created for CRS. The data and dashboards provide real-time visibility into operational issues as well as OCIO performance against established Service Level Agreements.

a. **If so, how? Please provide any relevant documentation.**

The Table below provides a summary of the major technology related incidents that have affected CRS staff over the last 5 years, organized by the affected system and fiscal year.

Major IT Issues Affecting CRS	FY 23	FY 22	FY 21	FY 20	FY 19	Total Count
Access to External Websites	4	0	1	0	0	5
Confluence Collaboration Workspace	0	0	0	1	0	1
Congress.gov	1	7	6	1	1	16
CRS Publishing Tools (SharePoint, Mercury, A&P, etc.)	2	18	11	0	1	32
CRS Geospatial Hosting Environment (GHE)	0	0	0	3	0	3
CRS.gov Service Disruption	0	4	2	4	3	13
CRS.gov Content Ingest	0	16	0	0	0	16
CRS.gov Search Issue	3	4	7	2	4	20
Email	4	1	4	1	1	11
iPhone Access	0	1	0	0	0	1
LOC Intranet	5	1	2	2	0	10
LOC Network Connectivity	2	13	29	4	2	50
Network File Share Access	1	26	0	0	1	28
Enterprise Print Access	1	0	0	0	0	1
Skype	2	1	3	2	0	8
Zoom	0	2	0	0	0	2
Totals:	25	94	65	20	13	217

24. **Have you conducted any research or calculated what share of Congressional staff use other websites and tools, aside from crs.gov, to find CRS materials/experts?**

CRS and OCIO routinely collect data on how House and Senate users access CRS products and services. This data is collected daily using Adobe Analytics. During the most recent three months, congressional clients accessed CRS.gov over 260,000 times and crsreports.congress.gov over 14,000 times. A summary of the data for crsreports.congress.gov from 2/1/2023 through 4/30/2023 is provided below.

a. **If so, please provide this data.**

The data below is for the 3 months 2/1/2023 – 4/30/2023			
Number of House and Senate users accessing the CRS Public Report Site			
Access Location		**Percent of Total**	
Typed/Bookmarked	7,034	48.85%	These are House and Senate users that went directly to the site
Referred Domains			
Google	6,027	41.85%	
Bing	1,067	7.41%	
Loc.gov	85	0.59%	
House.gov	74	0.51%	
Senate.gov	40	0.28%	
Office.net	35	0.24%	
DuckDuckgo.com	26	0.18%	
Yahoo.com	6	0.04%	
Everycrsreport.com	6	0.04%	
TOTAL	14,400	100.00%	

25. We understand that CRS is developing a new website and expect to deploy it soon. What factors did CRS consider when deciding what to prioritize for the new website?

CRS and OCIO conducted the first stage of the modernization effort last year and obtained feedback from a range of stakeholders, including Congress. Requirements for the site were based on user and stakeholder interviews conducted with congressional staff, CRS employees – including analysts in the research divisions; and OCIO staff. Employing contemporary user experience (UX) design techniques, stakeholder requirements identified four key focus areas.

This fiscal year, OCIO awarded a contract to address these areas and develop a modern replacement for CRS.gov. Emphasis for the initial release was placed on the requirements identified by congressional stakeholders, which include improving site navigation, providing mobile-friendly support, and compliance with federal accessibility requirements. The modernized website will also address several technical limitations and security vulnerabilities associated with the existing CRS.gov site.

Work on the website follows an agile development process that permits stakeholders to review the design iteratively throughout the development phase. In other words, throughout the process, the design is refined based upon stakeholder feedback to ensure it best meets the needs of users, consistent with the Service's requirements.

The initial development phase for the modernized CRS.gov website will conclude soon. The prototype modernized CRS.gov website is expected to be made available for all stakeholders, including congressional users, to review and provide feedback before it is finalized and placed into production later this year. CRS plans to conduct a communications and outreach program to inform congressional users of the availability of the initial website and provide a link for them to review the site and provide feedback. This feedback is to be reviewed and discussed with congressional stakeholders to refine the solution to better meet their requirements.

a. **It is our understanding that improving the search functionality on the new website has not been prioritized. Why not?**

CRS recognizes the importance of ensuring its products and services are easily discoverable by congressional clients. It is not accurate that search functionality has not been prioritized. Congressional stakeholders who were interviewed for the CRS.gov redesign identified improved search capability as an important requirement. To support improved discoverability on CRS.gov, the IRIS program focused on improving the taxonomy and metadata tagging of CRS products, as well as implementing a modern search engine. The taxonomy tool is currently in production and it is being integrated into all modernized CRS applications to provide improvements to product discoverability. CRS is working with OCIO to make additional refinements to our current enterprise search to improve discoverability of relevant CRS products. OCIO and CRS are in the process of acquiring an enterprise search capability supporting all CRS mission critical systems and applications. Following industry and federal government "best practices" a detailed requirements, market analysis, and candidate solution alternatives assessment was conducted in FY2022. The analysis considered:

1. compatibility and integration with CRS IT modernization technologies;
2. emerging and evolving industry technologies such as Artificial Intelligence, Natural Language Processing and Machine Learning;
3. total cost of ownership;
4. acquisition strategy; and
5. implementation plan and schedule based upon resource and technical dependencies.

