

AGILITY IN ACTION 3.0



U.S. Census Bureau
American Community Survey Office

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Table of Contents

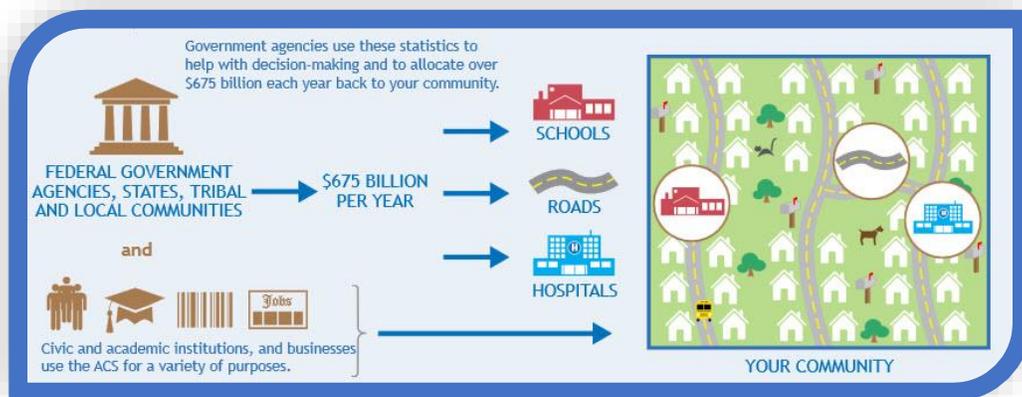
| | |
|---|----------|
| INTRODUCTION | 2 |
| IMPACT OF THE ACS | 2 |
| RESEARCH IN FISCAL YEAR 2019 | 3 |
| 1. Responding and Adapting...for Better Data | 3 |
| a. Content Test..... | 3 |
| b. Administrative Records..... | 4 |
| 2. Innovating & Evolving...for Less Cost..... | 5 |
| a. National Academy of Science Committee on National Statistics Expert Meetings | 5 |
| b. Due Dates Test | 5 |
| c. User Experience | 6 |
| 3. Listening & Learning...for an Improved Respondent Experience | 6 |
| a. Strategic Framework..... | 6 |
| b. Paperless ACS..... | 7 |
| RESEARCH GOING FORWARD: Continuing to Explore New Frontiers | 7 |
| CONCLUSION | 8 |

INTRODUCTION

The United States is a dynamic nation that is constantly evolving. Our demographics and our way of life continually shift due to far-ranging influences, and each year the U.S. Census Bureau surveys a small sample of the nation to stay on top of those trends using the American Community Survey (ACS). Understanding the ever-evolving characteristics of the United States is essential to making informed community and economic decisions, and ACS data empower Congress and executive branch agencies to govern through evidence-based decision-making. These data also empower businesses and communities to create jobs and even save lives. For these reasons and more, the ACS is the only source of comparable, quality information about the people in all our communities. The Census Bureau's unwavering commitment to quality in the ACS spawned *Agility in Action*, a report demonstrating the Census Bureau's pursuit of continual improvement of the survey, the data, and the respondent experience. We work daily to be nimble, flexible, and agile in our approach to the ACS.

IMPACT OF THE ACS

Decision-makers in the federal government, across state and local regions, and within the business community all use the wealth of information provided by the ACS for a wide variety of important and impactful purposes. Federal agencies use ACS data to distribute more than \$675 billion annually, while state and local governments rely on ACS data for comprehensive planning, economic development, emergency management, and to broaden their understanding about local issues and conditions. Meanwhile, businesses also rely on ACS data to make key marketing, location, and financial decisions to serve customers and create jobs. When combining these expenditures, data from the ACS impact over \$1 trillion worth of investments into our nation's communities each year.



RESEARCH IN FISCAL YEAR 2019

The Census Bureau continues to pursue a rigorous research agenda to fulfill its commitment to quality across all facets of the ACS and to actualize *Agility in Action*. This year's work includes investigating new or revised content to better meet data needs, looking at alternative data sources, adding measures to increase self-response rates, and more. The following pages address these developments at a high-level and outline the positive progress the Census Bureau has made over the past year toward maintaining the ACS as the only source of comparable, quality information about the people in all our communities.

1. Responding and Adapting...for Better Data

As noted, the Census Bureau is constantly engaging and responding to stakeholders to continually adapt the way we gather data, administer the survey, and conduct the way we do business. In past years, for example, the Census Bureau studied stakeholder feedback related to mandatory messaging and Group Quarters data collection, looking for creative ways to address the issues raised by stakeholders while remaining committed to quality data, a quality survey, and a quality experience. This year, this commitment to being responsive and adapting our methods continues in the form of new Content Tests as well as research into the use of administrative records.

a. Content Test

In its efforts to ensure better data, the Census Bureau periodically reviews the content of the ACS to ensure the survey stays relevant as society changes and federal agency data needs evolve. Known as a "Content Test," this adaptive programmatic practice ensures the ACS is asking the right questions to meet the data needs of our federal partners and stay up to date with the many changes happening across America.



