# Standard Application Process Pilot

# Lessons Learned Report

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**Standard Application Process Pilot Portal**

**U.S. Census Bureau**

**Research and Methodology Directorate**

**Center for Enterprise Dissemination**

**Executive Summary**

In 2019, the U.S. Office of Management and Budget charged the U.S. Census Bureau with development of a pilot portal that could serve as a proof of concept to meet the requirement for a single application process under the 2018 Foundations for Evidence-Based Policymaking Act. The activity was conducted as the Standard Application Process (SAP) Pilot Portal. This portal would serve as a single access point for data users to request access to restricted use data held by Federal statistical agencies covered under the Confidential Information Protection and Statistical Efficiency Act (CIPSEA). This portal, called ResearchDataGov, went live in December of 2019 and is hosted by the University of Michigan's Inter-university Consortium for Political and Social Research (ICPSR). This report documents lessons learned from the pilot through sessions held with the primary stakeholder groups involved in the pilot phase. Highlights of successes and recommendations for improvement are documented in this summary with more in-depth information and discussion following. The questions used during lessons learned sessions follow in an appendix.

Key successes for this project include:

- Implementation of a fully functioning pilot portal with limited time and resources.
- Successful development of a metadata inventory for multiple CIPSEA agencies.
- Consensus among seven CIPSEA statistical agencies on requirements for the portal and the portal functionality.
- Successful communication strategies with agency and FSRDC stakeholders as well as the University of Michigan's ICPSR.
- Portal testing and demonstrations to stakeholders were accomplished despite differing technology platforms.
- Groundwork was laid with multiple stakeholder groups for the full build-out of the portal.

Recommendations for future improvements include:

- A multi-pronged approach to statistical agency communication is needed to ensure agency senior leadership is informed and aligned with the goals of the project.
- More status meetings between the Project Management Office and OMB to align vision.
- The standard application process requires clear policy guidelines and governance that balance legal requirements, stakeholder needs, and support of existing research programs.
- More demonstrations and opportunities for users to test the system are needed to provide opportunities for stakeholder feedback.
- Resources should be made available to fund not only the contractor to develop the tool itself but the full-time staff and other supporting contractors to support the entire effort.
- Sufficient time should be allotted to ensure all viewpoints are heard and the final product meets the needs of customers.
- Future metadata standards need to reflect the needs of users.

**Overview**

In 2019, the U.S. Census Bureau contracted with the Inter-university Consortium for Political and Social Research (ICPSR) to develop a single application pilot portal for requests for access to restricted use data held by federal statistical agencies covered under the Confidential Information Protection and Efficiency Act of 2002 (CIPSEA). This portal, ResearchDataGov, went live in December of 2019 and is currently accepting applications for restricted use data from participating agencies. This report documents lessons learned from this pilot. It includes feedback from participating federal agencies and stakeholders, outlining successes and challenges learned from this process. The goal in gathering and making this feedback available is to inform future phases of this project to ensure that stakeholder input is heard and integrated into future development of the single application process and portal.

**Background**

The 2018 Foundations for Evidence-Based Policymaking Act (PL 115-411), also referred to as the 'Evidence Act', was enacted in January of 2019 and provides a framework to support evidence-building activities, including policy and program evaluation. The legislation addresses limitations on data access, privacy practices, and challenges found by researchers and data users when seeking access to data for evidence-building statistical activities. One of the elements of the legislation calls for a streamlining of data access requests for restricted use data. Section 3583 requires that a standard application process be developed for requests for restricted use data held by Federal agencies that fall under the CIPSEA. This process requires a common, publicly accessible application tool that allows researchers to request access to restricted use data from multiple agencies through a single application portal. Restricted use data, as opposed to public use data, is data that has legal protections and use restrictions per legal statutes and has not been cleared for public release. This data must be used in a secure physical and/or IT environment and in compliance with the law(s) that protect it.

In 2019, OMB charged the Census Bureau with contracting for a service to provide a pilot portal that could serve as a proof of concept for a full application process and portal. The Census Bureau awarded the contract to the University of Michigan, ICPSR in September of 2019 and a pilot portal and application was implemented in December of 2019. This portal is hosted on the ICPSR platform and is accessed through the ICPSR website: https://www.icpsr.umich.edu/web/pages/appfed/index.html. This portal, called ResearchDataGov or RDG, is currently active and accepting applications for restricted use data. Participating agencies in this pilot effort included partner agencies in the Federal Statistical Research Data Center (FSRDC) network. These agencies included:

- Bureau of Economic Analysis
- Bureau of Justice Statistics
- Bureau of Labor Statistics
- U.S. Census Bureau

- Internal Revenue Service, Statistics of Income Division
- National Center for Health Statistics
- National Science Foundation, National Center for Science and Engineering Statistics.

