

Agility in Action 1.2: A Snapshot of Enhancements to the American Community Survey

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

Revised September 2016

U.S. Department of Commerce
Economics and Statistics Administration
U.S. CENSUS BUREAU
census.gov

United States™
Census
Bureau

Revision Log

Version No.	Date	Revision Description
1.0	6/30/2015	Baseline version
1.1	8/2015	Updated footnote 1, clarification on page 12 regarding OMB, updated milestone on page 14, updated cover page.
1.2	9/2016	1 st Revised Version: Accomplishments Through September 2016; Expansion of Data Products Redesign Work

Table of Contents

1.	Introduction	1
2.	Evaluating the Availability and Suitability of Other Data Sources	3
	a. Identification of Administrative and Commercial Data Sources.....	3
	b. Evaluating the Coverage and Quality of Other Data Sources	3
	c. Implications to Topic-Specific Estimates.....	5
	d. Milestone Schedule.....	6
3.	Reducing Follow-Up Contact Attempts to ACS Respondents	7
	a. Background	7
	b. Plans for a Pilot with Personal Visit Operations	7
	c. Milestone Schedule.....	8
4.	Testing of ACS Mail Materials Messaging	9
	a. Background	9
	b. Testing Changes to the ACS Envelopes	9
	c. Testing Revised Messages throughout the Mail Materials.....	10
	d. Milestone Schedule.....	12
5.	Evaluating Modifications to Survey Questions	12
	a. Background	12
	b. Preparing for the 2016 ACS Content Test	13
	c. Testing Additional Question Wording Changes to be Responsive to Environmental Changes and to Reduce the Burden or Difficulty of Questions	14
	d. Milestone Schedule.....	15
6.	Evaluating Methods to Ask Questions Less Frequently or of Fewer Respondents	15
	a. Background	16
	b. Assessing the Feasibility of these Methods	16
	c. Milestone Schedule.....	17
7.	Communicating with Respondents on Why We Ask Questions	17
	a. Background	17
	b. Testing Additional Information in the Mail Questionnaire Package.....	18
	c. Expanding Information on Why We Ask Questions for Internet Respondents	18

d.	Providing Additional Tools on Why We Ask Questions to Interviewers	19
e.	Milestone Schedule.....	19
8.	Data Use Awareness	20
a.	Background	20
b.	Collecting Current Use Cases through Engagement of ACS Data Users	21
c.	Sharing Current Use Cases	22
d.	Engagement of ACS Data Users Group	22
e.	Milestone Schedule.....	22
9.	Subject Matter Expert Engagement.....	23
a.	Background	23
b.	National Academy of Sciences (NAS) Engagement.....	23
e.	Engagement of Other External Experts	24
g.	Milestone Schedule.....	25
10.	Respondent Advocacy.....	26
a.	Background	26
b.	Milestone Schedule.....	27
11.	Communication Strategy	28
a.	Background	28
b.	Milestone Schedule.....	29
12.	Data Products Redesign	29
a.	Background	29
b.	Need for Redesign.....	29
c.	Short-term and long-term planning.....	30
d.	Engagement with Data Users.....	30
e.	Major Areas of Focus	31
f.	Next Steps	32
g.	Milestone Schedule.....	33
13.	Conclusion.....	34

1. Introduction

The American Community Survey (ACS) data provide vital information about the demographic, social, economic, and housing realities of the United States, down to the community level. The ACS is the only reliable source of nationwide and comparable information about the people in our communities and how our communities are changing. People in state and local regions use the wealth of information provided by the ACS for a wide variety of purposes, including comprehensive planning, economic development, emergency management, and broadening understanding about local issues and conditions. Businesses rely on ACS data to make key marketing, location, and financial decisions to serve customers and create jobs; when combining these expenditures with the more than \$400 billion distributed annually by the Federal government, ACS data impacts over \$1 trillion worth of investments into our nation's communities each year.

Knowing how critical the ACS is to the strength of our nation, the Census Bureau is constantly looking for ways to ensure that our customers trust and value the survey. Our ability to make the ACS agile in the face of constantly changing times that spawn new data needs ensures that we are continuing to deliver deep public value to our nation's communities. The Census Bureau also is engaging in numerous activities to build and maintain customer support and awareness of the ACS. Largely focused on providing a positive experience for our customers, the Census Bureau is working to minimize burden for survey respondents while still allowing the survey to be responsive to emergent issues, keeping content current, and maintaining the high quality of data that our country demands and deserves. The Census Bureau is researching changes to ACS protocols by:

Identifying and Using Data Collected by Other Federal Agencies – We only want to ask households once for information already reported to the government, potentially allowing us to remove some questions from the ACS.

Reducing In-Person Follow-Up Contact Attempts – Building on our successes with reducing follow-up telephone contacts, we have implemented new procedures to reduce in-person contacts with survey respondents.

Crafting New Survey Mail Package Messages – While the survey is mandatory, we have tested how softening the tone of survey packaging impacts response rates in hopes of finding a permanent solution that is “less stick and more carrot”.

Evaluating Changes to Survey Questions – We are researching the possibility of satisfying underlying legal and programmatic needs for data while wording questions differently and eliminating some subparts of questions.

Communicating with Customers on Why We Ask Questions – We have developed and implemented communications products in the field and within our automated data collection instruments to help customers understand why we need the information we request from households.

Increasing Our Awareness on How Customers Use ACS Data – We have catalogued and verified data uses to share with multiple stakeholders (government, business, media, non-profits, researchers). We are redesigning our data products to better meet data user needs.

Obtaining Expert Guidance – We are working with external experts for guidance on survey and procedural changes to ensure we conduct the ACS using advanced techniques while maintaining survey quality.

Leveraging the Respondent Advocate to Resolve Respondent Concerns – We are ensuring that the Respondent Advocate is fully integrated into ACS operations and has a stronger presence through enhancements to our web page. The Respondent Advocate is assisting in the ACS Messaging Research efforts.

Communicating Strategically – We have developed a communications plan to provide a strategic foundation for engaging our customers and providing them with the best quality experience with the survey as possible.

Since the baseline publication of [*Agility in Action: A Snapshot of Enhancements to the American Community Survey*](#), in June of 2015, the Census Bureau has honored its commitment to remaining agile and ardently executed multiple projects related to the topics described above. Each section that follows begins with a brief description of accomplishments achieved since June of 2015. In addition, we have added a new section, “Data Products Redesign.”

2. Evaluating the Availability and Suitability of Other Data Sources

SEPTEMBER 2016 UPDATE:

Preliminary feasibility assessments of the quality and coverage of alternate data sources for the topics listed with links below were released between September 2015 and March 2016.

- [Telephone Service](#) – released September 2015
- [Year Built](#) – released November 2015
- [Condominium Status](#) – released November 2015
- [Income](#) – released March 2016

The Residence One Year Ago report is forthcoming. Some of our next steps include developing a research agenda to determine how best to use administrative data in the ACS, continuing the comprehensive coverage and quality assessment of data sources, and using IRS income data to carry out a feasibility study to analyze income types and measurement over time.

a. Identification of Administrative and Commercial Data Sources

In late 2014, the Census Bureau contracted with National Opinion Research Council¹ to review sources of data that could potentially replace or improve specific questions in the ACS, with the goal of reducing burden on ACS respondents. This work pointed to the existence, availability, and suitability of various data sources, including data from other Federal, state, and local government sources as well as commercial data, with the acknowledgement that more work would be needed to assess the appropriateness of replacement and quality implications for each question.

b. Evaluating the Coverage and Quality of Other Data Sources

The next step in exploring the use of data sources to replace ACS questions involved identifying and acquiring external data sources, matching them to ACS data, and evaluating the coverage and quality of each data source and the resulting matching. Using an agile approach and coordinating adaptive techniques across program areas, including the 2020 Census Program, the Census Bureau worked to develop strategies for obtaining the desired records, and resolving any policy issues associated with their use. The research is identifying matching issues, and the challenges associated with securing external data for all cases. The reports also compared distributions between ACS data and external data

¹ Ruggles, P. (2015) "Review of Administrative Data Sources Relevant to the American Community Survey", Prepared for the U.S. Census Bureau, January 31. See http://www.census.gov/library/working-papers/2015/acs/2015_Ruggles_01.html

sources for each topic. Researchers also documented measurement issues, such as definitional differences and reference period misalignment, as well as the expected stability of data elements (i.e., whether we should expect changes to external data sources over time).

