A Case for Change and the Future of the U.S. Census Bureau

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Council for Community and Economic Research (C2ER)
Annual Conference
June 6, 2014
Returning to the Census After a Decade

Right Timing and Opportunities to Use Technology and Information More Effectively

- Increased use of the Internet as a response option across all programs
- Reengineer the 2020 Census
- Make data more accessible and develop new data products, especially products that utilize both economic and demographic data to help businesses grow the economy and create jobs

Ensuring the Continued Availability of American Community Survey (ACS) Data to meet the needs for high quality socio-demographic data for all communities
Building for the Future at the U.S. Census Bureau

**Challenges:** Remain relevant and innovate in an era with “less time” and “less resources.”

**Strengths:** Strong culture supporting the Census Bureau’s mission and protecting information, as well as commitment to collaboration with other statistical agencies.

**Vision:** Encourage a culture that is continuously self-evaluative, adaptable, and innovative...applies not only to the decennial and economic censuses, but the enterprise.
Encouraging Innovation: Three Stories

**Economic Census and Survey of Business Owners Success Stories:** setting the stage for the future of increased Internet response options across all programs—how to use technology and Paradata more effectively

**2020 Census Redesign:** delivering on innovation with a less-costly census

**Data Dissemination:** delivering relevant data that meets the needs of a complex and disparate user base
Economic Census: Basics

- Conducted every five years, provides comprehensive, detailed, and authoritative information on the structure and functions of the U.S. economy
- Accounts for approximately 85 percent of GDP estimates
- More than 1,600 releases, 40 billion data cells
- Highly detailed industry, geographic, and product statistics
- Electronic Reporting:
  - Surveyor (the past)
    - Supports hundreds of questionnaire types for the Economic Census
    - Downloadable software with workbook and spreadsheet capability to import and export response
    - Reporting option for both multi- and single-unit companies for 2002 and 2007
    - Single-units had a strong preference for web-based reporting
      - Faster and easier
      - Avoid downloading and installing software
  - 2012 Economic Census (the future)
    - Developed a direct-Internet reporting capability for single-units using Centurion
    - Multi-units report electronically using Surveyor
2012 Economic Census: Electronic Reporting

Results:
- 2012 overall e-reporting return rate was 53.4 percent compared with 28.6 percent in 2007
- Greater than expected increase in e-response has contributed to a considerable cost savings

Note: 2007 Q1 electronic responses were not available because check-in did not begin until 2007 Q2.
Assisting Respondents: e-Tools

- **Business Help Site**: Improve customer service to providers
- **Company Portal**: Ease burden on data providers
- **Secure Messaging Center**: Provide secure communication and transfer of data
Benefits of Electronic Data Collection: Increased Data Quantity

- Checked-in electronic forms has increased over the last three Economic Census cycles
- Number of Forms Received Electronically: Comparisons between 2012, 2007, and 2002:

<table>
<thead>
<tr>
<th>Description</th>
<th>2012</th>
<th>2007</th>
<th>2002</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Cumulative Electronic Forms by Count</td>
<td>1,710,390</td>
<td>877,676</td>
<td>476,196</td>
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<tr>
<td>Total Cumulative Electronic Forms As a Percent of Total Cumulative Forms</td>
<td>57.2%</td>
<td>28.6%</td>
<td>16.0%</td>
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<tr>
<td>Checked-in (Excluding Single Unit (SU) Classification Forms)</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Multi-Unit (MU) Cumulative Electronic Forms Checked-in by Count</td>
<td>1,172,910</td>
<td>826,690</td>
<td>472,377</td>
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<tr>
<td>MU Cumulative Electronic Forms As a Percent of Total Cumulative MU Forms</td>
<td>72.7%</td>
<td>54.4%</td>
<td>35.1%</td>
</tr>
<tr>
<td>Checked-in</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>SU Cumulative Electronic Forms by Count</td>
<td>537,480</td>
<td>50,986</td>
<td>3,819</td>
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<tr>
<td>SU Cumulative Electronic Forms As a Percent of Total Cumulative SU Forms</td>
<td>39.0%</td>
<td>3.3%</td>
<td>0.2%</td>
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<tr>
<td>Checked-in (Excluding SU Classification Forms)</td>
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</tbody>
</table>