The Federal Statistical Research Data Center (FSRDC) network provided a unique stage to pilot this effort. The first FSRDC was established in 1994 and has since grown to become a network of physical locations where researchers can access legally restricted data in a secure environment on approved projects. This legally restricted data would not be available to the wide range of researchers currently served were it not for this network of data access points. The FSRDC network members are the partner agencies, listed above, and partnering institutions including universities and the Federal Reserve System. The U.S. Census Bureau manages the FSRDC network and provides significant funding, staffing, and IT infrastructure support. As of the writing of this report, there were 30 FSRDCs in locations across the country. Recently, a virtual access pilot was also initiated that allows some researchers to access data remotely in a secure environment outside of the FSRDC physical locations, while still utilizing the extensive and highly secure Census Bureau IT network.

As part of the governance structure of the FSRDC network, an FSRDC Technical Working Group identifies technical issues and challenges facing the FSRDCs and works to develop solutions. In early 2018, prior to the passage of the Evidence Act, this technical working group identified the need for a single application and review process to streamline the application process and better facilitate projects that used more than one agency's data. The intent was for this streamlining to improve the user experience and reduce the confusion that can result from multiple agency applications and processes. The team began working on this single application and process in spring of 2018 under the direction of the FSRDC Executive Committee. As a result of this preliminary work, the FSRDCs became the logical platform for the development of the pilot portal with the FSRDC Technical Working Group serving as the implementation team.

In September of 2019, the U.S. Census Bureau awarded a contract to the University of Michigan's ICPSR to create a pilot portal. The University of Michigan was chosen due to their experience with data access request platforms. ICPSR hosted their first data platform in 1962 and currently hosts more than 20 data repositories and data request applications. They have extensive experience in hosting the type of application required under the Evidence Act. The decision was made to begin with a pilot portal due to time requirements under the Evidence Act and the need to involve additional stakeholders in the process of building a full application and review process.

This pilot portal consists of a metadata inventory for restricted use data and a set of fields to elicit basic information about the researcher's interest. These fields include:

- Name of primary researcher with institutional affiliation and contact information
- Name of additional researchers with institutional affiliations and contact information
- Data requested

- Description of the proposed research
- Proposed duration of the research
- Requested FSRDC location(s) where the data would be accessed.

This basic application is then routed to individual agencies for further development, review, and disposition. Agencies view the application in the RDG site and then record a final disposition when one is available. Notifications from the system are sent to users and agency administrators at various points in the application process to ensure communication.

Future phases of this project will focus on developing a comprehensive application, a single review process including adjudication, and enhanced project tracking and metrics. As the pilot phase of this project comes to a close, this is an opportunity to gather and share lessons learned to inform future phases of this project. A wide range of stakeholders was involved in the pilot and hearing their feedback is critical to ensure that future development of the portal meets the needs of stakeholders and is a smooth process. What follows are the lessons learned from the implementation of the pilot.

**Lessons Learned Sessions and Feedback**

Lessons learned sessions were held September through November of 2020. Written feedback was also provided by some members of the sessions. This feedback has also been incorporated into this report.

Sessions were held with the following groups:

- FSRDC Technical Working Group members
- FSRDC Executive Directors
- University of Michigan's ICPSR
- FSRDC Administrators, including feedback gathered from users

Topics covered in the sessions included:

- General Project Awareness
- Project Scope
- Communication and Feedback Processes
- Requirements Gathering
- Portal Management
- Technical Issues
- Suggestions for Future Phases.

A set of questions covering these areas was provided to each group. The questions were tailored to the role of each individual group in the portal development process. These questions are included in the Appendix.

The feedback has been organized by stakeholder group and topic covered with a brief description of each group's membership.

<u>FSRDC Technical Working Group</u>

As discussed earlier, this group served as the technical implementation team for the pilot portal. The lessons learned discussion surrounded the topics of scope, requirements gathering, communication, portal management, and overall impressions.

*Scope*

The team felt well informed of the project scope and believed the scope was achievable given the time limitations. The team had little feedback in this area.

*Requirements Gathering*

The primary concern raised by the team on this topic was the limited timeframe of the project. While we were able to meet the goals, the time limitations resulted in the project feeling rushed and placed limitations on the requirements gathering process. Members of the team agreed that while discussions and viewpoints were heard within our group, concerns were raised that other stakeholders could not be involved, particularly the end-users. The importance of the end-user and the need to have greater input from users in future phases was stressed. Due to the limited nature of the pilot, the system did not support the existing systems and processes of the participating agencies. There was a push to produce a product to meet the statutory deadline, rather than produce a product that would truly meet the needs of the agencies involved. As a result, the pilot resulted in more work for agencies in that they need to utilize the portal for the preliminary application and then use their own systems to support a full application that could be used to reach a final decision to approve or not approve a research project. Agencies also felt pressured by both their agency leadership and the statute to use the system when it didn't truly meet their needs. As a result, there has not been full agency engagement in referring users to the portal due to the added work required when an application is submitted through the portal.

The need for more time to consider portal functionality and develop requirements in future phases was emphasized. The members of the working group would like more flexibility and choices for future functionality.

*Communication*

The primary means of communication for the FSRDC Technical Working Group was bi-weekly virtual meetings attended by team members. Team members found the meetings and minutes provided after the meeting to be helpful for communication during the portal development and implementation. The team also felt that they were informed of portal changes and issues and that the bi-weekly meetings provided a forum for discussion of challenges they were facing, including any system bugs that were being reported.