OCIO and CRS are making refinements to the current enterprise search to improve discoverability of CRS products. Additionally, the Enterprise Search modernization project is currently in the acquisition phase and is expected to be awarded in Q4 FY2023, with expected implementation by Q4 FY2024.

The results of the initial development phase for the CRS.gov modernization effort will be released for congressional feedback prior to the release of the modernized search. The initial release of CRS.gov will meet federal accessibility requirements, a substantial improvement over the current site, which is often incompatible with screen-reading tools used by individuals with visual impairments.

b. **When can we expect to see the new website?**

It is anticipated that the operational prototype of the new site will be available for congressional stakeholder review in mid-October or early November 2023.

The final CRS.gov website is scheduled to be placed into production in late CY2023.

26. CRS staff report that the basic technologies that they need to do their jobs fail on a regular basis. Please provide any data CRS has collected regarding all major network outages and other technology failures reported to the Library's technology helpdesk over the past five years.

The table below provides a summary of the major technology related incidents that have affected CRS staff over the last five years, organized by the affected system and fiscal year.

Major IT Issues Affecting CRS	FY 23	FY 22	FY 21	FY 20	FY 19	Total Count
Access to External Websites	4	0	1	0	0	5
Confluence Collaboration Workspace	0	0	0	1	0	1
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CRS Publishing Tools (SharePoint, Mercury, A&P, etc.)	2	18	11	0	1	32
CRS Geospatial Hosting Environment (GHE)	0	0	0	3	0	3
CRS.gov Service Disruption	0	4	2	4	3	13
CRS.gov Content Ingest	0	16	0	0	0	16
CRS.gov Search Issue	3	4	7	2	4	20
Email	4	1	4	1	1	11
iPhone Access	0	1	0	0	0	1
LOC Intranet	5	1	2	2	0	10
LOC Network Connectivity	2	13	29	4	2	50
Network File Share Access	1	26	0	0	1	28
Enterprise Print Access	1	0	0	0	0	1
Skype	2	1	3	2	0	8
Zoom	0	2	0	0	0	2
Totals:	25	94	65	20	13	217

a. What have been the most common technology failures?

Over the last five years, the two most common technology issues for CRS have been network connectivity and failures of aging IT infrastructure. Understandably, the Library network was put under considerable strain with the transition to 100% remote operations in 2020 in response to the COVID pandemic. Over the last three years, the Library has significantly upgraded and optimized its core network infrastructure to support the new hybrid workforce. Until that was completed, CRS staff experienced sporadic, but sometimes serious, challenges maintaining a regular network connection.

The Library has also been working closely with CRS to implement the IRIS modernization effort and to transition CRS from its aging IT hardware onto the Library's new advanced IT infrastructure. While that work has been underway, CRS has experienced intermittent failures from aging IT systems, like Mercury, and IT hardware, including data storage and network controllers.

b. What causes these technology failures?

The Library's network connectivity issues from 2020 through 2022 were caused by the surge in network load during the pandemic, and IT infrastructure that was not optimized for remote and hybrid operations. The Office of the Chief Information Officer has taken extensive action to address those issues, and connectivity issues have largely been mitigated.

The Library has also been working to replace aging IT infrastructure. The Library completed its Data Center Transformation effort in October 2020, and has been working to streamline and optimize operations on the new infrastructure. OCIO collaborated with CRS to plan and implement an extensive network domain consolidation effort in FY2021 and FY2022, which included the transition of CRS data storage to new IT hardware in early 2022 and culminated in the transition of all CRS staff data into the more modern main Library network at the end of the year.

c. What steps is CRS management taking to address these failures?

CRS management is working closely with OCIO to identify and prioritize IT modernization and optimization efforts to support CRS operations. A large investment has been made in transitioning CRS IT systems and applications onto new infrastructure and preparing legacy systems to integrate fully with the new systems that will be deployed this year.