Survey of Business Owners: Basics

- **Part of the Economic Census**: Conducted every 5 years, years ending in “2” & “7”
- Conducted on a company or firm basis to provide demographic data for businesses and business owners by
  - Demographics (gender, ethnicity, race, and veteran status)
  - Business characteristics (e.g., source and amount of start-up capital)
  - Owner characteristics (e.g., age and education)
- NAICS coverage similar to the Economic Census
- Combines data from several sources
  - Online reporting and mailout/mailback survey
  - IRS business tax returns
  - Other Economic Census reports
- Two-phase mailout (1.75 million firms)
  - **Phase I employer firms (850,000) mailed in September 2013**
  - Phase II nonemployer firms and new employer firms (900,000) mailed May 27 - 29, 2014
Transition to Electronic Reporting: 2007 & 2012

As of May 12, 2014
Summed Online vs. Mail-In Responses

Online responses (550,869 or 64.9% of total mailout)
Mail-in responses (58,580 or 6.9% of total mailout)

Due date

1st follow-up mailout

2nd follow-up mailout

Government shutdown

71.8%
Opportunities and Future Strategies

- Move to an all web-based approach for electronic reporting by expanding Centurion, the Census Bureau’s in-house Internet collection tool, to meet requirements for multi-establishment businesses
- Design electronic instruments and develop e-reporting tools that better guide respondents
- Build in editing capability to allow for cleaner data and expedited processing
- Utilize electronic paradata
  - Improve survey instruments
  - Answer questions about the respondent process to influence current and future data collection activities (e.g., adaptive or tailored designs)
Challenges

How do we design a digital alternative to the role that paper forms appear to play in the business survey respondent’s reporting process?

- Assuring respondents of survey authenticity
- Assuring respondents that data are transmitted safely and securely
- Incorporating Lessons Learned from Surveyor and other electronic data collection, which underscores need to shift web-based reporting
  - Accommodating companies that cannot download software for security reasons (e.g., banking industry)
  - Overcoming hardware/software compatibility issues
- Maintaining data quality (e.g., nonresponse bias)
As mandated by the U.S. Constitution, there is one chance each decade to count the population. The next census in 2020 will require counting an increasingly diverse and growing population of around 330 million people in more than 140 million housing units. The Census Bureau is conducting research in order to inform key design decisions at the end of FY 2015.
2020 Census: FY 2013 and FY 2014

• **Reassessment of the Research & Testing Program in FY 2013**
  – Reprioritized critical activities needed to support key early testing objectives

• **Lapse in appropriations in FY 2014**
  – **2013 Census Test**: Delayed operations originally scheduled to begin on October 1, 2013 to October 17, 2013
  – **2014 Site Test**: Delayed operations originally scheduled to begin in May to July 2014

• **Funding levels available under the FY 2014 Continuing Resolution**
  – Placed some activities on hiatus and reduced the level of effort for some of the remaining projects
  – Temporarily realigned staff (within the Census Bureau) to ensure budget was available to allow critical field tests
Elements of a Cost-Effective Census

Research and testing activities in FY 2014 and FY 2015 are critical to making preliminary design decisions by the end of FY 2015. The areas of focus are:

- **Leverage technology to increase self-response**: give people more options such as Internet and telephone to respond to the census, so we do not have to knock on as many doors
- **Utilize information people have already given the government** (aka, administrative records) and **adaptive design** to reduce the NRFU workload and increase productivity
- **Reengineer the approach and management of field enumeration by** **streamlining and automating operations** and more efficiently planning and controlling field activities
- **Update existing maps and addresses in order to conduct a targeted address canvassing (TAC) operation** prior to 2020 by continually updating the Master Address File throughout the decade
Redesigning the 2020 Census Can Save Billions

Elements of a Cost-Effective Census

1. Use the Internet to increase self response.
2. Use information people have already given the government to answer Census questions and reduce follow-up workload.
3. Automate operations to increase productivity and reduce staff and offices.
4. Update existing maps and addresses to reflect changes rather than walking every block in every neighborhood in America.

