
The Future of Census Bureau Operations



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1 Introduction

The Census Bureau must make transformational changes to succeed now and in the future. The world we are measuring continues to change rapidly, even as expectations continue to grow from decision makers and stakeholders who depend on us for timely, accurate information about our nation's people, institutions, and economy.

Our jobs have become more difficult due to budget reductions, declining survey participation rates, the explosive growth of publicly available information, rapidly changing technology, and increasing competition for the best and brightest minds. We must also address how we deliver our data products to ensure that we promote an agile and innovative environment so that we are not constrained by our own program structure that has evolved over time. Yet, we are confident that the Census Bureau cannot only rise to these challenges, but it can remain a worldwide leader among statistical agencies. We know this because we have a tremendously qualified workforce that has demonstrated that they can overcome challenges, identify and implement innovative solutions, and turn a vision into reality.

We must create an environment that enables and encourages every employee to help us transform the way we do business. The challenges are daunting, and we are tackling them, but we can and must do better. Establishing an environment with structured governance and that rewards collaboration, embraces innovation, focuses on finding enterprise-wide solutions while providing every employee the opportunity to be involved in making the Census Bureau a stronger, more efficient, and respected organization is Job #1. Creating this new environment requires changes throughout the organization and a common understanding of the changes we need to make to get to where we want to be as an organization; that is, as the "best in class" among the world's statistical agencies.

We realize that changes can be difficult and may cause anxiety among some employees and increase uncertainty among customers. Therefore, it is critically important, that we, the leaders of the Census Bureau, communicate the need for change, discuss how these change initiatives relate and interact, and explain how these changes will affect and benefit our employees and our customers, as well as the long term future of the Census Bureau. Our change agenda is multi-faceted.

First, the executive leadership at the Census Bureau has developed a new five-year strategic plan. This plan describes our mission, organizational vision, and identifies specific goals and objectives for the Census Bureau for the period FY 2013-2017. The plan focuses on the organizational goals and objectives associated with our core programs and operations covered by our annual budget submission and it ties directly to the Department of Commerce's strategic plan. We encourage everyone to read our agency's [Strategic Plan](#).

The key elements of our overall strategy are our change initiatives. Many of you have worked on various parts of these initiatives but may have not been able to see how they all fit together or perhaps, do not fully understand how they help us achieve our overall goal of being the leading

source of high quality, timely, relevant, and cost-effective statistical information. To help everyone understand the big picture of where we are going, we have developed [*The Business Plan for Change*](#) that identifies the goals, objectives, and initiatives that are necessary to transform the way we do business. This *Business Plan for Change* will be shared with all employees to ensure everyone understands the case for change and the full scope of the changes being pursued.

2 Ten Guiding Change Principles

There are ten crosscutting change principles that guide the future direction of how we want to operate as an organization. These principles, when implemented will lead to more consistent, economical, cost-effective, efficient, and standardized operations, supported by corporate shared systems that provide vastly increased functionality at a lower cost. These principles guide short and medium term decisions about where we invest our resources, how we leverage existing capabilities, and how we align our survey business and technology resources to develop integrated solutions. The ten guiding change principles are described briefly below.

- 1. Implement integrated, metadata-driven survey and census designs, processes, and products.** All aspects of a survey or census, from design through dissemination will be defined using a common metadata schema. Shared business and technology services will be tightly integrated and reused across multiple surveys.
- 2. Simplify processes and systems.** We will reduce complexity through shared services and generalized solutions. We will aggressively move to identify common processes and systems and to standardize them across all our operations. We will reengineer our processes and systems to reduce complexity by eliminating unnecessary or inefficient workflows and functionality.
- 3. Eliminate paper.** Elimination of paper export documents and impressive gains in electronic reporting in the 2012 Economic Census and the 2013 ACS demonstrate the advantages of aggressively pushing electronic instruments. Expanding internet self-response capabilities and standardizing field data collection tools can substantially reduce transaction costs, facilitate self-response, and reduce the infrastructure needed to support 2020 Census data collection. Future training should be computer-based and not rely on paper-based verbatim learning. Our administrative mission-enabling processes should be electronic and streamlined.
- 4. Implement adaptive design methods in all of our surveys and censuses.** Adaptive design demands near real-time survey-related information on costs, resource usage, survey paradata, and quality metrics, robust survey analytics, and facilitates automated survey management. The benefits of adaptive design include improved data collection efficiency, quality, and reduced cost and respondent burden.

