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2022 AMERICAN COMMUNITY SURVEY RESEARCH AND EVALUATION REPORT
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MEMORANDUM FOR	ACS Research and Evaluation Workgroup
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Subject:	2022 ACS Content Test: Round 1 and Round 2 Cognitive Testing Results

Attached is the final American Community Survey (ACS) Research and Evaluation report, "Cognitive Testing for the 2022 ACS Content Test, Round 1 and 2 Combined Briefing Report."

Working through the Office of Management and Budget (OMB) Interagency Committee for the ACS, the Census Bureau solicited proposals from federal agencies to change existing or add new questions to the ACS. These proposed changes are tested according to the ACS content change process. Changes are pretested using cognitive testing methods before field testing.

To evaluate the proposed content, the Census Bureau contracted with RTI International to conduct cognitive testing. This report summarizes the results from two rounds of cognitive testing for the following ACS topics:

- Household Roster
- Septic Systems (sewer)
- Electric Vehicles
- Home Heating Fuel
- Solar Panels
- Condominium and Homeowners Association Fees
- Supplemental Nutrition Assistance Program (SNAP)
- Educational Attainment
- Health Insurance Coverage
- Disability
- Means of Transportation to Work
- Labor Force (weeks worked)
- Income

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Attachment

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Cognitive Testing for the 2022 ACS Content Test

Round 1 and 2 Combined Briefing Report
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Round 1 Briefing and Recommendations

Project Background

Call Order 1 on cognitive testing for the American Community Survey (ACS) Content Test Items is designed to help the Census Bureau cognitively test new and revised questions in 12 topic areas in both English and Spanish to ensure that they meet the Census Bureau Pretesting Standard and the Census Bureau Guideline for Translation. The proposed research will help the Census Bureau determine which new or revised questions should be used in a subsequent field test and determine whether the respondents who read the Spanish-translated documents have a similar understanding of the question intent as the English-speaking respondents. The cognitive interviews are also designed to evaluate how well the questions perform in both self-administered and computer-assisted interviewing (CAI) modes.

This call order is designed to evaluate how well the questions perform in self-administered mode and interviewer-administered mode. To fully test the ACS questions in each group, experienced cognitive interviewers with expertise in the target languages plan to conduct a total of at least 247 cognitive interviews in English and 180 interviews with monolingual Spanish speakers across three rounds with the following target numbers: at least 128 English interviews and 60 Spanish in Round 1, at least 114 English interviews and 72 Spanish interviews in Round 2, and 32 English interviews and 60 Spanish interviews in Round 3. The first two rounds will involve pretesting question topics in the context of the ACS housing unit survey. Round 3 will involve pretesting question topics in the context of the ACS Group Quarters survey and the Puerto Rico Community Survey (PRCS). In Round 1 of data collection, RTI/RSS completed 104 English interviews and 33 Spanish interviews.

Round 1 Methodology

This section provides an overview of the recruitment and interviewing methodologies used during Round 1 of data collection. Included in the sub-sections below is an overview of recruitment strategies and advertisements, an overview of interview protocols and procedures, a description of the protocol changes made to accommodate virtual interviewing, and a description of how participants were assigned to interview group, version, and mode.

Overview of Round 1 Recruitment Methods

The original plan for Round 1 was to recruit participants primarily from seven selected metropolitan areas and interview participants in person, either in the offices of contractors RTI International (RTI) or Research Support Services (RSS) or other convenient sites for participants. Due to the COVID-19 global pandemic, in-person interviewing was not possible in any of the targeted metropolitan areas during Round 1. Instead, participants from the selected metropolitan areas and other areas were recruited to complete virtual interviews via videoconference software or, when necessary, by telephone.

The recruitment plan for Round 1 involved three main components:

(1) For participant sub-characteristics expected to be relatively rare in the overall target population, RTI/RSS conducted research to identify at least two metropolitan areas which appeared to have a relatively higher proportion of residents meeting each one of the specific rare sub-characteristics.

(2) RTI/RSS focused recruitment advertisements and other recruitment efforts based on the information from the locations research report to target more rare sub-characteristics in specific metropolitan areas.
(3) Throughout the course of Round 1 recruitment, RTI/RSS adapted recruitment strategies and advertisements, as needed, based on the relative success of prior recruitment efforts to maximize identification of participants who met the targeted sub-characteristics.

