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MEMORANDUM FOR ACS Research and Evaluation Workgroup

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Subject: 2020 ACS Specialized Mail Materials Test

Attached is the final American Community Survey (ACS) Research and Evaluation report entitled, 2020 ACS Specialized Mail Materials Test. This report evaluates the effect on self-response of using specialized wording in the ACS mail contact materials during the 2020 Census. The specialized wording informed the address that the ACS is different from the 2020 Census.

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2020 ACS Specialized Mail Materials Test

FINAL REPORT



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EXECUTIVE SUMMARY

The U.S. Census Bureau conducts the American Community Survey (ACS) continuously, including during decennial census years. All addresses in sample for the ACS in 2020 were asked to complete both the ACS and the census, which can be confusing and burdensome to respondents. Since most households sampled for the ACS were initially contacted by mail, the mail materials were revised to help legitimize the ACS and distinguish it from the 2020 Census. The goal of this revision was to improve self-response and avoid more expensive in-person contacts to nonresponding housing units.

The Specialized Mail Materials Test (SMMT) assessed whether the revised mail materials achieved the goal of encouraging ACS response. The test compared two treatments of ACS mail materials: one set of materials that did not mention the 2020 Census (Baseline treatment) and another set of materials that specified that the ACS was not the 2020 Census (Specialized treatment). The test was implemented in the March ACS monthly sample; these addresses received the first ACS mailing before the first 2020 Census mailing, with later ACS and 2020 Census mailings potentially arriving on the same day. The test initially was planned for implementation in each monthly sample from March through September 2020, but the coronavirus (COVID-19) pandemic prevented us from conducting this test on additional ACS 2020 panels as planned due to disruptions in mailings and data collection.

Analysis was conducted on unit response (the number of sample addresses for which responses were received) and item response (the quantity and quality of survey questions that were answered) to the ACS. Additional analysis examined the presence and timing of ACS responses together with 2020 Census responses. Within the unit response analysis and item response analysis, there were no significant differences found between treatments. However, there was a significant difference in how Specialized treatment cases responded to the 2020 Census compared to Baseline treatment cases. Specifically, a higher proportion of Specialized treatment cases self-responded to both the ACS and the 2020 Census whereas a higher proportion of Baseline treatment cases self-responded only to the ACS.

There was no evidence that addresses in the Specialized treatment responded to the ACS any differently than addresses in the Baseline treatment. The Specialized treatment showed success in clarifying to respondents that they needed to complete two questionnaires. A higher proportion of Baseline treatment cases self-responded only to the request they received in the mail first: the ACS. As the experiment was unable to be implemented for later months where addresses would receive 2020 Census mailings before ACS mailings, our conclusions are limited in scope. However, the results do suggest an order effect. For the next decennial census, the ACS program should revisit the question of how best to distinguish the ACS from the census and encourage response to both.

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1. INTRODUCTION

The U.S. Census Bureau conducts the American Community Survey (ACS) continuously, including during decennial census years. All addresses in sample for the ACS in 2020 were asked to complete both the ACS and the 2020 Census, which can be confusing and burdensome to respondents. Since most households sampled for the ACS were initially contacted by mail, the mail materials were revised to help legitimize the ACS and distinguish it from the 2020 Census. Improving the mail materials is an inexpensive way to avoid relatively more expensive in-person contacts to nonresponding housing units.

The Specialized Mail Materials Test (SMMT) assessed whether the revised mail materials achieved the goal of encouraging ACS response. The test was designed to compare two treatments of ACS mail materials: one set of materials that did not mention the 2020 Census and another set of materials that mentioned that the ACS was not the 2020 Census. The test was initially planned for implementation in each monthly sample from March through September of 2020, but the COVID-19 pandemic led to the longest interruption of data collection in the history of the ACS and prevented the test from being fully implemented as planned. As a result, the test was only conducted on the March ACS monthly sample. This report documents differences in ACS response between treatments from the March sample, as well as differences in the presence and timing of a 2020 Census response.

2. BACKGROUND

This section presents information on:

- the March 2020 ACS data collection strategy (Section 2.1),
- the two sets of 2020 ACS mail materials (Section 2.2 and Section 2.3), and
- the decennial census data collection strategy in 2020 (Section 2.4).

2.1 March 2020 ACS Data Collection

Every year, the Census Bureau samples over 3.5 million housing units across the country to participate in the ACS.¹ The yearly sample for the ACS is distributed evenly across the calendar year, with approximately 290,000 new housing units being contacted by mail at the beginning of each month. The sampled housing units are first sent mail, when possible, and could receive five mailings within two months if a survey response is not received. Each month's sample is referred to as a panel. The ACS mailing strategy (including the number and timing of mailings) was to be the same in 2020 as in other years for all monthly panels; no changes in strategy were made based on overlap with the decennial census data collection. The strategy was forced to change, however, because of

¹ See the ACS Design and Methodology Report (U.S. Census Bureau, 2014) for detailed information about the ACS methodology.

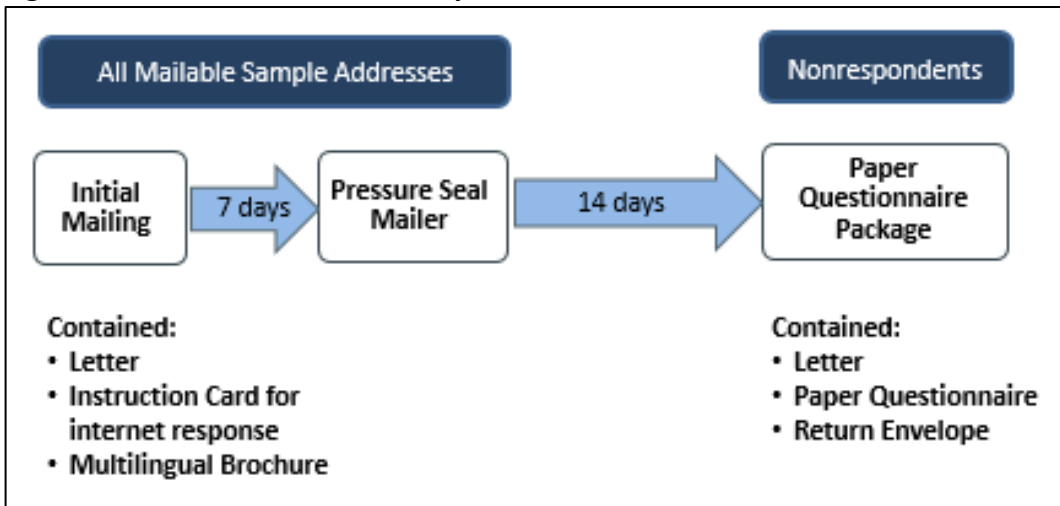
the pandemic and subsequent National Processing Center (NPC) shutdown. As a point of reference, Appendix A shows the planned 2020 ACS data collection strategy.

Data collection for the March ACS panel began on schedule; all mailable addresses were sent an initial mailing on February 27. The initial mailing contained a letter inviting residents of the address to participate in the ACS online. The letter also told the residents to call the Telephone Questionnaire Assistance (TQA) phone number if they had any questions. Recipients who called TQA could have their questions answered and could complete the survey with an interviewer. Along with the letter, the first mailing also contained a multilingual brochure and an instruction card that facilitated online response.²

On March 5, a pressure seal mailer was sent to the same addresses. The pressure seal mailer reminded the residents of the address to either respond online, wait for a paper questionnaire, or call with questions.

On March 16, any addresses for which we had not yet received a response to the ACS or identified as Undeliverable As Addressed (UAA) by the United States Postal Service (USPS) were flagged as eligible for a third mailing, the paper questionnaire package. March 19 was the last day that NPC was fully open until May 4.³ Before closing, NPC was able to mail about one-fourth of the total workload of March paper questionnaire packages; all addresses in the SMMT experiment that were eligible for a paper questionnaire were prioritized and sent a paper questionnaire. The sequence of these three mailings is shown in Figure 1.

Figure 1. March 2020 ACS Self-Response Mail Contacts



² The body of the letter also let respondents know that a paper questionnaire would be sent in a few weeks to address the concerns of those who were unable to (or preferred not to) respond online.

³ NPC operated with limited staff in ensuing weeks. The USPS continued dropping off mail and UAAs, which NPC staff piled in the warehouse without resources to process. If respondents called TQA, they were told to leave messages and the Logistics and Command Center managers returned the calls when possible.

Typically, a fourth and fifth mailing would be part of the ACS self-response contact strategy (see Appendix A) before beginning the Computer-Assisted Personal Interview (CAPI) nonresponse followup operation. However, the fourth and fifth mailings were not sent to any March 2020 ACS cases since NPC was not operating when they were scheduled to go out.

Typically, NPC receives and processes all paper questionnaires as they are mailed back by respondents, but NPC shut down immediately after mailing the March paper questionnaires and no ACS paper questionnaires were processed until May 7. Because of this delay in processing, paper respondents were unable to be identified and removed from the CAPI workload before the CAPI operation began on May 1; addresses that returned a paper questionnaire were removed from the workload once their questionnaire was processed but some addresses had already been contacted by a Field Representative (FR) in the meantime.

This atypical contact strategy lasted a few weeks longer than usual; the panel closeout was extended from early June to late June to account for the delayed processing of paper questionnaires. Table 1 summarizes how the March ACS data collection strategy ultimately differed from the planned strategy.

Table 1: Impact of COVID-19 Pandemic on March 2020 ACS Data Collection

	Planned	Actual
Maximum number of self-response mailings sent to March ACS cases	5	3
Status of NPC operations	Normal operations	Shutdown from March 20 to May 4
Data Capture of ACS paper responses	Shortly after receipt at NPC (end of March to early June)	Delayed until NPC operations resumed (mid-May to mid-June)
ACS Panel closeout	June 10	June 26
ACS CAPI operation	Mostly personal visit with option of telephone calls	All telephone calls

The SMMT originally was planned to be included in ACS panels from March through September 2020, but due to the NPC shutdown, it only occurred in March. The Census Bureau discussed continuing the experiment in late 2020 when NPC would have sufficient staff; however, it was not implemented since NPC continued to have limited staff and operations. Additionally, results from an experiment late in the calendar year would not be applicable to future decennial censuses.

2.2 ACS Baseline Mail Materials in 2020

Distinct from the effort to distinguish ACS from the 2020 Census, there is ongoing work to improve the ACS respondent experience and self-response rates by improving the mail materials. As a result of this ongoing work, the content of the ACS mail materials in 2020 changed substantially from

those used in 2019. These improvements, fielded for the first time in the January 2020 ACS panel, included:

- A change to the size of the paper questionnaire and the size of the envelopes,
- A “new look and feel” that was a byproduct of the 2020 specialized materials development and built on designs that were tested in the 2018 Mail Materials Test (MMT), and
- Additional changes that were tested and found successful in the 2018 MMT.

The implementation of these changes created the Baseline 2020 ACS mail materials; details of the changes can be found in Appendix B, with images in Appendix C. The Baseline ACS mail materials were sent to all January and February addresses, and comprised one of the experimental treatments sent to March ACS addresses. Although planned to be used as a treatment for April through September panels, the Baseline materials were ultimately not mailed to any ACS addresses after March, as a consequence of the pandemic.

2.3 ACS Specialized Mail Materials in 2020

Outside the scope of the baseline changes to the ACS mail materials, additional temporary changes to the ACS 2020 materials were implemented to increase the legitimacy of the ACS and distinguish it from the 2020 Census. The ACS mail materials that include 2020-specific features, in addition to the baseline improvements, are called the Specialized materials.

The final content of the Specialized ACS mail materials was determined based primarily on two factors: (1) the results of cognitive testing and (2) the timing of management decisions to implement new mail material design features. All recommendations from cognitive testing were implemented in the final materials, except one (Holzberg et al, 2020). One notable feature that tested well, having “American Community Survey” in a more prominent place on the first and third mailing envelopes, was removed from the final envelopes due to the change in the envelope size, a decision that was made late in the printing schedule. The new, larger envelopes had to go to print immediately once the decision was made, before a specialized envelope with the more prominent placement of the words “American Community Survey” could be finalized in the new size. As a result, the envelopes used in the first and third mailings looked the same in both the Baseline materials and the Specialized materials. See Appendix D for images of all Specialized 2020 ACS mail materials

Table 2 shows the contents of each mailing and a brief description of the changes that were intended to help distinguish ACS from the 2020 Census. There were no changes made to the fourth and fifth mailings.

Table 2: Differences between Baseline and Specialized Mail Materials

Mailing	Mail Material	Differences between Specialized Materials and Baseline Materials	Specific Wording Differences
Initial Mailing	Envelope	No difference	
	Letter	2020 Census text (front of letter)	Specialized letter has added text: “The American Community Survey is not the 2020 Census. This survey asks questions about topics not on the 2020 Census, such as veteran status, transportation, and internet access.”
		2020 Census FAQs included (back of letter)	Two additional FAQs about the 2020 Census were added to the Specialized letter.
	Instruction Card	No difference	
Multilingual Brochure	No difference		
	No difference		
Pressure Seal Mailer #1	Exterior	Mentions the ACS on the exterior	Specialized version has the added text: U.S. Census Bureau American Community Survey
	Interior	2020 Census text included	Specialized version has the added text: “Some households, including yours, will receive both the American Community Survey and the 2020 Census this year.”
Paper Questionnaire Package	Envelope	No difference	
	Letter	2020 Census text (front of letter)	Specialized version has the added text: “This year, the Census Bureau is also conducting the 2020 Census. The American Community Survey is different from the 2020 Census.”
		2020 Census FAQs included (back of letter)	The Specialized letter also changed “Your response to this survey is required by law” to “Your response to the American Community Survey is required by law”.
	Questionnaire	No difference	Two additional FAQs about the 2020 Census were added to the Specialized letter.
Return Envelope	No difference		

The following images show the Specialized letter with the 2020-specific text highlighted and enlarged. If the highlighted text were deleted, the letters would match the Baseline version. The first and third mailing letters in both treatments contained Frequently Asked Questions (FAQs) on the back of the letter. The Baseline materials had FAQs that discussed confidentiality, privacy, and the mandatory nature of the survey. The Specialized materials had those FAQs plus two additional FAQs on the 2020 Census, shown below. The FAQs on the initial letter were the same ones used in the third mailing; to avoid redundancy, they are shown only once in the following series of images.

Figure 2. Specialized Treatment on Front of Initial Mailing Letter

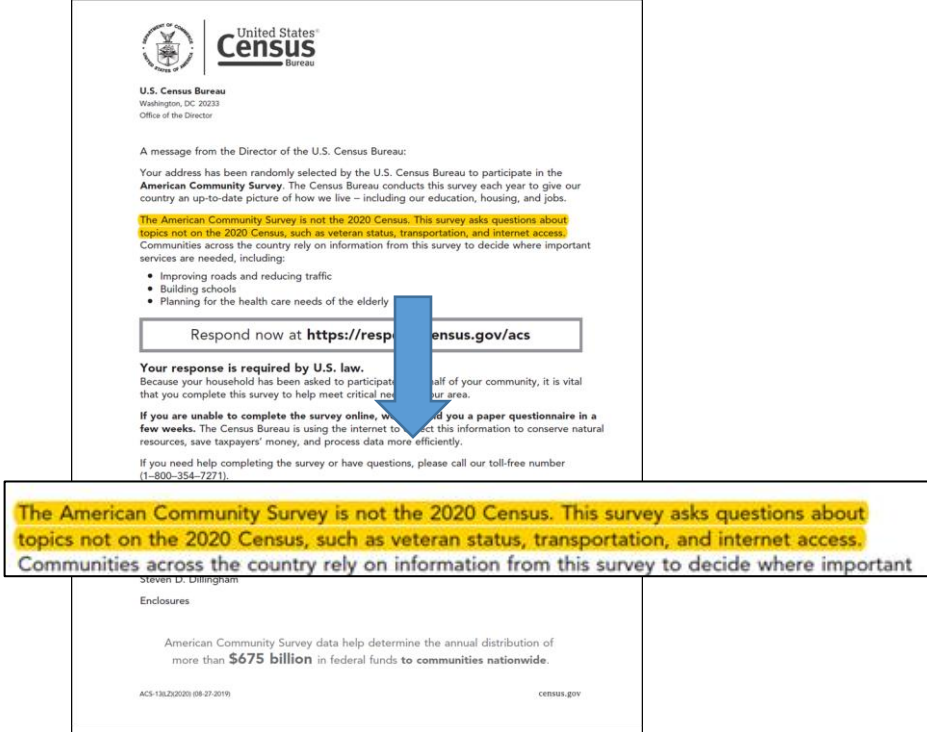


Figure 3. Specialized Treatment on Back of Initial Mailing Letter and Third Mailing Letter

Is the American Community Survey the same as the 2020 Census?
 No, the American Community Survey (ACS) is different from the 2020 Census.

The ACS shows how we live—our education, housing, jobs, and more. The ACS provides information about the social and economic needs of your community every year.

The census is conducted once every 10 years to provide an official count of the entire U.S. population to Congress.

Can you use my 2020 Census answers for the American Community Survey?
 Your answers to the 2020 Census cannot be used for the American Community Survey (ACS). The ACS includes questions about topics not on the 2020 Census, such as education, employment, internet access, and transportation.

Will my response be confidential?
 The U.S. Census Bureau is required by law to protect this information. The Census Bureau is prohibited from publicly releasing your responses in a way that could identify you. We are conducting this survey under the authority of Title 13, United States Code, Sections 141 and 142. Federal law protects your privacy and keeps your answers confidential (Title 13, United States Code, Section 9). Per the Federal Cybersecurity Enhancement Act of 2015, your data are protected from cybersecurity risks through screening of the systems that transmit your data.

Am I required to fill out the survey?


Is the American Community Survey the same as the 2020 Census?
 No, the American Community Survey (ACS) is different from the 2020 Census.

The ACS shows how we live—our education, housing, jobs, and more. The ACS provides information about the social and economic needs of your community every year.

The census is conducted once every 10 years to provide an official count of the entire U.S. population to Congress.

Can you use my 2020 Census answers for the American Community Survey?
 Your answers to the 2020 Census cannot be used for the American Community Survey (ACS). The ACS includes questions about topics not on the 2020 Census, such as education, employment, internet access, and transportation.

Figure 4. Specialized Treatment on Inside of Second Mailing Letter

 **United States Census Bureau**
 U.S. Census Bureau
 Washington, DC 20233
 Office of the Director

A message from the Director of the U.S. Census Bureau:

A few days ago, you should have received instructions for completing the **American Community Survey** online. Local communities depend on information from this survey to decide where schools, highways, hospitals, and other important services are needed.

Some households, including yours, will receive both the American Community Survey and the 2020 Census this year. If you have not already responded, please do so now.


Respond now at <https://respond.census.gov/acs>
 Log in using this user ID:

If we do not receive your response online, we will mail a paper questionnaire to your address.

Your response to the American Community Survey is required by law. Your response is critically important to your local community and your country. Responding promptly will prevent you from receiving additional reminder mailings, phone calls, or personal visits from Census Bureau interviewers.

If you need help completing the survey or have questions, please call our toll-free number (1-800-354-7271).

Thank you in advance for your prompt response.

Sincerely,

 Steven D. Dillingham

Some households, including yours, will receive both the American Community Survey and the 2020 Census this year. If you have not already responded, please do so now.

census.gov

Figure 5. Specialized Treatment on Outside of Second Mailing Letter

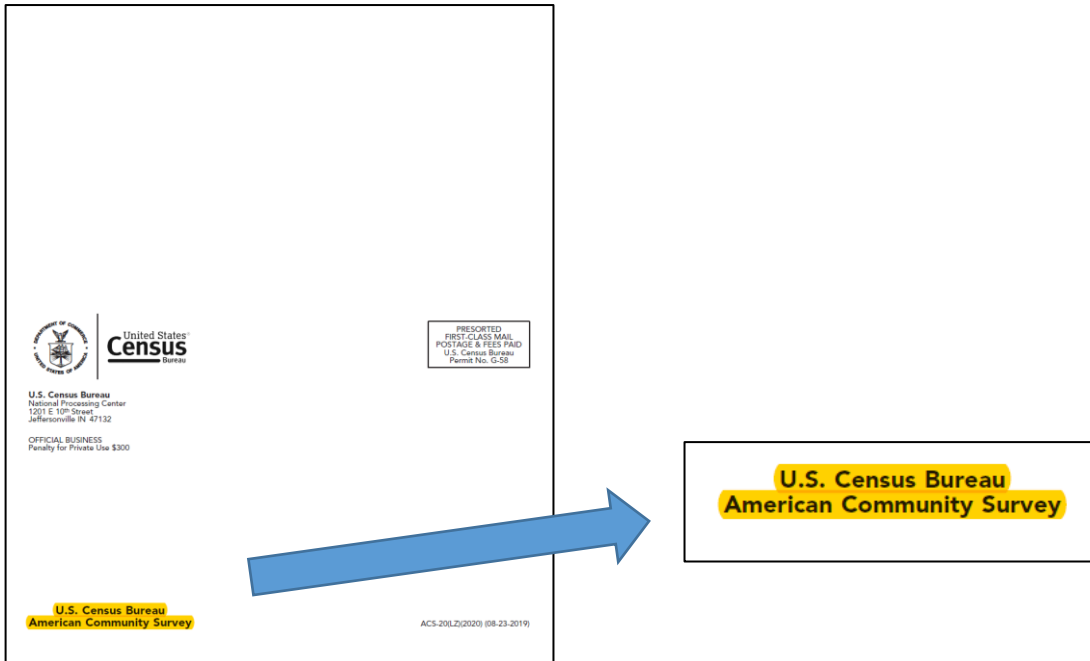
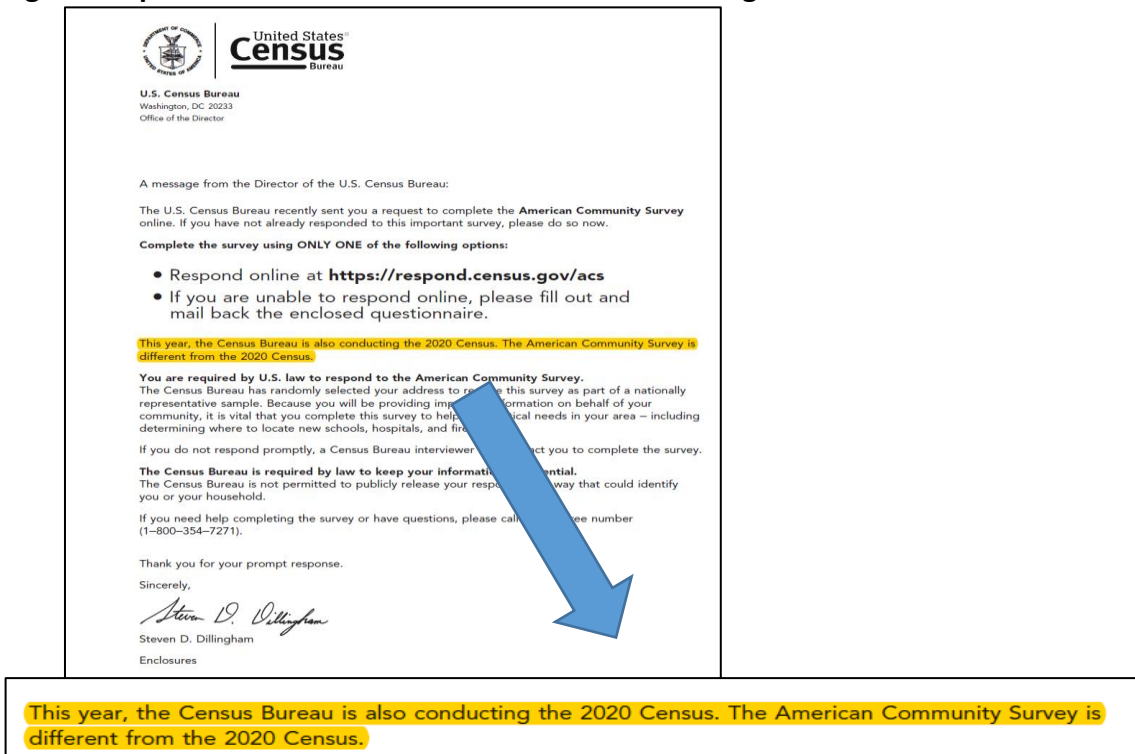


Figure 6. Specialized Treatment on Front of Third Mailing Letter



2.4 2020 Census Contact Strategy

The Census Bureau enumerated over 150 million housing units in the 2020 Census; over 140 million were mailed invitations to respond to the 2020 Census.⁴ Similar to the ACS, the Census Bureau initially planned to send up to five mailings to a housing unit to solicit self-response to the 2020 Census. Due to the pandemic, a sixth and seventh mailing were added and sent to nonresponding housing units.

The first 2020 Census mailings arrived in mid-March, a few weeks after the first ACS mailing for the March panel. The exact dates when a household might have received a 2020 Census mailing, as well as the content of the mailing, depended on which of two contact strategies a housing unit was allocated to: Internet First or Internet Choice. In the Internet First contact strategy, the content of the first three mailings encouraged online response; a paper questionnaire was only sent in the fourth mailing to those who had not yet responded. In the Internet Choice contact strategy, the very first mailing contained a paper questionnaire while also encouraging online response; a paper questionnaire was sent again in the fourth mailing to those who had not yet responded. Census tracts received the Internet Choice contact strategy if the tract had characteristics that made it less likely the recipients would complete a census questionnaire online.⁵ The Internet First contact strategy was used for the majority of the country.

Unlike in prior censuses, the delivery of 2020 Census mailings was staggered across the country, instead of delivered on (or close to) the same day everywhere, to spread out the large initial response surge. This staggered mail contact strategy reduced the burden on the USPS, as well as 2020 Census call centers and the 2020 Census internet instrument, by distributing the workload across a larger period of time (Nichols et al., 2019). Housing units targeted for the Internet First contact strategy were divided into four cohorts, which had different target in-home delivery dates. Table 3 shows the expected in-home delivery date of each mailing by mail contact strategy (Internet First or Internet Choice), cohort (if Internet First), and the format of each mailing.

⁴ Some housing units were only contacted in person and not by mail, including those in areas where the majority of housing units do not have mail delivered to the physical location of the housing unit or the mail delivery information for the housing unit cannot be verified. These addresses were omitted from the analysis in Section 6.3.

⁵ Census tracts in the Internet Choice contact strategy were tracts that had a low ACS self-response rate and were tracts where ACS mail response rates exceeded internet response rates, where there was a high proportion of people in older age groups, or where there was low internet access.

