



American Community Survey (ACS)

August 24, 2016

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**American Community Survey Office
U.S. Census Bureau**

Agenda

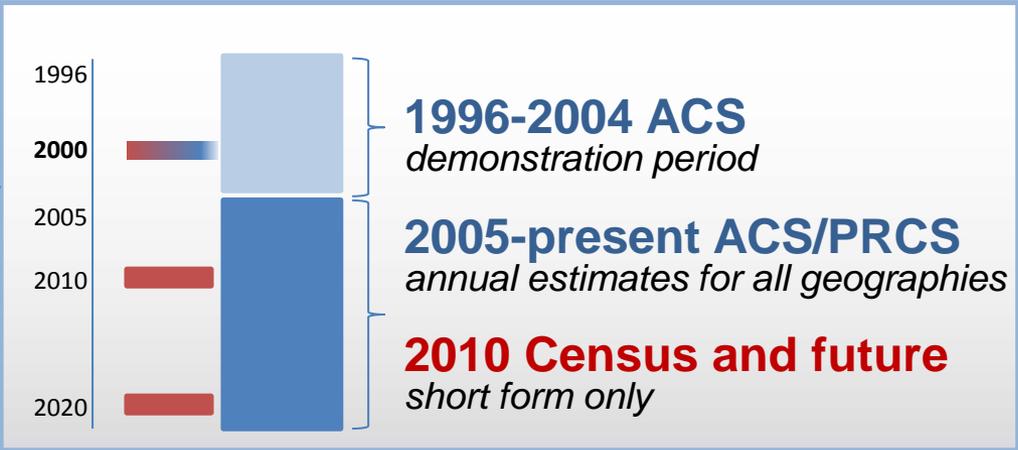
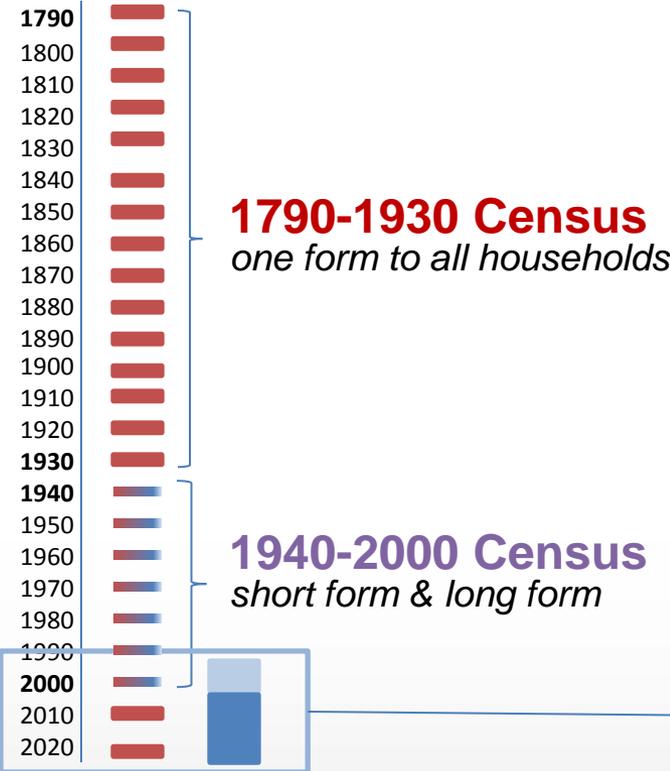
- **ACS Introduction**
- Agility in Action
- Data Product Redesign
- Questions

ACS Basics

- Ongoing monthly survey sent to 3.5 million addresses per year to produce detailed population and housing estimates each year
 - Visit 20,000 Group Quarter facilities and sample approximately 194,000 residents each year
- Designed to produce *critical information on small areas and small population groups* previously collected on the decennial long form
- Covers 35+ topics and supports over 300 known Federal Government uses
- Data released twice annually
 - 1-year estimates (12 months of data)
 - 5-year estimates (60 months of data)

The image displays three overlapping screenshots of the American Community Survey (ACS) forms. The top screenshot shows a 'Housing' section with questions about the type of building and household amenities like a refrigerator and internet access. The middle screenshot shows the 'Welcome to the American Community Survey' page with a barcode and a 'Please Log In' section. The bottom screenshot shows the 'Please Log In' section with a 'User ID' field and a 'Login' button.