This research was intended to be a first look at the various topics to document the coverage, quality, and availability of external data sources for potential ACS integration. This research enables ACS to evaluate the potential of the replacement data sources, identify challenges, and provide direction for further research.

A prioritized list of ACS question topics to be studied was developed, based on the availability of data sources and likelihood of successful matching. The table below contains the priority 1 and 2 topics that were the focus for the research occurring in FY15 and FY16. Other items may be studied after these topics are examined. Priority 1 topics are those we believe we have the highest likelihood of finding a suitable replacement using another records source, while Priority 2 topics are the next most likely group of topics.

Table 1. Priority 1 and 2 Topics to be Studied for Replacement by Data Sources

Topic	Question Number	Estimated Seconds to Complete	Sensitive or cognitively difficult?
<i>Priority 1:</i>			
Phone Service	H8g	1	
Year Built	H2	11	Difficult
Part of Condominium	H16	4	
Tenure	H17	11	
Property Value	H19	11	Difficult
Real Estate Taxes	H20	9	Difficult
Have mortgaged/mortgage amount	H22a and H22b	11	
Second mortgage/HELOC and payment	H23a and H23b	5	
Sale of Agricultural Products	H5	1	
Social Security	P47d	10	Sensitive
Supplemental Security Income (SSI)	P47e	8	Sensitive
Wages	P47a	41	Sensitive
Self Employment Income	P47b	8	
Interest/dividends	P47c	20	Sensitive
Pensions	P47g	8	Sensitive
Residence 1 year ago and Address	P15a	18	

Topic	Question Number	Estimated Seconds to Complete	Sensitive or cognitively difficult?
<i>Priority 2:</i>			
Number of Rooms and Bedrooms	H7a and H7b	13	Difficult
Facilities	H8a, H8b, H8c, H8d, H8e, H8f	6	Sensitive
Fuel type	H13	14	
Acreage	H4	5	
TOTAL		214 Seconds (~3.5 mins)	

A Research Evaluation and Analysis Plan (REAP) was developed that described in detail the sources proposed for each topic, as well as the methods and metrics to use to evaluate the matching and coverage of the sources to ACS data. This research was an exploratory investigation of the feasibility of replacing ACS data with administrative records for the priority 1 topics.

c. Implications to Topic-Specific Estimates

The feasibility reports included recommendations on whether each question is a good candidate for removal with the use of external data sources in its place. These recommendations were based on an assessment of the implications of implementing such a change, considering data quality, reliability, alignment of reference periods, break in series, and the limitations of the data source affecting the suitability for use.

The Census Bureau consulted with statistical experts on administrative records and other topics related to respondent burden, received their input on these feasibility assessments, and solicited ideas for additional discussion regarding how to best use administrative records for the ACS. The National Academy of Sciences Committee on National Statistics (CNSTAT) public workshop and expert meetings are discussed in more detail in section 9 “Subject Matter Expert Engagement” of this report.

During the CNSTAT public workshop and expert meeting on administrative records, the experts considered the following types of issues and potential research questions:

- Options for integrating the records – For instance, for some topics, records may be better suited in assisting with imputation, whereas for other topics the records may be used for direct substitution of a survey question (for all or a subset of the ACS respondent pool).
- Quality of the source – In some cases, the quality of the records may be more accurate than the respondent’s recollection (e.g., W2 information for wages). In some cases, we may not be able to decipher whether data from records are superior or inferior to response data. What research

is needed to study quality in those cases? Does the source capture all aspects of a survey question?

- Implications to estimates – Will the move to records cause a break in series? Do the reference periods between the survey item and records align?
- Timing – Are the data available for the specific data collection period? How quickly can we access data for the survey period?
- Data products – what impact does the use of external sources have on the data products, particularly Public Use Microdata Sample (PUMS) files?

Given the criticality of the ACS data, research that has been conducted thus far, and the discussions at the recent CNSTAT workshop and expert meetings, the Census Bureau is creating an ACS research agenda, which will be published in Fall 2016 as Agility in Action 2.0. This research agenda will include several administrative records research projects.

d. Milestone Schedule

Milestone	Date
Census Bureau delivers an action plan outlining the next steps in pursuing administrative and commercial data sources	July 2015
Preliminary findings on availability, coverage and quality (flow by topic)	September 2015 – October 2016
NAS CNSTAT Administrative Records Expert Meeting	April 2016
Recommendations for further administrative records research (outlined in Agility in Action 2.0)	Fall 2016

3. Reducing Follow-Up Contact Attempts to ACS Respondents

SEPTEMBER 2016 UPDATE:

In 2015, we continued to expand our frontiers of flexibility in data collection through a field pilot that examined strategies to decrease in-person contacts with respondents while monitoring the impact on quality of data collected. The pilot showed us that we can indeed decrease the burden experienced by respondents by limiting personal contacts and still remain within the bounds of acceptable data quality. The [report](#) summarizing the results of the pilot was released publicly in March 2016.

We are not finished working to improve the survey experience for ACS respondents. Building on our field pilot findings, beginning in June 2016, the Census Bureau implemented a “cumulative burden score” for contact attempts with respondents. We are tracking every contact attempt with respondents and scoring them based on level of intrusiveness. For example, personal visits receive a higher score. Less intrusive contact modes such as a phone call receive a lower score. Once a household reaches a pre-defined burden score threshold, the Census Bureau then stops *all contacts* with that household.

a. Background

The most cost effective way for respondents to complete the ACS survey is through self-response when they first receive the survey. If they do not respond to our initial outreach, ACS interviewers must then contact them directly, which often results in repeated phone calls and home visits. These additional follow-up contacts increase cost, whereas a high self-response rate lowers cost. Based on research conducted in 2012 and 2013, the Census Bureau was able to adapt its procedures to reduce the number of attempts made from call centers to ACS respondents, reducing intrusiveness and cost without affecting quality of data. These changes led to an estimated reduction of approximately 1.2 million call attempts per year.² Since then, we researched options to further reduce contact attempts, this time for the in-person visits.

b. Plans for a Pilot with Personal Visit Operations

We practiced agility in action by the launch of a pilot project in August 2015 which involved approximately one-quarter of the nationwide personal visit workload. The methods used for this pilot relied upon the creation of a score that reflects the total number of contact attempts made by mail, telephone, and personal visits, taking into account the different levels of burden associated with each

² Griffin, Deborah (2013), “Effect of Changing Call Parameters in the American Community Survey’s Computer Assisted Telephone Interviewing Operation” http://www.census.gov/library/working-papers/2013/acs/2013_Griffin_03.html.

type of attempt. Further contact attempts were stopped for households that have reached a certain threshold score. Based on the successful August 2015 pilot, we implemented this strategy nationwide in June 2016, reducing the number of non-response follow-up visits made going forward.