Table 3: 2020 Census Mailout Strategy and In-Home Delivery Dates

Mailing Strategy	Cohort	Percent of Mailout Universe	Mailing 1 <i>Letter & Questionnaire (Internet Choice) or Letter (Internet First)</i>	Mailing 2 <i>Letter</i>	Mailing 3* <i>Postcard</i>	Mailing 4** <i>Letter & Q'naire</i>	Mailing 5** <i>"It's not too late" Postcard</i>	Mailing 6* <i>Pre-NRFU COVID-19 Postcard</i>	Mailing 7* <i>Final Q'naire</i>
Internet Choice	NA	22%	March 13	March 17	March 27	April 28	May 9	July 22 - July 28	August 22 - Sept 15
Internet First	1	23%	March 12	March 16	March 26	April 14	April 27		
Internet First	2	18%	March 13	March 17	March 27	April 18	April 30		
Internet First	3	20%	March 19	March 23	April 2	April 22	May 4		
Internet First	4	17%	March 20	March 24	April 3	April 24	May 9		

* Sent only to nonresponding housing units

+ Original (pre-pandemic) Mailing 4 in-home dates were April 8-16. Original Mailing 5 in-home dates were April 20-27.

Note: Dates shown are in-home dates, except Mailing 4, which is a production end date (in-home dates are 1-2 days later). All dates are approximations.

Due to the COVID-19 pandemic and its impact on operations, the fourth and fifth mailings were sent one to two weeks later than initially planned. The sixth and seventh mailings were added during 2020 to mitigate the impact of the pandemic on response rates; unlike prior planned mailings, the timing of these mailings was not dependent on contact strategy and cohort. The sixth mailing, a postcard, was a reminder to respond. This mailing was meant to help reduce the workload for in-person visits and was sent to all households that had not responded by that point. The seventh mailing was sent to addresses on a priority basis until the supply of questionnaires was exhausted. Priority was given to addresses in tracts that had low response rates and that had not received two questionnaires.

The interaction of ACS and 2020 Census mailings by date is presented in Appendix E. Table 21 in Appendix E shows the planned pre-pandemic mail strategy interaction; Table 22 shows the actual mail contact strategy interaction.

Housing units where a self-response was not received were eligible for the Nonresponse Followup (NRFU) operation, where personal visits are made to nonresponding households. The Census Bureau planned to first visit most housing units in mid-to-late May with subsequent visits possible until the end of July. However, due to the pandemic, the NRFU operation occurred later, beginning July 16 for a few areas of the county, with all areas of the country beginning by August 11. The NRFU operation continued until mid-October.

Respondents could also call Census Questionnaire Assistance (CQA) and speak to a live customer service representative starting March 9, 2020. Assistance was available in multiple languages. Callers could have their questions answered and complete the census with an interviewer in the CQA call center.

For a detailed description of the 2020 Census enumeration strategy, please see the 2020 Census Operational Plan (U.S. Census Bureau, 2018).

3. LITERATURE REVIEW

This section presents a summary of relevant literature that informs this research, including:

- Response rates and check-in rates from the ACS in 2010,
- The experiment conducted in 2010 on distinguishing the ACS from the 2010 Census, and
- An ACS messaging survey conducted by Reingold, Inc. in 2014.

3.1 2010 ACS Response Rates and Check-in Rates

To understand the impact of a decennial census on ACS response, we examined historical ACS response and check-in rates from 2010, the previous year there was a decennial census.⁶ Data are available on two ACS self-response metrics from 2010 (when self-response options were only by mail or TQA): self-response rates and self-response check-in rates. The numerator for both rates are very similar, but the main difference between the rates is the denominator; the universe for check-in rates are all mailable addresses while the universe for response rates are mailable addresses that were not identified as a business, UAA, or vacant.

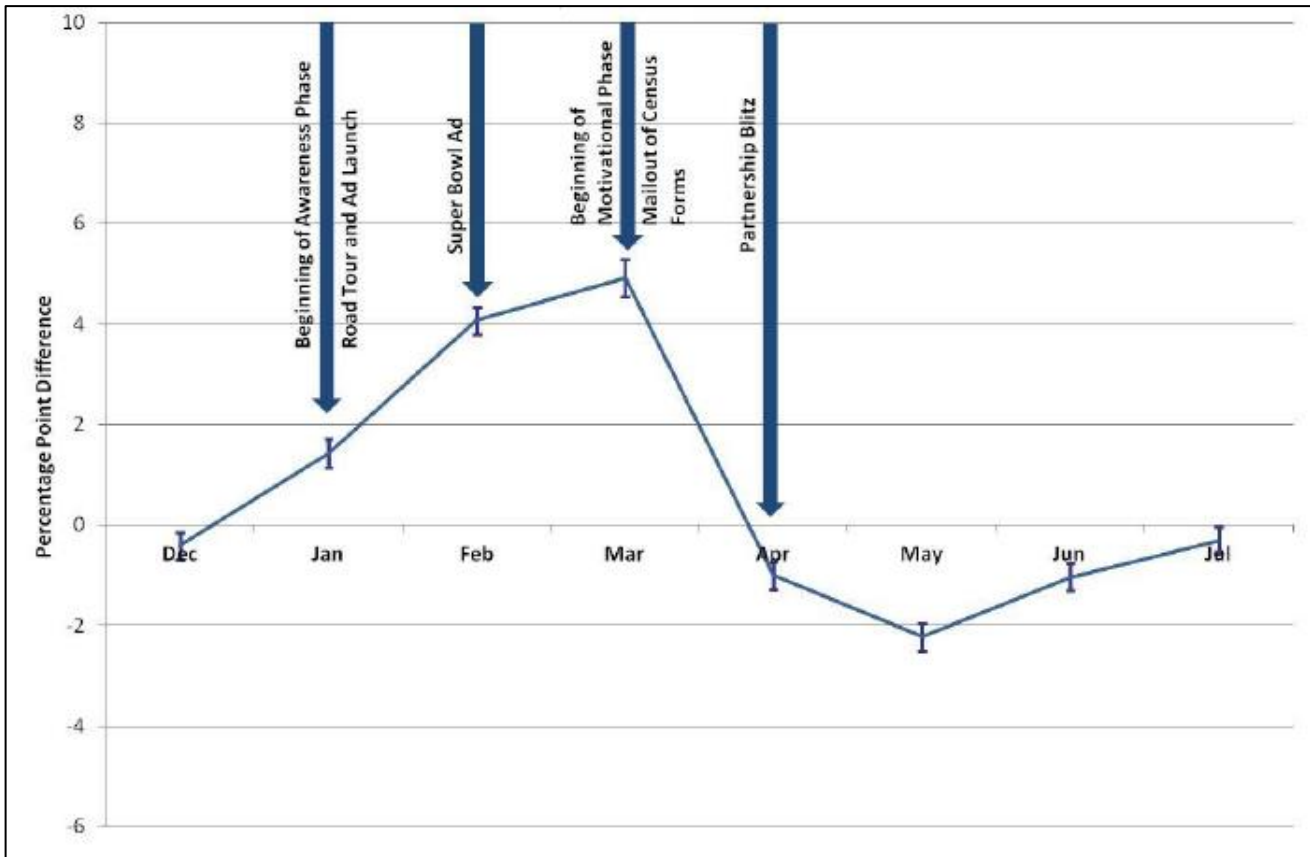
Self-response rates are available for every ACS monthly panel since the ACS was fully implemented in 2005. From January 2005 to December 2017, the month with the highest self-response rate was March 2010, which was at the height of 2010 Census advertising and when most people received their census form in the mail (Baumgardner, 2018). However, May 2010 had one of the lowest self-response rates of any month in that thirteen-year timespan.

Self-response check-in rates show the same pattern as self-response rates. Figure 7 shows the self-response check-in rate for the ACS December 2009 to July 2010 monthly panels compared to the equivalent monthly panels from the previous year. Figure 7 was originally published in the report *Tracking American Community Survey Mail Response During the 2010 Census* (Baumgardner, 2013).

The increase in self-response early in the year was attributed to the 2010 Census communications campaign while the decrease later in the year was attributed to respondent confusion or respondent burden, as respondents had already filled out their census form.

⁶ Chesnut and Davis (2011) allude to results from 2000 but we could not find formal documentation of ACS and decennial interaction from 2000. From Chesnut and Davis: "During Census 2000, the American Community Survey (ACS) experienced an increase in mail response in the months prior to Census Day (April 1, 2000) and a decline in response in the months following."

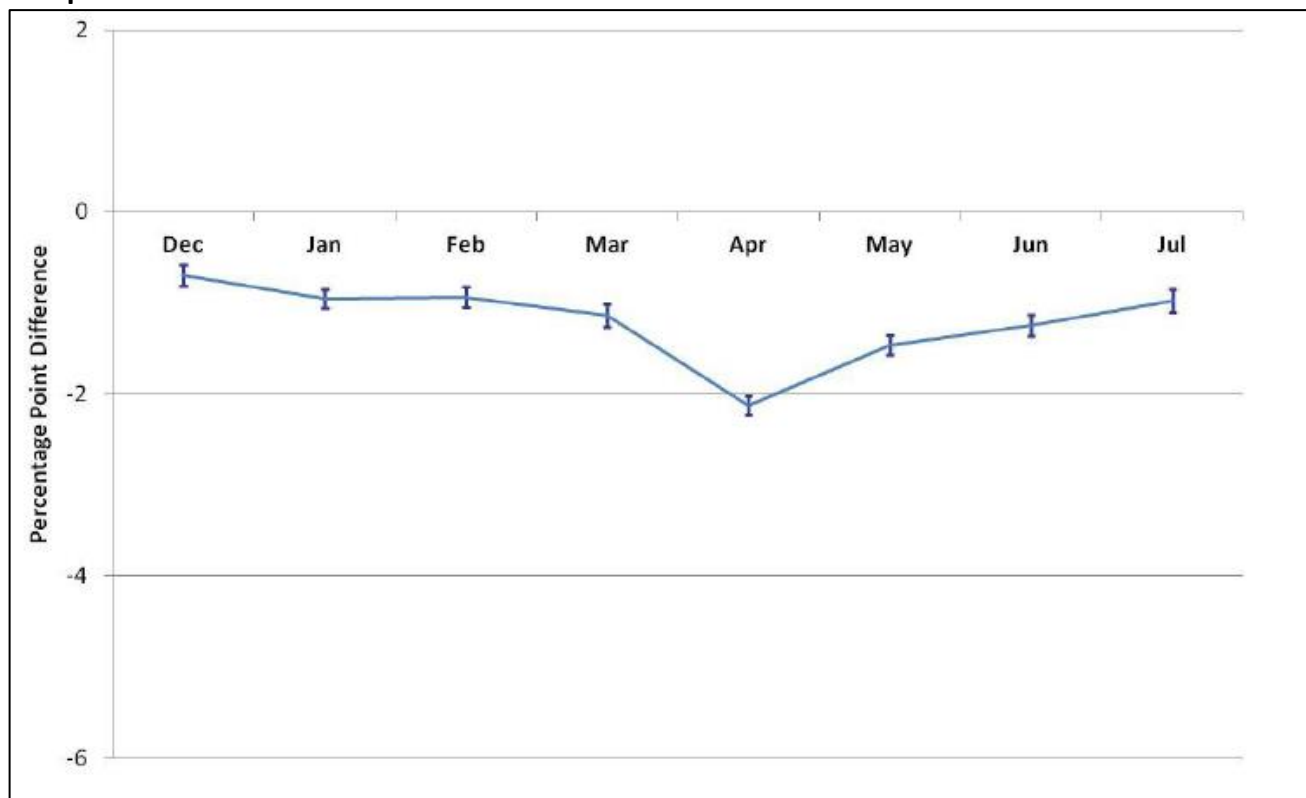
Figure 7. Differences in the National Mail Check-in Rates – December 2009 through July 2010 Panels Compared to Previous Year’s Panel



Source: *Tracking American Community Survey Mail Response During the 2010 Census* (Baumgardner, 2013)

In addition to tracking the 2010 ACS mail response, Baumgardner (2013) also studied the ACS mail form completeness rates as a measure of respondent cooperation. Form completeness of the ACS mail forms for the December 2009 through July 2010 panels was compared to the ACS mail forms for the equivalent panel from the previous year, at the national level. For all monthly panels, the completeness rate was significantly lower than the corresponding month in the previous year (see Figure 8). The April 2010 panel saw the greatest percentage point difference in mail form completeness of any 2010 monthly panel (Baumgardner, 2013).

Figure 8. Differences in Mail Form Completeness – December 2009 through July 2010 Panels Compared to Previous Year’s Panel



Source: *Tracking American Community Survey Mail Response During the 2010 Census* (Baumgardner, 2013).

3.2 2010 Evaluation of ACS Revised Mail Materials

An evaluation of ACS mail materials and mailing strategy during the 2010 Census tested the use of language, color, and branding to create a distinct identity for the ACS during the census year and attempted to minimize the negative impact of 2010 Census activities on ACS response. The test had three experimental treatments, which employed two new envelopes and one new letter as part of the experimental mail materials. The 2010 ACS sample was delineated into three time periods based on the timing of the first mailing: pre-census (January and February), census (March through May), and post-census (June through November).

The experimental materials consisted of two different envelope treatments and one set of new letters. Images of the materials can be found in the *Evaluation of the ACS Mail Materials and Mailing Strategy during the 2010 Census* (Chesnut and Davis, 2011):

- Green Envelopes – These envelopes were used for the pre-notice letter, initial questionnaire mailing, and replacement questionnaire mailing⁷. They contained a new box with a green

⁷ The ACS mail contact strategy in 2010 was different than it is now.

background with “U.S. Census Bureau The American Community Survey” above the address window. There was an existing box on the questionnaire package that said, “Your Response is Required by Law,” which was also filled with a green background. The font size was also increased. Green was selected because it matched the primary color of the ACS questionnaire.

- White Envelopes – These envelopes had the same boxes and text as the “Green Envelopes”, but without the green background.
- New Set of Letters – The new set of letters included a revised pre-notice letter as well as revised letters in both the initial and replacement questionnaire packages. The new letters contained information informing the housing unit about the requirement to respond to both the ACS and the 2010 Census.

The results of the test found that:

- All of the test treatment letter and envelope combinations improved participation compared to the 2010 production ACS letters and envelopes across the three census time periods.
- Of the three combinations, the new letters paired with the new white envelopes resulted in the greatest increase in respondent participation across all three time periods.
- The new white envelopes with messaging linking the ACS to the Census Bureau improved respondent participation compared to that of the 2010 production envelopes prior to and during the census and maintained the same level of participation post-census.
- Adding green color to the new envelopes reduced participation across the census time periods compared to that of the new white envelopes (but still improved participation compared to the 2010 production ACS letters and envelopes).
- The new letter with text addressing possible confusion between the 2010 Census and ACS improved participation compared to the 2010 production letter across the census time periods, when they were sent with the new white envelopes.

These results and materials were utilized when planning for 2020. For instance, since adding color to the envelopes did not lead to increased response rates, that change was not considered for use in 2020 ACS materials.

3.3 ACS Messaging Research by Reingold

In early 2014, Reingold, Inc. conducted a quantitative study called the *Benchmark Messaging Survey* to gather attitudinal data about the ACS and identify the best message themes surrounding ACS participation (e.g., civic duty, importance for governance, community benefit). Over 1,000 telephone interviews were conducted with a representative sample of the U.S. population. The *Benchmark Messaging Survey* found that only 11 percent of respondents had previously heard of the ACS (Hagedorn, Green, and Rosenblatt, 2014). Conversely, they found in the same study that 90 percent of respondents had heard of the census of the United States (the decennial census). This research confirmed the need to clarify for ACS respondents the difference between the ACS and the decennial census.

4. METHODOLOGY

This section discusses the experimental design of the 2020 SMMT, the research questions and metrics, and the sample design. The goal of this test was to assess what, if any, impact the specialized content had on response metrics in 2020. As discussed in Section 2, the ACS mail materials that included 2020-specific features were called the 2020 Specialized mail materials. Since the 2020 Specialized ACS mail materials were markedly different from the 2019 ACS mail materials (see changes described in Section 2.2), an experimental treatment was needed to isolate the effect of the specialized content on 2020 response.

4.1 Experimental Design

In the 2020 SMMT, the Census Bureau compared two treatments using a randomized controlled experiment. The test was only administered in the March 2020 panel.⁸

The monthly ACS production sample consists of approximately 290,000 mailable housing unit addresses and is divided into 24 nationally representative groups (referred to as methods panel groups) of approximately 12,000 addresses each. Two methods panel groups (approximately 24,000 addresses) received the Specialized mail materials and another two methods panel groups received the Baseline mail materials. The remaining twenty methods panel groups in the March panel received the Specialized mail materials but were not included in the analysis for this test.⁹

4.2 Research Questions

The research questions for this test are listed below. Note that research questions 5 and 6 were not part of the original analysis plan but were added because the data on 2020 Census response for addresses in the 2020 SMMT were available.

1. What is the impact on self-response return rates when including specialized 2020 language in the ACS mail materials?
2. What is the impact on final response rates when including specialized 2020 language in the ACS mail materials?
3. What is the impact on the rate of blank or insufficient forms when including specialized 2020 language in the ACS mail materials?
4. What is the impact on form completeness when including specialized 2020 language in the ACS mail materials?

⁸ Initial plans were to implement the design in seven ACS monthly panels (March – September) but the COVID-19 pandemic and subsequent NPC shutdown prohibited the full experiment from being conducted.

⁹ Previous research indicates that, in ACS experiments, postal procedures alone could cause a difference in response rates at a given point in time between treatments of different sizes, with response for the smaller treatments having a negative bias (Heimel, 2016). Thus, experimental treatments are structured to be of similar size. The Specialized treatment was sorted and mailed separately from the rest of the production cases so that the Specialized and Baseline treatments would have similar mail delivery timing.

5. What is the impact on the percent of households self-responding to the ACS and the 2020 Census when including specialized 2020 language in the ACS mail materials?
6. Of the cases that self-responded prior to NRFU to both the ACS and the 2020 Census,
 - a. What is the impact on the order of response when including specialized 2020 language in the ACS mail materials?
 - b. What is the impact on the days between responses when including specialized 2020 language in the ACS mail materials?

Prior to answering these research questions, we investigated the underlying data to ensure there were no differences between treatments in metrics that could impact the research question results. We compared the rate that addresses were flagged by the USPS as being UAA, as return rates can be influenced by UAA rates. We also checked that the distribution of ACS cases by 2020 Census mail contact strategy (Internet First or Internet Choice, plus cohort number) was similar between treatments because a difference in the distribution of the 2020 Census mail contact strategy could contribute to a difference seen in the ACS response rates. Additionally, we compared the mean household size between treatments because household size can influence form completeness rates.

4.2.1 Question 1 – Self-response Return Rates

What is the impact on self-response return rates when including specialized 2020 language in the mail materials?

To assess the impact on self-response of adding the specialized 2020 language to the ACS mail materials, we compared self-response return rates of the Specialized and Baseline treatments. We compared self-response return rates just before the Paper Questionnaire Package third mailing, and just before the start of CAPI.¹⁰ A difference in self-response return rates at these points would have workload implications for subsequent mailings and for the CAPI operation.

A two-tailed t-test was used with a null hypothesis of H_0 : Baseline = Specialized and an alternative hypothesis H_A : Baseline \neq Specialized.

The self-response return rates were calculated using the following formula:

$$\text{Self-Response Return Rate} = \frac{\text{Number of mailable and deliverable sample addresses that either provided a non-blank return by TQA, or a complete or sufficient partial}^{11} \text{ response by internet}}{\text{Total number of mailable and deliverable sample addresses}^{12}} * 100$$

¹⁰ Typically, this would also be calculated just before the fifth mailing. We did not include that comparison in this research since there was no fifth mailing due to the pandemic.

¹¹ In general, a sufficient partial internet response is one that has at least minimal information, which indicates an attempt to respond. The specific definition of a sufficient partial internet response is sensitive and for Census Bureau internal use only.

¹² We removed addresses deemed to be UAA by the Postal Service if no response is received.

We planned also to count non-blank mail returns as part of the self-response return rate before CAPI, but due to the NPC shutdown, mail returns were not processed until after the start of CAPI. Because it was unknown if the housing unit had responded, those housing unit addresses were eligible for CAPI (see Section 2.1). Not including non-blank mail returns in the self-response return rate reflects what actually happened with ACS processing.

4.2.2 Question 2 – Final Response Rates

What is the impact on final response rates when including specialized 2020 language in the ACS mail materials?

We compared the final response rates and the distribution of response by mode. We used a two-tailed t-test with a null hypothesis H_0 : Baseline = Specialized and alternative hypothesis H_A : Baseline \neq Specialized.

The final response rates were calculated using the following formula:

$$\text{Final Response Rate} = \frac{\text{Number of eligible sample addresses that either provided a non-blank return by mail, internet, or TQA, or a complete CAPI interview}}{\text{Total number of sample addresses eligible to reply to the survey and not sampled out of CAPI}} * 100$$

The denominator does not include UAAs (unless the address either did respond or was in the CAPI sample). The denominator also does not include addresses that are found to be a business, demolished, under construction, etc.

Typically, when more than one response is received from an address, the response processed first is considered the primary response. However, since all mail returns were processed after the start of the CAPI operation (due to NPC's shutdown in the spring of 2020), this approach was amended for this test; mail returns were chosen as the primary return over a CAPI return, if both were received, regardless of date. In the rare case that two responses were processed on the same day, then the primary response was chosen based on mode in the following order: (1) mail, (2) TQA, (3) internet, and (4) CAPI.

4.2.3 Question 3 – Blank and Insufficient Forms

What is the impact on the rate of blank or insufficient forms when including specialized 2020 language in the ACS mail materials?

Among addresses that were sent the mailings, we could receive either (1) no response at all, (2) a blank or insufficient response or a response from an ineligible unit (i.e., a business), or (3) a response that is sufficiently complete if not entirely complete. If we received a complete or sufficient return, it demonstrated that the respondent opened the ACS mailings and was motivated to respond at least sufficiently for data collection purposes. A blank or insufficient return shows

some engagement with the ACS; the respondent opened the mailings even if they did not provide a sufficient survey response. Addresses returning insufficient responses were contacted again if still within the contact window.

Insufficient responses provide a way to measure how successful the ACS mailings were at accomplishing a critical goal of mail contacts: being opened and reviewed by the respondent. A blank or insufficient response is a mail questionnaire, internet response, or TQA response that has minimal information on it.

We used a two-tailed t-test with the null hypothesis H_0 : Baseline = Specialized and the alternative hypothesis H_A : Baseline \neq Specialized.

$$\text{Rate of Blank and Insufficient Responses} = \frac{\text{Number of addresses that either provided a blank return, an insufficient partial response, or were a business}}{\text{Total number of mailable and deliverable sample addresses}} * 100$$

4.2.4 Question 4 – Form Completeness

What is the impact on form completeness when including specialized 2020 language in the ACS mail materials?

Form completeness provides a way to assess how much of the survey a respondent completed; it measures the number of questions on the form that were answered among those that should have been answered.¹³ As discussed in Section 3.1, ACS responses in 2010 had significantly lower form completeness than their 2009 counterparts, so we were interested to see how that metric compared by treatment in 2020.

The form completeness calculations only included self-responses, as interviewers (in CAPI and TQA) are trained to press for complete responses. If more than one response was received from an address, we assessed the response chosen as the final response (see Section 4.2.2).

The number of questions that should have been answered differs across households and is determined by a number of factors, most notably by the number of people in a household. We checked that the mean household size was not significantly different between treatments.

¹³ The number of questions that should have been answered is determined based on questionnaire skip patterns and respondent answers. If it is not clear if a question should have been answered (because a prior question was left blank), it is excluded from the calculation.

The ACS has three question sections: a basic person-level demographic section, a housing section, and a detailed person-level section.¹⁴ We calculated completeness rates for each section of the questionnaire, as well as overall. Calculations were made using the following formulas:

$$\text{Overall Form Completion Rate} = \frac{\text{Number of questions answered}}{\text{Number of questions that should have been answered}} * 100$$

$$\text{Section Completeness Rate} = \frac{\text{Number of questions answered in a specific section}}{\text{Number of questions in the specific section that should have been answered}} * 100$$

Analysis was done by mode and overall. We used a two-tailed t-test with the null hypothesis H_0 : Baseline = Specialized and the alternative hypothesis H_A : Baseline \neq Specialized.

4.2.5 Question 5 – Self-Response in the ACS and 2020 Census

What is the impact on the percent of households self-responding to the ACS and the 2020 Census when including specialized 2020 language in the ACS mail materials?

Addresses in the March ACS panel were sent ACS and 2020 Census mailings within a few weeks of each other, with ACS mailings arriving first (see Appendix E for mail dates). We expected that the tight overlap of mail would confuse or burden respondents, potentially reducing response to either the 2020 Census or the ACS.

For this research question, we first described self-response to the ACS and the 2020 Census as one of the following, without regard to the date of response:

- Provided a self-response to both the ACS and the 2020 Census
- Provided a self-response only to the ACS
- Provided a self-response only to the 2020 Census
- Provided a self-response to neither the ACS nor the 2020 Census

We included TQA responses along with mail and internet responses, since the respondent often initiated a call using information found in a letter, and thus the response can be attributed to a

¹⁴ The ACS paper questionnaire can be seen at <https://www.census.gov/programs-surveys/acs/about/forms-and-instructions/2020-form.html>.

mailing. The denominator only includes cases that were in the mailable universe for both the ACS and the 2020 Census. Calculations for the four rates were made using the following formula:

$$\text{Rate of Self-Response} = \frac{\text{Number of addresses that provided a non-blank mail, internet, or TQA response to } r}{\text{Total number of mailable addresses in both the ACS and 2020 Census}} * 100$$

Where r is one of the following classifications:

- Both the ACS and the 2020 Census
- Only to the ACS
- Only to the 2020 Census
- Neither the ACS nor the 2020 Census

Subsequently, we looked further into the universe of cases identified as having a self-response to both the ACS and the 2020 Census and classified them by the time of their response. To isolate the impact of mail materials on self-response, without enumerator influence, we identified responses as “prior to NRFU” if they were received before the start of the respective nonresponse followup operations. For the ACS, the respondent had to respond on or before April 30, as CAPI began on May 1. For the 2020 Census, we looked at cases that responded on or before two dates: May 15 and July 15. May 15 reflects the planned start of NRFU operations, whereas July 15 reflects when NRFU operations actually started for the 2020 Census, as NRFU began in some areas of the country on July 16.¹⁵

For this component of the research question, we classified those that provided a self-response to both the ACS and the 2020 Census as:

- Provided a self-response prior to NRFU to both the ACS and the 2020 Census
- Provided a self-response prior to NRFU only to the ACS
- Provided a self-response prior to NRFU only to the 2020 Census
- Provided a self-response prior to NRFU to neither the ACS nor the 2020 Census
- Did not have a date of response on the ACS paper questionnaire

To identify the date of response from ACS responses, we used the computer-generated timestamp applied to internet and TQA responses. However, since there was a delay in processing mail returns (see Section 2.1), we used the respondent-provided date that was asked on the ACS paper questionnaire. Respondents who left this question blank were included in the last classification bullet, regardless of their 2020 Census response date.