Census / ACS History



Agenda

- ACS Introduction
- **Agility in Action**
- Data Product Redesign
- Questions

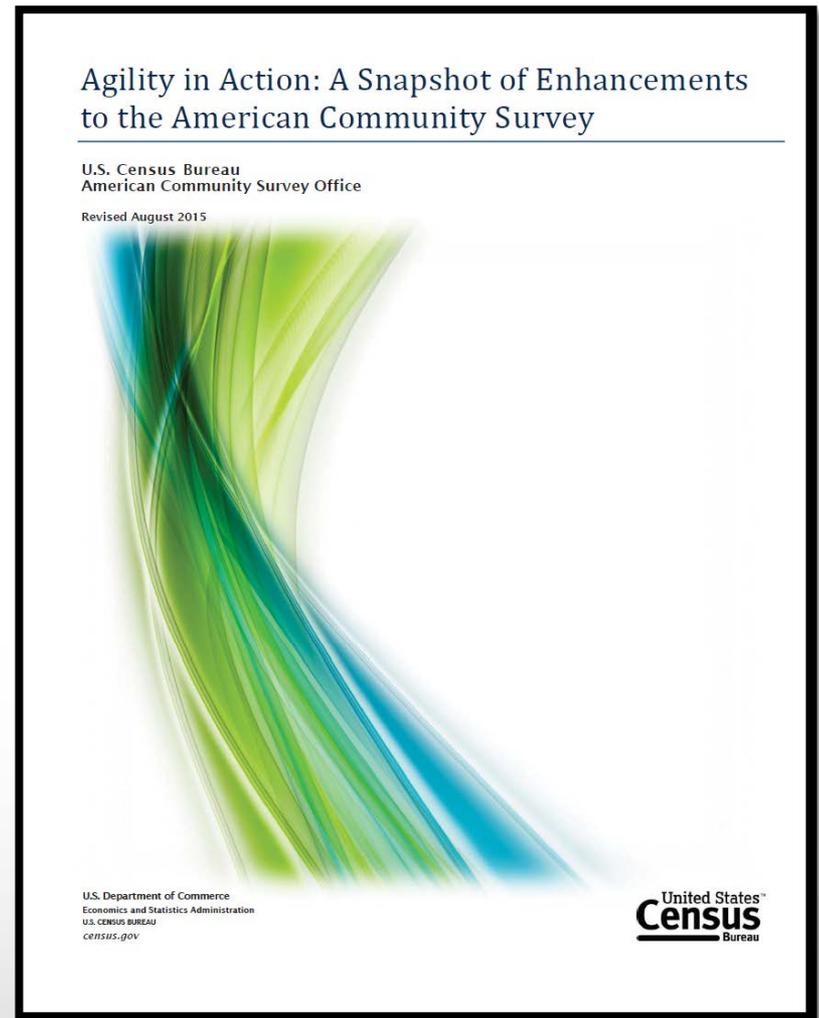
Efforts to Address Respondent Concerns in the ACS

Components of Respondent Burden and Concerns

- It takes an average of 40 minutes per household to respond to the 72 questions included on the survey
- Some questions can be perceived by respondents as sensitive, personal, or difficult to answer
- It is unclear to ACS respondents why the Census Bureau needs to collect information on some topics
- Response to the ACS is required by law, and the multiple contact attempts by mail, telephone and personal visit can be perceived by some respondents as harassment