Even though Round 1 interview participants could not be interviewed in person in their local area, RTI/RSS used the research on where relatively higher proportions of residents were likely to meet specific recruitment criteria to target ads in corresponding metropolitan areas. This approach maximized efficiency in identifying participants with some of the rarest sub-characteristics needed. Because the recruitment ads were posted online and no in-person interviewing took place, participants who met the criteria for needed sub-characteristics were not required to live in or near the targeted metropolitan area(s). ***Appendix 1A*** provides example recruitment ads.

During Round 1 data collection, RTI/RSS provided the Census Bureau with a weekly recruitment and interviewing progress update report, reflecting results to date. RTI/RSS expanded this report during Round 1 to include key participant demographics, to assess the diversity of interview participants with respect to recruitment goals and needed sub-characteristics. ***Tables 1.1 through 1.6*** provide key participant demographics for the final set of Round One interview participants. The full sample of respondents were recruited from 31 states across all four census regions (south, northeast, midwest, and west). Interviews were completed with respondents from 16 states across all census regions. See the ***Round 1 Recruitment Methods Summary Report*** for more details on locations research, recruitment strategies and advertisements, and the results of recruitment efforts.

Table 1.1: Age and Sex of Round 1 English Participants by Interview Outcome

Age Group	Full Sample		Completed Interviews	
	Frequency	Percentage[b]	Frequency	Percentage[b]
18–20	19	2.6	0	0.0
21–30	158	21.5	20	19.2
31–40	187	25.5	26	25.0
41–50	146	19.9	22	21.2
51–60	108	14.7	17	16.3
61–70	87	11.9	13	12.5
71 and above	29	4.0	6	5.8
Total	**734[a]**	**100**	**104**	**100**
Sex	**Full Sample**		**Completed Interviews**	
	Frequency	**Percentage[b]**	**Frequency**	**Percentage[b]**
Male	260	36.4	43	41.3
Female	454	63.6	61	58.7
Total	**714[c]**	**100**	**104**	**100**

[a] 42 cases were missing age.

[b] Based on excluding the missing cases.

[c] 62 cases were missing sex.

Table 1.2: Hispanic/Latino Ethnicity of Round 1 English Participants by Interview Outcome

Hispanic/Latino Ethnicity	Full Sample		Completed Interviews	
	Frequency	Percentage[a]	Frequency	Percentage[b]
Non-Hispanic /Latino	612	85.1	88	84.6
Mexican, Mexican American, Chicano	52	7.2	6	5.8
Puerto Rican	16	2.2	6	5.8
Cuban	3	0.4	0	
Other	36	5.0	4	3.8
Total	**719[c]**	–	**104**	–

[a] Based on 776 unique respondents who were not Spanish monolingual speakers.
[b] Based on 104 unique respondents who were not Spanish monolingual speakers.
[c] The total of 719 reflects the total count of responses as some respondents endorsed multiple ethnic origins. For the full sample, 712 cases provided valid responses to the ethnicity question and 64 cases did not provide a response.

Table 1.3: Race of Round 1 English Participants by Interview Outcome

Race	Full Sample		Completed Interviews	
	Frequency	Percentage[a]	Frequency	Percentage[b]
White	456	61.3	62	56.9
Black or African American	169	22.7	22	20.2
American Indian or Alaska Native	19	2.6	3	2.8
Asian	51	6.6	13	11.9
Native Hawaiian or other Pacific Islander	6	0.8	1	0.9
Other	43	5.8	8	7.3
Total	**744[c]**	–	**109[c]**	–

[a] Based on 776 unique respondents who were not Spanish monolingual speakers.

[b] Based on 104 unique respondents who were not Spanish monolingual speakers.

[c] The total of 744 for the sample and 109 for completed interviews reflect the total count of responses because some respondents endorsed multiple races; 709 cases in the full sample and 103 cases in the complete interviews provided valid responses; 67 cases in the full sample and 1 case in the completed interviews were missing race.

Table 1.4: Education of Round 1 English Participants by Interview Outcome

Education	Full Sample		Completed Interviews	
	Frequency	Percentage[a]	Frequency	Percentage[a]
Less than high school diploma or equivalent	35	4.9	5	4.8
GED or ABE certificate	32	4.5	1	1.0
High school diploma	55	7.7	7	6.7
Some college, no degree	168	23.6	19	18.3
Associate's degree (AA, AS, or equivalent)	83	11.7	11	10.6
Bachelor's degree (BA, BS, or equivalent)	225	31.6	40	38.5
Post Bachelor's degree (MA, PhD, MD, etc.)	114	16.0	21	20.2
Total	**712[b]**	**100**	**104**	**100**

[a] Based on excluding the missing cases.
[b] 64 cases were missing education.