¹⁵ NRFU enumeration in other areas of the country began as late as August 11, but we chose July 15 to be conservative.

To identify the date of response from 2020 Census responses, we used the computer-generated timestamp applied to internet and CQA responses; the 2020 Census paper questionnaire did not ask for a date of completion, so we used the date when the questionnaire was in the mail as a proxy for the date of response. Calculations were made using the following formula:

$$\text{Rate of Prior to NRFU Self-Response} = \frac{\text{Number of addresses that provided a self-response prior to NRFU to } r}{\text{Total number of addresses that provided a self-response to both the ACS and 2020 Census}} * 100$$

Where r is one of the following classifications:

- Both the ACS and the 2020 Census
- Only to the ACS
- Only to the 2020 Census
- Neither the ACS nor the 2020 Census

We compared proportions overall and by 2020 Census contact strategy (Internet First or Internet Choice). We tested treatment differences using the Rao-Scott chi-square test (Rao and Scott, 1987). If the chi-square test was significant, then we tested pairwise differences within each classification using two-tailed t-tests.

4.2.6 Question 6 – Timing of ACS and 2020 Census Self-Responses

Of the cases that self-responded prior to NRFU to both the ACS and the 2020 Census,

- *What is the impact on the order of response when including specialized 2020 language in the ACS mail materials?*
- *What is the impact on the days between responses when including specialized 2020 language in the ACS mail materials?*

For addresses that provided a self-response prior to NRFU to both the ACS and the 2020 Census, we compared the timing of the responses.

We first compared the order of responses. Given that addresses in this test were sent ACS mailings before 2020 Census mailings, we expected addresses to respond to the ACS before responding to the 2020 Census. We classified each address that provided a self-response prior to NRFU to both the ACS and the 2020 Census as:

- Provided a self-response prior to NRFU to the ACS first
- Provided a self-response prior to NRFU to the ACS and 2020 Census on the same day
- Provided a self-response prior to NRFU to the 2020 Census first

The same dates used in Research Question 5 to determine prior to NRFU status were used here to determine the order of response. Calculations were made using the following formula:

$$\text{Proportion of Order of Responses} = \frac{\text{Number of addresses that provided a self-response prior to NRFU to } t}{\text{Total number of addresses that provided a self-response prior to NRFU to both the ACS and 2020 Census}} * 100$$

Where t is one of the following classifications:

- The ACS first
- The 2020 Census first
- Both the ACS and 2020 Census on the same day

We compared proportions overall and by 2020 Census contact strategy (Internet First or Internet Choice). We tested treatment differences using the Rao-Scott chi-square test (Rao and Scott, 1987). If the chi-square test was significant, then we tested pairwise differences within each classification using two-tailed t-tests.

Additionally, we compared the mean number of days between ACS and 2020 Census responses from addresses in the Specialized treatment to addresses in the Baseline treatment. We compared the mean number of days to determine if the Specialized wording helped respondents understand sooner that they needed to complete both the ACS and the 2020 Census. Calculations were made using the following formula:

$$\text{Mean Number of Days between Responses} = \frac{\sum |\text{date of ACS response} - \text{date of 2020 Census response}|}{\text{Total number of addresses that provided a self-response prior to NRFU to both the ACS and 2020 Census}}$$

The numerator is the sum of the absolute value of days between responses. We compared the means overall and by 2020 Census contact strategy (Internet First or Internet Choice). We tested treatment differences using two-tailed t-tests.

4.3 Sample Design and Weighting

The sample size is able to detect differences of approximately 1.25 percentage points between the self-response return rates of the treatments (with 80 percent power and $\alpha=0.1$). We used a significance level of $\alpha=0.1$ when determining significant differences between treatments.

All self-response analyses were weighted using the ACS base sampling weight (the inverse of the probability of selection). For the final response rates, the CAPI responses were weighted using a CAPI subsampling factor that was multiplied by the base weight; self-responses were weighted using just the base weight.

We estimated the variances of the point estimates and differences using the Successive Differences Replication (SDR) method with replicate weights—the standard method used in the ACS (see U.S.

Census Bureau, 2014, Chapter 12). In calculating the estimates, we used replicate base weights, which only account for sampling probabilities. We calculated the variance for each estimate and for the difference between estimates using the formula below:

$$\text{Var}(X_0) = \frac{4}{80} \sum_{r=1}^{80} (X_r - X_0)^2$$

where:

X_r = the estimate calculated using the r^{th} replicate

X_0 = the estimate calculated using the full sample

The standard error of the estimate (X_0) is the square root of the variance.

5. ASSUMPTIONS AND LIMITATIONS

5.1 Assumptions

1. A single ACS monthly sample is representative of an entire year (twelve panels) and the entire frame sample, with respect to both response rates and cost, as designed.
2. A single methods panel group (1/24 of the full monthly sample) is representative of the full monthly sample, as designed.
3. We assume that there is no difference in mail delivery timing or subsequent response time across samples of similar size using the same postal sort and mailout procedures.
4. Addresses and individuals across the country received a varied amount of 2020 Census advertising and communications; this was based on where they lived, what news they consumed, and how they engaged with their community. We cannot control for the type and quantity of news that an individual consumes about either the 2020 Census, the ACS, or the Census Bureau. We assume that randomization in the sample selection will control for this, but we will be unable to confirm this assumption.

5.2 Limitations

1. The original experimental design involved seven panels of ACS data; only one panel received the experimental design. The original scheduled interaction of ACS mailings with 2020 Census mailings was interrupted due to the pandemic and NPC shutdown, which limits the ability to analyze the treatment impacts through the bulk of the 2020 Census data collection period.
2. Data capture was delayed due to the shutdown, which delayed when mail returns were captured by NPC, hindering some of our analyses.
3. Group quarters are not included in the sample for the test.
4. Housing unit addresses from remote Alaska and from Puerto Rico are not included in the sample for the test.

5. Only ACS English-language mail materials are included in this test, which limits the conclusions that can be drawn.
6. We do not know exactly when each mail piece is delivered to an address or when a recipient notices it, opens it, or considers it. Although randomization of the treatment assignments is intended to control variations in mail receipt and respondent exposure, non-random differences in exposure of the treatment messages could potentially affect the accuracy of results.

6. RESULTS

Prior to answering the research questions, analysis was conducted on the underlying data to ensure there were no differences between treatments in metrics that could have impacted the research question results. We compared UAA rates, the distribution of ACS cases by 2020 Census mail contact strategy, and mean household size. There were no significant differences between treatments for these metrics (see Appendix F for detailed results). The results to the research questions are presented in three sections:

- Unit Response Analysis
- Item Response Analysis
- 2020 Census and ACS Response Analysis

6.1 Unit Response Analysis

This section presents the self-response return rates and the final response rates for each treatment.

6.1.1 Research Question 1

What is the impact on self-response return rates when including specialized 2020 language in the mail materials to distinguish the ACS from the 2020 Census?

Table 4 shows the self-response return rates that were obtained before the third mailing and then before the start of CAPI. The self-response return rates only include internet and TQA returns; there were no mail returns processed before the start of CAPI due to the NPC shutdown (see Section 2.1).

Table 4. Self-Response Return Rates from the March Panel

	Specialized	Baseline	Difference	P-Value
Before Third Mailing	27.7 (0.4)	28.3 (0.3)	-0.6 (0.5)	0.23
Before CAPI	36.5 (0.4)	36.1 (0.4)	0.4 (0.6)	0.53

Source: U.S. Census Bureau, American Community Survey, 2020 Specialized Mail Materials Test, CBDRB-FY20-ACSO003-B0026.

Note: Self-response return rates only include internet and TQA returns, and not mail returns. Minor additive discrepancies are due to rounding. Standard errors are in parentheses. An asterisk (*) indicates a statistically significant result. Significance was tested based on a two-tailed t-test at the $\alpha=0.1$ level.

Approximately 28 percent of cases in each treatment responded before the third mailing. Approximately 36 percent of cases in each treatment responded before the start of CAPI. The rate before CAPI is lower than usual because paper questionnaire responses were unable to be processed by NPC before the start of CAPI. The NPC shutdown also prevented a fourth and fifth mailing from being sent and soliciting more responses. Table 4 shows that the presence of the specialized 2020 wording in the three ACS mailings from March 2020 did not appear to affect self-response, as there are no significant differences between treatments.

6.1.2 Research Question 2

What is the impact on final response rates when including specialized 2020 language in the ACS mail materials?

Table 5 shows the final overall response rate for each treatment, as well as the distribution by mode.

Table 5. Final Overall Response Rates and Distribution by Mode

	Specialized	Baseline	Difference	P-Value
Final Response Rate	63.5 (0.5)	64.8 (0.6)	-1.2 (0.8)	0.14
Mail	10.6 (0.3)	10.9 (0.2)	-0.2 (0.4)	0.54
Internet	36.0 (0.4)	36.6 (0.5)	-0.6 (0.6)	0.33
TQA	0.3 (<0.1)	0.4 (<0.1)	>-0.1 (0.1)	0.47
CAPI	16.6 (0.5)	17.0 (0.5)	-0.4 (0.7)	0.62

Source: U.S. Census Bureau, American Community Survey, 2020 Specialized Mail Materials Test, CBDRB-FY20-ACSO003-B0026.

Note: Minor additive discrepancies are due to rounding. Standard errors are in parentheses. An asterisk (*) indicates a statistically significant result. Significance was tested based on a two-tailed t-test at the $\alpha=0.1$ level.

The presence of the specialized 2020 Census wording in the ACS mailings did not appear to affect the final response rate, as there were no significant differences between treatments, by mode or overall.

6.2 Item Response Analysis

This section presents the rate of blank or insufficient forms and the form completeness rates for each treatment.

6.2.1 Research Question 3

What is the impact on the rate of blank or insufficient forms when including specialized 2020 language in the ACS mail materials?

Table 6 shows the rate of blank and insufficient responses that were received as the only response from an address. A blank or insufficient response shows there was some engagement with the ACS mailings by the address. Table 6 shows the rate of blank and insufficient self-responses (mail, internet, or TQA).

Table 6. Rate of Blank and Insufficient Returns

	Specialized	Baseline	Difference	P-Value
March Panel	0.6 (0.1)	0.5 (0.1)	0.1 (0.1)	0.43

Source: U.S. Census Bureau, American Community Survey, 2020 Specialized Mail Materials Test, CBDRB-FY20-ACSO003-B0026.

Note: Minor additive discrepancies are due to rounding. Standard errors are in parentheses. An asterisk (*) indicates a statistically significant result. Significance was tested based on a two-tailed t-test at the $\alpha=0.1$ level.

Approximately 0.5 percent of cases in each treatment provided only a blank or insufficient response; this comparison was not significantly different. Again, the presence of the specialized 2020 wording did not appear to impact engagement with the ACS compared to the Baseline treatment without the wording.

6.2.2 Research Question 4

What is the impact on form completeness when including specialized 2020 language in the ACS mail materials?

Table 7 shows the overall form completeness metrics for each treatment, followed by mode-specific results in Table 8 and Table 9. Cases that responded in TQA or CAPI are not included in these tables since the involvement of the interviewer can lead to higher form completeness than is seen in self-response modes.

Table 7. Internet and Mail Form Completeness

Treatment	Specialized	Baseline	Difference	P-Value
Overall	93.0 (0.2)	92.9 (0.2)	0.1 (0.2)	0.73
Basic Person	99.0 (0.1)	99.0 (0.1)	<0.1 (0.1)	0.80
Housing	97.4 (0.1)	97.1 (0.1)	0.2 (0.2)	0.14
Detailed Person	90.7 (0.2)	90.7 (0.2)	0.1 (0.3)	0.88

Source: U.S. Census Bureau, American Community Survey, 2020 Specialized Mail Materials Test, CBDRB-FY20-ACSO003-B0026.

Note: Minor additive discrepancies are due to rounding. Standard errors are in parentheses. An asterisk (*) indicates a statistically significant result. Significance was tested based on a two-tailed t-test at the $\alpha=0.1$ level.

None of the form completeness rates were significantly different between treatments. There is no evidence that the specialized wording led respondents to provide more or less information on their ACS responses than respondents from the Baseline treatment. This conclusion is also true when examined within each mode of self-response.

Table 8. Internet Form Completeness

Treatment	Specialized	Baseline	Difference	P-Value
Overall	94.1 (0.2)	94.0 (0.2)	0.1 (0.3)	0.82
Basic Person	99.8 (<0.1)	99.7 (0.1)	0.1 (0.1)	0.10
Housing	99.0 (0.1)	98.9 (0.1)	0.1 (0.1)	0.16
Detailed Person	91.8 (0.3)	91.8 (0.3)	0.1 (0.4)	0.89

Source: U.S. Census Bureau, American Community Survey, 2020 Specialized Mail Materials Test, CBDRB-FY20-ACSO003-B0026.

Note: Minor additive discrepancies are due to rounding. Standard errors are in parentheses. An asterisk (*) indicates a statistically significant result. Significance was tested based on a two-tailed t-test at the $\alpha=0.1$ level.

Table 9. Mail Form Completeness

Treatment	Specialized	Baseline	Difference	P-Value
Overall	88.3 (0.4)	88.2 (0.4)	0.1 (0.6)	0.91
Basic Person	95.7 (0.3)	96.0 (0.3)	-0.4 (0.4)	0.37
Housing	91.8 (0.4)	91.2 (0.4)	0.6 (0.6)	0.28
Detailed Person	86.0 (0.5)	86.1 (0.5)	-0.1 (0.7)	0.86

Source: U.S. Census Bureau, American Community Survey, 2020 Specialized Mail Materials Test, CBDRB-FY20-ACSO003-B0026.

Note: Minor additive discrepancies are due to rounding. Standard errors are in parentheses. An asterisk (*) indicates a statistically significant result. Significance was tested based on a two-tailed t-test at the $\alpha=0.1$ level.

6.3 2020 Census and ACS Response Analysis

The following tables compare an address's possible ACS self-response with a 2020 Census self-response. We focus on self-response to isolate the impact of the experimental mail material treatments on respondent behavior. A self-response is an ACS or 2020 Census response by mail, internet, or TQA/CQA.

6.3.1 Research Question 5

What is the impact on the percent of households self-responding to the ACS and the 2020 Census when including specialized 2020 language in the ACS mail materials?

Table 10 classifies the March ACS cases that also were in the 2020 Census mailout/mailback universe by whether we received from the address a self-response to both the ACS and the 2020 Census, to only one, or to neither.

Table 10. Distribution of ACS and 2020 Census Responses

	Specialized (N = 24,000)	Baseline (N = 24,000)	Difference	P-Value
Self-Responded to both ACS and Census	29.5 (0.3)	25.1 (0.3)	4.4 (0.4)	<0.01*
Self-Responded only to ACS	15.2 (0.2)	19.8 (0.3)	-4.6 (0.4)	<0.01*
Self-Responded only to Census	25.7 (0.3)	25.8 (0.3)	-0.1 (0.5)	0.83
Self-Responded to neither	29.7 (0.3)	29.4 (0.3)	0.3 (0.5)	0.51
TOTAL Eligible	100.0	100.0		

Source: U.S. Census Bureau, American Community Survey, 2020 Specialized Mail Materials Test, CBDRB-FY20-ACSO003-B0026.

Note: Minor additive discrepancies are due to rounding. Standard errors are in parentheses. An asterisk (*) indicates a statistically significant result. Significance was tested based on a two-tailed t-test at the $\alpha=0.1$ level. The response distribution is significant (p-value <0.01) based on a Rao Scott chi-square test at the $\alpha=0.1$ level.

Table 10 shows that 29.5 percent of Specialized treatment cases self-responded to both questionnaires while only 25.1 Baseline treatment cases did, a statistically significant difference. A higher percent of Baseline treatment cases self-responded only to the ACS compared with Specialized treatment cases.

From the cases that self-responded to both the ACS and 2020 Census, we classified whether those self-responses were completed *prior to NRFU* (before the start of the respective nonresponse followup operations). For ACS, the self-response had to be completed on or before April 30, as CAPI began on May 1. For the 2020 Census, we looked at cases that responded on or before two dates, May 15 and July 15, to reflect the planned and actual start of NRFU operations. Table 11 shows of the cases that self-responded to both the ACS and 2020 Census, how many self-responded prior to NRFU to both the ACS and the 2020 Census, to only one, or to neither, using a prior to NRFU date of May 15 for the 2020 Census.

Table 11. Relationship of ACS and 2020 Census Self-Responses using May 15 Date

	Specialized (N = 6,700)	Baseline (N = 5,800)	Difference	P-Value
Self-Responded to both prior to NRFU	65.2 (0.7)	56.6 (0.7)	8.6 (1.1)	<0.01*
Self-Responded only to ACS prior to NRFU	27.4 (0.7)	35.0 (0.7)	-7.7 (0.9)	<0.01*
Self-Responded only to 2020 Census prior to NRFU	4.4 (0.3)	5.5 (0.3)	-1.2 (0.4)	<0.01*
Self-Responded to neither prior to NRFU	1.5 (0.2)	1.3 (0.2)	0.1 (0.2)	0.55
Time could not be determined [^]	1.6 (0.2)	1.5 (0.1)	0.1 (0.2)	0.69
TOTAL Self-Responded to both	100.0	100.0		

Source: U.S. Census Bureau, American Community Survey, 2020 Specialized Mail Materials Test, CBDRB-FY20-ACSO003-B0026.

[^] Includes 100 Specialized and 100 Baseline treatment cases where could not determine ACS mail date.

Note: Minor additive discrepancies are due to rounding. Standard errors are in parentheses. An asterisk (*) indicates a statistically significant result. Significance was tested based on a two-tailed t-test at the $\alpha=0.1$ level. The response distribution is significant (p-value <0.01) based on a Rao Scott chi-square test at the $\alpha=0.1$ level.

A higher percent of Specialized treatment cases self-responded to both the ACS and the 2020 Census prior to NRFU compared with Baseline treatment cases. Conversely, a higher percent of Baseline treatment cases self-responded only to the ACS or only to the 2020 Census prior to NRFU compared with Specialized treatment cases. The specialized wording may have alerted respondents to both the ACS and 2020 Census, and thus encouraged them to respond to both.

The same relationship occurs using a prior to NRFU date of July 15 for the 2020 Census, as is seen in Table 12.

Table 12. Relationship of ACS and 2020 Census Self-Responses using July 15 Date

	Specialized (N = 6,700)	Baseline (N = 5,800)	Difference	P-Value
Self-Responded to both prior to NRFU	73.7 (0.6)	65.0 (0.7)	8.7 (1.0)	<0.01*
Self-Responded only to ACS prior to NRFU	18.9 (0.6)	26.7 (0.6)	-7.8 (0.8)	<0.01*
Self-Responded only to 2020 Census prior to NRFU	5.0 (0.3)	6.1 (0.3)	-1.1 (0.4)	0.01*
Self-Responded to neither prior to NRFU	0.9 (0.1)	0.8 (0.1)	0.1 (0.2)	0.70
Time could not be determined [^]	1.6 (0.2)	1.5 (0.1)	0.1 (0.2)	0.69
TOTAL Self-Responded to both	100.0	100.0		

Source: U.S. Census Bureau, American Community Survey, 2020 Specialized Mail Materials Test, CBDRB-FY20-ACSO003-B0026.

[^] Includes 100 Specialized and 100 Baseline treatment cases where could not determine ACS mail date.

Note: Minor additive discrepancies are due to rounding. Standard errors are in parentheses. An asterisk (*) indicates a statistically significant result. Significance was tested based on a two-tailed t-test at the $\alpha=0.1$ level. The response distribution is significant (p-value <0.01) based on a Rao Scott chi-square test at the $\alpha=0.1$ level.

Table 13 and Table 14 present the same distribution as in Table 11, but within each 2020 Census contact strategy universe. We stratified by contact strategy to account for contact strategy differences that may affect response, such as differences in timing of mail delivery.

Table 13. Relationship of ACS and 2020 Census Self-Responses for Internet First Cases using May 15 Date

Internet First	Specialized (N = 5,300)	Baseline (N = 4,600)	Difference	P-Value
Self-Responded to both prior to NRFU	69.4 (0.7)	60.0 (0.9)	9.3 (1.2)	<0.01*
Self-Responded only to ACS prior to NRFU	23.4 (0.7)	32.0 (0.8)	-8.6 (1.0)	<0.01*
Self-Responded only to 2020 Census prior to NRFU	4.6 (0.3)	5.8 (0.4)	-1.3 (0.4)	<0.01*
Self-Responded to neither prior to NRFU	1.4 (0.2)	1.2 (0.2)	0.2 (0.3)	0.37
Time could not be determined [^]	1.3 (0.2)	0.9 (0.1)	0.4 (0.2)	0.08*
TOTAL Self-Responded to both	100.0	100.0		

Source: U.S. Census Bureau, American Community Survey, 2020 Specialized Mail Materials Test, CBDRB-FY20-ACSO003-B0026.

[^] Includes 70 Specialized and 50 Baseline treatment cases where could not determine ACS mail date.

Note: Minor additive discrepancies are due to rounding. Standard errors are in parentheses. An asterisk (*) indicates a statistically significant result. Significance was tested based on a two-tailed t-test at the $\alpha=0.1$ level. The response distribution is significant (p-value <0.01) based on a Rao Scott chi-square test at the $\alpha=0.1$ level.

Table 14. Relationship of ACS and 2020 Census Self-Responses for Internet Choice Cases using May 15 Date

Internet Choice	Specialized (N = 1,400)	Baseline (N = 1,200)	Difference	P-Value
Self-Responded to both prior to NRFU	43.0 (1.6)	38.4 (1.7)	4.6 (2.2)	†
Self-Responded only to ACS prior to NRFU	48.7 (1.6)	51.0 (1.8)	-2.4 (2.3)	†
Self-Responded only to 2020 Census prior to NRFU	3.3 (0.6)	4.0 (0.7)	-0.7 (0.9)	†
Self-Responded to neither prior to NRFU	2.1 (0.4)	2.3 (0.5)	-0.3 (0.7)	†
Time could not be determined [^]	3.0 (0.5)	4.2 (0.7)	-1.3 (0.8)	†
TOTAL Self-Responded to both	100.0	100.0		

Source: U.S. Census Bureau, American Community Survey, 2020 Specialized Mail Materials Test, CBDRB-FY20-ACSO003-B0026.

[^] Includes 40 Specialized and 50 Baseline treatment cases where could not determine ACS mail date.

Note: Minor additive discrepancies are due to rounding. Standard errors are in parentheses. A dagger (†) indicates that the response distribution is not significant (p-value = 0.21) based on a Rao Scott chi-square test at the $\alpha=0.1$ level.

The results among Internet First cases are similar to the results overall; a higher percent of Specialized treatment cases self-responded to both the ACS and the 2020 Census prior to NRFU compared with Baseline treatment cases, and conversely, a higher percent of Baseline treatment cases self-responded only to the ACS or only to the 2020 Census prior to NRFU compared with Specialized treatment cases. These differences, however, were not significant among Internet Choice cases. Also, among Internet First cases, a higher percent of Specialized treatment cases had missing self-response dates than Baseline treatment cases. This difference may impact the other significant results if we knew the cases' ACS self-response date because these cases would have been grouped in one of the other categories.

Table 15 and Table 16 present the same distributions within each 2020 Census contact strategy universe but using a prior to NRFU date of July 15 for the 2020 Census.

Table 15. Relationship of ACS and 2020 Census Self-Responses for Internet First Cases using July 15 Date

Internet First	Specialized (N = 5,300)	Baseline (N = 4,600)	Difference	P-Value
Self-Responded to both prior to NRFU	72.9 (0.7)	63.6 (0.8)	9.2 (1.1)	<0.01*
Self-Responded only to ACS prior to NRFU	19.9 (0.6)	28.4 (0.7)	-8.5 (0.9)	<0.01*
Self-Responded only to 2020 Census prior to NRFU	5.1 (0.4)	6.2 (0.4)	-1.1 (0.5)	0.02*
Self-Responded to neither prior to NRFU	0.9 (0.1)	0.8 (0.1)	0.1 (0.2)	0.68
Time could not be determined [^]	1.3 (0.2)	0.9 (0.1)	0.4 (0.2)	0.08*
TOTAL Self-Responded to both	100.0	100.0		

Source: U.S. Census Bureau, American Community Survey, 2020 Specialized Mail Materials Test, CBDRB-FY20-ACSO003-B0026.

[^] Includes 70 Specialized and 50 Baseline treatment cases where could not determine ACS mail date.

Note: Minor additive discrepancies are due to rounding. Standard errors are in parentheses. An asterisk (*) indicates a statistically significant result. Significance was tested based on a two-tailed t-test at the $\alpha=0.1$ level. The response distribution is significant (p-value <0.01) based on a Rao Scott chi-square test at the $\alpha=0.1$ level.

Table 16. Relationship of ACS and 2020 Census Self-Responses for Internet Choice Cases using July 15 Date

Internet Choice	Specialized (N = 1,400)	Baseline (N = 1,200)	Difference	P-Value
Self-Responded to both prior to NRFU	78.6 (1.3)	71.8 (1.7)	6.8 (2.2)	<0.01*
Self-Responded only to ACS prior to NRFU	13.1 (1.1)	17.7 (1.2)	-4.6 (1.5)	<0.01*
Self-Responded only to 2020 Census prior to NRFU	4.3 (0.6)	5.3 (0.9)	-1.0 (1.1)	0.35
Self-Responded to neither prior to NRFU	1.0 (0.3)	1.0 (0.4)	<0.1 (0.5)	0.93
Time could not be determined [^]	3.0 (0.5)	4.2 (0.7)	-1.3 (0.8)	0.13
TOTAL Self-Responded to both	100.0	100.0		

Source: U.S. Census Bureau, American Community Survey, 2020 Specialized Mail Materials Test, CBDRB-FY20-ACSO003-B0026.

[^] Includes 40 Specialized and 50 Baseline treatment cases where could not determine ACS mail date.

Note: Minor additive discrepancies are due to rounding. Standard errors are in parentheses. An asterisk (*) indicates a statistically significant result. Significance was tested based on a two-tailed t-test at the $\alpha=0.1$ level. The response distribution is significant (p-value = 0.02) based on a Rao Scott chi-square test at the $\alpha=0.1$ level.

The results are similar to those using a prior to NRFU date of May 15 for the 2020 Census, except that the response distribution among Internet Choice cases is significant. Like Internet First cases, among Internet Choice cases, a higher percent of Specialized treatment cases self-responded to both the ACS and the 2020 Census prior to NRFU compared with Baseline treatment cases. In addition, a higher percent of Baseline treatment cases self-responded only to the ACS prior to NRFU compared with Specialized treatment cases. There is some evidence that the specialized wording encouraged respondents to self-respond to both the ACS and 2020 Census prior to NRFU, regardless of contact strategy.