Agility in Action – Key Action Areas

- Using administrative records
- Reducing follow-up contact attempts
- Testing messaging in mail materials
- Modifying survey questions
- Asking less frequently or of fewer respondents
- Communicating with respondents
- Promoting awareness of data uses
- Engaging subject-matter experts
- Advocating for respondents
- Leveraging a communications strategy



<http://www.census.gov/programs-surveys/acs/operations-and-administration/2015-16-survey-enhancements.html>

Research to Address Respondent Concerns

Topics of Research Underway

- | | |
|---------------------------------------|--|
| ■ Using Administrative Records | ■ Asking Less Frequently or of Fewer Respondents |
| ■ Testing Messaging in Mail Materials | ■ Promoting Awareness of Data Uses |
| ■ Modifying Survey Questions | ■ Reducing Follow-Up Attempts |

See <http://www.census.gov/programs-surveys/acs/operations-and-administration/2015-16-survey-enhancements.html>

Using Administrative Records

We only want to ask households once for information already reported to the government, potentially allowing us to remove some questions from the ACS.

- Identifying administrative and commercial data sources
- Evaluating coverage and quality of other data sources
 - Preliminary results being released on a flow basis by topic from September 2015 through October 2016
- Implications to topic-specific estimates
 - Preliminary results will be released on a flow basis by topic from March 2016 through March 2017

Testing Messaging in Mail Materials and Promoting Awareness of Data Uses

- Field Testing Revisions to the Mail Materials
 - Tests conducted in Spring 2015 to revise mail methods and timing
- Envelope Mandatory Messaging Test
 - Testing the removal of mandatory messages from the outside of the ACS envelopes in May 2015 (preliminary report released Sept. 4, 2015)
- Mandatory Messaging Test
 - Testing more comprehensive changes throughout the mail packages in September 2015 to soften references to mandatory and explain data uses (report released March 2016)
- Why We Ask Brochure Test
 - Testing a graphic-based insert with the paper questionnaire in November 2015 to provide information on why we ask the questions

Results of the Envelope Mandatory Messaging Test

- Split-ballot experiment embedded within May 2015 production, where 24,000 cases eliminated the phrase “YOUR RESPONSE IS REQUIRED BY LAW” from the initial mail package envelope and the paper questionnaire package envelope
- Eliminating this phrase does significantly lower the self-response return rate by 5.4 percentage points (this rate is before the start of computer-assisted telephone interviewing and it pushes additional cases into the more expensive follow-up modes)
- We estimate the preliminary cost impact of eliminating mandatory messages from the envelopes in the manner we tested to be an increase in the annual costs of the survey by roughly \$9.5 million
- See full report at:
http://www.census.gov/content/dam/Census/library/working-papers/2015/acs/2015_Barth_01.pdf

Evaluating Modifications to Survey Questions

We are researching the possibility wording questions differently to reduce some of the difficulty for respondents in completing the survey.

- 2016 Content Test – field test of changes to many questions that were proposed by Federal agencies in 2013
- 2015-2016 Lab Testing – work with Federal agencies to develop changes to make questions less difficult, and evaluate those changes in a lab setting

2016 Content Test Topics

- Telephone Service
- Computer and Internet
- Relationship
- Hispanic Origin and Race
- Health Insurance
- Journey to Work: Commute to Work
- Number of Weeks Worked
- Class of Worker
- Industry and Occupation
- Retirement Income
- Health Insurance Premiums and Subsidies
- Journey to Work: Time Leave for Work

Evaluating Methods to Ask Questions Less Frequently or of Fewer Respondents

The current design of the ACS asks all of the survey questions from all sampled households every year. Alternative survey designs might reduce that burden.

- Feasibility report issued September 30, 2015 identified some opportunities to include some questions periodically, rather than asking every question every year, or to ask some questions of only a subset of the ACS sample.
- The report also evaluated methods like “matrix sampling” and a hybrid approach using administrative records to reduce the burden on respondents.