- 5. Be a research-driven organization.** Census Bureau improvements to programs, processes, and methods will be based on scientifically sound research. The Census Bureau must become a leader in survey methodology research, statistical methods, and program-based research if it is continue to innovate. We also must make it easier to facilitate external and internal research. Strengthened research capabilities are key to adaptive design, the design of the 2020 Census, expanded use of administrative records, exploring big data, and new, integrated data products.
- 6. Rely on evidence and data-driven decision making and performance standards.** Data and evidence must inform research and program decisions, survey management, and performance and accountability assessments. The Survey Analytics Office, the Office of Cost Estimation, Analysis, and Assessment (OCEAA), the Center for Adaptive Design, the Technology Management Office, the Office of Enterprise Risk Management and Project Management, and the Directorate for Performance Improvement will play important roles in collecting maintaining, and facilitating data-driven decisions across the organization. We will manage our work through the portfolio management governance process and implement Enterprise Risk Management and project management.
- 7. Guard against insular thinking.** Expand our outward focus to keep current with developments internationally, in other agencies, in the private sector, and academia. The continued regular use of outside experts to provide feedback and recommendations regarding organizational, methodological, program, and product proposals outside the walls of the Census Bureau will enable us to benefit from the best advice we can get, regardless of the source.
- 8. Provide open data dissemination capabilities.** We will better serve our internal and external customers by managing our data from acquisition through dissemination as an asset. By providing data both in standardized reports and raw format via web application program interfaces (API) we can further promote external innovation and the goals set forth in the Administration's *Building a 21st Century Platform to Better Serve the American People (May 23, 2012,)*. We can also streamline how we exchange and share files internally. Our data products will standardize data elements and definitions across our products, using metadata. We will focus on delivering dissemination capabilities needed in the future. Those capabilities will reflect input from external customers and will be adapted as customer needs change.
- 9. Fully leverage external data sources.** We will fully leverage administrative records and other external data sources, including big data, to supplement and possibly supplant frame development and direct data collection, enhance self-response capabilities, support new data products or expand existing data products. Using external data will help the Census Bureau reduce data collection costs, redundancies, and respondent burden and improve data quality. The Census Bureau also has the opportunity to serve as a data integrator for the federal statistical system.

- 10. Organize by function, manage by program.** Reorganizing around survey life cycle and mission enabling functional core capabilities and shared services will eliminate redundancies, facilitate standardization, reduce costs and increase efficiency.

3 Change Impacts

Transforming the way we do business will affect Census Bureau personnel, survey sponsors, and stakeholders in various ways. Some of the biggest changes will be associated with having surveys conducted in a more standardized, integrated way across all of the Census Bureau, using standardized metadata, shared application and infrastructure services, near real-time cost data, and features from adaptive design, while maintaining needed flexibility. Other changes in the way surveys are managed will include more centralized management of our investments through enterprise portfolio management methods.

Although it will take years to fully implement the changes we are setting in motion, we realize that among the first questions many employees will want answered is, “How these changes will affect me when I arrive at work to do my job each day?” The answer is different for each person. However, here are a few high level examples of how you may be affected in the near, medium, and long term.

- Program Managers will resource their surveys using enterprise assets, such as Centurion, our single internet data collection system, instead of acquiring and maintaining their own individual survey resources. We will also use a single multi-mode operational control system for data collection and adaptive design. Data tied to the survey life cycle and the mission enabling support capabilities document resource usage, identify possible redundancies, and capabilities that may be under-resourced. We will strive for performance improvements and create a culture where data and empirical evidence play a greater role in policy, budget, and management decisions.
- Survey Directors and teams will begin to use standard project management and templates for their survey, reusing existing capabilities. Rather than approaching a survey "the way it's always been done," we will start to use an integrated survey life cycle approach that begins with standard metadata that can roll into forms design, a standard multimode-capable operational control system that enables real time adaptive management of data collection, and metadata driven processing and data dissemination.
- Implementation Managers and Technical Staff will continue to develop innovative and specialized technical assets to conduct surveys and analyze data. The emphasis will be on expanded cross Census Bureau collaboration on using enterprise standards and a design philosophy that stresses reuse rather than customized specialization. Technical implementation becomes more about integrating and configuring proven existing technical solutions in the Census Bureau tools repository rather than developing new custom solutions.