6.3.2 Research Question 6

Of the cases that self-responded prior to NRFU to both the ACS and the 2020 Census,

- *What is the impact on the order of response when including specialized 2020 language in the ACS mail materials?*
- *What is the impact on the days between responses when including specialized 2020 language in the ACS mail materials?*

Table 17 shows, among the addresses that we received a self-response from to both the ACS and 2020 Census prior to NRFU, how many we received a self-response to the ACS first, the 2020 Census first, or to both on the same day. Since all addresses in the March ACS panel were sent ACS mailings before the 2020 Census mailings, we expect the majority of cases to respond to the ACS before responding to the 2020 Census. Table 17 shows the timing of the self-responses by contact strategy and using a prior to NRFU date of May 15 for the 2020 Census.

Table 17. Timing of ACS and 2020 Census Self-Responses using May 15 Date

Contact Strategy	Specialized	Baseline	Difference	P-Value
Internet First				0.02 ^{†*}
Responded to ACS first	80.4 (0.8)	82.7 (1.0)	-2.3 (1.3)	0.08*
Responded on same day	12.0 (0.7)	9.2 (0.8)	2.8 (1.2)	0.02*
Responded to Census first	7.6 (0.5)	8.2 (0.6)	-0.5 (0.7)	0.49
Internet Choice				0.99 [†]
Responded to ACS first	77.2 (2.2)	77.0 (2.3)	0.2 (3.5)	-
Responded on same day	9.6 (1.7)	9.9 (1.6)	-0.3 (2.6)	-
Responded to Census first	13.2 (1.5)	13.1 (1.8)	0.1 (2.4)	-
Total				0.04 ^{†*}
Responded to ACS first	80.0 (0.8)	82.1 (0.9)	-2.0 (1.3)	0.12
Responded on same day	11.7 (0.7)	9.3 (0.7)	2.5 (1.1)	0.02*
Responded to Census first	8.2 (0.5)	8.7 (0.6)	-0.5 (0.7)	0.52

Source: U.S. Census Bureau, American Community Survey, 2020 Specialized Mail Materials Test, CBDRB-FY20-ACSO003-B0026.

[†] Significance was tested based on a Rao Scott chi-square test at the $\alpha=0.1$ level.

Note: Minor additive discrepancies are due to rounding. Standard errors are in parentheses. An asterisk (*) indicates a statistically significant result. Except where noted, significance was tested based on a two-tailed t-test at the $\alpha=0.1$ level.

Overall and among Internet First cases, there was a significant difference in the timing of the self-responses between the Specialized and Baseline treatment cases. A larger proportion of overall and Internet First Specialized treatment cases responded to both the ACS and 2020 Census on the same day compared with Baseline treatment cases. Among Internet First cases, a larger proportion of Baseline treatment cases responded to the ACS first compared with Specialized treatment cases; this difference was not significant overall. The specialized wording may have alerted respondents to both the ACS and 2020 Census, and thus encouraged them to respond to both at the same time.

The results are similar using a prior to NRFU date of July 15 for the 2020 Census, as is seen in Table 18. The only difference is that there is a significant difference between the proportions of overall Specialized treatment cases and overall Baseline treatment cases who responded to the ACS first.

Table 18. Timing of ACS and 2020 Census Self-Responses using July 15 Date

Contact Strategy	Specialized	Baseline	Difference	P-Value
Internet First				0.02 ^{†*}
Responded to ACS first	81.3 (0.8)	83.7 (0.9)	-2.4 (1.2)	0.06*
Responded on same day	11.4 (0.7)	8.7 (0.8)	2.8 (1.1)	0.01*
Responded to Census first	7.3 (0.5)	7.7 (0.6)	-0.4 (0.7)	0.55
Internet Choice				0.99 [†]
Responded to ACS first	87.5 (1.2)	87.7 (1.3)	-0.2 (1.9)	-
Responded on same day	5.3 (1.0)	5.3 (0.9)	<0.1 (1.5)	-
Responded to Census first	7.2 (0.8)	7.0 (1.0)	0.2 (1.2)	-
Total				0.03 ^{†*}
Responded to ACS first	82.3 (0.7)	84.4 (0.8)	-2.1 (1.1)	0.07*
Responded on same day	10.4 (0.6)	8.1 (0.7)	2.3 (1.0)	0.02*
Responded to Census first	7.3 (0.4)	7.6 (0.6)	-0.3 (0.6)	0.64

Source: U.S. Census Bureau, American Community Survey, 2020 Specialized Mail Materials Test, CBDRB-FY20-ACSO003-B0026.

[†] Significance was tested based on a Rao Scott chi-square test at the $\alpha=0.1$ level.

Note: Minor additive discrepancies are due to rounding. Standard errors are in parentheses. An asterisk (*) indicates a statistically significant result. Except where noted, significance was tested based on a two-tailed t-test at the $\alpha=0.1$ level.

To further examine the timing of the self-responses, we looked at the length of time between the ACS and 2020 Census self-responses. Table 19 shows the mean number of days between the ACS response and 2020 Census response received from an address, overall and by contact strategy. The mean number of days is in absolute value of days and was calculated using a prior to NRFU date of May 15 for the 2020 Census.

Table 19. Number of Days Between ACS and 2020 Census Self-Responses using May 15 Date

	Specialized	Baseline	Difference	P-Value
Mean number of days between self-responses	15.6 (0.2)	18.1 (0.3)	-2.6 (0.4)	<0.01*
Internet First	15.1 (0.3)	17.6 (0.3)	-2.6 (0.4)	<0.01*
Internet Choice	19.8 (0.8)	22.2 (1.0)	-2.3 (1.3)	0.07*

Source: U.S. Census Bureau, American Community Survey, 2020 Specialized Mail Materials Test, CBDRB-FY20-ACSO003-B0026.

Note: Minor additive discrepancies are due to rounding. Standard errors are in parentheses. An asterisk (*) indicates a statistically significant result. Significance was tested based on a two-tailed t-test at the $\alpha=0.1$ level.

Overall and by contact strategy, the mean number of days between self-responses for the Specialized cases was less than the mean for the Baseline treatment cases. There is some evidence that the specialized wording encouraged respondents to respond in less time on average to both the ACS and the 2020 Census compared with the baseline wording.

Table 20 shows the mean number of days between self-responses using a prior to NRFU date of July 15 for the 2020 Census. The results are similar except that the difference between the Specialized and Baseline treatment means among Internet Choice cases is not significant.

Table 20. Number of Days Between ACS and 2020 Census Self-Responses using July 15 Date

	Specialized	Baseline	Difference	P-Value
Mean number of days between self-responses	24.3 (0.4)	27.6 (0.5)	-3.3 (0.7)	<0.01*
Internet First	19.1 (0.4)	22.4 (0.5)	-3.3 (0.7)	<0.01*
Internet Choice	50.3 (1.3)	52.0 (1.2)	-1.7 (1.7)	0.33

Source: U.S. Census Bureau, American Community Survey, 2020 Specialized Mail Materials Test, CBDRB-FY20-ACSO003-B0026.

Note: Minor additive discrepancies are due to rounding. Standard errors are in parentheses. An asterisk (*) indicates a statistically significant result. Significance was tested based on a two-tailed t-test at the $\alpha=0.1$ level.

7. CONCLUSIONS

There is no evidence that addresses in the Specialized treatment reacted to the ACS any differently than addresses in the Baseline treatment. Response rates and form completeness rates showed no significant differences. However, there was a significant difference in how Specialized treatment cases reacted to the 2020 Census compared to Baseline treatment cases. Specifically, a higher proportion of Specialized treatment cases self-responded to both the ACS and the 2020 Census whereas a higher proportion of Baseline treatment cases self-responded only to the ACS.

The Specialized treatment showed success in clarifying to respondents that they needed to complete two questionnaires. Only the March ACS sample addresses were available for research, which received the ACS mailings before 2020 Census mailings. Therefore, our conclusions are limited in scope. While the COVID-19 pandemic prevented us from conducting this test on subsequent ACS panels as planned, the results do suggest an order effect. In 2030, the ACS program should revisit the question of how to best distinguish the ACS from the census and encourage response to both.

8. REFERENCES

- Baumgardner, S. (2013). "Tracking American Community Survey Mail Response During the 2010 Census," 2013 American Community Survey Research and Evaluation Report Memorandum Series #ACS13-RER-16. Retrieved on September 6, 2019 from https://www.census.gov/library/working-papers/2013/acs/2013_Baumgardner_01.html
- Baumgardner, S. (2018). "When is the Best Time to Field Your Survey? Trends in American Community Survey Response Rates," AAPOR 2018 Conference Poster.
- Chesnut, J., Davis, M. (2011). "Evaluation of the ACS Mail Materials and Mailing Strategy during the 2010 Census," 2011 American Community Survey Research and Evaluation Report Memorandum Series #ACS11-RER-09. Retrieved on September 6, 2019 from https://www.census.gov/library/working-papers/2011/acs/2011_Chesnut_01.html

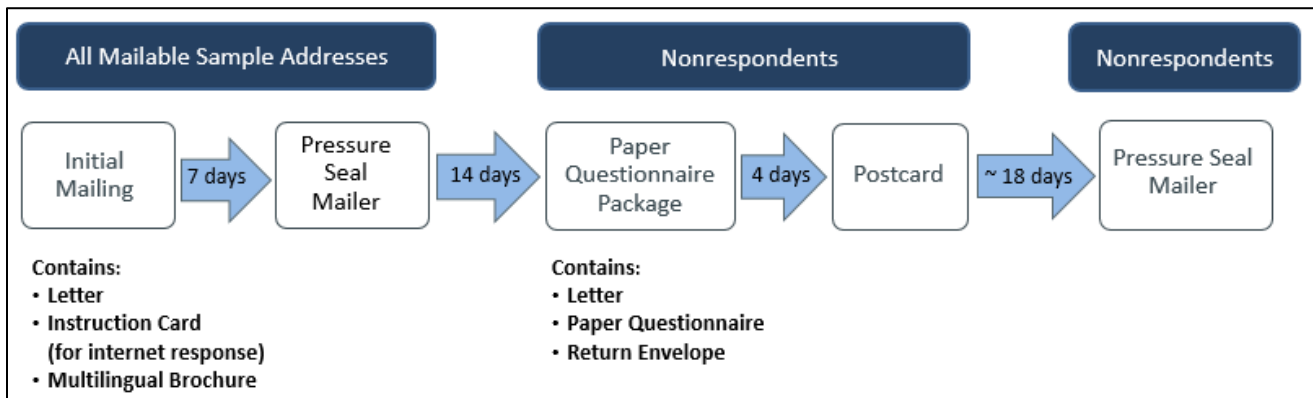
- Hagedorn, S., Green, R., Rosenblatt, A. (2014). "ACS Messaging Research: Benchmark Survey. Washington, D.C.: U.S. Census Bureau." Retrieved on September 6, 2019 from https://www.census.gov/library/working-papers/2014/acs/2014_Hagedorn_01.html
- Heimel, S. (2016). "Postal Tracking Research on the May 2015 ACS Panel," 2016 American Community Survey Research and Evaluation Report Memorandum Series #ACS16-RER-01, April 1, 2016.
- Holzberg, J., Luck, J., Katz, J., Martinez, M., Davis, M. (2020). "Cognitive Testing of the 2020 American Community Survey (ACS) Mailing Materials." FORTHCOMING.
- Nichols, E., Konya, S., Horwitz, R., Raim, A. (2019). "2020 Census Research and Testing Report: The Effect of the Mail Delivery Date on Survey Login Rates and Helpline Call Rates," Research and Methodology Directorate, Center for Behavioral Science Methods Research Report Series (Survey Methodology #2019-01), DATE. Retrieved on December 2, 2020 from <https://www.census.gov/content/dam/Census/library/working-papers/2019/adrm/rsm2019-01.pdf>
- Rao, J. N. K., Scott, A. J. (1987). "On Simple Adjustments to Chi-Square Tests with Sample Survey Data," The Annual of Statistics, Vol. 15, No. 1, 385-397. Retrieved on July 10, 2020 from <https://projecteuclid.org/euclid.aos/1176350273>
- Risley, M., Berkley, J. (2020). "2018 ACS Mail Materials Test Report," 2021 American Community Survey Research and Evaluation Report Memorandum Series #ACS21-RER-01, October 15, 2020.
- U.S. Census Bureau (2014). "American Community Survey Design and Methodology." Retrieved on November 4, 2020 from <https://www.census.gov/programs-surveys/acs/methodology/design-and-methodology.html>
- U.S. Census Bureau (2018). "2020 Census Operational Plan v4.0." Retrieved November 2, 2020 from <https://www2.census.gov/programs-surveys/decennial/2020/program-management/planning-docs/2020-oper-plan4.pdf>

Appendix A. Planned 2020 ACS Data Collection Strategy

Originally, the ACS mailing strategy for 2020 was to be similar to that for 2019; sampled households would first be contacted by mail, when possible, and could receive up to five mailings within two months if a survey response was not received. However, the mailing strategy was modified due to the pandemic and subsequent NPC closing. This appendix describes the ACS data collection strategy that was planned for 2020.

Figure 9 shows the intended mail contact strategy for the 2020 ACS.

Figure 9. Overview of the Intended 2020 ACS Self-Response Mail Contact Strategy and Mailing Universes



All mailable addresses that were sampled for the ACS in 2020 were to be sent a letter in the mail, inviting residents of the address to participate in the ACS online. The letter would also tell the residents to call the TQA phone number if they had any questions. Along with the letter, the first mailing would also contain a multilingual brochure and an instruction card that facilitates online response.¹⁶ About seven days later, a pressure seal mailer was to be sent to the same addresses. The letter inside the pressure seal mailer was to tell the household to either respond online, wait for a paper questionnaire, or call with questions.

A reduced universe of only addresses that have not yet responded to the ACS was to be identified eleven days after the second mailing; the paper questionnaire package was then to be sent to those addresses a few days later. The addresses in this new universe would have received both a third and fourth mailing. The third mailing would have contained a paper questionnaire, another letter, and a return envelope. About four days after the questionnaire package was to be mailed, these same addresses would have been mailed a reminder postcard.

Roughly two weeks after the fourth mailing was to be sent, a third universe of the remaining nonrespondents was to be identified; a few days later, these addresses were to be sent a fifth

¹⁶ The body of the letter also lets respondents know that a paper questionnaire will be sent in a few weeks to address the concerns of those who are unable to (or prefer not to) respond online.

mailing (another pressure seal mailer). Once the fifth mailing has been sent, the recipients would have had approximately two more weeks to respond before the processing begins for the CAPI nonresponse followup operation.

Approximately two months after the first mailing, addresses that had not responded would have been eligible for the CAPI nonresponse followup operation.¹⁷ Nonmailable addresses that were not sent the ACS mailings would also have been eligible for the CAPI operation; these are addresses that either are P.O. boxes, a non-residential ZIP code, or otherwise determined not to be mailable. From these two universes (nonresponders and nonmailable addresses), a subsample was to be selected for the CAPI operation. FRs would have visited the addresses sampled for CAPI to conduct in-person interviews (or encourage self-response). The CAPI operation would have lasted approximately four weeks and completed the data collection effort for that monthly panel.¹⁸

This multi-mode contact strategy would have lasted a maximum of three months for each monthly panel. Self-responses would have been accepted throughout the entire three-month period.

¹⁷ CAPI interviews start at the beginning of the month following the fifth mailing.

¹⁸ CAPI interviewers would have also attempted to conduct interviews by phone when possible.

Appendix B. Background to ACS Baseline Materials

The content of the 2020 mailings changed substantially from those used in 2019 as part of a continual effort to improve the ACS respondent experience and self-response rates. These improvements, fielded for the first time in the January 2020 ACS panel, include:

- A change to the size of the paper questionnaire and the size of the envelopes,
- A “new look and feel” that was a byproduct of the 2020 specialized materials development and built on designs that were tested in the 2018 MMT, and
- Additional changes that were tested and found successful in the 2018 MMT.

The implementation of these changes created the Baseline 2020 ACS materials and are described more in this section.

The Census Bureau decided in the summer of 2019 to move to a standard questionnaire size. The 2019 ACS questionnaire was 10-1/4" x 10-1/2" and the 2020 ACS questionnaire size is 8-1/2" x 11". The new questionnaire size is an easier size to print, but increases the number of pages in the questionnaire from 28 to 48 pages. The increased size of the questionnaire means that it cannot be folded to be placed in an envelope, but instead needs to be mailed flat. This change in questionnaire size requires a change to the questionnaire envelope as well. The outgoing questionnaire envelope changed from 11.5" x 6-1/16" to 9" x 11-5/8". The business reply envelope changed from 10-5/8" x 5-3/4" to 9" x 11.5". The new questionnaire envelopes have a side flap instead of a top flap.

Mail material changes were also made to reflect a “new look and feel”. The new look and feel was designed to enhance the connection between the ACS and the U.S. Census Bureau and to declutter the mail pieces. These changes include:

- moving the logos on letters to the top left corner instead of the top right corner,
- dropping references to the Department of Commerce and Economics and Statistics Administration from the letterhead,
- moving the form number from the top left corner to the bottom left corner of each letter,
- removing “An Equal Opportunity Employer (EOE)” from the envelopes, and
- adding “National Processing Center” as part of the return address.

Changes were also made to the mail materials because of the 2018 MMT, which tested changes to mandatory messaging in the mail materials along with improvements to other aspects of the mail materials (Risley and Berkley, 2020). Based on results from this test, the 2020 ACS mail materials differed from 2019 materials in the following notable ways:

- Updated line spacing and bullet points as well as font type and style for ease of readability,
- Emphasized the mandatory nature of the ACS in various ways, including by the placement of the mandatory language text in the letter, use of bold font, or use of enlarged bold font,

- Added a callout box to draw attention to the response options,
- Added “Open Immediately” to the exterior of the initial mailing envelope and the paper questionnaire package envelope,
- Redesigned the questionnaire cover page
 - Included the Census Bureau logo in the top left of the header,
 - Added icons to illustrate the possible modes of self-response, and
 - Added a boldface sentence, “Your response is required by law.”
- Removed the FAQ brochure from the first and third mailing and removed the instruction card from the third mailing, and
- Added “Final Notice Respond Now” to the exterior of the final pressure seal mailer.

Appendix C. Images of the 2020 ACS Baseline Mail Materials

C.1 Mailing 1: Initial Mail Package

Figure 10. Front of Envelope

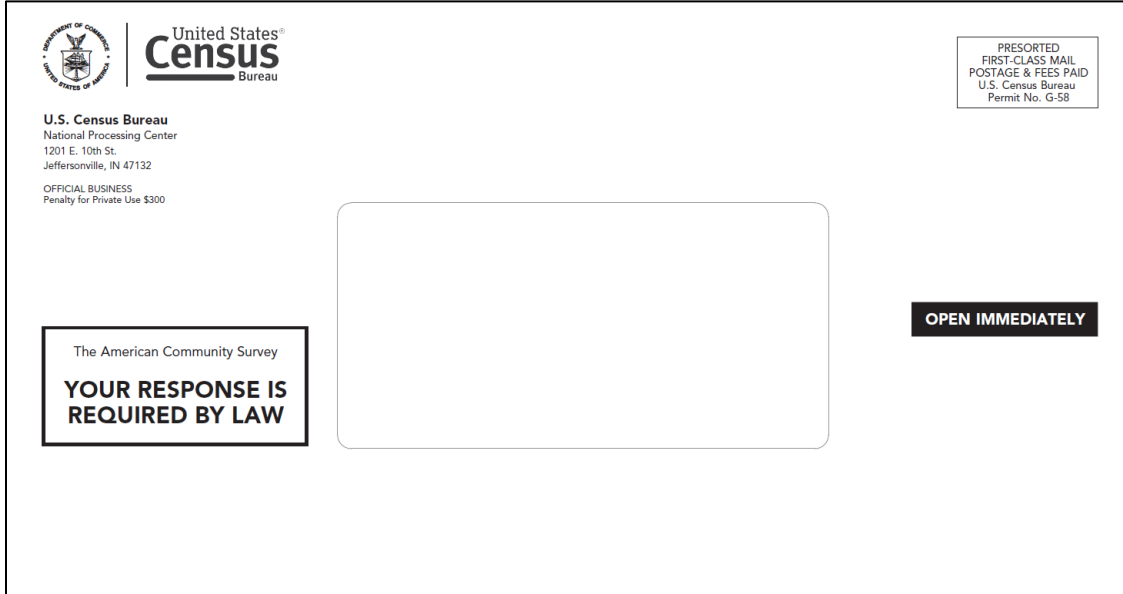


Figure 11. Back of Envelope

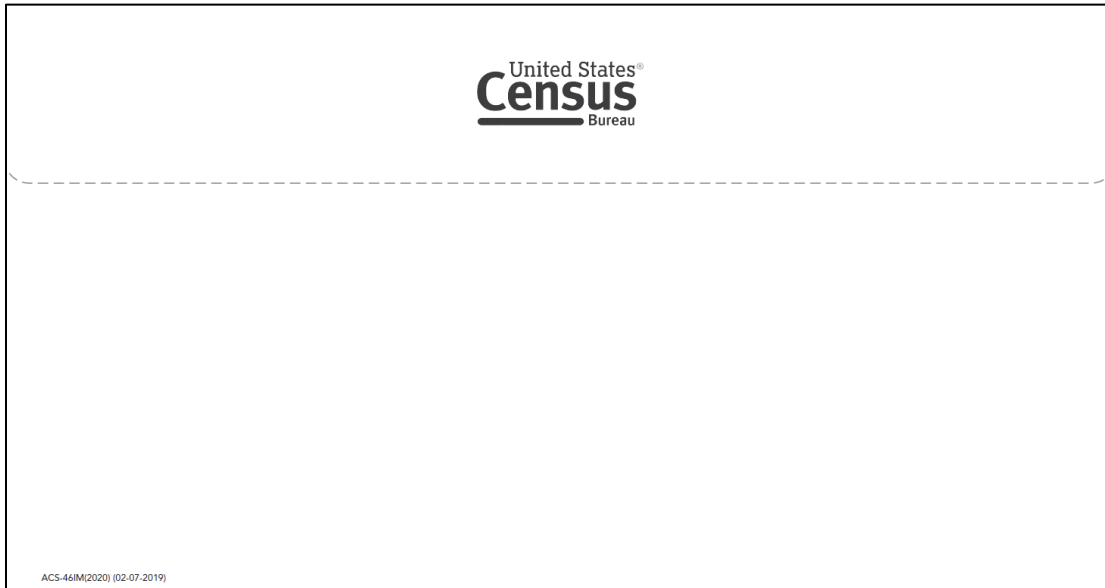


Figure 12. Front of Letter

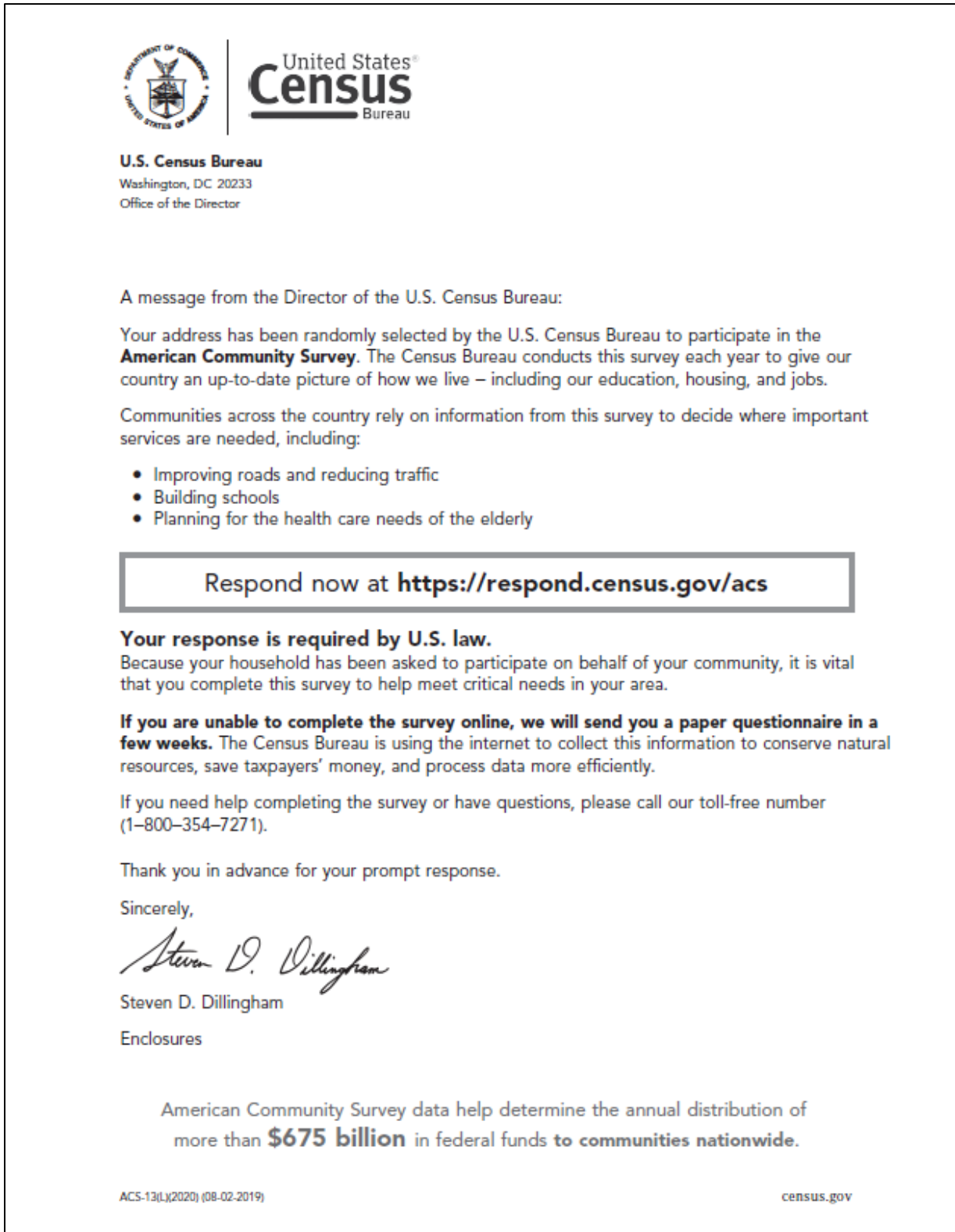


Figure 13. Back of Letter

Will my response be confidential?

Yes. The U.S. Census Bureau is required by law to protect this information. The Census Bureau is not permitted to publicly release your responses in a way that could identify you. We are conducting this survey under the authority of Title 13, United States Code, Sections 141 and 193. Federal law protects your privacy and keeps your answers confidential (Title 13, United States Code, Section 9). Per the Federal Cybersecurity Enhancement Act of 2015, your data are protected from cybersecurity risks through screening of the systems that transmit your data.