Evaluating Methods to Ask Questions Less Frequently or of Fewer Respondents

Types of reductions evaluated:

- Periodic inclusion – For questions that are needed less than annually
- Subsampling – For questions only needed at higher levels of geography (i.e. county or state level only)
- Matrix sampling – Alternate methodology of data collection
- Administrative records hybrid – incorporating administrative records data to replace some data collection

Assessing Each Option

A Census Bureau team assessed each option according to a set of factors that demonstrate the feasibility and impact of the method. These assessments were based on the professional judgment of the team members, and not on empirical criteria.

These factors are:

1. Operational and processing complexity
2. Impact on the accuracy of the data
3. Impact on data availability for small geographies and groups
4. Estimated reduction in respondent burden
5. Impact on richness of the data products
6. Assessment of additional costs and resources required

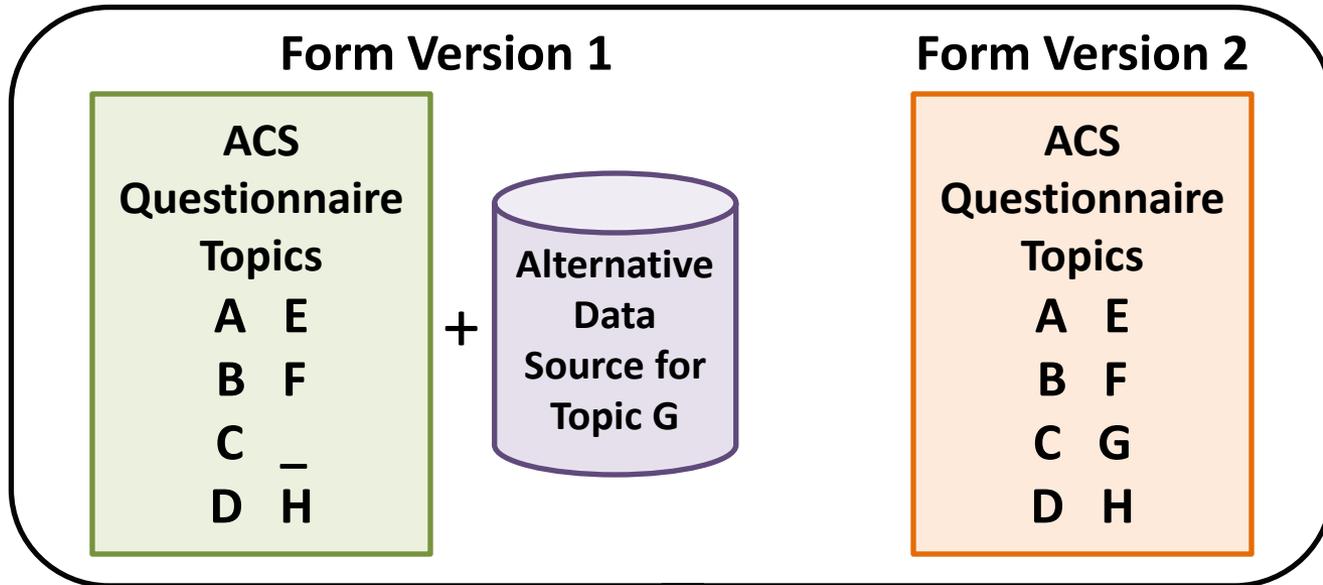
The report available at: http://www.census.gov/content/dam/Census/programs-surveys/acs/operations-and-administration/2015-16-survey-enhancements/Reducing_Burden_ACS_Feasibility_Assessment.pdf

The Team's Recommendations

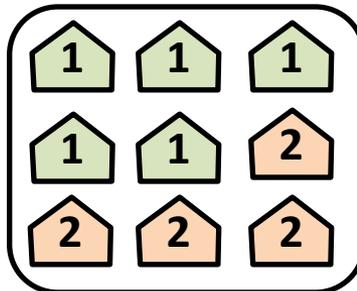
- **Pursue options for incorporating Administrative Records.** Using administrative records either as a substitute for survey data collection for some topics included in the ACS, or via a hybrid approach with partial survey data collection, could significantly reduce respondent burden. When compared with subsampling and matrix sampling, using administrative records also seems to involve fewer potential undesirable impacts.
- **Other options determined to be not feasible or not beneficial at this time.**

Illustration of Administrative Records Hybrid

In this example, Topic G has an alternative data source with good quality and coverage for most geographic areas that can be used directly in place of collecting the data on the questionnaire in those areas.