A pilot test was necessary to validate the estimated impacts of the proposed strategy for reducing computer assisted personal interviewing (CAPI) contacts on respondent burden and data quality.³ Additionally, it was expected that field management practices and Field Representative behaviors would differ under the proposed stopping rules from what we see currently. Therefore, a pilot test allowed us to understand these behavior changes and develop appropriate management practices to maximize the effectiveness of these stopping rules. The pilot was conducted in one-quarter of field management areas across the country, and first-level supervisors in these pilot areas were assigned with their staff to one of three treatment groups: 1) staff who did see the current “cumulative burden score” for each case and did have cases removed from their assignments once the threshold is reached, 2) staff who did not see the current “cumulative burden score” for each case but did have cases removed from their assignments once the threshold is reached, and 3) a control group that did not have cases removed from their assignments once the threshold is reached.

c. Milestone Schedule

Milestone	Date
Complete systems test of software changes needed for the pilot	July 2015
Conduct CAPI burden reduction pilot during field operations	August 2015
Complete analysis of data from the pilot	March 2016
Implement burden reduction procedures into CAPI production nationwide	June 2016

³ The estimated impacts of various options for reducing CAPI contacts can be found in Griffin, Slud and Erdman (2015) “Reducing Respondent Burden in the American Community Survey’s Computer Assisted Personal Visit Interviewing Operation – Phase 3 Results” (see http://www.census.gov/library/working-papers/2015/acs/2015_Griffin_01.html).

4. Testing of ACS Mail Materials Messaging

SEPTEMBER 2016 UPDATE:

We have streamlined our mail data collection strategy based on research we conducted. We reduced the number of mail contacts with respondents by eliminating a pre-notice postcard and accelerated the initial letter mailing date to increase the likelihood of earlier self-response prior to the Replacement Package mail-out. The [results](#) of the September testing of more lenient mandatory messaging were released in March 2016. In the coming months, we will continue to engage with external experts to seek their input on how to best balance survey enhancements to improve the respondent experience with possible impacts on data quality.

a. Background

The mandatory language on the survey is a cause of concern to some ACS respondents. This is especially true of the message “YOUR RESPONSE IS REQUIRED BY LAW” that appears on the outside of the envelopes that contain the paper ACS questionnaire, and the instructions to respond online. Past research has shown this message is effective in boosting response rates, and many respondents preferred the clarity of the “required by law” message. By increasing self-response rates, we are also reducing burden for respondents, because they will receive fewer calls or visits from Census Bureau interviewers asking them to fill out the survey. This research sought to answer whether we maintain high response rates while making the mandatory language more user friendly, employing a “more carrot than stick” approach to this important wording. We worked with external methodological experts to identify ways to potentially change the mail materials messaging, and we conducted two field tests with a subset of ACS respondents, starting with the May 2015 sample and continuing with the September 2015 sample. The final reports of these tests are available on the Census Bureau’s website. Based on the results of the testing, the Census Bureau is considering changes to the ACS mail materials for future implementation.

b. Testing Changes to the ACS Envelopes

The Census Bureau sends out the ACS each month, and built the “Envelope Mandatory Messaging Test” into the process beginning in May 2015. This test measured the impact of removing the phrase “YOUR RESPONSE IS REQUIRED BY LAW” from the envelopes used to mail the initial package (second mailing) as well as the replacement package (fourth mailing). This phrase does not appear on other envelopes. We will continue to examine other possible revisions to the presentation of the mandatory nature of participation in the ACS, and will make future recommendations for additional testing.

We divided the monthly production sample of 295,000 addresses into 24 nationally representative groups of approximately 12,000 addresses each. For this test, implemented in the May 2015 ACS panel,

we used two randomly assigned groups for the experimental treatment group. The total sample size for the experimental treatment group was approximately 24,000 addresses. Two additional randomly assigned groups from May 2015 panel comprised the control (approximately 24,000 addresses), receiving all standard ACS mailings (envelopes with the mandatory language still included). Because we used production cases for the test, the test ran through the complete three-month data collection period.

Our primary evaluation measure for this test was the self-response rate. Additional metrics of interest include total response rate, the impact on hard-to-count groups, and the impact on ACS estimates. We conducted a cost analysis and examined computer assisted telephone interviewing (CATI) and CAPI workloads, including the number of visits needed to gain cooperation.

c. Testing Revised Messages throughout the Mail Materials

In September 2015, the Census Bureau built an additional field test into its field activities to assess a broader set of revisions to the messages contained in the ACS mail materials sent to respondents. In preparation for this mail messaging test, the Census Bureau solicited feedback about the mandatory messages on the current ACS mail materials from experts in the field of survey methodology.

Additionally, in 2014, the Census Bureau conducted messaging and mail package assessment research that helped us address frequent questions and concerns we hear about the ACS surrounding privacy, intrusiveness, value of the data, and burden of completion. This research included several iterative rounds of qualitative and quantitative testing to improve the way we communicate about the importance of the ACS and the benefits to communities that result from the data. The purpose of this research was to develop messages to increase ACS self-response rates as well as to obtain insights to support general outreach, data dissemination, materials development, and call center and field operations.

Taking this research and feedback from survey methodology experts into account, the Census Bureau tested five sets of mail materials aimed at improving the way we communicate the importance and benefits of the ACS, as well as reducing or modifying statements about the mandatory nature of the survey.⁴

Control Design Treatment – The mail materials in this treatment had no revisions to the mandatory messages. Building on previous tests conducted in March and April of 2015, there was no pre-notice letter used in this treatment and a reminder letter was sent instead of a reminder postcard. The multi-lingual brochure was not sent in the mail package for this test. These changes to the production materials minimize confounding effects with the other experimental treatments.

⁴ The final report “American Community Survey Messaging and Mail Package Assessment Research: Cumulative Findings” can be found on the Census Bureau’s website at: http://www.census.gov/library/working-papers/2014/acs/2014_Walker_02.html.

Softened Mandatory Messaging Treatment – This experimental treatment built on the control design treatment. Mandatory messaging on envelopes, postcards, letters, and brochures was removed or softened. We softened emphasis on the mandatory message by using plain text instead of bold text and including the mandatory message in sentences with statements about the benefits of the survey.

Revised Design Treatment – This experimental treatment primarily used materials designed as a result of the messaging and mail package assessment research that the Census Bureau conducted with elements that are intended to better emphasize the benefits of participation in the survey. As with the previous two treatments, we did not mail a pre-notice letter to respondents and a reminder letter was sent instead of a reminder postcard. The multi-lingual and FAQ brochures (which were redesigned) were not sent in the mail materials for this test in order to test recommendations from external experts that we should significantly streamline the set of materials included in each package. Additionally, the time needed to develop and print these materials would have delayed the test from being implemented as quickly as possible. Some information contained in the FAQ brochure was included in the other mail materials.

Softened Revised Design Treatment – This experimental treatment built on the Revised Design Treatment. Mandatory messaging on envelopes, postcards, and letters was removed or softened. We softened emphasis on the mandatory message by using plain text instead of bold text and included the mandatory message in sentences with statements about the benefits of the survey.

Minimal Revised Design Treatment – This experimental treatment built on the Revised Design Treatment. Mandatory messaging on envelopes, postcards, and letters was minimized by removing all references to the mandatory requirement except for the letter in the initial package. The initial package letter had one reference explaining the mandatory nature of the survey on the back of the letter.

We divided the monthly production sample of 295,000 addresses into 24 nationally representative groups of approximately 12,000 addresses each. For this test, conducted during the September 2015 ACS panel, we used two randomly assigned groups for the each of the experimental treatment groups. Because we used production cases for the test, the test was conducted through the complete three-month data collection period.