Am I required to fill out the survey?

Yes. Your response to this survey is required by law (Title 13, U.S. Code, Sections 141, 193, and 221). Title 13, as changed by Title 18, imposes a penalty for not responding. As a randomly selected representative of your community, you are the voice of your neighbors and peers. To create an accurate picture of your community, it is critical that you respond.

How will the Census Bureau use the information I provide?

By law, the Census Bureau can only use your responses to produce statistics. Your information will be used in combination with information from other households to produce data for your community. Similar data will be produced for communities across Puerto Rico and the United States.

We may combine your answers with information that you gave to other agencies to enhance the statistical uses of these data. This information will be given the same protections as your survey information. Based on the information that you provide, you may be asked to participate in other Census Bureau surveys that are voluntary.

Figure 14. Outside of Multilingual Brochure

The U.S. Census Bureau is conducting the American Community Survey

In a few days you will receive an American Community Survey questionnaire in the mail. Because you are living in the United States, you are required by law to respond to this survey. If you have questions about the form, please call us toll-free at 1-800-354-7271.

What is the American Community Survey?

The American Community Survey is an important survey conducted by the Census Bureau. It is designed to give communities current information about its people and housing. In order to make well-informed decisions, a community needs accurate and reliable information. By responding to this survey, you are helping your community to get this kind of information.

Will my answers to this survey be kept confidential?

Yes. The U.S. Census Bureau is required by law to keep your information confidential. The Census Bureau is not permitted to publicly release your responses in a way that could identify you. Per the Federal Cybersecurity Enhancement Act of 2015, your data are protected from cybersecurity risks through screening of the systems that transmit your data.

La Oficina del Censo de los Estados Unidos está realizando la Encuesta sobre la Comunidad Estadounidense

En unos días, recibirá por correo un cuestionario de la Encuesta sobre la Comunidad Estadounidense. Como usted está viviendo en los Estados Unidos, la ley exige que usted responda a esta encuesta. Si tiene preguntas sobre el cuestionario, llámenos al 1-877-833-5625 para hablar con uno de nuestros empleados que habla español. La llamada es gratis. El empleado podrá contestar sus preguntas o usted podrá completar la encuesta por teléfono.

¿Qué es la Encuesta sobre la Comunidad Estadounidense?

La Encuesta sobre la Comunidad Estadounidense es una encuesta importante realizada por la Oficina del Censo de los Estados Unidos. Está diseñada para brindar información actual a las comunidades sobre las personas y las viviendas. Para poder tomar buenas decisiones, una comunidad necesita información precisa y confiable. Al responder a esta encuesta, usted está ayudando a su comunidad a obtener este tipo de información.

¿Serán confidenciales mis respuestas a esta encuesta?

Sí. La Oficina del Censo de los EE.UU. está obligada por ley a mantener confidencial su información. A la Oficina del Censo no se le permite divulgar sus respuestas de manera que este hogar pudiera ser identificado. En conformidad con la Ley para el Fortalecimiento de la Seguridad Cibernética Federal del 2015, sus datos están protegidos contra los riesgos de seguridad cibernética mediante los controles aplicados a los sistemas que transmiten su información.

Important Information From the U.S. Census Bureau


Información Importante de la Oficina del Censo de los Estados Unidos


美国人口普查局重要通知

Thông tin quan trọng từ Văn phòng Thống kê Dân số Hoa Kỳ

Важная информация от Бюро переписи населения США

미국 인구조사국에서 전해드리는 중요한 정보




Issued 05-31-2019 ACS-9 (2020)

Connect with us @uscensusbureau




Figure 15. Inside of Multilingual Brochure

美国人口普查局正在进行美国社区问卷调查

您将几天内收到一份邮寄的美国社区问卷调查。由于您目前居住在美国，因此根据法律规定，您必须答复此问卷调查。这个调查问卷只有英文版。请拨打我们的免费电话：1-800-638-5945，我们将有会说中文的工作人员回答您的问题，或者您能够在电话上用中文回答调查的问题。

什么是美国社区问卷调查？

美国社区问卷调查由美国人口普查局主持，是一项重要的调查。目的是为了向各个社区提供有关居民和住房方面的最新信息。一个社区要做出明智的决策，需要真实准确的信息。您答复此问卷调查，就是在帮助您在社区获取这样的信息。

我对这次调查的回答，人口普查局是否会保密？

是的。根据法律规定，美国人口普查局将对您的信息保密。人口普查局不得以可识别您的身份的方式公开发布您的回答。依据2015年联邦增强网络安全法案，通过监察传输您资料的系统，来确保您个人资料受到保护，避免网络安全风险。

Văn phòng Thống kê Dân số Hoa Kỳ đang thực hiện cuộc Khảo sát Cộng đồng tại Mỹ.

Trong một vài ngày nữa quý vị sẽ nhận được bản câu hỏi Khảo sát Cộng đồng tại Mỹ qua thư tín. Vì quý vị đang sống ở Hoa Kỳ, nên luật bắt buộc quý vị phải trả lời cuộc khảo sát này. Nếu quý vị có thắc mắc về mẫu đơn, xin gọi chúng tôi theo số điện thoại miễn phí 1-877-221-9436. Bản câu hỏi khảo sát chỉ có bằng tiếng Anh.

Cuộc Khảo sát Cộng đồng tại Mỹ là gì?

Cuộc Khảo sát Cộng đồng tại Mỹ là một cuộc khảo sát quan trọng được Văn phòng Thống kê Dân số Hoa Kỳ thực hiện. Nó được thiết kế để cung cấp cho cộng đồng thông tin hiện tại về người dân và nhà cửa. Nhằm có được những quyết định thực tế có ích lợi trực tiếp cho những nhu cầu của cộng đồng quý vị, những thông tin cần được chính xác và đáng tin cậy. Bằng cách trả lời cuộc khảo sát này, quý vị đang giúp cộng đồng mình lấy được loại thông tin này.

Liệu các câu trả lời khảo sát của tôi có được giữ bí mật không?

Có. Cục Thống kê Dân số Hoa Kỳ được pháp luật yêu cầu bảo mật thông tin của quý vị. Cục Thống kê không được phép công bố công khai các phản hồi của quý vị theo cách có thể nhận diện quý vị. Theo Luật Tăng Cường An Ninh Mạng của Liên Bang 2015, số liệu của quý vị sẽ được bảo vệ để tránh khỏi các nguy cơ về an ninh mạng qua cách kiểm duyệt các hệ thống chuyển số liệu của quý vị.

Бюро переписи населения проводит Анкетирование населения США по месту жительства

Через несколько дней Вы получите по почте анкету Анкетирование населения США по месту жительства. Так как Вы проживаете в США, Вы обязаны в соответствии с законом дать ответы на вопросы данного исследования. Анкета составлена только на английском языке. Позвоните по бесплатному номеру 1-866-225-2297, и Вам ответит русскоговорящий сотрудник. Вы сможете получить ответы на Ваши вопросы и Вам помогут заполнить анкету по телефону.

Что представляет собой Анкетирование населения США по месту жительства?

Анкетирование населения США по месту жительства – это важнейшее исследование, проводимое Бюро переписи населения США. Его цель – обеспечить общество актуальной информацией о населении и жилищных условиях. Для принятия обоснованных решений на местах необходимо иметь точную и достоверную информацию. Отвечая на вопросы данного исследования, Вы помогаете своему району получить такую информацию.

Будет ли сохранена конфиденциальность моих ответов?

Да. По закону Бюро переписи населения США обязано соблюдать конфиденциальность ваших данных. Ему запрещено публично разглашать Ваши ответы таким образом, чтобы по ним можно было установить Вашу личность. Защиту Ваших данных от кибер-рисков регулирует федеральный закон о повышении кибербезопасности от 2015 года, в соответствии с которым регулярно проводится проверка систем передачи данных.

미국 인구조사국에서는 미국 지역사회사를 실시하고 있습니다.

몇 달 안으로 미국 지역사회조사 설문지를 우편으로 받으실 것입니다. 미국에 사시는 모든 분은 법에 의해 이 설문에 응답하셔야 합니다. 설문지는 영어로만 되어 있습니다. 한국어로 설문을 작성하고 싶으시거나 질문이 있으시면, 무료전화 1-800-772-6728로 전화를 주십시오. 한국어 담당직원과

미국 지역사회조사란 무엇인가요?

미국 지역사회조사는 미국 인구조사국에서 시행하는 중요한 설문조사입니다. 이 설문조사는 지역사회 주민들과 주택에 관한 최근 정보를 알려드리고자 계획되었습니다. 지역사회가 정보에 기초한 합리적인 결정을 내리기 위해서 정확하고 믿을 수 있는 정보가 필요합니다. 귀하의 설문응답은 지역사회가 이런 정보를 수집하는 데 도움을 줍니다.

설문조사에 대한 답변은 보호될까요?

네. 미국 인구조사국은 법에 따라 귀하의 정보를 비밀로 유지해야 할 의무가 있습니다. 미국 인구조사국은 귀하가 용담한 정보를 귀하의 신상을 알 수 있는 형태로 일반에 공개할 수 없으며, 2015년 연방 사이버보안강화법에 따라, 귀하의 데이터는 데이터 전송 시스템의 철저한 검사를 통해 사이버 보안의 위협으로부터 보호됩니다.

Figure 16. Front of Instruction Card

United States[®]
Census
Bureau

American Community Survey

Go to <https://respond.census.gov/acs> to complete the American Community Survey online.

(Vea el otro lado para español.)

IMPORTANT: You will need information from the address label on this card to log in. If you need help or have questions about the American Community Survey, call the toll-free number 1-800-354-7271.

Figure 17. Back of Instruction Card

United States[®]
Census
Bureau

American Community Survey

Vaya a <https://respond.census.gov/acs> para completar la Encuesta sobre la Comunidad Estadounidense por Internet en español.


ATENCIÓN: Necesitará información que aparece en la etiqueta en el otro lado de esta tarjeta para iniciar la sesión. Si usted necesita ayuda para llenar la encuesta o tiene preguntas acerca de la Encuesta sobre la Comunidad Estadounidense, llame sin cargo al 1-877-833-5625.

See other side for English.

ACS-34 IM (2-13-2019)

C.2 Mailing 2: Initial Reminder Pressure Seal Letter

Figure 18. Inside of Letter



United States[®]
Census
Bureau

U.S. Census Bureau
Washington, DC 20233
Office of the Director

A message from the Director of the U.S. Census Bureau:

A few days ago, you should have received instructions for completing the **American Community Survey** online. Local communities depend on information from this survey to decide where schools, highways, hospitals, and other important services are needed. If you have not already responded, please do so now.

Respond now at <https://respond.census.gov/acs>
Log in using this user ID:

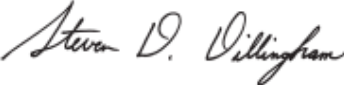
If we do not receive your response online, we will mail a paper questionnaire to your address.

Your response to this survey is required by law.
Your response is critically important to your local community and your country. Responding promptly will prevent you from receiving additional reminder mailings, phone calls, or personal visits from Census Bureau interviewers.

If you need help completing the survey or have questions, please call our toll-free number (1-800-354-7271).

Thank you in advance for your prompt response.

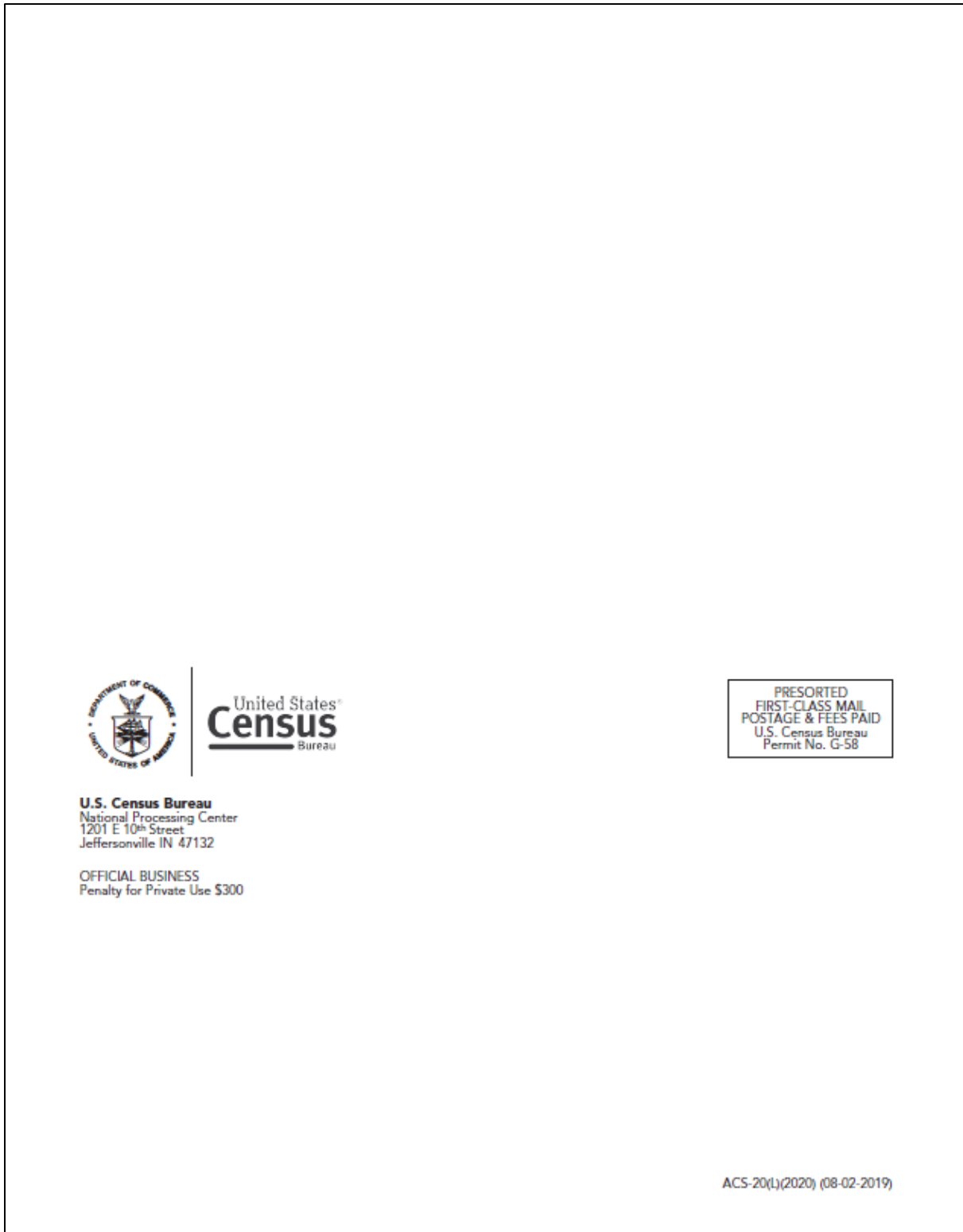
Sincerely,



Steven D. Dillingham

census.gov

Figure 19. Outside of Letter



C.3 Mailing 3: Paper Questionnaire Package

Figure 20. Front of Envelope

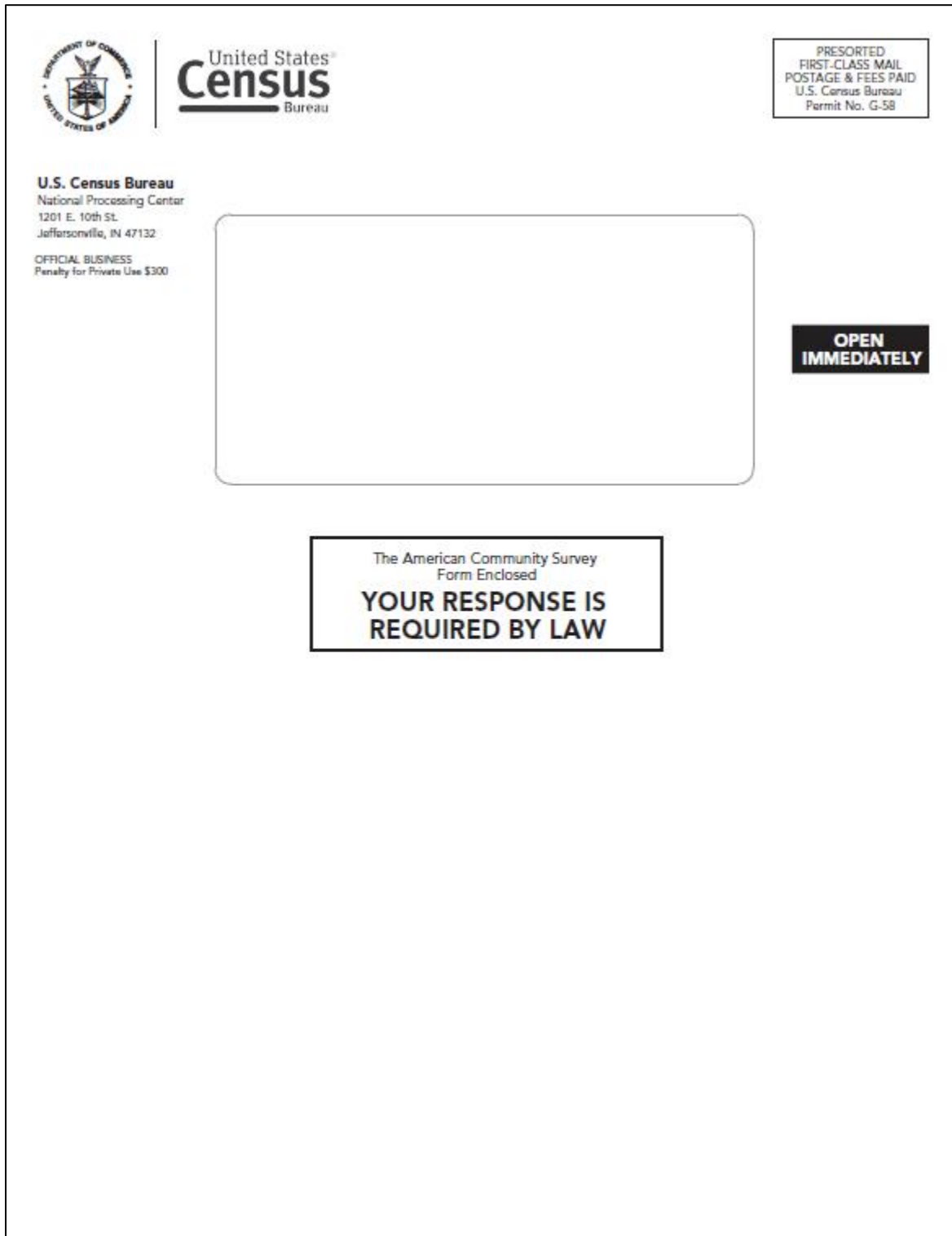


Figure 21. Back of Envelope



Figure 22. Front of Letter

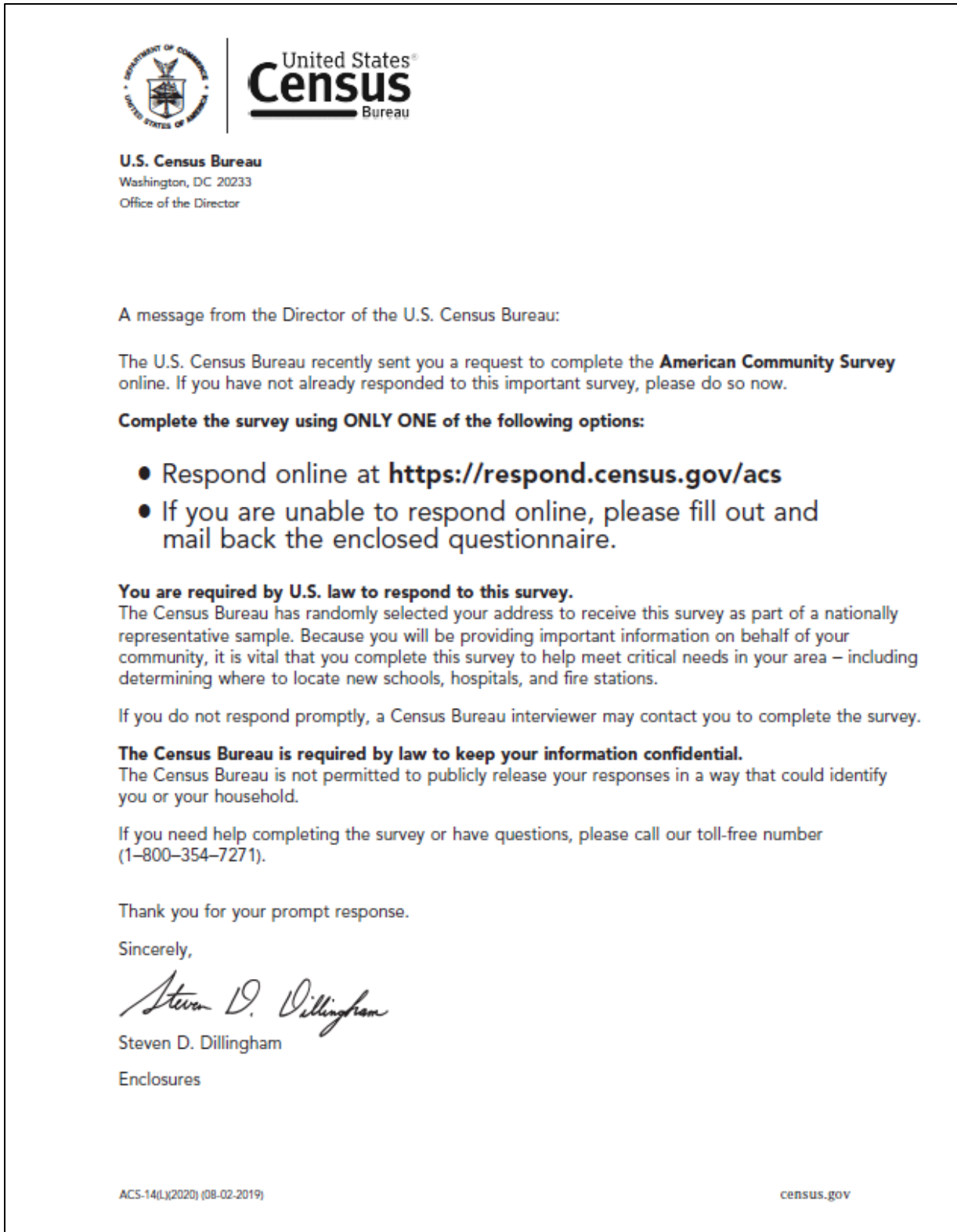


Figure 23. Back of Letter

Will my response be confidential?

Yes. The U.S. Census Bureau is required by law to protect this information. The Census Bureau is not permitted to publicly release your responses in a way that could identify you. We are conducting this survey under the authority of Title 13, United States Code, Sections 141 and 193. Federal law protects your privacy and keeps your answers confidential (Title 13, United States Code, Section 9). Per the Federal Cybersecurity Enhancement Act of 2015, your data are protected from cybersecurity risks through screening of the systems that transmit your data.

Am I required to fill out the survey?

Yes. Your response to this survey is required by law (Title 13, U.S. Code, Sections 141, 193, and 221). Title 13, as changed by Title 18, imposes a penalty for not responding. As a randomly selected representative of your community, you are the voice of your neighbors and peers. To create an accurate picture of your community, it is critical that you respond.


How will the Census Bureau use the information I provide?

By law, the Census Bureau can only use your responses to produce statistics. Your information will be used in combination with information from other households to produce data for your community. Similar data will be produced for communities across Puerto Rico and the United States.

We may combine your answers with information that you gave to other agencies to enhance the statistical uses of these data. This information will be given the same protections as your survey information. Based on the information that you provide, you may be asked to participate in other Census Bureau surveys that are voluntary.

Figure 24. Front Cover of ACS Questionnaire


13190012



The American Community Survey


Start Here

You have two ways to respond:



Respond online today at:
<https://respond.census.gov/acs>


OR



Complete this form and mail it back as soon as possible.

Your response is required by law.

The American Community Survey is conducted by the U.S. Census Bureau. This survey is one of only a few surveys for which all recipients are required by law to respond. The U.S. Census Bureau is required by law to protect your information.



If you need help or have questions about completing this form, please call 1-800-354-7271.

Telephone Device for the Deaf (TDD):
Call 1-800-582-8330.

¿NECESITA AYUDA? Llame sin cargo alguno al 1-877-833-5625.

For more information about the American Community Survey, visit our website at: <https://www.census.gov/acs>

➔ Please print the name and telephone number of the person who is filling out this form. We will only contact you if needed for official Census Bureau business.

Last Name

First Name MI

Area Code + Number -

➔ How many people are living or staying at this address?

- INCLUDE** everyone who is living or staying here for more than 2 months.
- INCLUDE** yourself if you are living here for more than 2 months.
- INCLUDE** anyone else staying here who does not have another place to stay, even if they are here for 2 months or less.
- DO NOT INCLUDE** anyone who is living somewhere else for more than 2 months, such as a college student living away or someone in the Armed Forces on deployment.