Areas with good coverage for the alternative data source receive form version 1, while areas without good coverage for the alternative data source receive form version 2.



Reducing Follow-Up Contact Attempts

- In 2013 changes were implemented to reduce the calls made in the CATI operation
- In August 2015 a pilot test was conducted to reduce the number of contacts made in CAPI
 - The pilot employed stopping rules that also considered the previous contact attempts made by mail and CATI
 - Preparing for national deployment in June 2016



Subject Matter Expert Engagement

We are looking outside the Census Bureau for expert guidance on survey and procedural changes to ensure we conduct the ACS using advanced techniques while maintaining survey quality.

- National Academy of Sciences (NAS) Engagement
- Engagement of Other External Experts
- White House - Social and Behavioral Sciences Team

Communicating with Respondents on Why We Ask Questions

- Provide personal visit interviewers with additional paper materials for respondents on why we ask survey questions
- Conduct test of additional insert for paper questionnaire mail package
 - Test conducted in November 2015
 - Reports available Spring 2016
- Conduct lab testing of enhanced information on why we ask questions for Internet respondents
 - Implement into the production Internet instrument in Summer 2016

United States Census Bureau

How Your Responses Help America

The American Community Survey (ACS) provides vital information that public officials, planners, and entrepreneurs use to assess the past and plan the future. When you respond to the ACS, you are doing your part to help your community plan hospitals, support school lunch programs, improve emergency services, build bridges, and inform businesses looking to add jobs and expand to new markets, and more. Respond at <https://respond.census.gov/acs> or fill out the questionnaire today.

What we ask about...	How your responses help...
Employment The ACS asks whether respondents are employed, unemployed, and out of the labor force. It also asks about weeks and hours worked and about industry and occupation.	This information helps government at all levels better understand unemployment and the availability of workers, plan unemployment programs and services, and develop programs to boost employment. Communities learn which occupations and industries are growing in their areas and businesses can find locations with the workforce they need.
Education The ACS asks about school enrollment, gathering information on America's students from nursery school to graduate school and on whether they are in a private or public school. It also asks about educational attainment—did the respondent earn a high school diploma or the equivalent, a bachelor's degree, or higher?	These statistics help communities to measure how well educational resources are serving their populations, measure changes in education over time, evaluate the educational attainment of the workforce, and identify the educational and training needs of adults. This information also helps communities to bridge gaps between the educational attainment of potential workers and the educational requirements of potential employers.
Veterans The ACS asks about a person's military service, where veterans are moving throughout the country.	These statistics about veterans help communities plan for future health care and nursing homes, plan and fund job training, and improve the

Data Use Awareness

We will catalogue and verify data uses to share with multiple stakeholders (government, business, media, non-profits, researchers).

- **Collecting Current Use Cases through Engagement of ACS Data Users**
- **Sharing Current Use Cases**
- **Engagement of ACS Data Users Group**

Projects Addressing Respondent Concerns and Reducing Respondent Burden

Projects	Fiscal Year 2015			Fiscal Year 2016				Comments
	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	
Envelope Mandatory Messaging Test								Possible implementation in 2017
Additional Testing of Mandatory Messaging								Possible implementation in 2017
Reducing Personal Visit Contact Attempts								Conduct pilot in August 2015, and implement in June 2016
Matrix Sampling: Operational and Statistical Assessment								Initial assessment complete in September 2015
Field Test of Question Wording Changes Recommended by Federal Agencies								To assess question changes proposed for 2017 and 2019
Testing Changes to Question Wording to Reduce Difficulty and Sensitivity								Qualitative testing ongoing starting in 2015
Matching Coverage and Quality Assessments of Administrative Records								Coverage and quality assessments completed by September 2016
External Expert Consultations								Providing input on reducing respondent concerns in general, and specific projects above

