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Office of the Clerk
U.S. House of Representatives
Washington, DC 20515–6601

January 15, 2021

The Honorable Zoe Lofgren
Chairperson
Committee on House Administration
1309 Longworth House Office Building
Washington, DC 20515

The Honorable Rodney Davis
Ranking Member
Committee on House Administration
1216 Longworth House Office Building
Washington, DC 20515

Dear Chairperson Lofgren and Ranking Member Davis,

As required by Section 502 of House Resolution 756 from the 116th Congress, agreed to by the House on March 10, 2020, I am attaching this quarterly report about the comparative print project.

If you or others on the Committee have questions about this report, please do not hesitate to contact me.

Sincerely,

Cheryl L. Johnson

Clerk of the House

Enclosure

Comparative Print Project

As required by Section 502 of House Resolution 756 from the 116th Congress, the Clerk of the House submits this quarterly report about the comparative print project.

As described in the previous two reports, the House is building a suite of software programs that will allow House staff and others to create on-demand, point-in-time comparative prints for three distinct types of comparisons.[1] These comparative prints illustrate changes between

- two versions of a bill, resolution, or amendment (document to document comparisons)
- current law and current law as proposed to be changed by amendments contained in a bill, resolution, or amendment to current law (codified and non-codified law)
- a bill or resolution and the bill or resolution as proposed to be modified by amendments (amendment impact).

It is important to note that House Resolution 8, adopted by the House on January 4, 2021, repealed clause 12 of Rule XXI that was added in the 115th Congress and kept in the 116th Congress. In its place, section 3(j) of the same resolution maintains this project by instructing the Committee on House Administration, the Clerk, and other officers and officials of the House to "continue efforts to broaden the availability and utility of legislative documents in machine readable formats in furtherance of the institutional priorities of enabling all House staff to produce comparative prints showing the differences between versions of legislation, how proposed legislation will amend existing law, and how an amendment may change proposed legislation."

Project Updates

Stakeholder Engagement

Since the last report, the Clerk and the Legislative Counsel (through the project team and individually) have continued to ensure that stakeholders are engaged in this project through individual conversations, status update meetings, and demonstrations of the system as it is being developed. We have continued to brief key stakeholders in the House and legislative branch agencies, including the Budget Analysis Section within the Congressional Budget Office. Since the last report, we have also explored key requirements and features with the Library of Congress as they research possible replacements for the Text Analysis Program (TAP) used by the Congressional Research Service analysts when drafting bill summaries published on Congress.gov.

Pilot Group

Since the initial report, a small pilot group of Committee staff is engaged with the project team and actively using the beta system. Throughout the pilot group period, we are asking the users about the usability, desirability, learnability, and accuracy of the system. To date, feedback has

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[1] https://cha.house.gov/sites/democrats.cha.house.gov/files/documents/Clerk%20Comparative%20Print%20Report.pdf
https://cha.house.gov/sites/democrats.cha.house.gov/files/Clerk-QR1-StandarizedFormat.pdf

been positive, constructive, and incredibly useful. At the time of this report, we have six (6) Committees with about three dozen individuals who have access to the beta system. Staff at the House Office of the Legislative Counsel (HOLC) and the Clerk's office also have access to the system.

Suite of Software Programs

As described in the previous report, the Comparative Print System is designed to display legislative changes in context: how a bill might change current law; how two versions of a legislative proposal are different; and how an amendment proposes to change a bill. Understanding these changes is critical to making decisions on pending legislation. Project staff have continued to improve these features and we added a new feature called the "Bill Viewer." Below are updates on each of these programs.

How a Bill Changes Current Law and the Current Law Repository

The first comparison in the Comparative Print System illustrates how a bill might change current law. This is the most complex of all the comparisons and was described in some detail in the last two reports. As noted in the last report, until this project, there was no central location for an up-to-date, electronic, machine-readable repository for current law and all the matters that Congress can amend. The Comparative Print System will serve as this central location and potentially provide Members and staff all current law in one centralized location. There is much work to do to make the repository complete, robust, and flexible. In the coming months, the project team will improve the HOLC Statutes Compilations dataset. This effort will include

- Analyzing the current data set and identifying gaps in data, duplicates, and other data anomalies.
- Continuing the design of a modern repository for laws, including possible technical reorganization.
- Processing existing data to fix errors found during the analysis.
- Modelling temporal and controlling versions, such as the storage of different versions of the law, including U.S. Code release points and Compilations updates.
- Tracking effective dates and enactment dates.
- Providing continued support of the Statute Compilations in United States Legislative Markup (USLM) format and building on the work done by the Government Publishing Office's Statute Compilations in the USLM project.
- Building support for short titles in the current law database.