Availability of CRS Materials

27. **In 2018, Congress directed the Library of Congress to publish Congressional Research Service reports online for public use. Five years later, many CRS reports are still not available on the Library's website. This means congressional agencies do not have access to these reports, either. Additionally, as the reports are not published on CRS's internal website, congressional staff may be unaware of the vast treasure trove of non-confidential reports that explain laws and policy issues considered by Congress over the last 50 years.**

    a. **Why hasn't CRS made its historical reports directly available to its congressional users and to the public?**

    CRS is in full and proactive compliance with all provisions of law governing the publication of CRS products. Prior to the enactment of P.L. 115-141 in 2018, CRS was explicitly prohibited from making any of its work product publicly available. Formal prohibition on such publication of CRS products

began in 1952. The limitation originated in the House as a flat prohibition on publications by the Library of Congress using funds appropriated to the Legislative Reference Service (now CRS). In 1954, a provision was added providing for the exception only with the approval of the CRS oversight committees.

The standard appropriations language text that appears annually in the law appropriating funds for the legislative branch today reads as follows:

"*Provided*, That no part of such amount may be used to pay any salary or expense in connection with any publication, or preparation of material therefor (except the Digest of Public General Bills), to be issued by the Library of Congress unless such publication has obtained prior approval of either the Committee on House Administration of the House of Representatives or the Committee on Rules and Administration of the Senate."

The term "publication" in this context traditionally has been construed to encompass all manner of communicating information to the public. The legislative history of the provision, with its concern over diverting CRS (then LRS) resources to providing materials to the public, as well as subsequent guidance from the Joint Committee on the Library, make clear the intended breadth of the type of "publication" that is barred by the provision. This language likewise has been interpreted as including both the distribution of paper copies of CRS products to the public, as well as putting such content on a website.

This longstanding publication prohibition was modified by the Consolidated Appropriations Act, 2018 (P.L. 115-141). In its Salaries and Expenses section for CRS, P.L. 115-141 retains the longstanding publication prohibition discussed above, but the section then introduces new language, stating that the traditional prohibition does not apply to the publication of "non-confidential [CRS] products." This section then states that such a product "includes any written product...that is *currently available*"...on CRS.gov, or that would be made so available "in the normal course of business" (emphasis added).

CRS worked extensively with all relevant congressional stakeholders during their consideration and drafting of the public release mandate. Congressional stakeholders decided at that time that the public release mandate would apply prospectively, given the additional cost and effort that would be required to make archival reports publicly available.

Accordingly, in addition to the language discussed above, the Explanatory Statement accompanying P.L. 115-141 states that the bill includes a provision directing CRS to make public all "non-confidential CRS products" on a Library

website. This provision then states that "non-confidential CRS products"…"include any written CRS products...that are *currently available*" on CRS.gov or that would be made so available "in the normal course of business."

P.L. 115-141 also includes an additional section, now codified at 2 U.S.C. 166a, titled "Equal Access to Congressional Research Service Reports." In that section, the terms "CRS product" is defined as any written product that "that *is* available" on CRS.gov. The term "CRS Report" is defined as "any written CRS product...consisting of" a "[CRS] Report" or appropriations product "which *is* available" on CRS.gov.

Another part of that section states that the term "CRS Report" *does not* include any CRS Report or appropriations product that is not available on CRS.gov as of the effective date of 2 USC § 166a.

The language in the public release mandate applied prospectively solely to CRS Reports that were on the website in 2018. The mandate encouraged the CRS Director to make additional written material available, and CRS did so with great haste, such that every written CRS product has, for some time now, been made available to the public simultaneous to its availability to Congress on CRS.gov. As of May 30, 2023, more than 11,000 products are available on crsreports.congress.gov, covering more than 25 issue areas.

b. **Does CRS have additional needs to ensure these reports can be made publicly available?**

As discussed above, CRS remains prohibited from making earlier reports available. CRS takes no position on this issue from a policy perspective, but would note that there would be a level of effort involved that would impact the CRS budget if a change in the law was made without additional funding.