Number of people

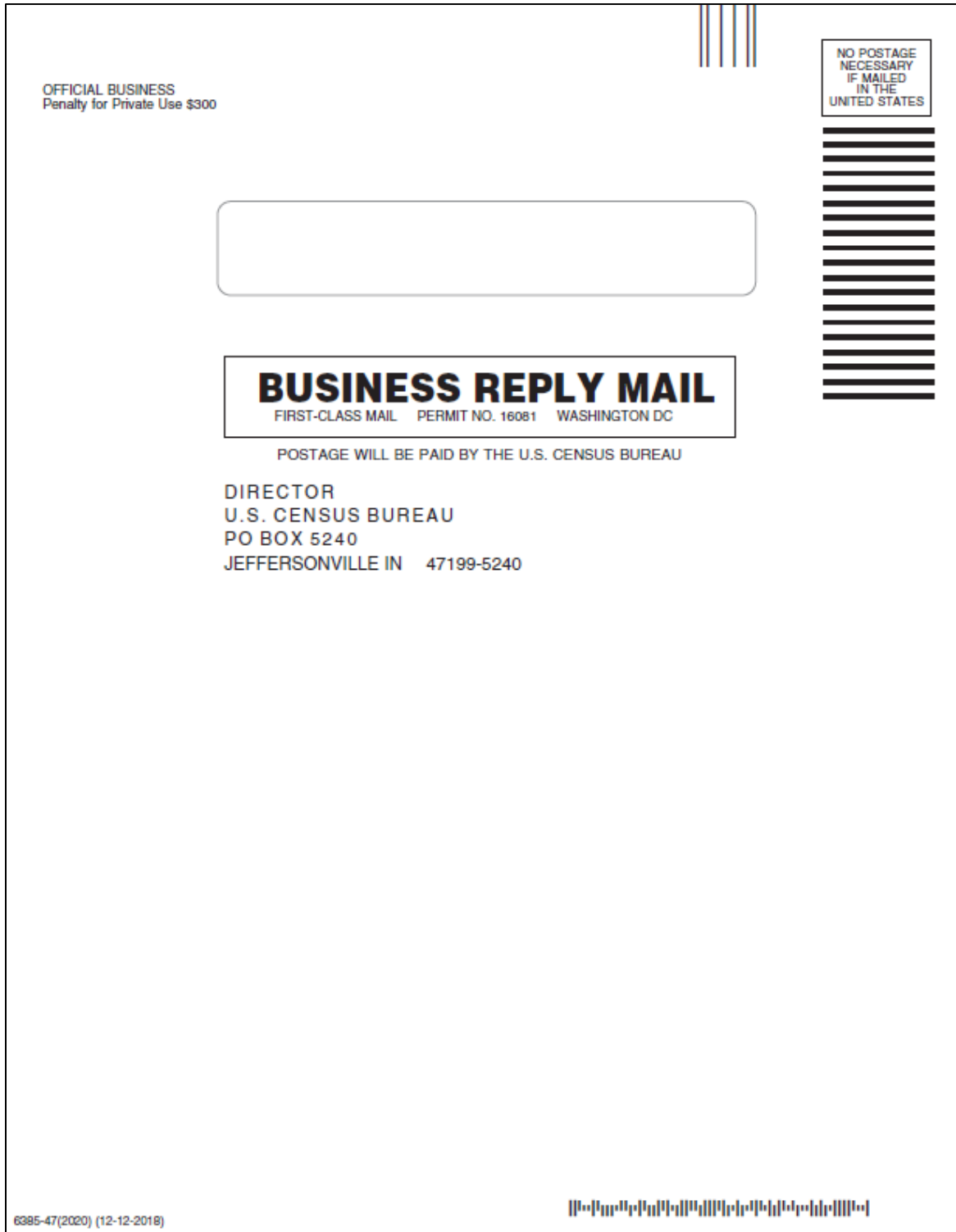
➔ Fill out pages 2 – 7 for everyone, including yourself, who is living or staying at this address for more than 2 months. Then complete the rest of the form.

FORM **ACS-1(2020)**
(07-13-2019)

OMB No. 0607-0810
OMB No. 0607-0936



Figure 25. Front of Business Reply Envelope



C.4 Mailing 4: Reminder Postcard

This postcard was not sent to the March panel due to the COVID-19 pandemic.

Figure 26. Front of Postcard

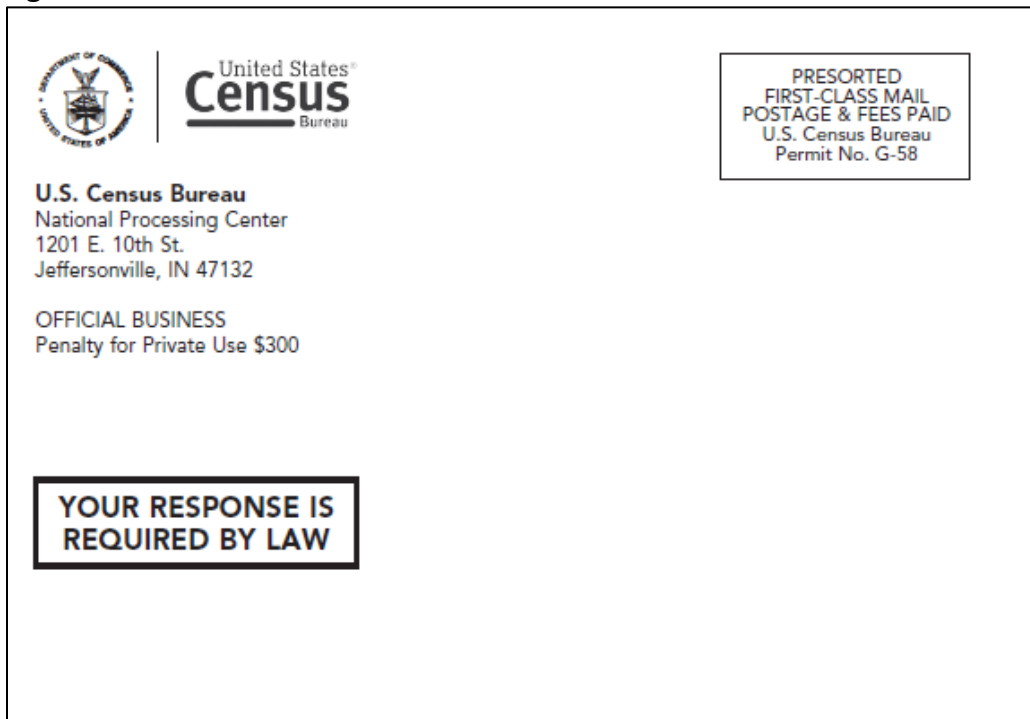
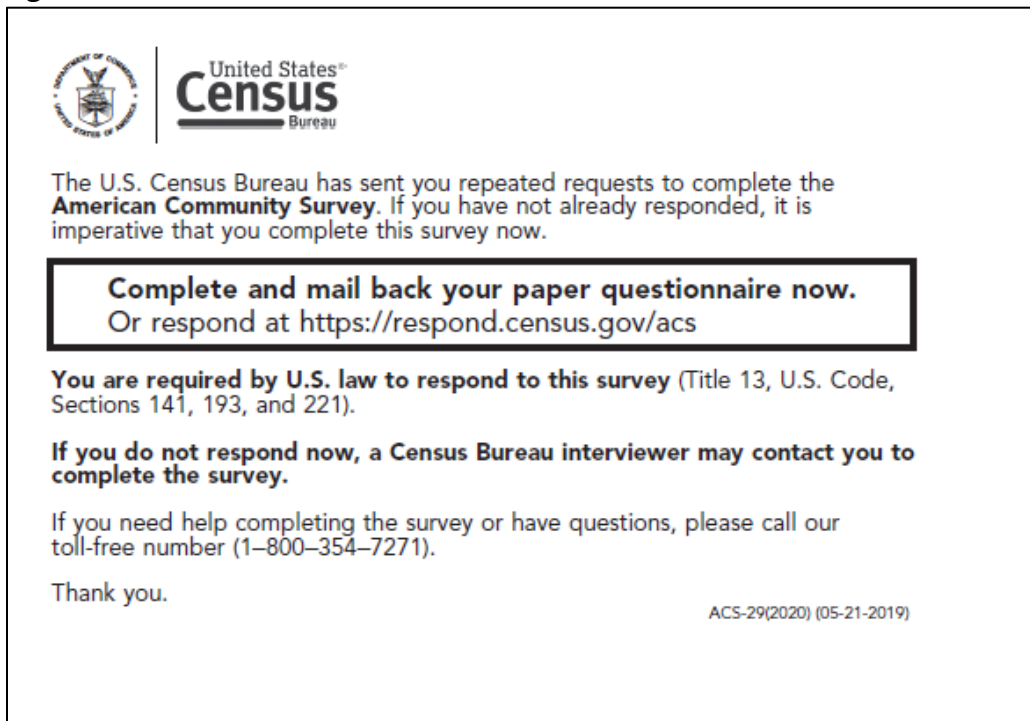


Figure 27. Back of Postcard



C.5 Mailing 5: Final Reminder Pressure Seal Letter

This letter was not sent to the March panel due to the COVID-19 pandemic.

Figure 28. Inside of Letter

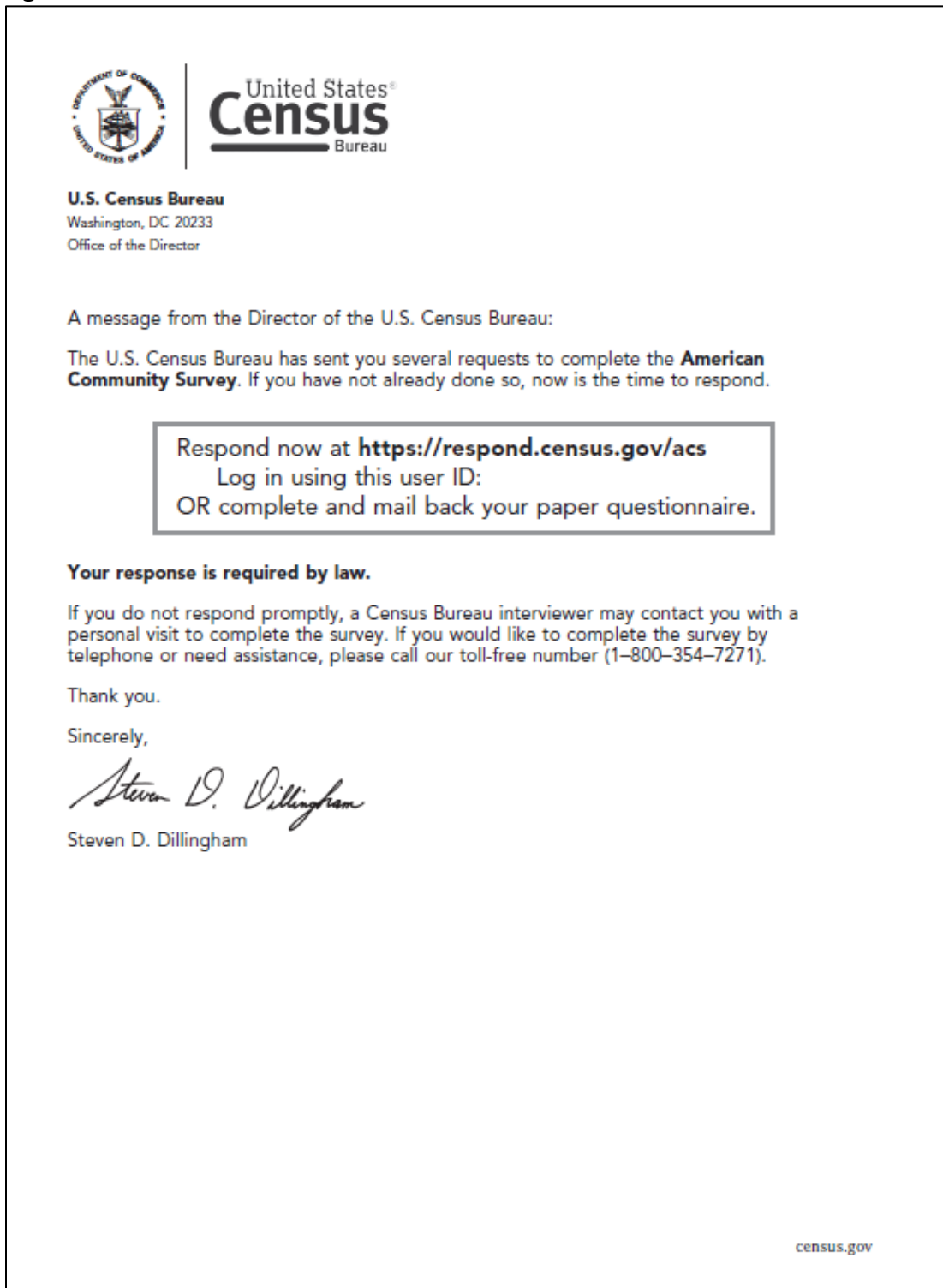
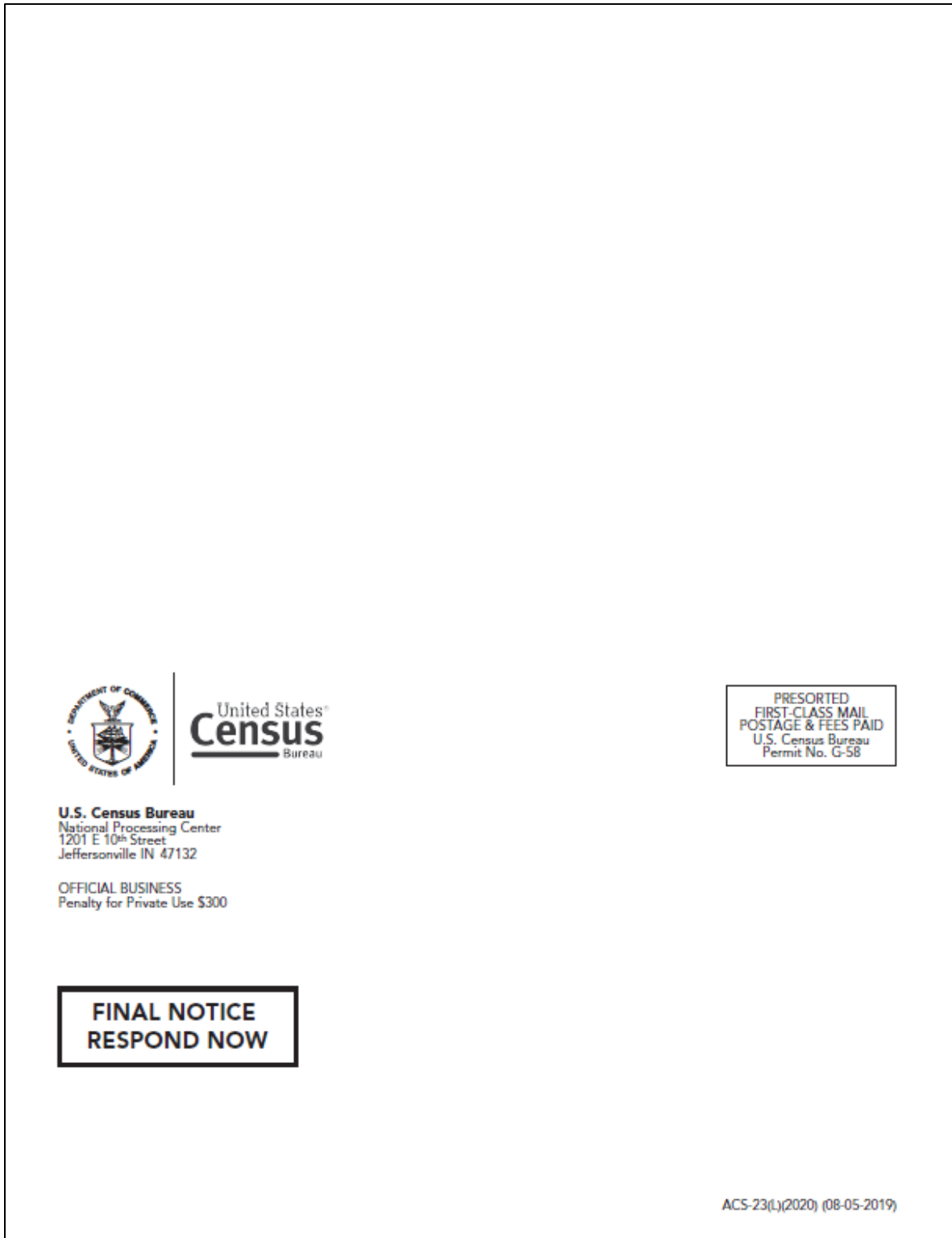


Figure 29. Outside of Letter



Appendix D. Images of the 2020 ACS Specialized Mail Materials

D.1 Mailing 1: Initial Mail Package

Figure 30. Front of Envelope

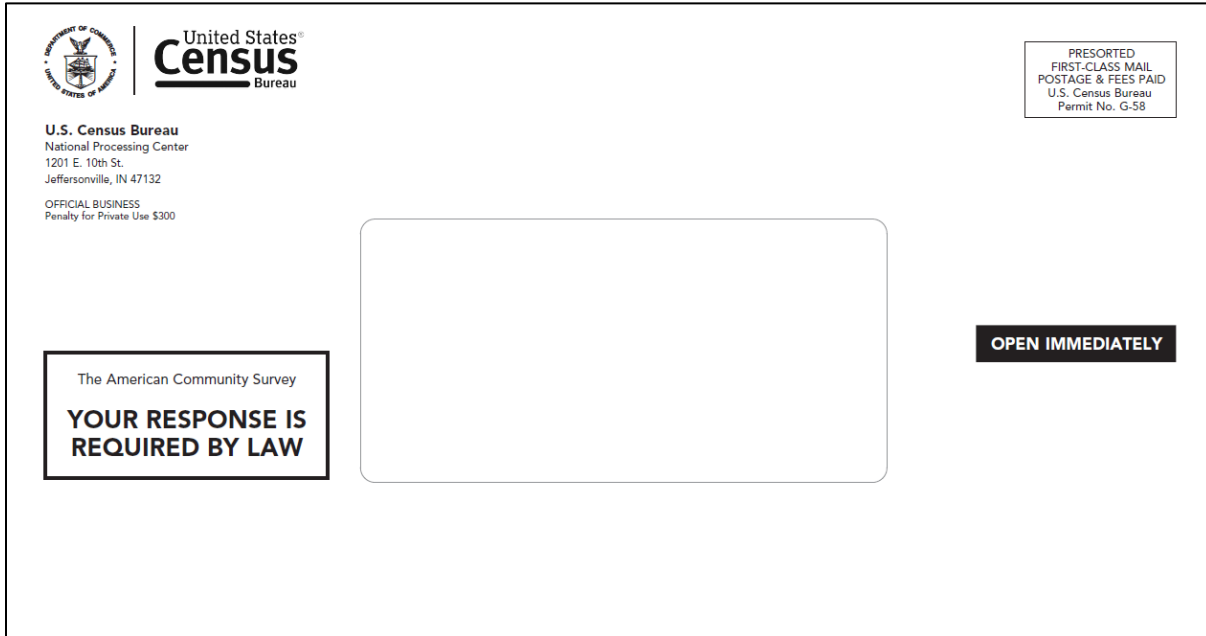


Figure 31. Back of Envelope

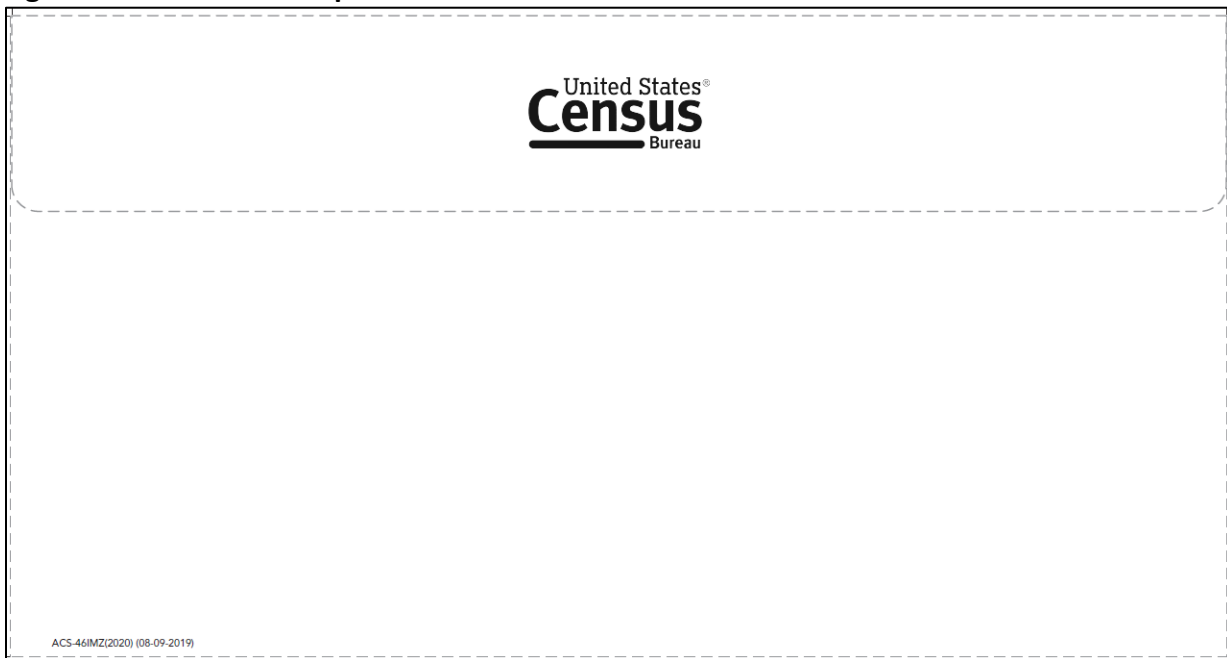


Figure 32. Front of Letter

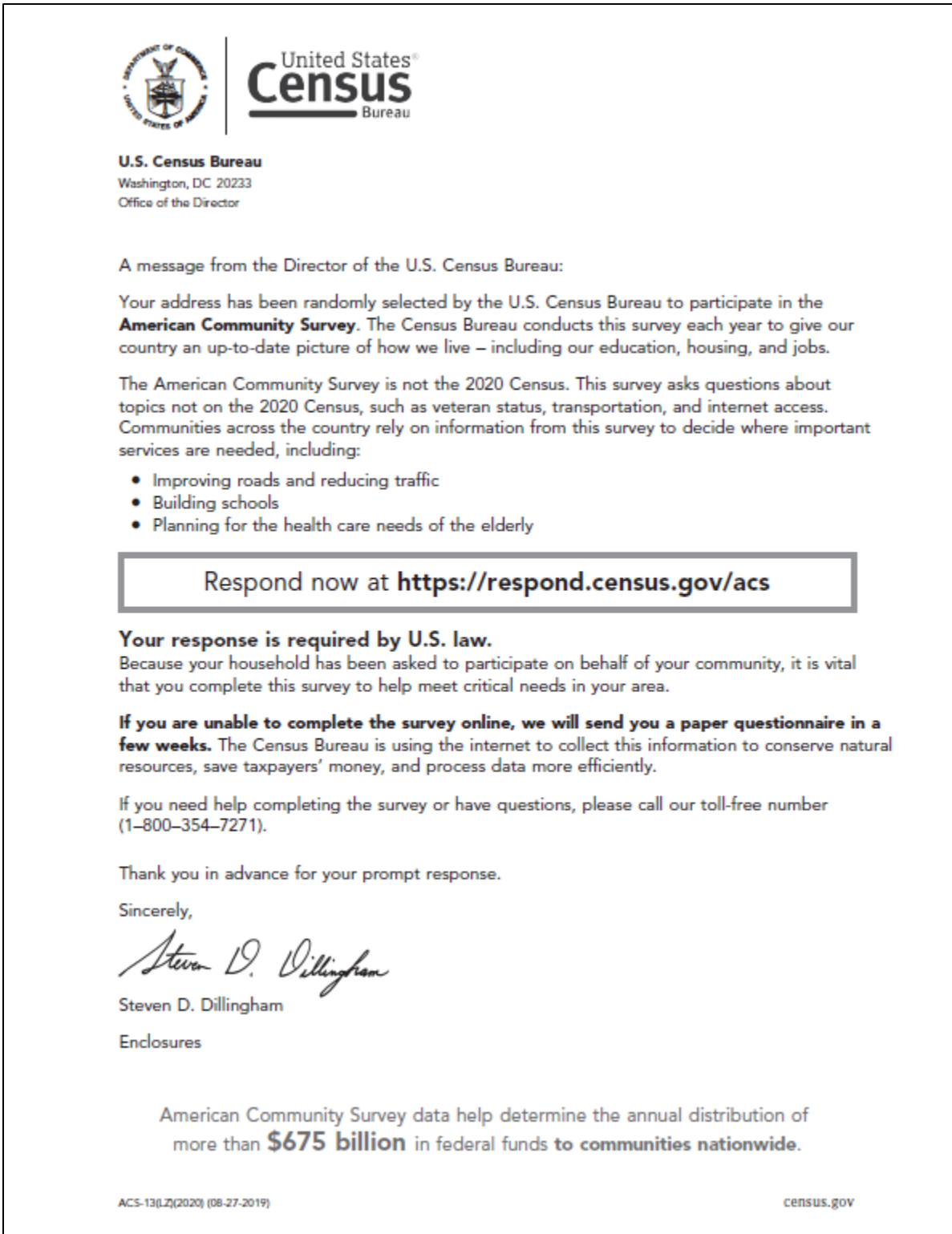


Figure 33. Back of Letter

Is the American Community Survey the same as the 2020 Census?

No, the American Community Survey (ACS) is different from the 2020 Census.

The ACS shows how we live—our education, housing, jobs, and more. The ACS provides information about the social and economic needs of your community every year.

The census is conducted once every 10 years to provide an official count of the entire U.S. population to Congress.

Can you use my 2020 Census answers for the American Community Survey?

Your answers to the 2020 Census cannot be used for the American Community Survey (ACS). The ACS includes questions about topics not on the 2020 Census, such as education, employment, internet access, and transportation.

Will my response be confidential?

Yes. The U.S. Census Bureau is required by law to protect this information. The Census Bureau is not permitted to publicly release your responses in a way that could identify you. We are conducting this survey under the authority of Title 13, United States Code, Sections 141 and 193. Federal law protects your privacy and keeps your answers confidential (Title 13, United States Code, Section 9). Per the Federal Cybersecurity Enhancement Act of 2015, your data are protected from cybersecurity risks through screening of the systems that transmit your data.

Am I required to fill out the survey?

Yes. Your response to this survey is required by law (Title 13, U.S. Code, Sections 141, 193, and 221). Title 13, as changed by Title 18, imposes a penalty for not responding. As a randomly selected representative of your community, you are the voice of your neighbors and peers. To create an accurate picture of your community, it is critical that you respond.

How will the Census Bureau use the information I provide?

By law, the Census Bureau can only use your responses to produce statistics. Your information will be used in combination with information from other households to produce data for your community. Similar data will be produced for communities across Puerto Rico and the United States.

We may combine your answers with information that you gave to other agencies to enhance the statistical uses of these data. This information will be given the same protections as your survey information. Based on the information that you provide, you may be asked to participate in other Census Bureau surveys that are voluntary.

Figure 34. Outside of Multilingual Brochure

The U.S. Census Bureau is conducting the American Community Survey

In a few days you will receive an American Community Survey questionnaire in the mail. Because you are living in the United States, you are required by law to respond to this survey. If you have questions about the form, please call us toll-free at 1-800-354-7271.

What is the American Community Survey?

The American Community Survey is an important survey conducted by the Census Bureau. It is designed to give communities current information about its people and housing. In order to make well-informed decisions, a community needs accurate and reliable information. By responding to this survey, you are helping your community to get this kind of information.

Will my answers to this survey be kept confidential?

Yes. The U.S. Census Bureau is required by law to keep your information confidential. The Census Bureau is not permitted to publicly release your responses in a way that could identify you. Per the Federal Cybersecurity Enhancement Act of 2015, your data are protected from cybersecurity risks through screening of the systems that transmit your data.