One issued raised concerned aligning expectations among senior leadership in agencies and the reality of the portal functionality. The Interagency Council on Statistical Policy (ICSP) was provided with regular updates by the Office of Management and Budget (OMB) with input from the Census Bureau Project Management Office (PMO) on the portal progress. This served as a primary means for agency leadership to hear about the portal and progress with development. This communication, however, also established what some members of the group felt were unrealistic expectations regarding the portal. Some agency leads believed a full application and single review process were available and pushed for uses that weren't yet possible. The group agreed that communication for agency heads needs to be a priority for phase 2 and that can be achieved both through team members working to get information up their chain of command and working to improve communication with other agency groups, such as the ICSP.

*Portal Management*

The team felt that ongoing changes to the portal were managed well and they felt informed of changes as they occurred. The demonstrations that were provided prior to the portal going live were also helpful to the team. The team agreed that demonstrations would be helpful again in the future, as the portal functionality is expanded, and incremental demonstrations of functionality as it is developed would be useful as well. The team members had an opportunity to use the system prior to the go live date which was helpful in learning the functionality and identifying any issues. The team felt that this self-directed exploration of the portal will be important in the future as well. User testing was also an area that the team felt went well and provided useful feedback.

*Overall Impressions*

The group felt that one overall challenge involved coordination and sharing among the various groups involved in the portal. OMB as well as ICSP has provided oversight and direction for the pilot phase. This oversight will increase to a more formal governance structure that will direct the future build-out of the full application and process. Coordination and communication among those creating requirements, implementing requirements, and providing governance and making decisions will be critical. Concerns were raised about the ability of the future technical working group to navigate the various working groups and decision-making bodies when portal functionality is being expanded.

One final concern for this group is the future ability to differentiate between the FSRDC Technical Working Group goals and the SAP Technical Working Group that is handling future portal management and implementation. Given the FSRDC Technical Working Group's involvement, and overlapping membership, maintaining a distinction between the work and goals of both groups will become increasingly important in the future.

<u>FSRDC Executive Directors</u>

Each FSRDC location has an executive director that provides overall management of the FSRDC location, serves as a liaison with the partnering institution, and serves as an overall champion of that FSRDC.  The FSRDC Executive Directors meet as a group bi-weekly to discuss management issues and any challenges they are facing.  The lessons learned session took place during one of these bi-weekly meetings.  The topics covered were project awareness, portal functionality, communication, and overall impressions.  Additional feedback received during the Annual FSRDC Business Meeting held on September 3rd, 2020 is included in this report.

*Project Awareness*

The FSRDC Directors reported being aware of the portal project and receiving regular updates through the bi-weekly meetings.  Several FSRDC directors are also members of the FSRDC Technical Working Group and served as a means of ensuring awareness of the pilot portal projects.

*Portal Functionality*

The Executive Directors had limited feedback on functionality.  One issue was noted: the limited functionality in the pilot and the need to use two systems to complete an application – one being the portal and the other the Census Bureau project tracking system.  This resulted in some confusion regarding how initial contacts with researchers should be managed.  It wasn't clear if all researchers should be directed to the portal or if initial contacts could be managed outside of the portal using only the Census Bureau project tracking system.  The two systems also resulted in some additional work since the portal did not meet the full needs of the application process.

*Communication*

The FSRDC Directors reported that the bi-weekly meetings were the primary means of communication for information about the pilot portal.  They reported that this communication mechanism worked well for them and could continue as the primary communication mechanism during future phases.  Directors also reported that they were aware of the scope and when the portal was scheduled to go live.  They would like to be involved in future demonstrations of the portal and believed they would be helpful as the functionality is expanded.  Some Executive Directors did report trying out the portal in December during the roll-out period, but this exploration was limited.

One suggestion to improve communication was to have a means for the Directors to view updates when they need to miss a bi-weekly meeting.  One suggestion was to have a status page for future phases that would be accessible to the Executive Directors and would allow them to see progress and any updates.  The suggestion was that this be a 'running tab' of the implementation progress, changes, and any upcoming events such as demos or testing.

One area of concern also involved communication to the FSRDC Executive Directors regarding new projects. Since new projects impact FSRDC resources at a particular location and the arrangement of fees, the FSRDC Executive Directors need to be aware of when an application is submitted that involves the FSRDCs. These notifications were implemented in October of 2020 but as the portal functionality changes, this need should be kept in mind, especially as access modes are expanded.

*Overall Impressions*

The FSRDC Executive Directors were positive overall about the portal and the process in the pilot phase. No other feedback was provided regarding overall impressions.

FSRDC Administrators

In addition to an FSRDC Executive Director, each FSRDC location has an FSRDC Administrator. The administrator works directly with each researcher to develop their research proposal and all necessary documentation, submit their project for review, serve as a liaison between the researcher and Census Bureau project and FSRDC management, and manages the day-to-day operations in the FSRDCs. Once a project is approved, the administrators assist researchers with any additional project requests, data uploads, and requests for approval to publicly release the statistical output of their project. The administrators are master's and Ph.D. level social scientists with the data and research expertise to assist the researchers in the development and administration of their research projects.