Our primary evaluation measure for this test was the self-response rate. Additional metrics of interest include total response rate, the impact on hard-to-count groups, and the impact on ACS estimates. We also conducted a cost analysis and examined CATI and CAPI workloads, including the number of visits needed to gain cooperation.

d. Milestone Schedule

Milestone	Date
Conduct the Envelope Mandatory Messaging Test	May through July 2015
Conduct testing of softer mandatory messaging	September through November 2015
Complete preliminary analysis of Envelope Mandatory Messaging Test results	August 2015
Complete analysis of testing of softer mandatory messaging	March 2016
Final report for Envelope Mandatory Messaging Test available	June 2016
Census Bureau proposes changes to production materials based on test results	TBD pending further discussion with stakeholders

5. Evaluating Modifications to Survey Questions

SEPTEMBER 2016 UPDATE:

Some of the questions on the ACS are perceived as burdensome or difficult to answer. Census has been working with other Federal agencies on these questions. In February 2016, Federal agency data users resolved proposed wording changes, which allowed us to test even more questions known to pose a high cognitive burden on ACS respondents. We tested those changes from March to June of 2016 and are currently evaluating the results. We will continue to cognitively test wording changes for questions as needed.

In addition, fieldwork for the 2016 ACS Content Test to determine the impact of changing question wording, response categories, and redefinition of underlying constructs on the quality of the data collected began as scheduled in parallel with the March 2016 sample panel, and continued through June 2016. We are analyzing the results of the content test and will release reports in late 2016 and early 2017.

a. Background

As part of its continual reassessment of the ACS, in early 2013, the Census Bureau began working with the Office of Management and Budget’s (OMB) Interagency Committee for the ACS to develop ideas from Federal agency data users for revisions to existing ACS questions or potential new content for the survey. Some questions were identified for revision in order to improve the quality of the data

collected, or to improve respondent understanding of the topic being measured. For example, given the rapidly evolving nature of computer and internet technology, the survey questions on these topics first introduced in the 2013 ACS contained wording that quickly became outdated. Updated terminology was needed to help respondents easily understand the question and provide quality responses. We will continue to cognitively test wording changes to sensitive or difficult questions.

We cognitively tested proposed revisions to many questions on the survey in preparation for the 2016 content test of some of these wording changes. Additionally, during the course of the 2014 ACS Content Review, metrics were collected to identify the level of burden associated with each question currently included in the survey. These metrics included measures of the time it takes to respond, the cognitive burden, sensitivity, difficulty, number of complaints referring to that topic, and the item level response rates.⁵ This created an opportunity for the Census Bureau to consider additional changes that may be helpful in addressing respondent concerns for individual questions or reduce the difficulty or burden associated with providing a response. The justifications provided by Federal agencies for asking some of the ACS questions provided a clear basis for collecting information on a given topic, but may not necessarily require that we collect that information through asking each of the current questions related to that topic.

b. Preparing for the 2016 ACS Content Test

In response to Federal agencies' requests for new and revised ACS questions, the Census Bureau conducted the 2016 ACS Content Test. Changes to the current ACS content and the addition of new content were identified through the OMB Interagency Committee for the ACS, and were approved for testing by the OMB. The 2016 ACS Content Test objectives are to determine the impact of changing question wording, response categories, and redefinition of underlying constructs on the quality of the data collected. Revisions to twelve questions/topics were proposed for inclusion in the 2016 ACS Content Test:

- Telephone Service
- Computer and Internet
- Relationship
- Race and Hispanic Origin
- Health Insurance
- Health Insurance Premium and Subsidies (new questions)
- Journey to Work: Commuting Mode
- Journey to Work: Time Left for Work
- Number of Weeks Worked
- Class of Worker
- Industry and Occupation
- Retirement Income

⁵ Chappell, G. and Obenski, S, "Final Report: American Community Survey (ACS) Fiscal Year 2014 Content Review Results." See <http://www.census.gov/programs-surveys/acs/operations-and-administration/2014-content-review/methods-and-results.html>.

The initial stages of the ACS Content Test consisted of content determination and cognitive laboratory pretesting through iterative rounds conducted in 2014 and 2015 for developing alternate versions of question content identified for field testing in 2016. Representatives from numerous Federal agencies, as well as other data users, contributed to these early pretesting efforts by providing their subject matter expertise. The 2016 ACS Content Test consisted of a national sample of 70,000 residential addresses in the United States (the sample universe did not include Puerto Rico, remote Alaska, or U.S. territories) with half receiving the modified set of questions and the other half receiving the current version of the questions. In addition to the field test, the ACS Content Test also included a telephone follow-up content re-interview as a method for collecting additional data quality measures. The results of the 2016 ACS Content Test will inform proposed changes in content for the 2019 ACS. Note, as appropriate, incremental changes may be introduced earlier than the 2019 collection year.

c. Testing Additional Question Wording Changes to be Responsive to Environmental Changes and to Reduce the Burden or Difficulty of Questions

In order to be responsive to environmental changes that make questions on the ACS out-of-date or challenging for respondents, the Census Bureau is examining ways to research question changes in a more agile manner. For example, as mentioned in the previous section, the speed with which technology changes has caused challenges for respondents to answer the ACS questions on computers and Internet service. Additionally, for each survey question determined to have high burden from the scoring done in the 2014 ACS Content Review,⁶ the Census Bureau examined the questions for likely sources of difficulty, sensitivity, and burden. The Census Bureau determined potential question revisions that may reduce this burden, and engaged a broader set of Federal data users, including the OMB Interagency Committee for the ACS, to develop recommendations for question modifications.

In looking for ways to be more responsive and timely in introducing changes, yet remaining in harmony with Census Bureau quality standards, the Census Bureau has identified an approach to qualitatively assess (e.g., cognitive testing) the question modifications that are proposed. The research is being conducted in multiple rounds, and includes assessment of English and Spanish question changes, as well as mode-specific changes as appropriate and feasible. Once wording changes have been refined through iterative rounds of cognitive testing in 2016, in consultation with the OMB and the Interagency Council on Statistical Policy Subcommittee for the ACS, the Census Bureau will identify an appropriate means for field testing the questions, if necessary. This field testing would quantitatively assess the performance of the revised questions in late 2016 or 2017, pending the receipt of adequate funding. Question wording changes could then be implemented into production at the earliest opportunity once the research has demonstrated the changes are effective.

⁶ See "Final Report: American Community Survey (ACS) Fiscal Year 2014 Content Review Results" for a discussion of the burden scores, see: <http://www.census.gov/programs-surveys/acs/operations-and-administration/2014-content-review/methods-and-results.html>.

d. Milestone Schedule

Milestone	Date
Complete cognitive testing of proposed question wording changes for the 2016 ACS Content Test	June 2015
Work with Federal agency data users to develop proposed wording changes for an additional set of questions with high respondent burden	Late 2015 and early 2016
Conduct iterative rounds of cognitive testing for an additional set of questions with high respondent burden	Contract awarded in September 2015, and testing began in early 2016
Conduct fieldwork for the 2016 ACS Content Test	March – June 2016
Conduct fieldwork to quantitatively assess the performance of the revisions to an additional set of questions with high respondent burden	Late 2016 or 2017

6. Evaluating Methods to Ask Questions Less Frequently or of Fewer Respondents

SEPTEMBER 2016 UPDATE:

On September 30, 2015, the ACS published its [feasibility report](#) on using various approaches to ask certain questions only periodically or to reduce the frequency that they are asked. That report recommended we conduct additional research on methods for periodic inclusion of questions which we confirm are not required every year. In addition, the report recommended continuing to pursue the use of administrative record sources which could lead to a partial or complete removal of some questions. Lastly, the report recommended seeking the advice of external experts on how best to research and implement methods such as matrix sampling given its cost and complexity. The Census Bureau completed a two-day public NAS workshop to seek broad advice about these methods. (This is described in greater detail in Section 9). We will continue to work with external experts to explore suggested agile survey enhancements in greater depth.