- Survey Data Collection Managers and Supervisors will use newly created measure, metrics, and dashboards to monitor progress of telephone and field data collection activities. A set of new national survey performance standards, based on data from the national planning database, will be used to establish performance standards for our 7000 field representatives. Managers and supervisors will adopt new adaptive design techniques to improve quality and reduce costs on surveys.
- Survey Subject Matter Experts will still do what they have always done: provide expertise on how to design and implement surveys. Subject matter experts also will review and correct survey data, prepare data products, and support program-related research. New ways of organizing subject matter experts could result in new organizational structures that will matrixed across multiple surveys, as we currently see in some parts of the Census Bureau.
- Employees will be asked to assess their current skills and competencies including reporting any certifications or specialized capabilities they may have. Supervisors will also assess all of their employees related to their skills and competencies. The employee's self-assessment and the supervisor's assessment will facilitate career development discussions. New skills that will be needed in the future will be identified, such as data scientists, as part of this strategic workforce planning effort.
- Internal and external survey sponsors will deal with a single point of contact - the Survey Director. Sponsors will expect Survey Directors to be proactive in suggesting new methods and processes; problems will be addressed promptly and effectively. Eventually, resource-loaded schedules will clearly communicate resource usage, costs, and deliverables.
- Data users will be provided new dissemination capabilities that will make data easy to access and use. The data user will be able to use a table builder tool to manipulate and utilize metadata-enabled data sets. Feedback mechanisms will provide continuous information about how effectively we are meeting data users' needs.
- Respondents will have multiple reporting options available including the internet. Web tools will communicate the importance of the information, provide explanatory information that can answer questions, and provide access to subject matter experts. Respondents in all surveys and censuses will be able to share their concerns and questions with a respondent advocate, although our largest businesses will continue to utilize account managers to facilitate reporting.

Oversight organizations will support enterprise solutions and leverage shared services. The Office of Cost Estimation, Analysis and Assessment will be following GAO best practices for cost estimation, and data driven decision-making will provide the underlying information supporting program decisions. The changes at the Census Bureau will affect a variety of stakeholders – managers, employees, sponsors, and consumers. The goal of these changes is to

make the Census Bureau better able to fulfill its future missions. Change will require effort and participation by all parties.

4 Going Forward

We are moving forward with a multi-faceted and wide-ranging change agenda, components of which will touch almost every aspect of our survey and census business lines. This change agenda is a work in progress, which we intend to refine and update as we learn more from our respondents, data users, external experts, and you, our employees. We will be putting governance structures in place, such as portfolio management, that will help us prioritize our actions to assure we are achieving our strategic goals. A critical element of our success is that we all need to think and act differently starting now. The following bullets summarize some of the behavior changes we will encourage and expect going forward.

- The Director's office will improve lines of communications so that everyone is aware of our overall change agenda, the changes we are making now, the lessons learned, updates to plans, current status of each change component.
- The Director's office will form a cross directorate IT integration team to further develop an initiative integration plan and capability development roadmaps and an enterprise-wide data dissemination strategy. The Director's Office will also lead the effort to establish an enterprise portfolio management and governance process that will begin within all the directorates.
- Directorates will continue to work on broadening their view beyond our current stovepipe view of our organization and systems. We have to engage in active listening, looking for ways to strengthen new ideas, rather than pointing out all the shortcomings. Good ideas can come from external sources, from different program areas, and from any employee. We need to encourage these ideas. As part of our strategy to broaden our use and reuse of shared technology services, the CIO will lead an executive technology steering committee to both guide and coordinate the definition, creation, and deployment of shared enterprise services. We will leverage environments such as the Center for Applied Technology (CAT) to develop and prototype ideas to production, including work flows, new products, or new programs.
- Everyone must adopt an enterprise perspective in everything we do. As an organization we will flourish and prosper only if we view ourselves as an enterprise that runs many, but entwined (or interrelated), different lines of business. But at their core, each of our business lines face the same challenges, and the functional requirements are much more similar than different across programs.
- We will realign our organizational structures to make sure that we are eliminating structural barriers to accomplishing our work in cost effective, efficient ways. We must be flexible and agile in how we deploy our resources.

- We must all strive to simplify our systems and processes, and reuse and leverage existing capabilities rather than create new capabilities. Decisions will be data-driven and results will be measured.
- IT management staff will lead the effort to identify, consolidate, and integrate shared IT services and systems.
- Individual staffs are expected to find ways to get involved and come forward with ideas via the Improving Operational Efficiency (IOE) program to identify and facilitate these changes. Everyone needs to become more willing to take risks and challenge traditional ways of thinking about and doing our work.
- Managers need to encourage our staff prudently to take and manage risks, be more tolerant of failure to reach stretch goals or bring innovative products to fruition, and encourage and reward innovation and creative thinking.

The Census Bureau has a long and proud tradition. Throughout its history, the Census Bureau has always embraced change and innovation in order to meet the challenges of a dynamic society. This tradition will continue, as the Census Bureau seeks to maintain its reputation and public trust, while improving its efficiency and the stewardship of its resources. Together ,we can and will make the Census Bureau even better.