The current Content Test includes studying proposals to add or modify questions related to the expansion of ride-hailing services, the presence of solar panels, the level of electric car ownership, natural gas usage for home heating fuel, and more. The test will gauge how to ask the proposed questions and determine which wording is best understood and produces the most accurate data. Ultimately, the results of the Content Test allow the survey to remain dynamic and responsive, capturing America's trends and meeting federal data needs.

b. Administrative Records

The Census Bureau has also made significant progress exploring the use of administrative records in order to improve data reliability in an era of limited budgets, rising costs, and decreasing participation.

To date, we have:

- Defined guiding principles and ground rules for the use of administrative data in the ACS.
- Applied the guiding principles to evaluate numerous data sources to identify those with the greatest promise for replacing or supplementing ACS content.
- Determined the eventual viability of using administrative records for housing questions.

WHAT ARE ADMINISTRATIVE RECORDS?

Administrative records and third-party data refer to micro data records contained in files collected and maintained by administrative (i.e., program) agencies and commercial entities. Government and commercial entities maintain these files for the purpose of administering programs and providing services. Administrative records are distinct from systems of information collected exclusively for statistical purposes, such as those the U.S. Census Bureau produces under the authority of Title 13 of the United States Code (U.S.C.).

In addition, we are working on the following:

1. Evaluate use of administrative data to fill in missing data.
2. Explore the differences between administrative and survey response data for the property value data.
3. Expand the topics covered by the ACS program by linking survey responses to administrative data. The current project involves linking ACS respondents aged 19-25 to their parents Internal Revenue Service records to study life course educational attainment by socioeconomic status.
4. Better prediction of vacant status of housing units to reduce non-response follow up costs.

Although challenges remain before administrative records can go into production, incorporating these records into our processes should positively impact data reliability while reducing respondent burden and saving costs. They are yet another example of how the ACS continues to adapt.

2. Innovating & Evolving...for Less Cost

The Census Bureau is continuously innovating to evolve its products, mature its operations, and reduce costs. We designed our research agenda to reinforce our culture of continuous improvement across our organization. In the past few years, for example, we have studied the cost-effectiveness and other impacts of using new, pressure-sealed mailers, tested new “mode of choice” response models, and evaluated the cost-benefit of continuing telephone interviews in our non-response follow up operation. These efforts provide a few examples of how we are vigilant stewards of taxpayer funding, while remaining an innovative, evolving, improving organization that puts customers first. In 2019, the Census Bureau continues this push via new research, which includes examining the effects of adding a due date to ACS response materials.

a. National Academy of Science Committee on National Statistics Expert Meetings

In 2019, three expert group meetings were convened to solicit input from external experts to inform the ACS research agenda in the coming years. The meetings were organized around the following topics:

1. *Administrative Records* ([November 12](#)): Discussed the Census Bureau’s framework for researching the use of administrative data in the ACS and obtained input from experts on the current research and potential future research.
2. *Technology* ([December 6](#)): Identified existing and emerging technologies that can be leveraged to enhance the respondent experience, improve data collection, and make the ACS program more able to employ new technologies.
3. *Communications with Respondents* ([December 13](#)): Discussed the Census Bureau’s recent communications research and current plans. Obtained input from experts on the communications materials.

b. Due Dates Test

Recognizing the potential for significant cost savings, the Census Bureau invested in research that seeks to increase self-response rates. In 2019, for example, the Census Bureau worked with faculty from Harvard University and the University of Pennsylvania to develop new techniques for driving respondent actions using behavioral science. One such technique, which we started testing in the fall, is the introduction of a concrete deadline, or due date, for response. This concept is designed to help respondents prioritize their response, respond according to the listed timeframe, and ultimately prevent the Census Bureau from needing to deploy field staff for in-person follow up which is a more costly operation.

BEHAVIORAL INSIGHTS

Emerging from the fields of behavioral economics and behavioral sciences the field of behavioral insights explores how humans make decisions. The Census Bureau is working with leading behavioral insights faculty from the Harvard Business School and the University of Pennsylvania Wharton School of Business to explore the impact of changes to mailings on response rates.

c. User Experience

In 2013, when the Census Bureau first launched the ACS online survey instrument, it was state of the art. The instrument has been updated over the years to improve its functionality, particularly for those who access it on a mobile device. This year, the Census Bureau outsourced a study of the online instrument with the goal of evaluating user experience and obtaining recommendations to improve it. Human factors engineers from the MITRE Corporation executed a cognitive walkthrough and heuristic evaluation and made recommendations to improve the user experience. Some of those recommendations included simple visual design suggestions and motivational prompting, which are relatively easy to execute. The recommendations also included more complicated suggestions such as revamping the help interface and allowing the user to parse out answers to other members of the household. This is especially useful in multi-member households where it could take some time to track down survey items such as work address and commute details. In the coming months, the Census Bureau will continue to explore the feasibility of executing the recommendations as well as building upon them to come up with other user experience solutions for the online ACS.