a. Background

The current design of the ACS asks all of the survey questions from all sampled households every year. However, the 2014 Content Review identified several opportunities to include some questions periodically, rather than asking every question, every year. Methods such as “matrix sampling”⁷ may allow the Census Bureau to meet data needs with reduced burden on ACS respondents.

b. Assessing the Feasibility of these Methods

Census Bureau staff reviewed the responses provided by other Federal agencies related to the needed frequency of the data for their uses, as well as the geographic levels needed. This led to the identification of the set of topics or questions where potential reductions in the frequency of collection or sample size needed may exist. With this information, the Census Bureau identified possible designs for asking fewer questions of individual respondents, such as matrix sampling, while still meeting the data needs of our Federal users. Possible design changes could also include revising the questionnaire from year to year to bring questions on and off the survey as needed in accordance with the frequency of the data need. Other potential changes included fielding multiple versions of the questionnaire simultaneously so that some households are asked fewer questions than others while still yielding sufficient data for producing estimates for the geographic areas each year that match the Federal agency’s needs for that topic. Combinations of these approaches with enhanced item imputation or through folding in alternative data sources may also be possible. Although these options would be designed to reduce the number of questions that an individual household selected for the survey would be asked, there would be challenges in the complexity of the operational and statistical methods used to collect and release data. Some possible designs may have an impact on the accuracy of the data released or the richness of the data products produced. Therefore, the Census Bureau prepared initial reports outlining the statistical and operational feasibility of these approaches, and potential impacts to respondents and data users.

The Census Bureau consulted with statistical experts on this and other topics related to respondent burden to receive their input on these feasibility assessments and solicit ideas for additional survey designs that reduce burden. Given the criticality of the ACS data, it is important for the Census Bureau to communicate with stakeholders, including data users, to share our intention to research these options.

⁷ Matrix sampling is a sampling design that involves dividing a questionnaire into possibly overlapping subsets of questions, and then administering these subsets to different subsamples of an initial sample.

c. Milestone Schedule

Milestone	Date
Develop initial set of design options and high-level impacts for each	May 2015
Seek broader Census Bureau input on initial set of design options	June and July 2015
Deliver initial reports outlining the statistical and operational feasibility of these approaches	September 2015
Discuss feasibility reports with Federal agency stakeholders and data users to obtain feedback	October through December 2015
Hold NAS workshop of experts to provide additional input into options	March 2016 April through June 2016 expert meetings

7. Communicating with Respondents on Why We Ask Questions

SEPTEMBER 2016 UPDATE:

In September 2015, we provided a new brochure, [Your Answers, Your Future](#), for our field staff to give to respondents during their personal visits. The brochure describes the topics included in the ACS and how the data that the respondents provide benefit their communities. This brochure also serves as an informational tool for ACS telephone interviewing staff. This same brochure, with slight modifications, was tested in the November 2015 field test as an insert in the mail questionnaire package. The [report](#) of this field test was published on the ACS website in June 2016.

We have included a second internet instrument deployment each year in order to be even more agile and have the ability to address respondents’ challenges more frequently. The July 2016 Internet instrument enhancements provide a more user-friendly experience for respondents, and the help screens feature additional information to explain the purpose of the survey questions. The Internet instrument was also optimized for mobile devices to improve the respondent experience.

a. Background

Respondents sometimes ask about why the Census Bureau needs to ask the specific questions on the ACS questionnaire, and so to satisfy their understandable curiosity, we developed materials to give them

the answers. Having a better understanding of why we ask the questions and how the data from their responses to each question are used to benefit their community has shown to be an effective means of addressing respondent concerns with the sensitive nature of some questions. During data collection operations that involve a Census Bureau interviewer, the interviewer can provide information to address respondent concerns about why we ask certain questions and how the data are used. However, when responding to the survey by Internet or by mail, the respondent has fewer tools available to obtain information about why we ask the survey questions. Therefore, the Census Bureau will explore additional tools and materials to provide relevant information to respondents to address these concerns.

b. Testing Additional Information in the Mail Questionnaire Package

One approach was to test the addition of information on why we ask questions into the mail package that accompanies the paper questionnaire. We developed an additional mail piece that was inserted in this package to draw the respondent's attention to information about why we ask some of the survey questions that frequently are of interest to respondents, and examples of how the data are used to benefit their communities. During a test conducted in November 2015, we tested the inclusion of this additional piece in the mailings sent to a subset of the monthly production sample, while the remaining cases in that panel comprised the control and received standard ACS mailings without this additional piece included. As we used production cases for the test, the test ran through the complete three-month data collection period. Our primary evaluation measure for this test was the self-response rate, and the item non-response rates for the topics included in the additional mail piece. We did not see any significant differences between the panels that received the brochure and those that did not. However, we did receive feedback from experts after the test that, while the brochure had useful information, it was too dense for respondents, so we are modifying the brochure and we will evaluate it in a future test.

c. Expanding Information on Why We Ask Questions for Internet Respondents

The current Internet version of the ACS questionnaire includes links for "Help" on the pages for survey questions. When a respondent clicks on these links, a pop-up window provides information including how the data from the question are used, and any special definitions or instructions that may assist the respondent in answering the question. The Census Bureau developed expanded information about why we ask each question, and examined methods to provide this information within the Internet version of the ACS questionnaire. We conducted usability lab testing of the modified Internet version of the questionnaire with information about why we ask questions to ensure that respondents can easily find this information, and easily return to the questionnaire to complete the survey. Based on the usability testing, a new FAQ was added providing information on how to find help on the content of the questions. This new FAQ includes a sample graphic to show where the help link is located on the survey questions. An expand/collapse feature was added to each of the help screens so the respondent may view more or less information on the content of the question.

d. Providing Additional Tools on Why We Ask Questions to Interviewers

The automated survey questionnaire used during personal visit interviewing provides interviewers access to information about why we ask the questions, which the interviewer can use to address respondent concerns and questions as needed during the course of the survey interview. Paper materials were developed for the ACS interviewers to use in their interactions with respondents to provide additional information in an easy to digest format, so that we may satisfy the curiosity of respondents who want to know why we ask the questions on the ACS.

e. Milestone Schedule

Milestone	Date
Provide personal visit interviewers with additional paper materials for respondents on why we ask survey questions	September 2015
Conduct lab testing of enhanced information on why we ask questions for Internet respondents	December 2015
Conduct test of additional insert for paper questionnaire mail package	November 2015 through January 2016
Final test reports available	June 2016

8. Data Use Awareness

SEPTEMBER 2016 UPDATE:

We continue to collect examples of ACS data uses through many sources along with examples provided through social media using the hashtag #ACSdata.

Among the uses we have collected are examples of groups working to improve community outcomes by using ACS data to predict future problems, concentrate resources on solving them, and using data to devise informational community portraits. The following two uses are examples of the myriad ways ACS data are currently being used:

- Smoke Signals, an interactive mapping [tool](#) from Enigma, allows users to find the estimated risk of homes that lack smoke alarms at the block group level. The tool combines ACS data with the data from the American Housing Survey. Results help emergency planners best concentrate efforts to reduce fire related deaths in areas that have the highest risk;
- An [interactive chart](#) from Bloomberg Business, highlights the five most common occupation/relationship matchups. (For example, male firefighters most often marry female nurses, while female nurses most often marry managers.)

a. Background

The Census Bureau’s adaptability to emergent trends is partially reliant on developing a greater awareness of the volume, variety, and sophistication of current uses of ACS data. The 2014 Content Review provided a detailed initial collection of Federal uses, and a recent contract provided a detailed initial set of non-Federal uses. Combined, these nearly 1,000 Federal, Tribal, state, local, research, media, and business uses suggest that ACS data are used widely within the U.S. and abroad to allocate funds; identify the needs and interests of specific populations; provide context to emerging trends; benchmark other statistical, administrative, and business data; and ensure that decision makers in all settings have the information they need. Other research and new documents like “The Value of the American Community Survey: *Smart Government, Competitive Businesses, and Informed Citizens*”⁸ produced by the Department of Commerce’s Economics and Statistics Administration also speak in depth about the varied uses of the data produced by the ACS.