La Oficina del Censo de los Estados Unidos está realizando la Encuesta sobre la Comunidad Estadounidense

En unos días, recibirá por correo un cuestionario de la Encuesta sobre la Comunidad Estadounidense. Como usted está viviendo en los Estados Unidos, la ley exige que usted responda a esta encuesta. Si tiene preguntas sobre el cuestionario, llámenos al 1-877-833-5625 para hablar con uno de nuestros empleados que habla español. La llamada es gratis. El empleado podrá contestar sus preguntas o usted podrá completar la encuesta por teléfono.

¿Qué es la Encuesta sobre la Comunidad Estadounidense?

La Encuesta sobre la Comunidad Estadounidense es una encuesta importante realizada por la Oficina del Censo de los Estados Unidos. Está diseñada para brindar información actual a las comunidades sobre las personas y las viviendas. Para poder tomar buenas decisiones, una comunidad necesita información precisa y confiable. Al responder a esta encuesta, usted está ayudando a su comunidad a obtener este tipo de información.

¿Serán confidenciales mis respuestas a esta encuesta?

Sí. La Oficina del Censo de los EE.UU. está obligada por ley a mantener confidencial su información. A la Oficina del Censo no se le permite divulgar sus respuestas de manera que este hogar pudiera ser identificado. En conformidad con la Ley para el Fortalecimiento de la Seguridad Cibernética Federal del 2015, sus datos están protegidos contra los riesgos de seguridad cibernética mediante los controles aplicados a los sistemas que transmiten su información.

Important Information From the U.S. Census Bureau

Información Importante de la Oficina del Censo de los Estados Unidos

美国人口普查局重要通知

Thông tin quan trọng từ Văn phòng Thống kê Dân số Hoa Kỳ

Важная информация от Бюро переписи населения США

미국 인구조사국에서 전해드리는 중요한 정보









Issued 05-11-2019 ACS-9 (2010)
Connect with us @uscensusbureau

Figure 35. Inside of Multilingual Brochure

美国人口普查局正在进行美国社区问卷调查

您将在几天内收到一份邮寄的美国社区问卷调查。由于您目前居住在美国，因此根据法律规定，您必须答复此问卷调查。这个调查问卷只有英文版。请拨打我们的免费电话：1-800-638-5945，我们将有会说中文的工作人员回答您的问题，或者您能够在电话上用中文回答调查的问题。

什么是美国社区问卷调查？

美国社区问卷调查由美国人口普查局主持，是一项重要的调查。目的是为了向各个社区提供有关居民和住房方面的最新信息。一个社区要做出明智的决策，需要真实准确的信息。您答复此问卷调查，就是在帮助您所在社区获取这样的信息。

我对这次调查的回答，人口普查局是否会保密？

是的。根据法律规定，美国人口普查局将对您的信息保密。人口普查局不得以可识别您的身份的方式公开发布您的回复。依据2015年联邦增强网络安全法案，通过监察传输您资料的系统，来确保您个人资料受到保护，避免网络安全风险。

Văn phòng Thống kê Dân số Hoa Kỳ đang thực hiện cuộc Khảo sát Cộng đồng tại Mỹ.

Trong một vài ngày nữa quý vị sẽ nhận được bản câu hỏi Khảo sát Cộng đồng tại Mỹ qua thư tin. Vì quý vị đang sống ở Hoa Kỳ, nên luật bắt buộc quý vị phải trả lời cuộc khảo sát này. Nếu quý vị có thắc mắc về mẫu đơn, xin gọi chúng tôi theo số điện thoại miễn phí 1-877-221-9436. Bản câu hỏi khảo sát chỉ có bằng tiếng Anh.

Cuộc Khảo sát Cộng đồng tại Mỹ là gì?

Cuộc Khảo sát Cộng đồng tại Mỹ là một cuộc khảo sát quan trọng được Văn phòng Thống kê Dân số Hoa Kỳ thực hiện. Nó được thiết kế để cung cấp cho cộng đồng thông tin hiện tại về người dân và nhà của. Nhằm có được những quyết định thực tế thì có ích lợi trực tiếp cho những nhu cầu của cộng đồng quý vị, những thông tin cần được chính xác và đáng tin cậy. Bằng cách trả lời cuộc khảo sát này, quý vị đang giúp cộng đồng mình lấy được loại thông tin này.

Liệu các câu trả lời khảo sát của tôi có được giữ bí mật không?

Có. Cục Thống kê Dân số Hoa Kỳ được pháp luật yêu cầu bảo mật thông tin của quý vị. Cục Thống kê không được phép công bố công khai các phần hỏi của quý vị theo cách có thể nhận diện quý vị. Theo Luật Tăng Cường An Ninh Mạng của Liên Bang 2015, số liệu của quý vị sẽ được bảo vệ để tránh khỏi các nguy cơ về an ninh mạng qua cách kiểm duyệt các hệ thống chuyển số liệu của quý vị.

Бюро переписи населения проводит Анкетирование населения США по месту жительства

Через несколько дней Вы получите по почте анкету Анкетирование населения США по месту жительства. Так как Вы проживаете в США, Вы обязаны в соответствии с законом дать ответы на вопросы данного исследования. Анкета составлена только на английском языке. Позвоните по бесплатному номеру 1-866-225-2297, и Вы сможете получить ответы на Ваши вопросы и Вам помогут заполнить анкету по телефону.

Что представляет собой Анкетирование населения США по месту жительства?

Анкетирование населения США по месту жительства – это важнейшее исследование, проводимое Бюро переписи населения США. Его цель – обеспечить общество актуальной информацией о населении и жилищных условиях. Для принятия обоснованных решений на местах необходимо иметь точную и достоверную информацию. Отвечая на вопросы данного исследования, Вы помогаете своему району получить такую информацию.

Будет ли сохранена конфиденциальность моих ответов?

Да. По закону Бюро переписи населения США обязано соблюдать конфиденциальность ваших данных. Ему запрещено публично разглашать Ваши ответы таким образом, чтобы по ним можно было установить Вашу личность. Защите Ваших данных от кибер-рисков регулирует федеральный закон «О повышении кибербезопасности» от 2015 года, в соответствии с которым регулярно проводится проверка систем передачи данных.

미국 인구조사국에서는 미국 지역사회조사를 실시하고 있습니다.

몇칠 안으로 미국 지역사회조사 설문지를 우편으로 받으실 것 입니다. 미국에 사시는 모든 분은 법에 의해 이 설문에 응답하셔야 합니다. 설문지는 영어로만 되어 있습니다. 한국어로 설문을 작성하고 싶으시거나 질문이 있으시면, 무료전화 1-800-772-6728로 전화를 주십시오. 한국어 담당직원과

미국 지역사회조사란 무엇인가요?

미국 지역사회조사는 미국 인구조사국에서 시행하는 중요한 설문조사입니다. 이 설문조사는 지역사회 주민들과 주택에 관한 최근 정보를 알려드리고자 계획되었습니다. 지역사회가 정보에 기초한 합리적인 결정을 내리기 위해서 정확하고 믿을 수 있는 정보가 필요합니다. 귀하의 설문응답은 지역사회가 이런 정보를 수집하는 데 도움을 줍니다.

설문조사에 대한 답변은 보호받을까요?

네, 미국 인구조사국은 법에 따라 귀하의 정보를 비밀로 유지해야 할 의무가 있습니다. 미국 인구조사국은 귀하가 응답한 정보를 귀하의 신상을 알 수 있는 형태로 일반에 공개할 수 없으며, 2015년 연방 사이버보안강화법에 따라, 귀하의 데이터는 데이터 전송 시스템의 철저한 검사를 통해 사이버 보안의 위험으로부터 보호됩니다.

D.2 Mailing 2: Initial Reminder Pressure Seal Letter

Figure 36. Inside of Letter

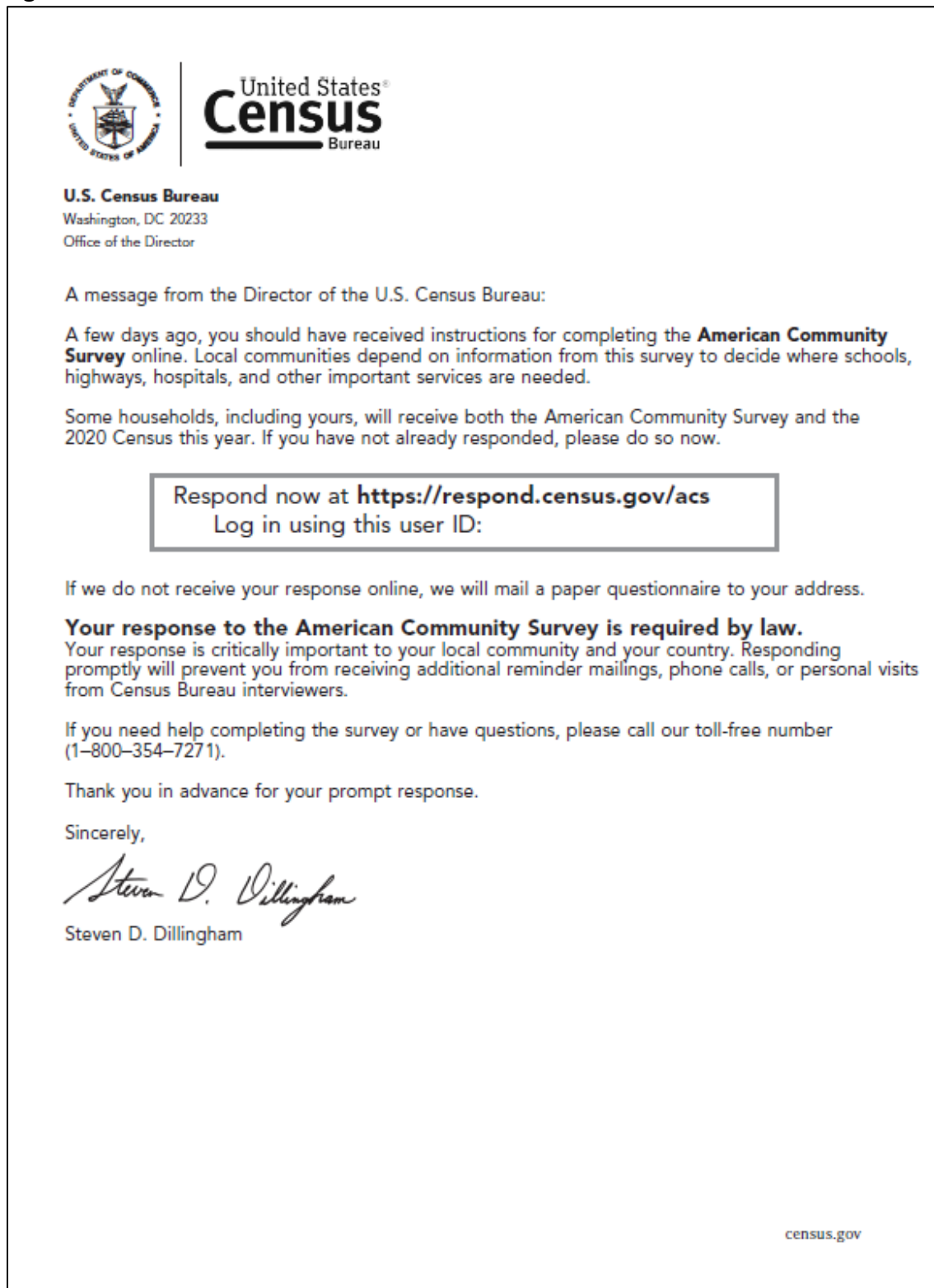
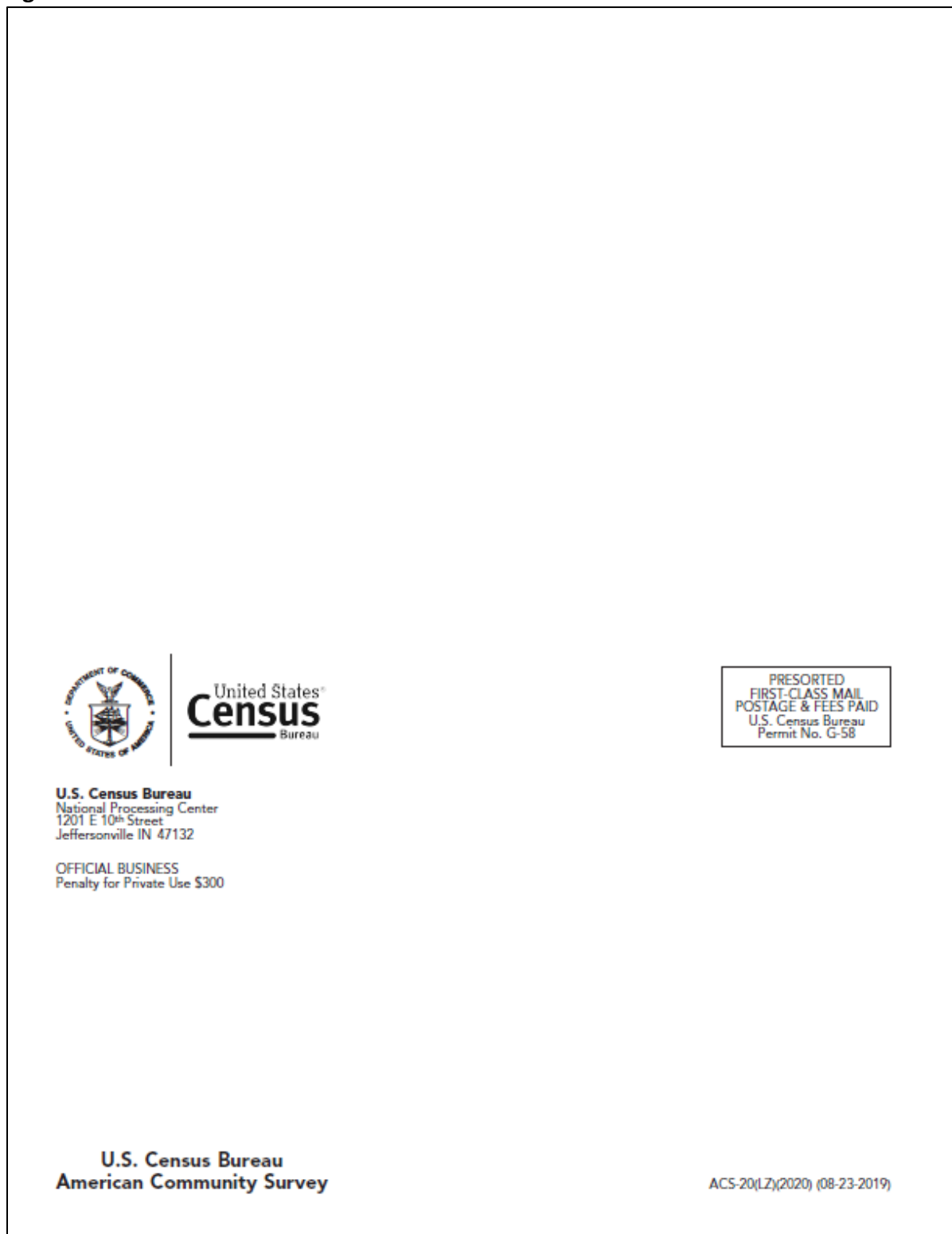


Figure 37. Outside of Letter



D.3 Mailing 3: Paper Questionnaire Package

Figure 38. Front of Envelope

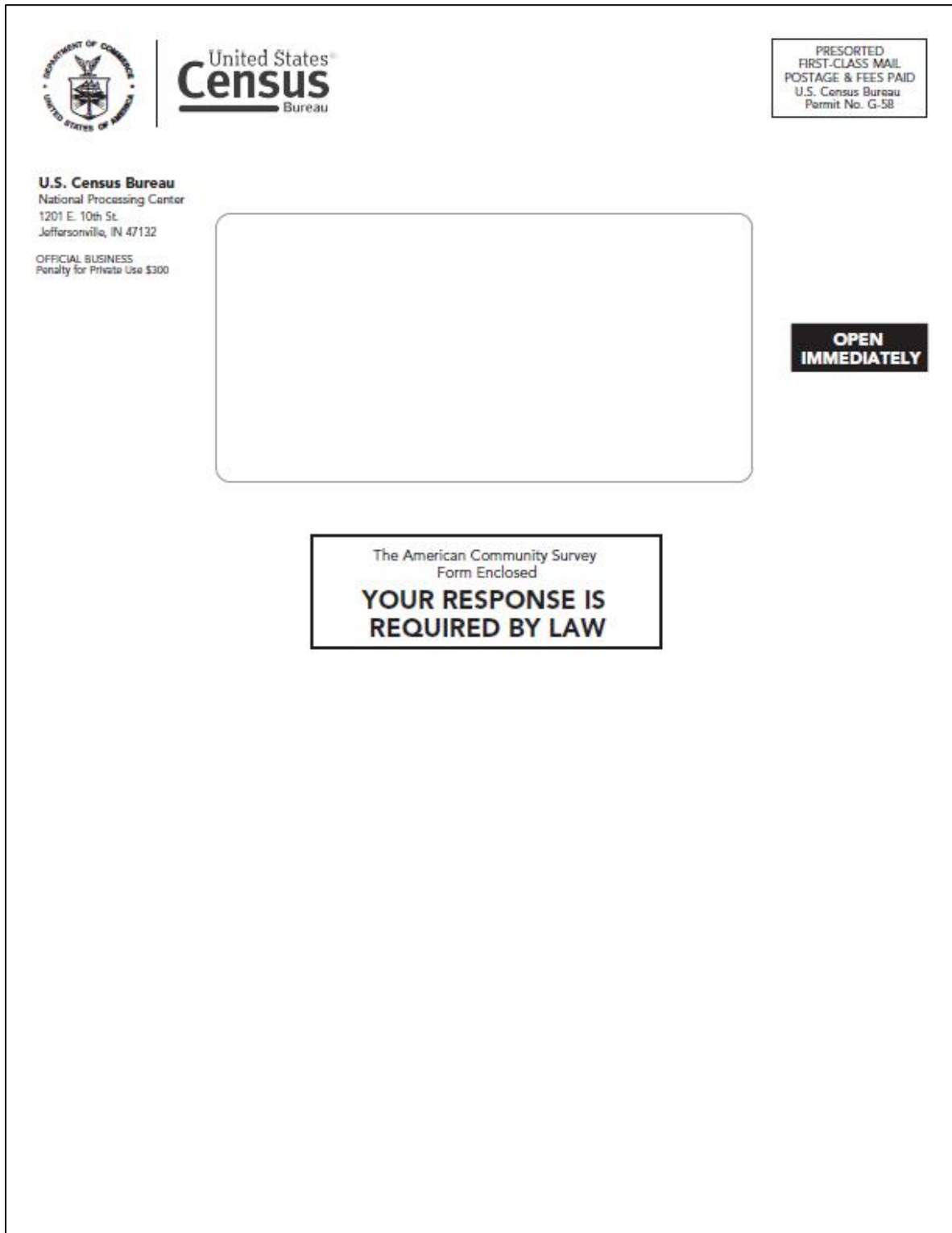


Figure 39. Back of Envelope

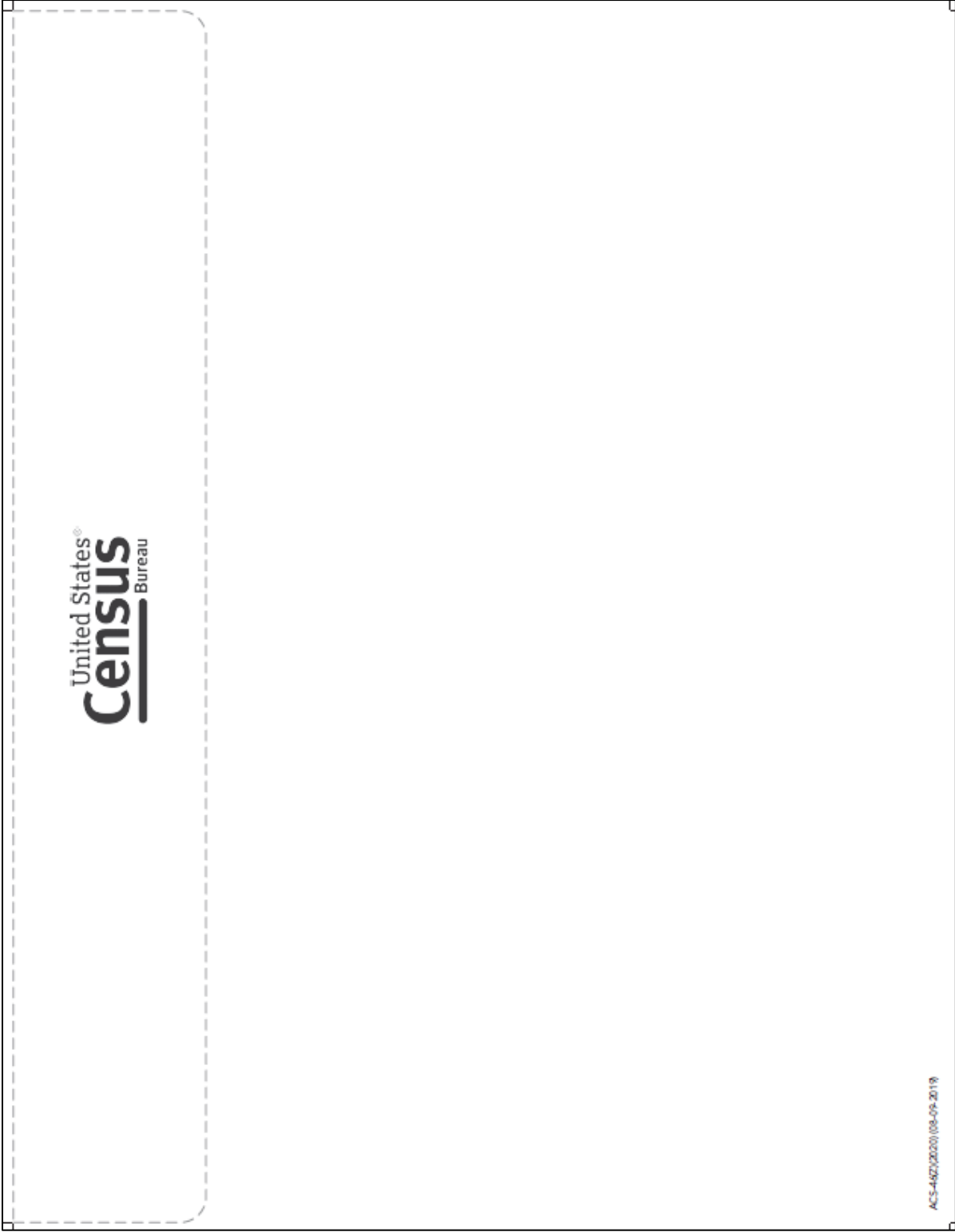


Figure 40. Front of Letter

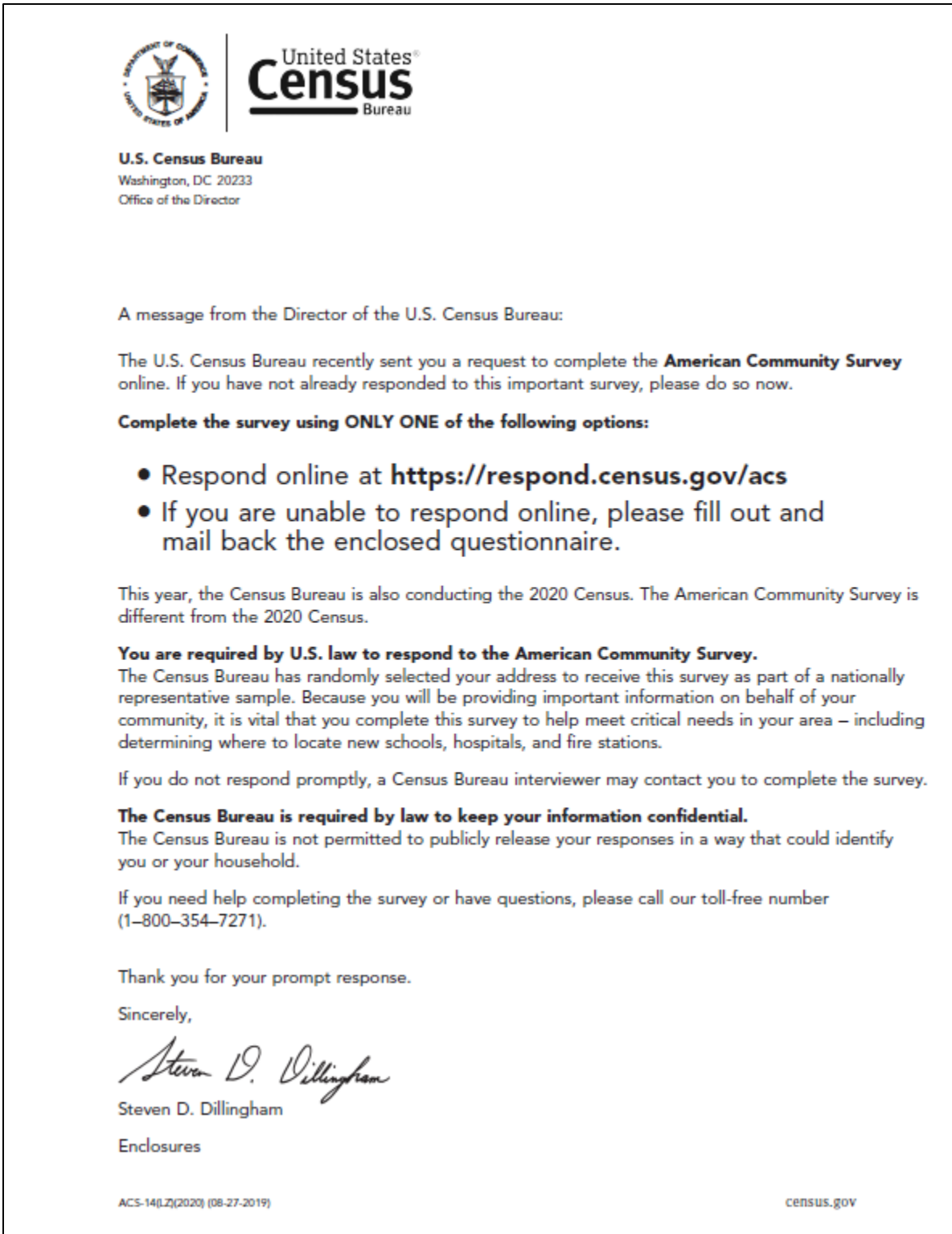


Figure 41. Back of Letter

Is the American Community Survey the same as the 2020 Census?

No, the American Community Survey (ACS) is different from the 2020 Census.

The ACS shows how we live—our education, housing, jobs, and more. The ACS provides information about the social and economic needs of your community every year.

The census is conducted once every 10 years to provide an official count of the entire U.S. population to Congress.

Can you use my 2020 Census answers for the American Community Survey?