Table 1.5: Cohabitation Status and Household Size of Round 1 English participants by Interview Outcome

Cohabitation Status	Full Sample		Completed Interviews	
	Frequency	Percentage	Frequency	Percentage
Live with others	544	77.1	84	80.8
Live alone	162	22.9	20	19.2
Total	**706[a]**	**100**	**104**	**100**
Household Size[b]	**Full Sample**		**Completed Interviews**	
	Frequency	**Percentage**	**Frequency**	**Percentage**
1 person	12[c]	2.2	3[c]	3.6
2 people	191	35.6	23	27.4
3 people	140	26.1	28	33.3
4 or more people	193	36.0	30	35.7
Total	**536**	**100**	**84**	**100**

[a] 70 cases were missing cohabitation status.
[b] Excluding cases that indicated they lived alone in the panel above. This variable was constructed by adding the counts of both adults and children in the household.
[c] Resulting from inconsistent response to Q13 that "excludes" respondents themselves from the count.

Table 1.6: Round 1 Spanish Monolingual Participants by Ethnic Origin, Mode, and Version

Ethnic Origin	Group 1		Group 2		Group 3		Total
	V1	V2	V1	V2	V1	V2	
Mexican, Mexican American, Chicano	3	1	3	0	2	2	**11**
Central American	1	0	2	5	1	1	**10**
South American	2	2	1	1	2	2	**10**
Puerto Rican, Cuban, or Dominican	0	1	0	0	0	1	**2**
Total	**6**	**4**	**6**	**6**	**5**	**6**	**33**

Overview of Interview Protocol and Procedures

To maintain reasonable burden for cognitive interview participants, the 2022 ACS Content Test questions were divided into three question groups. Based on fulfillment of desired sub-characteristics, each participant selected for an interview was assigned to one of these three groups. The main content areas for the three question groups were as follows:

Group 1:
Household roster
Septic system
Home heating fuel
Solar panels
Supplemental Nutrition Assistance Program (SNAP)

Group 2:
Educational attainment
Health insurance coverage
Disabilities

Group 3:
Electric or hybrid vehicles
Commuting mode
Income and weeks worked

RTI/RSS trained all interviewers on the protocols for each question group and other key procedures, including Title 13 requirements and applicable communications rules. Two interviewer training sessions were held to accommodate all Round 1 interviewers. Bilingual interviewers who interviewed monolingual Spanish speakers were required to attend an additional training session focused on unique issues with recruiting this target population and interviewing in Spanish.

All interviews were conducted remotely, either via Skype for Business videoconferencing software or, when technical issues arose, just using the Skype for Business telephone conference line. Due to technical issues encountered in practice interviews, RTI/RSS developed a set of guidelines for interviewers to follow when such issues arose. In addition to providing guidance to interviewers in addressing technical issues during an interview, these guidelines assisted interviewers in making decisions on whether to continue with an interview or re-schedule it. See ***Appendix 1B*** for these guidelines.

Census Bureau observers were able to schedule opportunities to listen in on interviews. At the end of each interview, the interviewer provided an opportunity for observers to suggest a few last questions to ask participants. RTI/RSS created an observation spreadsheet for this purpose and interviewers checked this spreadsheet before each interview and forwarded the interview invitation to all observers.

With permission from participants, interviewers recorded all sessions using SnagIt software or a digital recorder placed near their computer speakers (English and Spanish consent forms, which included consent for audio recordings can be found in ***Appendix 1C***). These recordings were posted for the Census Bureau to review and used for confirming details for interview case summaries and this briefing report. After each interview, interviewers completed the appropriate case summary template for the question group (1, 2 or 3).

At the end of the interview, interviewers offered participants $40 by either providing a Visa digital gift code or (when requested) arranging to have a physical gift card mailed to the participant.

Changes to Interviewing Modes and Procedures Due to COVID-19 Pandemic

Due to the COVID-19 global pandemic, in-person interviewing was not possible in any of the targeted metropolitan areas for Round 1. RTI/RSS tracked COVID-19 infection rates and state travel restrictions throughout the course of Round 1, based on data compiled by Johns Hopkins University. None of the metropolitan areas were either (1) safe based on COIVD-19 metrics or (2) accessible to interviewers due to travel restrictions, so all interviews were conducted by videoconference or telephone.

Changing from in-person to remote interviewing modes required several alterations to the original protocols, including changes to:

- Obtaining consent
- Recording interviews
- Completing questionnaires
- Use of showcards
- Payment methods for respondent incentives

Appendix 1D provides the complete list of protocol changes required for virtual or phone interviews.