The Census Bureau has examined these uses in an effort to determine what information is valuable to catalogue. We developed a streamlined and sophisticated method of pursuing, documenting, validating, and sharing these examples.

⁸ Regina Powers, David Beede, and Rudy Telles Jr., April 2015.

Preliminary conversations with current users and potential users suggest that sharing examples from similar industries or of groups facing similar challenges may inspire additional uses and greater sophistication of those uses. Additionally, a greater awareness of how users access and analyze ACS statistics can inform future decisions about data products, dissemination channels, and educational products.

b. Collecting Current Use Cases through Engagement of ACS Data Users

We have consulted with the following groups in order to develop a larger volume of uses from a more comprehensive set of sources including:

Government (Federal, Tribal, State, Local) – Through current and future collaboration with Federal agencies, we continue adding detail and additional emerging uses to the uses shared as part of the 2014 Content Review. Additionally, through Federal agencies, conference exhibits, and research, we have learned that many of the Federal uses are also present in a smaller scale at the Tribal, state, and local level.

Business – Through user support, conference exhibits, and Internet research, we are learning of a wide variety of business uses that encompass everything from basic market research, site selection, and workforce planning, to validating information in business negotiations, and creating value-added datasets by combining ACS statistics with other information.

Media – A daily review of ACS clips shows many media outlets using ACS information to provide context to news stories, create visualizations and maps, and identify local area trends.

Non-profits, Grant Writers and Advocacy Groups – Through user support, conference exhibits, and Internet research, we are aware of non-profit entities using ACS to identify populations in need or populations of interest, apply for funding that supports projects for small population groups or local areas, and add context to policy decisions that may have disparate impacts on certain groups.

Research – Through user support, conference exhibits, and Internet research, we are aware of the wide variety of research in many fields beyond the expected demographic and economic interests.

With this larger volume of uses, we plan to seek greater understanding of the known uses, additional uses in these categories, and additional uses in new categories through continued conversation with data users and potential data users. This engagement will be conducted through a variety of methods:

Conferences – Attending, presenting, and exhibiting at a variety of government, business, trade association, research, and non-profit conferences allows Census Bureau staff to learn more about existing uses, learn of new uses, begin conversations with users that can be continued over time, and inspire future users with current use examples.

User Support – Data users seeking clarification about terms, methods, and documentation, reach out to Census Bureau staff via several channels including email, phone calls, in-person consultation, and website feedback. In that engagement, staff often learn more about how an

individual is planning to use ACS data and can capture that information or begin a conversation that can be continued over time. These conversations also help us ensure that information is available in the variety of formats currently in use (tables for quick statistics, georeferenced files for maps, API format for more sophisticated applications, etc.).

Internet Research – Regular reviews of media stories, Internet searches, user forums, etc., allow Census Bureau staff to get a broad sense of uses that can be further investigated through personal contacts with authors, application developers, businesses, and researchers.

Offering a Tool to Submit Uses – Establishing a method for all Census Bureau staff (data dissemination staff, regional office staff, field representatives) and partners (state data centers, census information centers, etc.) to contribute to the collection of uses based on information from their contacts and interactions.

By streamlining and standardizing the output of these sources of uses, we hope to quickly and effectively make these important and emerging uses available for everyone to further inspire innovative ACS data uses.

c. Sharing Current Use Cases

The Census Bureau currently provides examples of ACS uses through a [video series](#), promotional materials, and generalized examples in publications. We plan to use the expanded set of uses collected to provide more detail in these products. We are investigating how to provide more comprehensive information about uses on our website.

d. Engagement of ACS Data Users Group

The Census Bureau will also continue to support the ACS Data Users Group, which provides an opportunity for more than 1,500 engaged ACS data users to network with other data users through an online community of practice, conferences, webinars, and other channels beyond what the Census Bureau provides.

e. Milestone Schedule

Milestone	Date
Define requirements for collected uses	August 2015
Participate in conferences , events, and webinars to communicate with users	Ongoing in 2015 and beyond
Develop materials and products (e.g., videos, infographics) to communicate use examples	Ongoing in 2015 and beyond

9. Subject Matter Expert Engagement

SEPTEMBER 2016 UPDATE:

The Census Bureau engaged with CNSTAT and planned the “Workshop on Respondent Burden in the American Community Survey.” The workshop was held on March 8-9, 2016, and included Census Bureau presentations as well as presentations/discussion by 24 external experts. In addition, over 100 workshop attendees engaged in floor discussions. Attendees included approximately 20 government agencies and over 20 non-government affiliates. At the workshop, experts shared ideas about matrix sampling, administrative records, communications, and group quarters. ACSO staff are currently investigating recommendations surfaced at the meeting including using administrative records to replace or supplement the ACS questions, and the feasibility of applying private sector marketing principles to government outreach. In order to keep building on the ideas that were generated in March, CNSTAT scheduled four additional expert meetings on the same topics between April and June.

The Census Scientific Advisory Committee formed a work group to provide input on reducing respondent burden.

a. Background

The Census Bureau sought the assistance of external experts to respond to concerns of the public and Congress about the actual and perceived burden of the American Community Survey (ACS) questionnaire and the communication and follow-up procedures with respondents.

b. National Academy of Sciences (NAS) Engagement

The Census Bureau worked with the National Academy of Sciences Committee on National Statistics to conduct a public workshop and four expert meetings in the spring of 2016. The committee of experts also advised on approaches that the Census Bureau is currently investigating, including matrix sampling, administrative records for direct substitution, communication and mail package messaging, and group quarters questionnaire content. The workshop was organized by a separately appointed workshop steering committee and will produce a publicly released report – a workshop summary with findings and recommendations as appropriate.

CNSTAT created a steering committee of seven members who identified additional external experts. The steering committee included experts in areas such as census and survey methods and operations; small area estimation, statistical modeling, large-scale imputation including variance estimation, time series, administrative records usage, survey messaging and communication, matrix sampling, questionnaire design and survey design. The steering committee included not only members who are

familiar with census processes from previous census-related work, but new members to strengthen specific areas of expertise that have become critical to planning for the ACS.

c. Census Scientific Advisory Committee

The Census Bureau's Scientific Advisory Committee (CSAC) has formed a work group with subject matter experts from the American Community Survey Office (ACSO) to review, access, and provide feedback on topics related to reducing respondent burden. The main group focus is on two topics: 1) Matrix sampling and methods to ask American Community Survey (ACS) questions less frequently or of fewer respondents and 2) the use of administrative records to replace some of the questions included in the ACS questionnaire. Group membership consists of six CSAC members and three to six subject matter experts from ACSO that meets once a month to review and provide feedback on selected working papers, reports, or other documents related to reducing respondent burden in the ACS.

d. American Indian and Alaska Native Working Group

Pursuant to the Memorandum of Understanding between the U.S. Census Bureau, the U.S. Department of the Interior (DOI), and the Bureau of Indian Affairs (BIA), the American Indian and Alaska Native Data Improvement Work Group (AIANDI WG) was formed to identify common data needs of the Federal Agencies that provide programs and services to tribes and work to improve the quality and quantity of data available to decision makers. The AIANDI WG will share, discuss, and resolve issues concerning American Indian and Alaska Native (AIAN) data. The work group has established subgroups to focus on specific issues, including, but not limited to: geospatial information on reservation and trust land boundaries; socio-economic data collected by Census and others; methods and approaches for collecting and disseminating data; and ways to promote communication and collaboration to improve the collection and dissemination of accurate AIAN data. The work group is primarily comprised of representatives from the Census, BIA, DOI and Office of Management and Budget, and other relevant Federal agencies, as necessary and appropriate. The group meets on a monthly basis and will address activities for FY2016 and FY2017.