The FSRDC Administrators have weekly meetings with Census Bureau management to discuss issues and receive updates. The lessons learned session was held during one of these meetings. The topics covered were overall project awareness, portal functionality, communication, and overall impressions. In addition to this session, written feedback was also provided and included in this report. Due to the FSRDC administrators' close work with the researchers, they were able to speak with users and provide feedback received about the portal functionality and user experience as well.

*Overall Project Awareness*

The administrators reported being aware of the portal through updates that occurred during the weekly meetings with Census Bureau management. In addition, each year an annual training is held for administrators. During the 2019 training, information was provided about the portal which also increased awareness. The administrators did feel that they were not as well informed about the agencies that would be participating in the portal, so they weren't sure what users to refer to the portal. Also, a full metadata repository was not available in the first few months after the portal went live. The administrators were not aware of this which caused some confusion when they directed researchers to the portal. The administrators also reported that while they knew applications would be submitted and the basic content, more information on what to expect would have been helpful and would be helpful in the future as the portal is expanded.

*Portal Functionality*

Overall, the administrators reported that users seemed to have few difficulties in using the portal. There were few complaints by users although there were a few areas of concern. One source of confusion for some users was finding the site. Additional ways to advertise the site and make it easier to find it in search engines and the ICPSR website could alleviate some this issue. Once on the site, users were able to complete an application and submit. A lack of a complete metadata repository and the need for more complete metadata for existing datasets was another early concern voiced by users, although metadata completeness has increased since the portal went live.

Another concern voiced by some users was the lack of clarity in how to apply for data from multiple agencies. This functionality was not available in the pilot, with only single agency projects being accepted. This wasn't clear enough in the available information on the portal resulting in confusion. This should be resolved in the future with expanded functionality but should be kept in mind as needing explanation and direction as the functionality expands.

The same issue voiced by other stakeholders regarding duplication of effort due to the limited nature of the current portal was also voiced by users.

In terms of administrators, they have been able to use the portal to view requests with little to no difficulty. Prior to the site going live, some administrators viewed the portal, but it was not viewed by everyone. Given the number of administrators, a suggested strategy moving forward to gain feedback is to designate a small group of administrators who will serve as testers and report back to the larger group. Formal demonstrations would also be helpful in future phases.

*Overall Impression*s

Administrators provided suggestions for the future phases of the portal, collected from both the administrators and portal users.

One suggestion by users was to have a video available about the portal and how to use it, especially as portal functionality increases. Enhanced keyword searches were also suggested as a means to more easily find data that covers a specific topic or has specific features. Enhanced dataset metadata would be helpful for users. One specific suggestion was to have more information on how to link datasets and what is possible regarding linking of certain datasets. More variable level information was also suggested.

FSRDC Administrators suggested that a screener checklist would be helpful in the future to eliminate projects up front that cannot be hosted in the FSRDCs. This screener would include items on citizenship, conflicts of interest, and fees required.

One suggestion from both users and administrators was to eventually have two paths to begin an application: one through the metadata repository and data search engine, which is how the portal currently functions; and another through a direct link to an application. This latter option would

be used if the researcher(s) knew what data they wanted to select and didn't want to utilize the dataset search.

<u>University of Michigan, ICPSR</u>

The University of Michigan, ICPSR, developed and hosted the pilot portal under a contract with the U.S. Census Bureau. The ICPSR team consisted of project leads who coordinated the overall project; IT developers; and a graphic design specialist. The portal went live in December. Initially, Census and ICPSR met twice per week, reducing the number of meetings to once per week in early 2020 after the portal was live. Lessons learned were collected during two of these weekly meetings in October and November of 2020.

The following topics were covered during the lessons learned sessions: project scope, requirements, communication, portal management, and overall impressions.

*Project Scope*

The ICPSR team reported that the project scope was clear and well-defined. The timeline, however, was very accelerated compared to other projects that ICPSR has been involved with. The team believed that this was reflected in the final product. While requirements were met, issues that arose regarding navigating the interactions between ICPSR systems, such as metadata curation needs, were not explored fully due to time constraints. Interactions between the test, staging, and production systems was also challenging at times and could not be accommodated to meet needs given time and resources allotted for the contract. ICPSR did report that the challenges they faced in this project did provide an opportunity for ICPSR to examine the interactions between systems and provide an opportunity for improvement.

*Requirements*

The ICPSR team reported that the requirements were clear and concrete and reported that this was one of the easier parts of the process. The weekly meetings were helpful for clarifying requirements and resolving issues during the development process. The ICPSR team liked that decisions were made jointly between Census and the development team based on discussions. This produced a smooth development and roll-out process.

*Communication*

As stated earlier, weekly meetings between Census and ICPSR were very helpful and allowed for direct communication with the developers. Discussions between Census and ICPSR allowed for a more agile development process, easier specifications development process, and facilitated troubleshooting and changes when needed.

During the development and maintenance of the portal, the Census Bureau served as the liaison between stakeholders and the ICPSR team. When asked if the ICPSR team would have found more direct contact with stakeholders useful, ICPSR responded that this method worked well. It allowed the team to focus on development of the portal rather than engaging with a large group

of stakeholders. They also believed that it was important for them to not have to negotiate with stakeholders individually and arbitrate decisions. They were able to maintain a neutral position which also facilitated their work. In the future, they would prefer that the PMO remain the liaison with stakeholders, especially as the number of stakeholders increases and the complexity of the portal increases.