3. Listening & Learning...for an Improved Respondent Experience

The Census Bureau is researching ways to improve the respondent experience from every possible angle. This focus allows the Census Bureau to better meet its mission of delivering a quality respondent experience.

a. Strategic Framework

The current ACS mail materials have proven effective at driving ACS recipients to self-respond through the internet or by filling out and mailing back a paper questionnaire. Driving people to self-respond, particularly online, provides huge cost-savings to the ACS program.

To ensure the ACS mail materials keep pace with the times and are optimized to induce self-response, we plan to develop and test a new series of mail materials. To that end, the Census Bureau has developed a [strategic framework](#) recommending specific objectives for each mailing sent to ACS respondents. This framework reflects theory from the fields of communications, psychology, behavioral economics, and survey methodology. The framework is used to clarify the communications tactics and methodological approaches that should be applied in each of the mail pieces.

The Census Bureau is partnering with faculty at the Harvard Business School and The Wharton School of the University of Pennsylvania in the development of new mail materials for testing. These researchers will develop their own version of the ACS mailings, applying techniques they have honed while conducting their own research for testing alongside materials developed by Census Bureau staff.

We are working on the following:

- Finalize development of new mail materials using strategic insight from various fields to improve messaging, packaging, and mailer sequencing.
- Conduct cognitive testing of the new mail materials to refine materials for field testing.
- Conduct a large-scale field test with new mail materials to determine their efficacy at driving ACS recipients to self-respond.

b. Paperless ACS

The Census Bureau is committed to reducing survey costs while maintaining data quality. Increasing self-response, especially online, has great potential for reducing the costs of collecting ACS data.

Since the introduction of the online response option in 2013, we have seen steady increases in the percentage of people that respond to the ACS online. We will also investigate the use of modeling procedures to test sending paper questionnaires initially to just those most likely to need it, then follow up with paper questionnaires for all other non-responding households at a later stage.

We will:

- Begin research and development to identify strategies to test how to optimize the timing of a paper questionnaire to encourage all respondents who are able to respond online.

RESEARCH GOING FORWARD: Continuing to Explore New Frontiers

The ACS will remain on the forefront of survey best practices, the latest in demography, and cutting-edge research so that Congress, federal agencies, and our nation's businesses and communities can use the ACS for evidence-based decision-making.

To this aim, the Census Bureau plans to look at ways to modernize the ACS' online experience, utilize behavioral insights to drive respondent action, and investigate modeling procedures that drive respondents to their response mode of choice. These efforts will build off our current research and allow the Census Bureau to hone in on its commitments— quality data, a strong survey that is easy to understand, and a seamless respondent experience that only asks what is necessary and relevant. As always, this critical work will be conducted with scientific rigor using established processes that consider efficiency, effectiveness, and suitability to enable actionable outcomes. We will listen intently to capture stakeholder issues and concerns, and use the resources and expertise of ACS staff to meet the expectations of those with which we work and serve—Congress, the Department of Commerce, interested advisory groups and academics, and—most importantly—our respondents, the American public.

CONCLUSION

As evidenced by this report, the Census Bureau continues to strengthen its deep and abiding commitment to the ACS—ensuring that it provides a detailed demographic portrait of our nation and remains a vital source of data for our communities, businesses, and the federal government.

In line with this commitment, the Census Bureau continues to stay aware of emerging trends and build on its comprehensive research agenda. This work not only improves the ACS, but also allows the Census Bureau to innovate responsively across key aspects of our work. Over the past year alone, we have looked to enhance our mail messaging and packaging, eliminate costly and ineffective operations, incorporate administrative records, streamline data collection, research ways to improve the respondent experience, and build tools to help us become even more responsive and customer-focused. We undertake these efforts knowing that ACS data are used to build businesses and create jobs, prepare for emergencies, improve the reach of health care, and support many other serious and important efforts.

For these reasons, the Census Bureau continues to be a proactive, forward-leaning enterprise, putting agility into action across its organization, allowing for a more positive respondent experience, more accurate and useful data, and a survey that is best-in-class. Going forward, we will continue to focus on listening and learning, responding and adapting, and innovating and evolving. We will continue to demand quality in everything we do and serve as a vital source of data for our communities, businesses, and federal agencies. In so doing, the ACS will remain reputable, researched, and responsive.