28. **CRS publishes its non-confidential reports on Congress.gov in PDF, a format that lacks versatility and limits user engagement with the material. However, CRS publishes its reports on its internal website in HTML, a format that can (1) be easily read on devices ranging from laptops to iPhones, that (2) allows for the text to be copied and reused, and that (3) can be easily found by search engines like Google.**

a. **Why doesn't CRS publish its non-confidential reports on Congress.gov in HTML format as it does on its internal website?**

The explanatory statement accompanying P.L. 115-141 provides that the products covered by the public release mandate "are to be made available in a

standard format, *such as PDF*." (emphasis added). The specific identification of the PDF format evinces recognition by congressional stakeholders of the viability and utility of this option, given cost considerations and the timeline for the development of the crsreports.congress.gov website. Additionally, the PDF format provides a reliable mechanism for the certification of the integrity of these documents, which was another key concern for congressional stakeholders in crafting the public release mandate. As is demonstrated by the continued inclusion of longstanding language prohibiting the use of appropriated funds to make CRS products publicly available (now with an exception for material that falls within the ambit of the public release mandate), cost considerations continue to be a significant point of congressional interest in this context. Accordingly, congressional directives to CRS and the Library on this issue since 2018 have centered on the provision of information as to the cost and level of effort that would be incurred if HTML versions of CRS products were to be made available on the public website.

b. **Will CRS commit to publishing its non-confidential reports publicly in both HTML and PDF formats?**

CRS and the Library take no position on whether to provide CRS products in other formats, such as HTML. CRS and the Library are aware of report language accompanying the recently released House Legislative Branch Appropriations Bill, 2024, which would direct the Library to make such products available in HTML on crsreports.congress.gov. CRS and the Library are prepared to execute this directive as the language becomes operative. It is not clear whether corresponding resources are provided for this effort.

2023 New Member Seminar

29. **With the Committee's support, CRS plans and executes the New Member Seminar (NMS), a biannual, bipartisan policy conference for newly elected Members of Congress that takes place immediately after Members are sworn in during the first week of a new Congress. This year, NMS was scheduled to begin on January 6, 2023, in Philadelphia, Pennsylvania, three days after opening day of the 118th Congress. Sadly, however, because the vote for Speaker of the House took an unprecedented four days and 15 ballots, NMS was cancelled in the evening on January 5, 2023, mere hours before new Members were set to depart for the conference.**

a. **How much money (inclusive of private funds raised for purposes of hosting NMS) was lost because of the cancellation of NMS?**

The amounts below were absorbed through appropriations and the Congressional Issues and Processes (CI&) gift fund, so funders were not

impacted.

$270,000.00 Hotel
$101,000.00 Amtrak
$ 20,000.00 Destination Management Company (CI&P gift fund)
$ 28,000.00 120 day NTE
Total: $419,000.00

b. **Approximately how many hours of work by CRS employees went into planning the logistics and content for the ultimately cancelled NMS? Please include time taken to travel to Philadelphia and visit event spaces.**

CRS estimates that more than 4,500 staff hours went into planning the New Member Seminar and preparing supporting documentation for the incoming class of the 118th Congress.

More than 50 subject matter experts from CRS, including analysts and legislative attorneys, were scheduled to participate in the New Member Seminar. In addition to preparing presentations, they drafted executive-level products on topics scheduled to be covered; identified, updated and created supplemental research products; researched the backgrounds of the incoming class and their legislative priorities, and participated in a variety of training activities to ensure the presentations were of the highest quality. A broader team of CRS employees supported their work, including research librarians, division supervisors and managers, visual information specialists, editors, and reviewers.

The seminar also required significant logistical and administrative work. The Service evaluated the feasibility of a variety of potential sites for the program; coordinated arrangements for nearly 250 participants (for example, travel, dietary needs, arrival plans); developed and tracked the program budget; conducted stewardship activities for program funders; coordinated all details with a range of security partners; planned programming for children and spouses; and contracted for venue, catering, and all other services not provided internally by CRS, among other efforts. In addition, CRS staff engaged with outside speakers from the executive branch, other legislative support agencies, and elsewhere to address scheduling and content issues associated with keynote and panel presentations.

c. **How many freshmen Members of Congress were expected to participate in NMS?**

Forty-four Members of Congress were registered to participate in NMS.

d. **How many spouses/partners and children were expected to participate in NMS?**

Thirty spouses/partners and 40 children were registered to participate.

e. How many CRS employees were expected to participate in NMS?

Eighty-five employees from the Library of Congress were expected to participate including 76 from CRS.

30. **During the 117th Congress, the Committee, on a bipartisan basis, collaborated with CRS to explore alternate locations for the biannual New Member Seminar (NMS), which was scheduled for January 2023. NMS had previously been held at the same location in Williamsburg, Virginia for decades. Beginning in the summer of 2021, the Committee and CRS visited a variety of sites, including, but not limited to, Monticello, Montpelier, a resort in Charlottesville, several hotels in Philadelphia, and the traditional venue in Williamsburg. In May 2022, the Committee authorized CRS to proceed with planning NMS in Philadelphia.**

    a. Was CRS prepared to hold NMS on January 6, 2023?

    Yes. Some CRS and Library staff were already in Philadelphia preparing for the event.