In terms of user communication, it was sufficient during the pilot phase but due to increasing complexity in the future, more feedback from users should be sought. The ICPSR team believed that a user feedback loop should be developed with sufficient time to respond to the feedback from users, both data users and agency users, in a meaningful way. Time constraints during the pilot did not facilitate incorporating feedback into the final product. ICPSR suggested that it may be helpful to have a smaller representative group of users to meet with once per month to get feedback on ideas and gain buy-in.

*Portal Management*

In terms of portal management, there were both successes and areas for improvement. The change process, once the portal went live, was manageable. Changes were sent to ICPSR on a flow basis, which worked well. The ICPSR team reported that it was helpful to learn about issues as they arose, rather than reporting bugs and requested changes in a batch mode on a predetermined timeframe. Reporting on a flow basis allowed the team to keep up with issues as they arose without becoming overwhelmed.

Metadata updates were managed through updates made to each agency's spreadsheet, sent to ICPSR on a monthly basis. While this process worked, a desire to streamline this process in the future was expressed by both ICPSR and the PMO. Other methods will be explored for the future, including the possible use of Application Programming Interfaces (APIs).

Two portal demonstrations were conducted by ICPSR to stakeholders prior to the portal going live. The demonstrations were successful in that users did get to see the portal in an earlier stage of development and prior to going live, providing an opportunity for comments and suggestions. The demonstrations also proved challenging due to a couple of factors. ICPSR did not have well-delineated test and development systems so changes were actively being made on their staging system in order to meet the portal deadline. As a result, there wasn't a stable environment to conduct the demonstrations, other than the production environment which is not the preferable environment to be demonstrating to users how to initiate projects. Finding an application to serve as the platform to conduct the demonstrations was also a challenge due to variations in meetings and team software supported by different federal agencies. Some agencies were approved to access Microsoft Teams, but not GoTo Meetings. Some could access Skype but others could not. As a result, some agencies would be blocked by their firewalls when trying to access the demonstrations. The agencies blocked would differ based on the software being used to screen share. This issue may resolve somewhat due to agencies' expansion of team and sharing applications during the mandatory telework period resulting from the COVID-19

pandemic. This issue should be kept in mind, though, in future demonstrations as variation does still exist among agencies.

With regard to user testing, not having a test environment also impacted the ability to smoothly test the portal. The testing was successful in that issues were identified and fixed prior to the portal going live but users had to cross boundaries from production to the staging system during the testing requiring re-authenticating into the system, thus preventing a natural flow for the testing. This was due partly to new studies not getting updated in the test/staging environment, so the production system had to be used for a portion of the testing. A dedicated test system would resolve these issues with testing and demonstrations in the future. The ICPSR team reported that due to difficulties with testing, they are working towards improvements for the future.

*Overall Impressions*

The overarching issue the ICPSR team identified was the lack of time. The rushed nature of the project did not allow for enough adaptations by ICPSR to meet the needs of this project, such as modifications to their systems to allow for the type of development and testing we needed. It was suggested that a data curation specialist be considered as an addition to the development team in future phases to focus on the metadata repository, given the importance of metadata to users and the number of agencies who will be contributing to that repository.

Project Management Office (PMO)

The U.S. Census Bureau served as the PMO for this project. While we enjoyed the successes discussed above and struggled with many of the challenges, serving as the PMO provided us with additional insights. These issues are discussed below.

*Resources*

The pilot portal, despite the extensive work involved and it being required under the Evidence Act, was largely an unfunded mandate. Funds were available to pay contractors for the actual portal development, stakeholder engagement efforts, and some metadata enhancement, but all PMO tasks had to be absorbed by existing staff at the Census Bureau. No funds were available for full-time staff to manage the overall effort. Existing staff at the Census Bureau had to initiate and manage the contract; manage the FSRDC Technical Working Group to develop requirements; work with the contractor to develop the portal; serve as a liaison for all stakeholders including users, CIPSEA agencies, FSRDC administrators and Executive Directors, OMB, and ICSP; and initiate and manage future contracts for stakeholder engagement and metadata enhancement. In addition, the Census Bureau, as a customer as well, had to complete all tasks required of a customer, including development an extensive metadata inventory. All agencies had to absorb the work of their own agency's implementation as well.

This lack of dedicated staff resulted in challenges such as ensuring all documentation was created and available; formal tracking of change requests; and ensuring full and complete

communication with all stakeholders including CIPSEA agencies and data users. While the pilot portal was a more limited effort, if resource issues persist into future phases, it will likely have a significant negative impact on the ability to successfully reach full implementation.

*Communication*

Communication between the Census Bureau PMO and the participating agencies was positive. Bi-weekly meetings, augmented with discussions with individual agencies, proved critical in hearing agencies' views and ensuring that their needs were being met, to the extent possible, given the scope of the project. Challenges did arise, however, with communication between OMB, ICSP, the Census Bureau PMO, and within participating agencies.