Agenda

- ACS Introduction
- Summary of Past Efforts
- Agility in Action
- **Data Product Redesign**
- Questions

Overview

Need for Redesign

- Improve data content and ease of access
- Align with the new vision for dissemination
- Driven by the need to become more agile and end user-centric and ensure future products are customer focused
- Utilize the new capabilities, technical platforms and dissemination channels

Redesign Areas

- Current Data Products
- Thresholds & Filtering
- Dissemination Methods
- Data User Engagement

Current Data Products

Short-term Data Product Changes

- Bridge the gaps in ACS estimates by modifying existing tables or introducing new tables
- Evaluation of data products at different population thresholds
- Ongoing examination of table and geographic summary level usage metrics
- Released new ACS supplemental products and variance replicate estimate tables (July 2016)

Current Data Products

Long-term Changes

- Transformational changes to ACS data products
- Driven by new technical capabilities, dissemination channels and initiatives of the Center of Dissemination Services and Consumer Innovation (CEDSCI)
- Utilize new channels as tools are created or modified
- Balance meeting the users' needs and operational feasibility

Current Data Products

End-user input is key driver in data product redesign

- ACS Data Products Redesign Group (DPRG)
- User statistics/metrics
- ACS Data Products Survey
- Other channels of user feedback

Data Products Redesign Group

- Contract with the Population Reference Bureau
- An informal, non-advisory group
- Core group of 19 external data users representing a broad range of stakeholders
- Gather feedback on ACS data products and new dissemination tools
- Representing a range of experience with ACS data

Census Bureau Use of the DPRG

- Request DPRG feedback as part of the normal vetting process
- Obtain DPRG reaction prior to investing significant time assessing the feasibility of ACS product changes
- In selected cases, use as a conduit to gather broader feedback from the data user community or stakeholder group to which the DPRG members belong (the DPRG is not a decision-making body)
- Feedback from DPRG was a factor in developing the ACS supplemental tables

Threshold & Filtering

Current need for thresholds and filtering

- Data user requested changes to 1-year data thresholds and filtering
- Current thresholds and filtering are viewed as restrictive
- Continuous focus on improving data products and meeting data users' needs
- Goal of increasing published estimates while achieving an acceptable level of reliability

Threshold & Filtering

- Research and analysis plan
 - Three areas of research
 1. Minimal population publication thresholds
 2. Data reliability filtering rules
 3. ACS data product redesign
 - Working assumption for the research
 - 1-year microdata to produce proposed data counts
 - Population threshold of 20,000.

Dissemination Methods

- Center for Enterprise Dissemination Services and Consumer Innovation (CEDSCI)
 - Established in July 2014
 - Tasked with implementation of new vision for dissemination across the Census Bureau
- ***Vision:*** Enable the public to make better decisions using data through a continuously adaptive, customer-centric, open and accessible dissemination environment that sets the standard in the federal community and spurs innovation.

Dissemination Methods

CEDSCI Goals & Objectives

- CEDSCI will establish a modernized technology platform that leverages existing innovations to provide a set of shared data dissemination services that enable consumers to do more with the massive amounts of valuable content we publish year round
- The CEDSCI vision aligns with the core principles of the Federal Digital Strategy, the goals of the U.S. Census Bureau strategic plan, and the priorities set forth in the Department of Commerce strategic plan
- The CEDSCI initiative aims to create long-term operational and cost efficiencies through consolidation of dissemination tools and systems

Dissemination Methods

Impacts on ACS Redesign

- Evaluate opportunities for expansion with new capabilities and tools
- Redesign current products based on new capabilities
- Explore integrated products across Census Bureau programs

Thank you!

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Questions?