Assigning Recruited Participants to Interviewing Groups and Modes

All participants assigned to interviews were assigned to one of the three question groups and, for English language interviews, paper or computer assisted interviewing (CAI) mode. CAI mode for both English and Spanish interviews was further varied between interviews with and without showcards. In advance of Round 1 interviewing, the Census Bureau set target numbers of interviews for each of these question group, mode of administration, and showcard conditions.

Using an Excel formula, all participants were automatically assigned to the group for which they were eligible for the most sub-characteristics. For example, should a participant be eligible for 4 group 1 sub-characteristics, 3 group 2 characteristics, and 2 group 3 characteristics, that participant would automatically be assigned to group 1. The Lead Recruiter reviewed all initial group assignments and assessed whether assignments should

change due to eligibility for rare sub-characteristics. RTI/RSS typically assigned participants who met one of the rare sub-characteristics to the appropriate group that included the questions related to their rare sub-characteristic(s). If the number of participants assigned to a specific group based on one or more sub-characteristics appeared to be sufficient to attain interviewing targets, RTI/RSS assigned participants to other groups when they fulfilled other sub-characteristics, to maximize the potential for group and sub-characteristics targets to be met.

After participants were assigned to one of the three question groups, RTI/RSS assigned them to CAI versus paper mode (for English language interviews) and for CAI interviews, either showcards or not showcards. Assignment to mode and showcard conditions was designed to balance evenly the numbers of completed interviews for each combination of these conditions as much as possible.[1] Likewise, RTI/RSS assigned interviews to version 1 or version 2 of each protocol, to balance the number of interviews completed with each version.

RTI/RSS created a spreadsheet to track recruitment, assignment, and interviewing across sub-characteristics, groups, modes, and showcards daily. Occasionally, participants recruited based on meeting specific sub-characteristics were determined to not meet these criteria when interviewed. When a "false positive" case was encountered, the interviewer communicated this information to the Lead Recruiter. The Lead Recruiter then updated this information in the tracking sheet to ensure the sub-characteristic and question group information was accurate for each participant and the overall targets for each sub-characteristic and group.

The following three sections provide results for each of the desired participant sub-characteristics, question groups, interview language, question version, and mode of administration.

[1] A few Spanish language interview participants assigned to interviews with showcards could not view the showcards for various reasons. When they were unable to successfully connect with the interviewer through Skype for Business, the interviewer emailed these participants the showcards, but some participants did not know how to open and download attachments. Others could not see the showcards because the device they used for the interview did not have the capability for downloading and viewing PDF files. One potential way to address this issue in Round 2 would be to create a set of brief Qualtrics instruments to provide all showcards. Participants who are unable to download and view PDFs on their devices could access these instruments via their device's Web browser to see the showcards.

1 Group 1 Findings

Group 1 test topics included household roster, septic systems, home heating fuel, solar panels, and SNAP benefits. All group 1 participants were assigned to either version 1 or version 2 of the test topics. Participants assigned to version 1 answered the household roster, the entire basic person section, and part of the housing section. Participants assigned to version 2 answered the household roster, the entire basic person section, and the entire housing section.

The main goal of testing the household roster questions was to improve ACS within household coverage, with a focus on young children and tenuously attached residents. The instructions have not changed since the 1990s, but household living arrangements have become more complex. Grandchildren and unrelated children are at greater risk for omission. Cognitive testing indicates respondents are confused about who to include on the roster. In automated instruments, respondents are backing up and changing answers to rostering items. The vast majority of people in ACS are rostered using simple instructions. Coverage probes can seem redundant and unnecessary. The modified questions need to find a balance between improved coverage and respondent burden.

The need for consistent data on decentralized wastewater infrastructure status in rural and other communities was the main rationale for testing septic system questions. Determining the prevalence of existing septic tanks and regular updates on new septic tank construction at the local level would assist in meeting the country's growing infrastructure needs. Regular data updates may (1) help to address changes in housing development and (2) support regular planning and funding cycles at the local, state, and national levels.

The main goal for testing the home heating fuel questions was to amend two response options in the existing question to provide a more accurate count of the heating fuel used the most. Changing gas to the more commonly used "natural gas" and adding butane and propane to specify they should be included in responses will help accomplish this goal.

The presence of solar panels is poorly observed at the local level, so the goal of testing these questions was to address this shortcoming. The use of solar panels impacts the U.S. electric grid and could be a driving force behind the need to modernize the grid. Round 1 testing explored respondents' understanding of the terms photovoltaic and the difference between solar panels versus solar power.