Bill to Bill Differences

The bill to bill differences program illustrates how two versions of a legislative proposal are different. Since the last report, the project staff have started to focus on making specific improvements to the comparisons with regard to bills containing appropriations provisions. As many in the legislative community know, appropriations bills are unique in style and structure, not only on paper, but in our standard machine-readable formats. Both present unique challenges

to achieving not only accurate comparisons but comparisons that illustrate when text moves across divisions and titles. The staff and vendors on the project team are tackling the challenges and are confident that they can deliver the results necessary.

How an Amendment Changes a Bill
The last comparison program is "How an Amendment Changes the Bill." The project team continues to work on the initial release of this program to include migrating the current AIP (amendment impact program) from HOLC to Clerk servers and connecting it to the front end of the comparative print system. This work is nearly complete, and the initial version of this program was made available to the pilot group in late December 2020. The display of the amendments and the comparative print will be similar to the "How a Bill Changes Law" and "Bill to Bill Differences" features described in the previous reports.

Bill Viewer
A new feature called the "Bill Viewer" has been added to the Comparative Print System and was released to the pilot group in late December 2020. This smart reading tool allows users to search or upload a single bill document and view it using the Interactive Outline described in detail in the previous report. The Bill Viewer is a necessary feature to ensure that staff continue to review, analyze, and understand the entire bill proposal. Simply looking at the changes proposed to current law contained in the bill or seeing differences between two versions does not give the reader a full understanding of the underlying proposal. The free-standing provisions are as important as the provisions amending current law. This new feature, along with the three comparison prints, will provide House Members and staff a set of powerful tools to examine bills, resolutions, and amendments.

Additionally, the project team, along with the stakeholders, continues to discuss what smart-reading capabilities we can add to the Bill Viewer that will allow users to interact with and work with matters of interest contained in the legislative proposal. For example, one of those capabilities is quickly identifying terms defined by the bill and easily navigating to those portions of the proposal containing the defined terms.

Project Management
The project team continues to use agile methodologies to complete this work, which allows for the continued refinement of the requirements and helps ensure that the House obtains a product that meets its needs. Furthermore, we continue to use the principles of human centered design in order to ensure that pain points are addressed with the end user in mind. This approach assists in mitigating risk from lack of user adoption, since users are ultimately involved in the design process.

Roles and Responsibilities
Defining the roles and responsibilities that are needed to fully support this application is key. We continue to use the chart below to guide our discussions.

As mentioned in the previous report, the project team continues to agree that some features of the system should only be made available to users after they receive training. To this end, we have requested assistance from the Chief Administrative Officer's Congressional Academy staff with curriculum development for on-demand webinars and instructor-led courses. We anticipate that staff from HOLC and the Clerk's office will have to lead the instructor-led courses during the initial rollout phases of this project. Accordingly, we have updated the chart to reflect this.

Roles and Responsibilities	CLERK	HOLC	CAO
Maintain the compare.house.gov system (software, hardware, related components)	X		
Maintain the files/content of the Statute Compilations component current law dataset		X	
Maintain data exchange components	X	X	
Maintain XML schemas (maintained by the Legislative Branch XML Working Group, which is co-chaired by Clerk staff)	X	X	
Receive and route user calls to the appropriate staff	X	X	X
Answer technical helpdesk calls (e.g., access, log-in)	X		TBD
Answer content-related calls (e.g., What is this comparison showing me? What is the current law?)	TBD	TBD	TBD
Provide access to the application to users	TBD	TBD	TBD
Training (on-demand webinars and instructor-led courses)	X	X	X

Project Funding
Currently, the project is funded with fiscal year 2020 funds from both the Office of the Clerk and the Office of the Legislative Counsel. As discussed in the initial report, FY21 funds were requested and included in Public Law 116-260, the Consolidated Appropriations Act, 2021.

Related Projects
As mentioned in the initial report about adopting standardized formats for legislative documents transmitted to the Committee on May 11, 2020, this project utilizes documents formatted in XML—both USLM and the first-generation schemas.[2] The current project transforming Statute Compilations directly impacts this project. At the time of this report, Legislative Branch staff continue to perform work on the second phase of the COMPS in the USLM project to convert legacy Statute Compilation files into Beta USLM XML and provide access to those files on the Government Publishing Office's govinfo system. This project is on track to be completed in 2021.

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[2] https://cha.house.gov/sites/democrats.cha.house.gov/files/documents/Adopting%20Standardized%20Formats%20for%20Legislative%20Documents.pdf

Next Steps

The project team will continue working on tasks mentioned in this report as well as those in the previous reports. We are excited about this project and the solutions we are building. We see its potential impact on how staff complete their work and understand current law and legislative proposals. We will continue to update the Committee and stakeholders about the progress of this project. In 2021, we expect to release a House-wide beta version of the system.