OMB served as a liaison with non-participating CIPSEA and statistical agencies and units during the pilot phase. The PMO heard from OMB and their staff detailed from other agencies, what other stakeholders expected in terms of involvement with the initial phase. There were meetings between the PMO and OMB, but the meetings were not regular due to busy schedules and the expectations of OMB, ICSP, and/or non-participating agencies was not always clear. The transition from FSRDC leadership to OMB leadership for this effort likely contributed to early communication challenges as well. One example of this ambiguity involved an observer group of stakeholders that was to be formed. These observers would not be actively participating but would be informed of progress during the initial pilot. This group's composition, though, was never communicated to the PMO and expectations regarding communication and engagement were not clear. Meetings did not shed light on this issue. The result was the perception by some stakeholders that the Census Bureau was leaving them out of the process when in fact the PMO was either unaware of their expected participation or expectations of their involvement.

Another challenge was with communication with ICSP members. ICSP membership includes agency heads in CIPSEA agencies and statistical units. Members received some updates on the portal but misconceptions about the portal still resulted. These misconceptions surrounded the level of functionality available in the portal. The portal functionality was limited but many members believed the portal met all requirements under the Evidence Act. As a result, some participating agencies received senior management requests to have the portal used in a way that was not possible, such as in submitting a full application. It wasn't clear that this pilot did not meet all requirements and that agency processes and systems were still critical in reviewing and approving researcher applications for restricted use data. This situation caused frustration among some participating agencies.

Future communication should include more regular meetings to communicate expectations and vision between the PMO and OMB. Vision alignment is critical with a project of this nature. More direct communication between the PMO and the ICSP may also help to prevent future confusion. Within agency communication also needs to be addressed to ensure that agency senior leadership is communicating with their agency representatives on the SAP technical working group to ensure that expectations about the portal are in alignment with the actual functionality available. Agency representatives should be encouraged to ensure that timely

information is communicated up their chain of command so senior leaders are informed about the portal progress and impacts to the agency. This will also ensure that decisions made by ICSP are based on the experience and knowledge of their frontline staff who are actively involved in implementation.

*Policy*

For the initial pilot, there was no overarching policy or governance structure to provide guidance on the application development or the review process. A transition from FSRDC governance to ICSP governance led to an initial gap in oversight for the project. The FSRDC Technical Working group made decisions based on programmatic needs, time available, and resources. Given the size of the group, and the fact that the agencies already had preliminary discussions on a single application and process, consensus was possible. It wasn't clear, however, what authority the FSRDC Technical Working Group had in making implementation decisions. As the future of the SAP and portal was discussed, questions arose as to what application items were appropriate in the future build-out, what the single review process would entail, and who would adjudicate project rejections. It became clear that a guiding policy and a governance structure was needed to provide guidelines for the future implementation that would be more complex and involve negotiating the needs of up to sixteen statistical agencies.

As of the writing of this report, a governance group under the ICSP was working on a policy and governance structure for the SAP. Given the complexity of the future effort and the ambiguity in this area experienced by the agencies involved in the pilot, a clear policy and governance structure will be critical. Ideally, the policy would take into account the wealth of experience held by the program staff at the participating statistical agencies to ensure that realistic expectations are set and that agency research programs remain viable while also meeting the requirements under the Evidence Act.

**Summary**

Overall, the pilot portal was a success. A basic application was implemented within a very short timeframe that provided a proof of concept for the full standard application process and portal. The pilot demonstrated that data users from multiple agencies can use a single point of entry to an application and that a common metadata repository of all agency dataset metadata can be developed and maintained. The pilot positioned CIPSEA agencies to actively think about a single application and review process and what that will entail as we move towards a full build-out that meets all single application requirements under the Evidence Act.

Successes for this project include:

- Implementation of a fully functioning pilot portal in a limited timeframe with limited resources. This project had approximately 10 weeks from date of contract award to work with a contractor to develop a single basic application, with buy-in from seven CIPSEA agencies, and implement that application, route it to the appropriate agency, and provide

administrative functionality to record final disposition.  All of this was successfully achieved within the original schedule and without cost overruns.

- Successful development of a metadata inventory for multiple CIPSEA agencies.  Five of the seven participating agencies chose to provide metadata for the initial roll-out.  These agencies, within the 10-week timeframe allotted, agreed upon a metadata template and completed that template with information on their restricted access data holdings prior to the go live date.

- Consensus among seven CIPSEA statistical agencies on requirements for the portal and the portal functionality.  All seven agencies came to consensus on requirements for the portal and portal functionality despite an accelerated schedule and concerns about the impact of the portal on their own agency's review process.  The FSRDC Technical Working Team collaborated very well and facilitated rapid development of the pilot portal.

- Successful communication strategies with agency and FSRDC stakeholders as well as the University of Michigan's ICPSR.  Meetings and updates with the FSRDC Executive Directors, FSRDC Administrators, the FSRDC Technical Working Group, and the ICPSR provided a solid platform for communication about the portal scope, requirements, roll-out, and ongoing updates.  Any challenges in using the site were communicated through the communication mechanisms established and were able to be resolved in a timely manner.