e. Engagement of Other External Experts

The Census Bureau is also seeking input from other external experts on various topics. The Data Products Redesign Group and the White House Social and Behavior Science Team provides feedback and guidance to the Census Bureau on a variety of topics. Experts in the field of survey methodology were consulted on methods to soften the presentation of mandatory messages during the development of the mail package research, and their input influenced the design of the tests and the specific changes made to individual mail pieces. We also are consulting with behavioral scientists to obtain insights into what messages in ACS respondent materials could better help persuade individuals to respond. Other external expert consultation will be sought as needed.

f. Stakeholder Management

In our continued effort to improve stakeholder relations, the ACSO conducted two brainstorming sessions with ACSO staff to design a stakeholder management process for 1) internal stakeholders and 2) external stakeholders. These sessions will provide the standards needed to develop stakeholder plan templates, determine the best practices for working with stakeholders and the development of tools for management of stakeholders. ACSO will also work on the development of a customer relations database to effectively maintain activity records and provide status reports.

g. Milestone Schedule

Milestone	Date
Consult external survey methodology experts on mandatory messaging	April 2015
Award NAS contract	September 2015
Conduct NAS public workshop	March 8-9, 2016
Conduct NAS expert meeting: Matrix Sampling	April 7, 2016
Conduct NAS expert meeting: Administrative Records	April 21, 2016
Conduct NAS expert meeting: Group Quarters Data Collection	May 24, 2016
Conduct NAS expert meeting: Communication and Messaging	June 2, 2016
Stakeholder Management Brainstorming Sessions	June 8-9, 2016
Stakeholder Management Plan	September 2016
Stakeholder Database in Sharepoint	December 2016
Management of Internal/External Stakeholders	Ongoing
Assessment of Current Stakeholder Management Plan	June 2017

10. Respondent Advocacy

SEPTEMBER 2016 UPDATE:

Throughout calendar year 2015, the Respondent Advocate engaged in multiple advocacy, data gathering, and outreach efforts on behalf of ACS respondents. The Respondent Advocate:

- Provided direct assistance to nearly 200 ACS respondents through direct contacts with respondents and educational discussions and outreach with Congressional offices;
- Visited the Census Bureau Regional offices and observed household interviews to better understand respondent interactions and touch points with Field Representatives;
- Visited the three telephone centers to better understand data collection operations and report back on the importance of positive and respectful respondent interactions.
- Modified the [Are You in a Survey?](#) page and created a [Respondent Advocate web page](#) to describe the Respondent Advocate role and provide contact information;
- Participated in the CNSTAT Workshop on Respondent Burden;
- Briefed several external organizations on the Respondent Advocate position and efforts to address respondent burden for the ACS.

a. Background

The Census Bureau established the position of Respondent Advocate in April 2013. The general mission of the role is to advocate for respondents in development and review of survey content and methods, as well as to raise awareness of respondent concerns during the conduct of all censuses and surveys. The Respondent Advocate also functions as an Organizational Ombudsman to assist respondents, including outreach and educational activities – within 48 hours of receiving a complaint.

The Census Bureau's first Respondent Advocate, served from April 2013 to October 2014. During this period, the Respondent Advocate conducted outreach to 429 Congressional Offices to provide information about the ACS and the Respondent Advocate position, provided direct assistance to respondents, and supported development of the "Respect the Respondent" training module for ACS field interviewers.

The current Respondent Advocate continues efforts to conduct outreach and educational meetings with key stakeholders and Members of Congress. The Respondent Advocate will also participate in future activities stemming from the 2014 ACS Content Review to ensure respondent concerns and survey burden are addressed. Similarly, the Respondent Advocate will advise the ongoing efforts of the ACS Messaging Research Team.

Other activities the Respondent Advocate undertook included documenting current processes used to address respondent requests/complaints regarding survey participation, reviewing the survey life cycle processes for enhancements to improve respondent interactions, and making enhancements to the *Are You in a Survey* webpage. This latter effort included the addition of a *Respondent Advocate* page.

The Respondent Advocate will also work to integrate improvements from ACS into activities for Current Surveys and vice versa. For example, rolling out the Respect the Respondent training to Field Representatives who work on current surveys but not the ACS.

b. Milestone Schedule

Milestone	Date
Conduct outreach and educational meeting with key stakeholders and Members of Congress	Ongoing (ramping up in September 2015 and beyond)
Participate in the ACS Content Review process	Ongoing
Advise the ACS Messaging Research Team	Ongoing
Document processes to address respondent requests/complaints	TBD
Enhance the <i>Are You in a Survey</i> webpage	Ongoing
Ombudsman for Respondents	Ongoing
Propose process/method improvements based on respondent feedback and review of SLC activities.	Ongoing

11. Communication Strategy

SEPTEMBER 2016 UPDATE:

We have implemented several notable communications activities created under the auspices of this plan including the following:

- Released the ACS 5-year estimates in December of 2015. It was picked up by 138 entities and generated 13.1 million Twitter impressions from 1,186 Twitter mentions by 680 users;
- Collaborated with 817 organizations such as the American Planning Association, the National Association of Realtors, and Meals on Wheels, the Census Bureau generated nearly 815,000 impressions via a Thunderclap (a social media tool that broadcasts singular messages across multiple platforms);
- Developed digital communications to show how the ACS impacts individuals and communities such as new videos for the "Stats in Action" series about housing value estimates and personal financial planning;
- Delivered trainings and workshops on how to use ACS data for a variety of stakeholders including Congressional staffers, mayors, and tribal leaders at 11 conferences;
- Delivered four educational webinars on ACS data use; and
- The Census Bureau has also completed a communications plan for CY2016 which details ideas for engaging in multi-faceted outreach to areas with traditionally low self-response rates and hard-to-count populations.

a. Background

Given the criticality of the ACS data, it is important for the Census Bureau to communicate with stakeholders including data users to share our intention to research alternative methods through all phases of the project. In an ever-changing environment, our communications must be agile and impactful.

As mentioned earlier, these projects are pieces of a larger effort to address respondent concerns with the ACS, and the Census Bureau will need to share potential changes to the ACS related to these projects with stakeholders. Communication experts developed a detailed outreach strategy and plan outlining our approach to include key stakeholders in the process by keeping them abreast of our progress, and providing them with an opportunity to offer input.

The Census Bureau staff have presented in several public forums to seek input on the various research plans, as well as share the incremental findings at various stages of the project. These include meetings such as the Association of Public Data Users (APDU), Population Association of America (PAA), ACS Data

User Conference, Federal Committee on Statistical Methodology (FCSM), American Association of Public Opinion Research (AAPOR), etc.

b. Milestone Schedule

Milestone	Date
Participate in conferences to communicate with stakeholders on research plans and findings	Ongoing in 2015 and beyond
Deliver communication plan for Federal stakeholders and data users	September 2015

12. Data Products Redesign

a. Background

After “Agility in Action” was published in June 2015, the Census Bureau decided to reexamine the ACS data products. This section presents the plan for redesigning the ACS data products as part of the ongoing efforts by the Census Bureau to improve data accessibility for the public. These efforts align with the [Federal Digital Strategy](#) for open data, leveraging the latest technology and creating data products and information that are customer-focused.