Less Staff
Less Offices
+ Less Burden
Up to $5 Billion in Savings
Present Needs and the Future: Allow wide variety of data user to make better data-driven decisions, based on credible statistics, easy-to-use tools, and standardized data elements. In other words, the Census Bureau needs to ensure its data are relevant to answer the questions data users need to answer.

- The Census Bureau needs to expand both its user base and the products we create to serve all users—from the very sophisticated to casual user.
- Need to disseminate data that gets into the hands of businesses and economic develop organizations not only more quickly, but more efficiently.
Data Dissemination in the Future: Key Principles

To this end, the Census Bureau will foster and maintain an outwardly focused, cost-effective data dissemination environment where:

• Its **employees** view dissemination as a shared service and responsibility; engage in active listening; look for ways to strengthen new ideas; and are innovative and risk-taking.
• Its **processes** provide continuous information about how effectively this agency is meeting data users’ needs.
• Its **tools** make data easy to access and use.
• Its **information** respects confidentiality and is respected as a reliable and credible source.

The Census Bureau wants to continually adapt and engage customers to expand its products and services as customers’ needs evolve.
Data Dissemination Transformation: As-Is and To-Be

As-Is

- Distributed governance
- Inconsistent use of metadata; replication of data with version control issues
- Static, inflexible data products that are difficult for end users to integrate and customize
- Disparate systems with redundant functionality using different technologies and infrastructure
- Disparate customer service capabilities; feedback is collected in different ways and not consistently shared or used to drive changes

Areas of Transformation

- Enterprise Data Dissemination Governance
- Metadata Standardization
- External Data Services
- Enabling Technology Platforms
- Customer Experience Management

To-Be

- Enterprise-level governance
- Cross-program standards for metadata
- Flexible, responsive and customizable data services available any time from any device
- Cost-effective and flexible shared service platform
- Enterprise-wide customer experience feedback data driving future changes

Increasing Capability Maturity over Time
American Community Survey: Basics

Beginning in 2005, the Census Bureau started conducting the American Community Survey (ACS):

• The ACS is largest household survey and is sent to approximately 3.5 million households each year—approximately 1 in 38—with a 97% response rate.
• The ACS replaced the decennial census long form and responses to the ACS are mandatory—all responses are confidential.
• Respondents are asked to participate by mail or Internet, then telephone and in-person follow-up.
• ACS is the authoritative source of annual demographic, socioeconomic, and housing information for all communities—states, counties/cities, census tracts.
  • **Demographic**: race, Hispanic origin, age, gender, relationship
  • **Social**: ancestry, grandparents as caregivers, Veterans status, military history, educational enrollment and attainment...
  • **Economic**: income, labor force status, occupation, journey to work...
  • **Housing**: utilities, mortgage/rent, bedrooms, acreage, telephone & Internet service
ACS Content Review

To ensure the ACS content is both relevant and needed, the Census Bureau has initiated a comprehensive content review:

**Federal Agencies Input**
- On April 29, conducted kickoff summit with all federal agencies—included 127 attendees from 23 agencies
- Agencies must provide all their information by late June

**Public Input**
- Field Representatives CATI and FR survey – May
- Respondent feedback – May/June
- Data user feedback – June

**National Advisory Committee Working Group on Content Review**
- Will provide feedback on questions/topics that should be candidates for removal
- Complete work end of July
- Present findings to full NAC in August

**Analysis and Decisions**
- Analyze feedback from all sources - June – September
- Formally announce decisions and seek public input via Federal Register notice process - October-December
- Implement decisions for calendar year 2016 and beyond in coordination with OMB
Implications of a Voluntary ACS
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2006-2010 ACS 5-Year Under Simulated Voluntary Methods
Fixed Budget - Reduced Sample Size*

Percentage of Census Tracts with Acceptable Quality Data

*Voluntary Effect Modeled based on the 2003 ACS Voluntary Test Results.

Population figures are 2010 Census total population.
Discussion