- Portal testing and demonstrations to stakeholders were able to achieve goals despite technical challenges.  Prior to going live, two demonstrations were provided by the ICPSR to demonstrate the portal functionality to stakeholders.  These demonstrations provided an opportunity for feedback and resulted in changes prior to going live.  User testing was also helpful in identifying issues before the go live date and allowed for a variety of users, both data users and agency administrators, to test the site.

- Groundwork laid with multiple stakeholder groups for the full build-out of the portal.  While the pilot portal had limited functionality, the discussions regarding the basic application and routing of reviews served as a platform for discussion about the future build-out of the portal including the full application and how a review process could work.  As a result, requirements gathering for future phases was given momentum and some potential challenges were identified early.

Challenges were also faced with this project, as discussed throughout this document.  These challenges offer opportunities for changes in future phases to facilitate enhanced communication, improvements to uses of technology, and smoother processes for both agencies and users.  The following areas are suggestions for improvement in future phases:

- A multi-pronged approach to statistical agency communication is needed.  While attempts were made to facilitate communication within an agency, through agency membership on the Technical Working Group, and to agency leadership, through the ICSP, senior leader expectations and beliefs still did not match the reality of the effort.

Some of the confusion may have been due to the compressed timeline that limited our ability to prepare stakeholders properly. In future phases, more within agency communication should be encouraged, with agency representatives on the SAP implementation team taking a lead to ensure that their managers and senior leaders are aware of the effort and can make appropriate decisions regarding restricted use data agency processes, based on the single application and process that is developed. Attempts should be made by internal agency staff participating in the implementation of the portal to inform their leadership and manage expectations. Agency staff who are managing applications need to be included in all agency communication. In addition, more status reports to ICSP, preferably by the PMO, would help to ensure that senior leadership is kept abreast of critical developments in the standard application process.

- More PMO status meetings with OMB. Given the high demands placed upon both PMO staff and staff within OMB, communication between these two entities is critical. OMB provides the key direction and overarching management for the policy and regulations that will impact the standard application process. Ensuring that the PMO understands OMB's vision, governance structure, and all policy guidelines is critical to fulfilling the legal requirements under the Evidence Act. While it can be difficult to maintain open communication given busy schedules, it is strongly recommended that regular meetings and discussions occur to align the OMB and PMO visions for the project.

- The standard application process requires clear policy guidelines. For the pilot phase, there were few guidelines for the portal development other than those that were stated within the Evidence Act itself. Given the limited scope and number of agencies involved, this lack of policy was not as critical in this early phase. As the number of participating agencies increases as does the complexity of the project itself, policy that guides decision making will be critical. Participating agencies will be making decisions about the application and process. Agency needs and user experience will need to be balanced to ensure that the final product meets all legal requirements, both of the Evidence Act and the various legal statutes governing the data, while ensuring that existing robust research programs remain viable. As of the writing of this report, a policy to provide this guidance was being drafted. Ensuring that this policy finds a balance between these sometimes two competing needs will be important in guiding success for the standard application process.

- More demonstrations and opportunities for users to test the system are needed. While the demonstrations and user testing were successful in phase 1, more incremental demos would be helpful as functionality is developed. The accelerated timeline in the pilot prevented additional demonstrations but should be possible in future phases if time constraints are loosened. Both agency and data users would also benefit from a sandbox to try out functionality as it is developed and provide feedback to developers. This sandbox would allow users to test functionality on their own time and ensure that stakeholder feedback is incorporated into the final product.

- Resources should be made available to fund not only the contractor to develop the tool itself but the full-time staff and other supporting contractors to support the entire effort. In order to ensure that any of these recommendations are implemented and that the final product meets the needs of data users and providers, the project must be properly resourced. These resources need to include not only funds for a contractor to develop the actual tool, but the staff to support a Project Management Office, acquisitions, communications and outreach, and administrative support. Without this support, documentation may be insufficient, communication will suffer, and the final product may not meet the full needs of the users and the intent of the Evidence Act. The pilot phase required existing staff to absorb the work of the pilot with no dedicated staff. The complexity of the future build-out requires that dedicated staff are available for requirements gathering, communication with all stakeholders, serving as a liaison with the contractor, and conducting the acquisition. Once the portal is fully functional with a single application and review and adjudication process, ongoing management will also require staff to ensure smooth functioning. This critical component cannot be overlooked for there to be long-term success with the portal.

- Sufficient time in future phases is needed to ensure that both agency and data user needs are met and that feedback can be gathered and incorporated into the final product. The timeline for this pilot was brief, resulting in difficulty engaging with stakeholders, particularly data users. The timeline also meant that some requirements were rushed resulting in a product that, while meeting the basic intent of the Evidence Act, was not ideal. Balancing the need to reach full operating capacity in the future with the need to listen to the needs of stakeholders will be critical for ensuring a high value product with high adoption by data users and data providers.

- Metadata standards should be developed that take into account the needs of the users. Users need sufficient information about the data available to make informed decisions about the data they should use for their research questions and evidence-building activities. Users need not just a basic description and sample sizes but information about the data can be used, such as understanding if and how the data can be linked to other data sources and what challenges there may be in some sources, such as missing data. Users also need to understand comparable public data sources available to determine if their research requires restricted use data. These issues should be taken into account in future metadata development.