In June of 2015, the Census Bureau convened an internal Data Products Redesign Team (DPRT). The DPRT was formed to examine the current data products and dissemination methods and provide options for the redesign. The Data Products Redesign Plan contains the initial proposals developed by this team for vetting by internal and external stakeholders. It is a living document, to be revised over time, as the Census Bureau seeks feedback from a wide-spectrum of customers and data users and refines its vision for overall dissemination strategies. The Data Products Redesign Plan is available on the ACS website at the following link: <http://www.census.gov/programs-surveys/acs/operations-and-administration/2015-16-survey-enhancements/data-products-redesign.html>

b. Need for Redesign

Since its full implementation in 2005, the ACS data has been the leading source for social, economic, housing, and demographic characteristics about our nation and its communities. However, today’s emerging technologies and the new expectations of data users present both an opportunity and a challenge to the Census Bureau. To keep pace with the changing environment and allow the public easy access to the rich wealth of our data assets, the agency must rethink our data products and the way we disseminate them.

One of the important components of the Federal Digital Strategy is that the products and services provided by the Federal Government should be customer-focused. We need to conduct outreach and research to understand the customers' needs and desires to make content more broadly available and accessible through multiple channels. The Census Bureau must also make content more understandable to the casual users and present it in formats that are flexible and customizable for various audiences. To ensure that future product enhancements and changes are customer-focused and meet our data users' needs, it is imperative that we engage them to reassess and redesign our products.

c. Short-term and long-term planning

The ACS data products are vast in volume (e.g., 4.7 billion 5-year estimates published on the American FactFinder), and diverse in types such as tabulated products, narrative profiles, the Public Use Microdata Sample (PUMS) files, Summary Files, and unstructured content like reports and briefs. It is a major challenge to transform the ACS data products. Our strategy is to manage the innovative changes by making incremental changes over time as new functionality is released and we grow our understanding of user needs.

The short-term changes focus on modifying existing tables or introducing limited sets of new tables to bridge the gaps in ACS estimates, researching and evaluating current population thresholds and filtering methodologies, and expanding the ACS data available in the Census API. In the process of redesigning the data products to achieve these goals, the Census Bureau will seek feedback from a newly established ACS Data Products Redesign Group (DPRG). We are analyzing and incorporating user comments from various sources of user input (e.g., the ACS Data Products Survey conducted in spring of 2015) in order to develop responsive solutions.

The Census Bureau must balance users' needs with operational feasibility including technical, resource, and schedule challenges. We understand that the ACS data users are diverse in many ways, and have different needs in their usage and applications of the data. We strive to make the ACS data current, relevant, and easily accessible to the public.

d. Engagement with Data Users

The ACS data users are extremely important to the ACS program, and it is critical to understand their data needs since they represent the rapidly changing needs and demands of the country. We plan to deploy a proactive and structured effort to engage with our data users, including gathering and cataloging users' needs systematically, and communicating our findings and summaries of user requirements with stakeholders.

The ACS program plans to engage end users of the ACS data through the newly formed DPRG. An objective of the DPRG is to provide proactive feedback on the current suite of products in terms of usage and gaps, and reactions and feedback on new or redesigned prototype products and changes in

dissemination methods, including participation in testing of the new data tools and dissemination channels.

e. Major Areas of Focus

There are four major areas of focus for the redesign of the ACS data products. The table below describes each of the focus areas.

Major area	Focus
Evaluation of Thresholds and Filtering	<ul style="list-style-type: none"> • Identify current need for publication thresholds (based on population) and data reliability filtering • Conduct research and analyze results to improve thresholds and filtering
Redesign of Current Data Products	<p>Short-term (April – December 2016):</p> <ul style="list-style-type: none"> • Review and address input from data users on gaps in the current data products • Identify options on modifying existing tables or creating new tables at varying geographic levels • Seek feedback from data users to refine data products redesign <p>Long-term (2017-2021):</p> <ul style="list-style-type: none"> • Continue to evaluate current data products and develop redesign plan to ensure that data products will work with the new dissemination channels • Explore potential new or modified data products based on user needs and innovations in dissemination methods • Improve documentation for easy understanding and accessibility
Dissemination Methods Planning	<ul style="list-style-type: none"> • Collaborate with Census enterprise systems engineers on future dissemination channels including new data tools using ACS data, such as the Microdata Analysis System, the Census Business Builder and others
Data User Engagement	<ul style="list-style-type: none"> • Increase engagement with data users • Address stakeholder communication issues/concerns • Develop communication strategy

f. Next Steps

The Census Bureau has taken the initial steps to advance the data products redesign process by forming the internal DPRT to start work on evaluating current products, thresholds, and filtering methods, and exploring new options and alternatives. The establishment of the external DPRG is another step towards enhancing the ACS data products with a customer-centric view. The next steps and activities focus on the four major areas of transformation listed above.

Sharing the plan and seeking feedback from data users was a first major step in achieving a successful transformation of the ACS data products. The following steps are to continue the collaboration between the Census Bureau and data users and to evaluate the evolving options and identify solutions based on users' feedback and feasibility assessments.

The internal DPRT has started to revise and refine the short-term and long-term redesign options by evaluating the data user feedback, user comments from the early ACS data products survey and other sources of user feedback. The DPRT will conduct research and analysis of the thresholds and filtering methodology based on the proposed redesign products, and share the results of research. In addition, the Census Bureau continues to engage with data users on smaller product change ideas as well as requesting overall feedback on the current ACS data products line.

Based on the feedback from data users, ongoing internal evaluations, and decisions on CEDSCI functionality, ACS will develop further implementation plans and milestones for some of the changes proposed in the Data Products Redesign Plan. There will be smaller incremental changes implemented through December 2016, with more significant and innovative changes happening iteratively starting in 2017.

The Census Bureau is committed to making its data content user-focused and easily accessible. Effective collaboration with stakeholders through the entire process is critical for success. We look forward to working closely with our stakeholders to achieve the objectives of the ACS data products redesign.

g. Milestone Schedule

Milestone	Date
Finalize ACS data product redesign plan	November 2015
Establish external ACS Data Product Redesign Group (DPRG)	November 2015
Conduct DPRG kickoff meeting	December 2015
Data user feedback on overall ACS Data Products Redesign Plan	February 2016
Release ACS 2014 supplemental tables	July 21, 2016
Release variance replicate estimates for selected ACS 2010-2014 5-year detailed tables and geographies	July 21, 2016
Release results of filtering rates by size areas for new short term table package using 2014 data	July 2016
Release ACS 2015 supplemental tables	October 2016
Short-term data product redesign planning and implementation	December 2016
Release variance replicate estimates for selected ACS 2011-2015 5-year detailed tables and geographies	January 2017
Complete research on CEDSCI compatible filtering methodology and threshold restrictions and release results.	December 2020
Long-term data product redesign planning and implementation	December 2021

13. Conclusion

The Census Bureau recognizes that the ACS is a conduit of vital information used by government, businesses, academic, and non-profits to help our nation make informed decisions. Yet the ever-changing environment demands that the ACS remain agile so that it keeps pace with change, provides the best quality data possible, and delivers the best possible experience to its customers, respondents, and data users alike. For the Census Bureau, agility in action is the ability to adapt to emergent issues and trends without sacrificing quality, and it's something we are deeply committed to foster in everything we do.

The Census Bureau will continue to demonstrate our agility through a number of key activities that are all designed to make the survey and the survey experience better. As we endeavor to deliver a survey that is trusted and valued by the nation as the source for quality demographic, social, economic, and housing information for small areas and small populations, we continue to work to identify records collected by other federal agencies that could allow us to remove questions from the survey, collaborate with experts to improve survey procedures and packaging, help our customers understand why we need the data we ask for from them, continue our commitment to respondent advocacy, deepen our understanding of how people use ACS data, and improve data accessibility and customer-focused data products.

It is not surprising that such a comprehensive data source like the ACS would attract the attention of a great many people and organizations with varied interests and concerns. We look forward to continued conversations with all as we keep enhancing the survey and its procedures to best meet the needs of our country.