Your answers to the 2020 Census cannot be used for the American Community Survey (ACS). The ACS includes questions about topics not on the 2020 Census, such as education, employment, internet access, and transportation.

Will my response be confidential?

Yes. The U.S. Census Bureau is required by law to protect this information. The Census Bureau is not permitted to publicly release your responses in a way that could identify you. We are conducting this survey under the authority of Title 13, United States Code, Sections 141 and 193. Federal law protects your privacy and keeps your answers confidential (Title 13, United States Code, Section 9). Per the Federal Cybersecurity Enhancement Act of 2015, your data are protected from cybersecurity risks through screening of the systems that transmit your data.

Am I required to fill out the survey?

Yes. Your response to this survey is required by law (Title 13, U.S. Code, Sections 141, 193, and 221). Title 13, as changed by Title 18, imposes a penalty for not responding. As a randomly selected representative of your community, you are the voice of your neighbors and peers. To create an accurate picture of your community, it is critical that you respond.


How will the Census Bureau use the information I provide?

By law, the Census Bureau can only use your responses to produce statistics. Your information will be used in combination with information from other households to produce data for your community. Similar data will be produced for communities across Puerto Rico and the United States.

We may combine your answers with information that you gave to other agencies to enhance the statistical uses of these data. This information will be given the same protections as your survey information. Based on the information that you provide, you may be asked to participate in other Census Bureau surveys that are voluntary.

Figure 42. Front Cover of ACS Questionnaire

13190012




United States
Census
Bureau

The American Community Survey


Start Here

You have two ways to respond:



Respond online today at:
<https://respond.census.gov/acs>

OR



Complete this form and mail it back as soon as possible.

➔ Please print the name and telephone number of the person who is filling out this form. We will only contact you if needed for official Census Bureau business.

Last Name

First Name MI

Area Code + Number -

➔ How many people are living or staying at this address?

- **INCLUDE** everyone who is living or staying here for more than 2 months.
- **INCLUDE** yourself if you are living here for more than 2 months.
- **INCLUDE** anyone else staying here who does not have another place to stay, even if they are here for 2 months or less.
- **DO NOT INCLUDE** anyone who is living somewhere else for more than 2 months, such as a college student living away or someone in the Armed Forces on deployment.

Number of people

➔ Fill out pages 2 – 7 for everyone, including yourself, who is living or staying at this address for more than 2 months. Then complete the rest of the form.

If you need help or have questions about completing this form, please call 1-800-354-7271.

Telephone Device for the Deaf (TDD):
Call 1-800-582-8330.

¿NECESITA AYUDA? Llame sin cargo alguno al 1-877-833-5625.

For more information about the American Community Survey, visit our website at: <https://www.census.gov/acs>

FORM **ACS-1(2020)**
(07-13-2019)

OMB No. 0607-0810
OMB No. 0607-0936


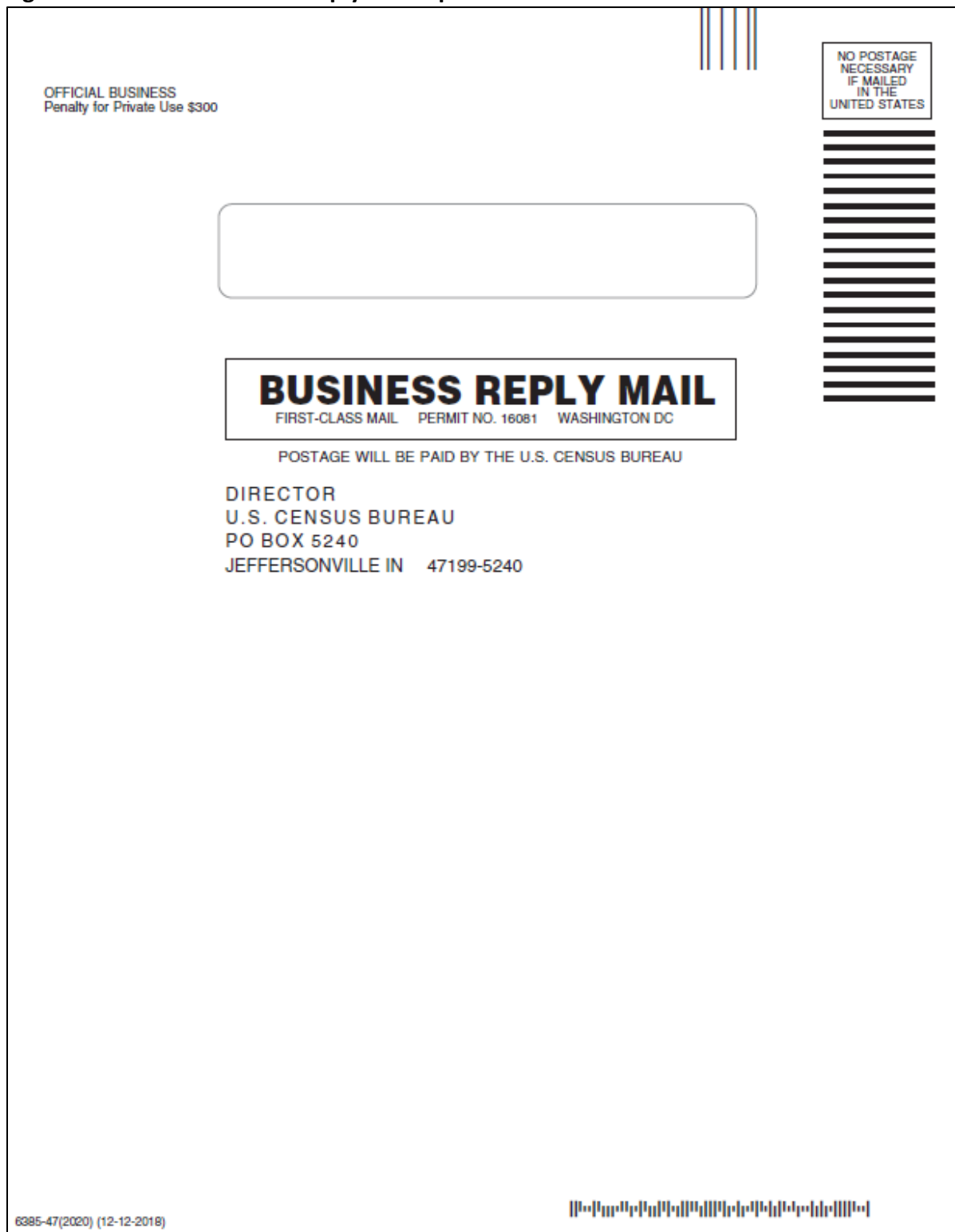


Figure 43. Front of Business Reply Envelope



D.4 Mailing 4: Reminder Postcard

This postcard is the same as the one in the Baseline materials. It was not sent to the March panel due to the COVID-19 pandemic.

Figure 44. Front of Postcard

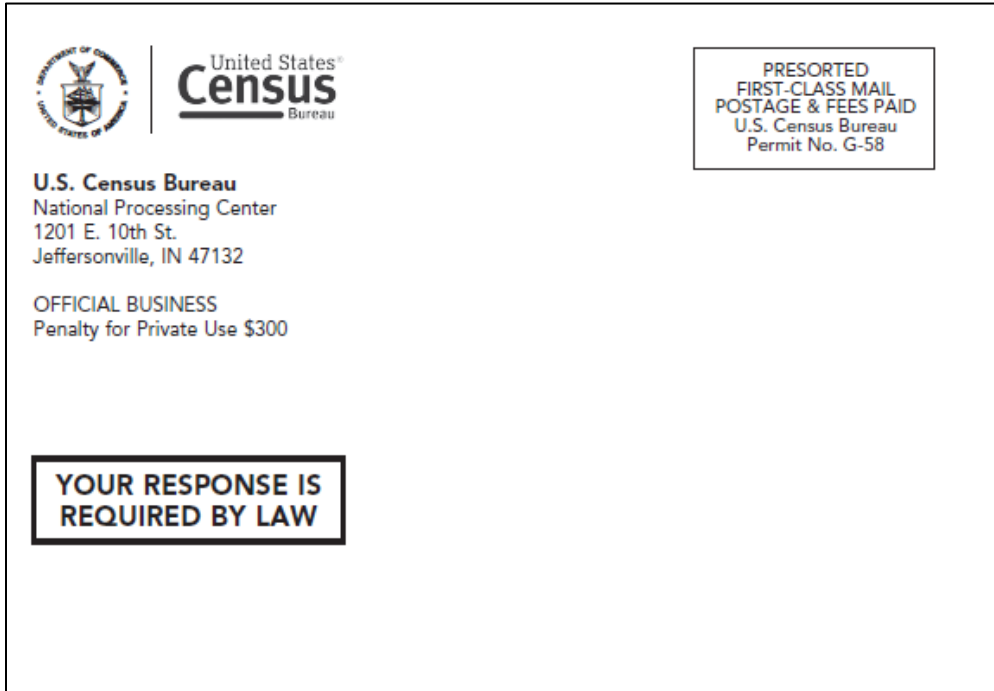
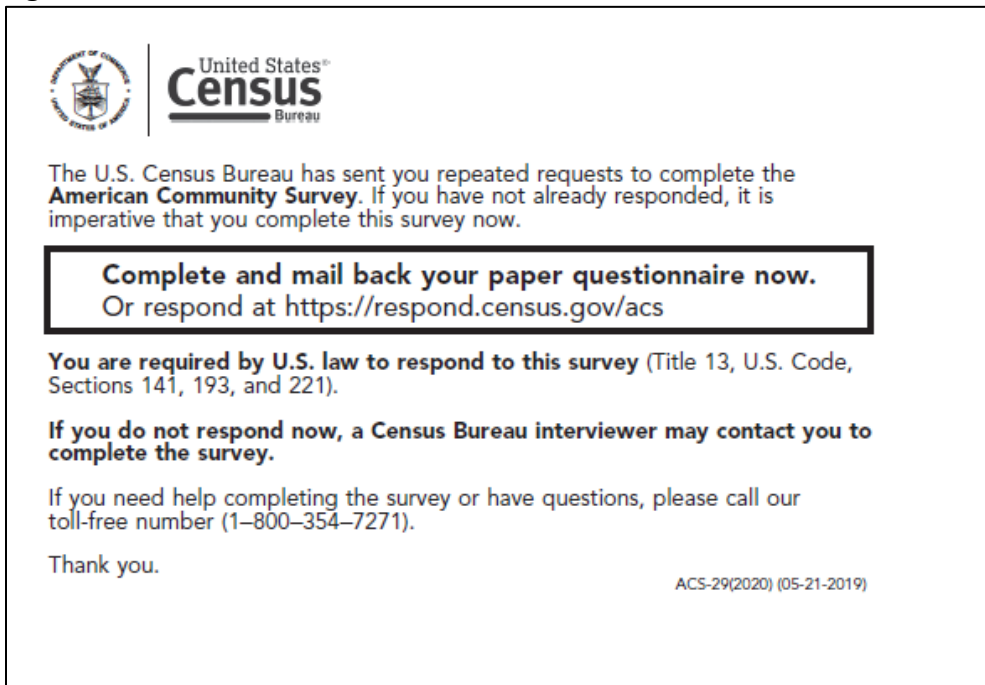


Figure 45. Back of Postcard



D.5 Mailing 5: Final Reminder Pressure Seal Letter

This letter is the same as the one in the Baseline materials. It was not sent to the March panel due to the COVID-19 pandemic.

Figure 46. Inside of Letter

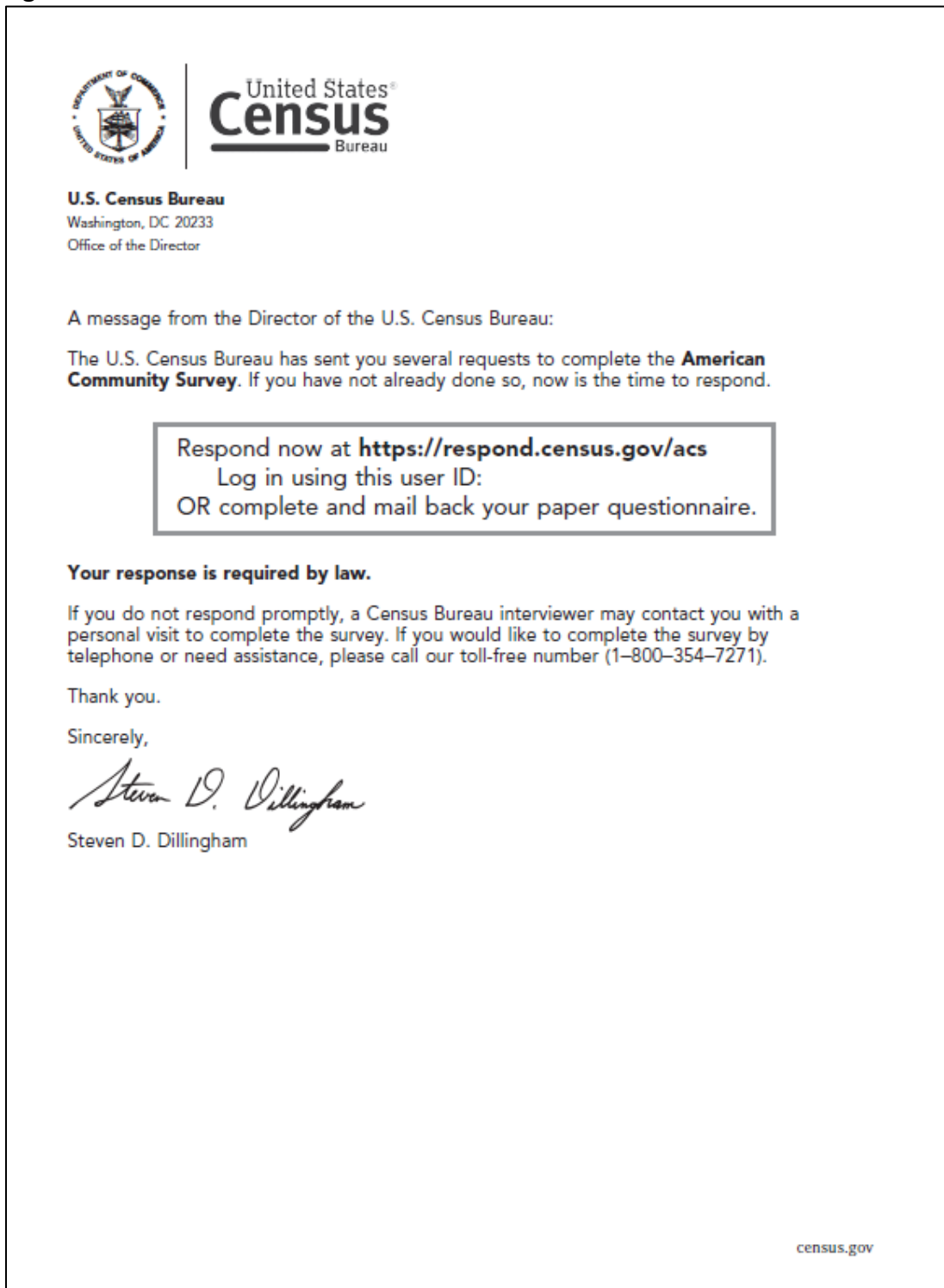
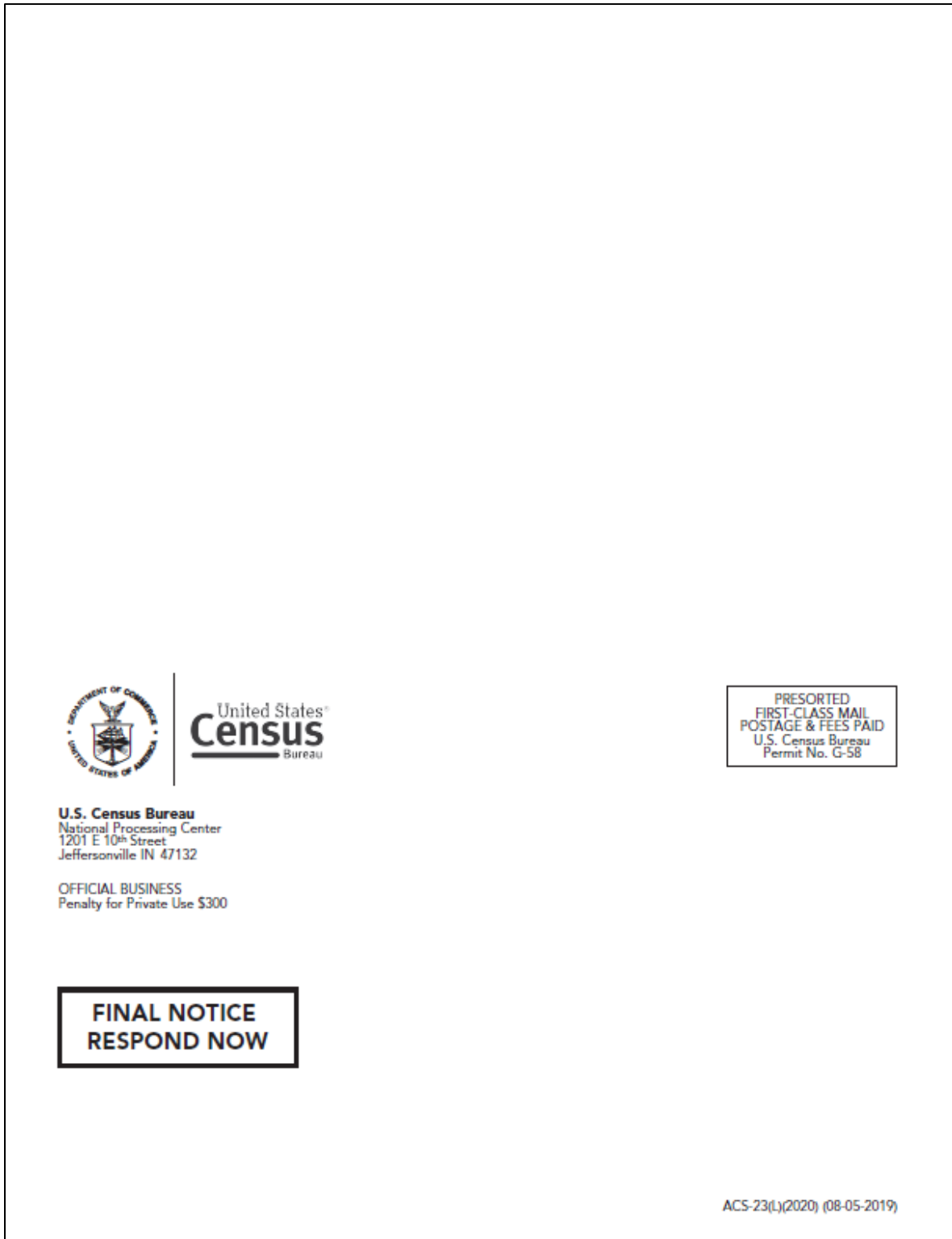


Figure 47. Outside of Letter



Appendix E. Planned vs Actual Mail Delivery Dates for ACS and Decennial

Table 21 shows the target dates when ACS mailings and 2020 Census mailings were supposed to arrive in homes, for each 2020 Census mail contact strategy and cohort. An address would only have received all ten contacts if they did not respond to either the census or the ACS during the mailout period. ACS mailings were planned for a given mailout date, not a target delivery date; delivery dates of ACS materials were approximated by adding three mail delivery days to the scheduled mailout date. ACS mailings (Contacts 1,2,5,6,and 9) are shown in green; 2020 Census mailings are shown in blue.

Table 21. Planned In-Home Delivery Dates for March ACS Mailings and the 2020 Census Self-Response Mailings

Census Cohort	Contact 1	Contact 2	Contact 3	Contact 4	Contact 5	Contact 6	Contact 7	Contact 8	Contact 9	Contact 10
Internet First Cohort 1	March 2 ACS Initial Mailing	March 9 ACS Pressure Seal Reminder	March 12 Decennial letter	March 16 Decennial letter	March 23 ACS Qnaire package	March 26 ACS postcard	March 26 Decennial postcard	April 8 Decennial qnaire	April 17 ACS Final Pressure Seal	April 20 Decennial postcard
Internet First Cohort 2	March 2 ACS Initial Mailing	March 9 ACS Pressure Seal Reminder	March 13 Decennial letter	March 17 Decennial letter	March 23 ACS Qnaire package	March 26 ACS postcard	March 27 Decennial postcard	April 9 Decennial qnaire	April 17 ACS Final Pressure Seal	April 21 Decennial postcard
Internet First Cohort 3	March 2 ACS Initial Mailing	March 9 ACS Pressure Seal Reminder	March 19 Decennial letter	March 23 ACS Qnaire package	March 23 Decennial letter	March 26 ACS postcard	April 2 Decennial postcard	April 15 Decennial qnaire	April 17 ACS Final Pressure Seal	April 27 Decennial postcard
Internet First Cohort 4	March 2 ACS Initial Mailing	March 9 ACS Pressure Seal Reminder	March 20 Decennial letter	March 23 ACS Qnaire package	March 24 Decennial letter	March 26 ACS postcard	April 3 Decennial postcard	April 16 Decennial qnaire	April 17 ACS Final Pressure Seal	April 28 Decennial postcard
Internet Choice	March 2 ACS Initial Mailing	March 9 ACS Pressure Seal Reminder	March 12 Decennial qnaire	March 16 Decennial letter	March 23 ACS Qnaire package	March 26 ACS postcard	March 26 Decennial postcard	April 8 Decennial qnaire	April 17 ACS Final Pressure Seal	April 20 Decennial postcard

Table 22 shows the actual mail contact strategy that a March ACS address could have experienced if they did not respond to either the ACS or the 2020 Census. Dates shown are estimates of when a mailing was expected to arrive in homes.

Table 22. Actual In-Home Delivery Dates for March ACS Mailings and the 2020 Census Self-Response Mailings

Census Cohort	Contact 1	Contact 2	Contact 3	Contact 4	Contact 5	Contact 6	Contact 7*	Contact 8*	Contact 9 ⁺	Contact 10 ⁺
Internet First Cohort 1	March 2 ACS Initial Mailing	March 9 ACS Pressure Seal Reminder	March 12 Decennial letter	March 16 Decennial letter	March 23 ACS Qnaire package	March 26 Decennial postcard	April 14 Decennial qnaire	April 27 Decennial postcard		
Internet First Cohort 2	March 2 ACS Initial Mailing	March 9 ACS Pressure Seal Reminder	March 13 Decennial letter	March 17 Decennial letter	March 23 ACS Qnaire package	March 27 Decennial postcard	April 18 Decennial qnaire	April 30 Decennial postcard		
Internet First Cohort 3	March 2 ACS Initial Mailing	March 9 ACS Pressure Seal Reminder	March 19 Decennial letter	March 23 ACS Qnaire package	March 23 Decennial letter	April 2 Decennial postcard	April 22 Decennial qnaire	May 4 Decennial postcard	July 22 – July 28 Decennial postcard	Aug 22 - Sept 15 Decennial Qnaire
Internet First Cohort 4	March 2 ACS Initial Mailing	March 9 ACS Pressure Seal Reminder	March 20 Decennial letter	March 23 ACS Qnaire package	March 24 Decennial letter	April 3 Decennial postcard	April 24 Decennial qnaire	May 6 Decennial postcard		
Internet Choice	March 2 ACS Initial Mailing	March 9 ACS Pressure Seal Reminder	March 12 Decennial qnaire	March 16 Decennial letter	March 23 ACS Qnaire package	March 26 Decennial postcard	April 28 Decennial qnaire	May 9 Decennial postcard		

* 2020 Census mailings sent later than planned due to COVID-19 pandemic.

+ 2020 Census mailings added due to COVID-19 pandemic.

Appendix F. Confirming Underlying Assumptions

Prior to answering the research questions, analysis was conducted on the underlying data to ensure there were no differences between treatments in metrics that could have impacted the research question results. These include:

- The rate that addresses were flagged by the USPS as being UAA (as return rates and response rates can be influenced by UAA rates).
- The distribution of ACS cases by 2020 Census mail contact strategy (Internet First or Internet Choice, plus cohort number) between treatments. A difference in the distribution of the 2020 Census mail contact strategy could contribute to a difference seen in the ACS response rates.
- The average household size of responding addresses in each treatment, which could impact form completeness metrics.

Part of the analysis plan was to look at major demographic distributions of Person 1 (who is typically the respondent) from sufficiently complete responses and to report any significant findings. We did not do this analysis because we found no significant differences in response rates between treatments.

Table 23 through Table 25 show the metrics we investigated: UAA rates, distribution of 2020 Census mail contact strategy and cohort, and average household size. There were no significant differences between treatment for these metrics.

Table 23. Rate of UAAs

	Specialized	Baseline	Difference	P-Value
Flagged as UAA for at least one mailing	12.6 (0.2)	12.2 (0.2)	0.5 (0.3)	0.12

Source: U.S. Census Bureau, American Community Survey, 2020 Specialized Mail Materials Test, CBDRB-FY20-ACSO003-B0026.

Note: Minor additive discrepancies are due to rounding. Standard errors are in parentheses. An asterisk (*) indicates a statistically significant result. Significance was tested based on a two-tailed t-test at the $\alpha=0.1$ level.

Table 24. Distribution of 2020 Census Mail Contact Strategy and Cohort

	Specialized	Baseline	Difference	P-Value
Contact Strategy				0.59
Internet First	77.6 (0.3)	77.8 (0.3)	-0.2 (0.4)	
Internet Choice	22.4 (0.3)	22.2 (0.3)	-0.2 (0.4)	
Cohort				0.10
Cohort 1	29.0 (0.4)	29.7 (0.4)	-0.7 (0.5)	
Cohort 2	22.8 (0.3)	23.4 (0.4)	-0.5 (0.6)	
Cohort 3	26.1 (0.4)	26.1 (0.4)	<0.1 (0.6)	
Cohort 4	22.0 (0.4)	20.8 (0.3)	1.3 (0.5)	

Source: U.S. Census Bureau, American Community Survey, 2020 Specialized Mail Materials Test, CBDRB-FY20-ACSO003-B0026.

Note: Minor additive discrepancies are due to rounding. Standard errors are in parentheses. An asterisk (*) indicates a statistically significant result. Significance was tested based on a Rao Scott chi-square test at the $\alpha=0.1$ level.

Table 25. Average Household Size

	Specialized	Baseline	Difference	P-Value
Average household size	2.4 (<0.1)	2.4 (<0.1)	<0.1 (<0.1)	0.97

Source: U.S. Census Bureau, American Community Survey, 2020 Specialized Mail Materials Test, CBDRB-FY20-ACSO003-B0026.

Note: Minor additive discrepancies are due to rounding. Standard errors are in parentheses. An asterisk (*) indicates a statistically significant result. Significance was tested based on a two-tailed t-test at the $\alpha=0.1$ level.