## Appendix: Lessons Learned Session Questions

## Lessons Learned Questions – Single Application Process (SAP) Pilot
## FSRDC Technical Working Group

### Project Scope

- How well was the project scope defined?
- Was the project scope reasonable given the time allotted?
- Did the pilot portal meet the initial scope of the project?

### Requirements Gathering

- Were the goals in the requirements gathering for the portal functionality clear?
- Did you feel that your viewpoint was represented while requirements were being gathered?  If not, how could you have been better represented?
- Were you able to voice concerns regarding the requirements?  If not, why and what could be changed?
- What would you like to see in future phases for requirements gathering?

### Communication

- How well were the goals of the project communicated?
- Were weekly meetings helpful?  How could they have been changed to improve communication?
- Were the meeting notes helpful?  How could they have been changed to improve communication?
- Do you feel you were kept informed of portal changes and issues?
- Are there communication strategies/mechanisms that you feel would be helpful and would like to see in future phases?

### Portal Management

- Were concerns about the portal itself and requested changes heard and resolved?
- Were the demonstrations provided by the University of Michigan helpful?  Would you have changed anything to make them more useful?
- Was the user testing clear?  Were the tasks clear and was it helpful to the overall process?  Would you have changed anything to make the testing process go more smoothly?

### Overall

- Were there specific challenges for you and your organization on this project?
- What would you like to have seen done differently?
- Are there suggestions for future phases?

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# Lessons Learned Questions – Single Application Process (SAP) Pilot

# Executive Directors

**Overall Project Awareness**

- Were you aware of the portal development?
- How did you receive updates on the portal?
- How well informed were you of the portal scope?  How could you have been better informed?

**Portal Functionality**

- Did you have an opportunity to view the portal prior to the go live date?
- Were you aware of the portal go live date and expectations regarding use?
- Did you explore the portal after it went live?  What seemed to work?  What could have been done better?
- Do you believe there are barriers to use of the portal?

**Communication**

- Do you feel you were kept informed of portal changes and issues?
- Did you feel you had a forum for discussion about the portal?
- Did you voice concerns about the portal and in what venue(s)?  Do you feel your concerns were heard by the project team?
- Are there communication strategies/mechanisms that you feel would be helpful and would like to see in future phases?
- Would you be interested in engaging in viewing demos and engaging in any future testing?

**Overall**

- Were there specific challenges for you and your organization on this project?
- What would you like to have seen done differently?
- Are there suggestions for future phases?

# Lessons Learned Questions – Single Application Process (SAP) Pilot

# FSRDC Administrators

**Overall Project Awareness**

- Were you aware of the portal development?
- How did you receive updates on the portal?
- How well informed were you of the portal scope?  How could you have been better informed?

**Portal Functionality**

- Did you have an opportunity to view the portal prior to the go live date?
- Were you aware of the portal go live date and expectations regarding use?
- Did you explore the portal after it went live?  What seemed to work?  What could have been done better?
- Do you believe there are barriers to use of the portal?
- What user feedback have you received?

**Communication**

- Do you feel you were kept informed of portal changes and issues?
- Did you feel you had a forum for discussion about the portal?
- Did you voice concerns about the portal and in what venue(s)?  Do you feel your concerns were heard by the project team?
- Are there communication strategies/mechanisms that you feel would be helpful and would like to see in future phases?
- Would you be interested in engaging in viewing demos and engaging in any future testing?

**Overall**

- Were there specific challenges for you with the portal?
- What would you like to have seen done differently?
- Are there suggestions for future phases?

# Lessons Learned Questions – Single Application Process (SAP) Pilot

# ICPSR – University of Michigan

**Project Scope**

- How well was the project scope defined in the Statement of Work?
- Was the project scope reasonable given the time and resources allotted?  Would additional ICPSR team members have been helpful?  In future phases, would a different team composition be helpful?

**Requirements**

- Were the requirements for the portal clearly articulated?
- Were discussions between Census and ICPSR helpful in working through requirements issues?  Are there suggestions for requirements communication in the future?

**Communication**

- Were weekly meetings helpful?  How could they have been changed to improve communication?
- Was there sufficient communication with agency stakeholders, when needed?  Would more direct communication have been helpful?
- Are there communication strategies/mechanisms that you feel would be helpful and would like to see in future phases?
- Was there sufficient communication with users?  Would more or different communication with users be helpful in future phases?

**Portal Management**

- Were change requests manageable?  Are there suggestions for improvement in the change request process for the future?
- Are metadata changes and updates manageable?  Is there another process that can be used?
- How did the live demonstrations go, from a contractor perspective?  How could demos be handled differently in the future, especially if they are more frequent and to larger audiences?
- Was user testing helpful, from a contractor perspective?  Could feedback have been handled differently?  If we need to test with a larger group in future phases, is there a need to change the protocol?

**Overall**

- Were there specific challenges for ICPSR on this project?
- What would you like to have seen done differently?
- Are there suggestions for future phases?