The SNAP question was tested as part of income questions. Research has shown underreporting of income that causes biases in income statistics, such as poverty, median household income, and inequality. The use of administrative data could help address these biases and improve imputation for increasing income non-response. One proposal was to change ACS reference period to the previous calendar year to match administrative data, in preparation for their possible use in ACS processing. Changes to the income reference period would likely cause confusion without changes to the reference period in related topics, such as weeks worked and receipt of SNAP benefits. Testing of other changes included self-employment earnings and financial assistance, as suggested in prior cognitive testing.

RTI/RSS completed 37 English group 1 interviews and 10 Spanish group 1 interviews. The distribution of interviews by version, mode, and language is shown in ***Table 1.7***. The distribution of interviews by recruitment criteria mode and version is shown in ***Table 1.8*** (English) and ***Table 1.9*** (Spanish) below. This chapter presents findings from each of the group 1 test topics.

Table 1.7: Group 1 Interviews by Language, Mode, and Version[a]

Mode/ Language	English			Spanish		Total		
	Paper	CAI w/ show cards	CAI w/o show cards	CAI w/ showcards	CAI w/o showcards	Paper	CAI w/ show cards	CAI w/o show cards
Version 1	12	8	0	4	2	12	12	2
Version 2	10	7	0	3	1	10	10	1
Total	**22**	**15**	**0**	**7**	**3**	**22**	**22**	**3**

[a] A few Spanish language interview participants assigned to interviews with showcards could not view the showcards because the device they used to participate did not have the capability for downloading and viewing PDF files.

Table 1.8: Group 1 English Interviews by Recruitment Criteria, Mode, and Version

Characteristic	Sub-characteristic	Paper Mode		CAI Mode		Total
		V1	V2	V1	V2	
Household Roster	Related subfamilies	0	0	0	1	**1**
	Unrelated subfamilies/individuals	4	2	1	2	**9**
	Subfamilies with children	1	0	1	1	**3**
	Children in custody arrangements	0	2	2	1	**5**
	Foster children	0	0	0	0	**0**
	On deployment	1	1	0	0	**2**
	Children away at college	0	2	2	2	**6**
Septic systems	Septic system only	3	2	5	3	**13**
	Public sewer	9	8	3	4	**24**
Home Heating Fuel	Natural gas most	5	3	3	1	**12**
	Butane/propane most	1	1	2	2	**6**
	Other fuel most	6	6	2	4	**18**
Solar Power	Solar panels	3	3	2	2	**10**
	No solar panels	9	7	6	5	**27**
SNAP	Prior year SNAP benefits	3	5	4	4	**16**
	No prior year SNAP benefits	8	5	4	3	**20**

Table 1.9: Group 1 Spanish Interviews by Recruitment Criteria, Mode, and Version

Characteristic	Sub-characteristic	CAI Mode		Total
		V1	V2	
Household Roster	Related subfamilies	0	0	**0**
	Unrelated subfamilies/individuals	1	0	**1**
	Subfamilies with children	0	0	**0**
	Children in custody arrangements	1	0	**1**
	Foster children	0	1	**1**
	On deployment	0	0	**0**
	Children away at college	0	1	**1**
Septic systems	Septic system only	2	0	**2**
	Public sewer	4	4	**8**
Home Heating Fuel	Natural gas most	2	3	**5**
	Butane/propane most	0	0	**0**
	Other fuel most	3	1	**4**
Solar Power	Solar panels	0	0	**0**
	No solar panels	6	4	**10**
SNAP	Prior year SNAP benefits	3	2	**5**
	No prior year SNAP benefits	3	2	**5**

*Note: While these sub-characteristics were tracked during data collection, there were not interview targets for these sub-characteristics for Spanish language interviews.

1.1. Household Roster

The first test topic in Group 1 was the household roster. ***Tables 1.10 and 1.11*** display versions 1 and 2 of this question by interview mode and language. The two versions of the question differ in their phrasing and formatting. For example, version 1 includes the phrase "including yourself" in the main question text, whereas version 2 includes this instruction in the items under "INCLUDE." Additionally, version 2 formats the list of individuals to include/exclude using check marks and "X" while version lists all items with bullet points.

The key research goals of cognitive testing were to determine:

(1) Which version helps participants better understand that they should include unrelated people on the roster?
(2) Do participants notice and comprehend all of the text about who to include or exclude outside of the main question stem? If so, are they utilizing this text when responding?
(3) Which version of the paper form yielded the more accurate roster?
(4) For paper mode: Was one format preferred by respondents?

(5) For CAI version 1: What do the terms "short visit," "short time," and "overnight stay" mean to participants?
(6) For CAI version 2: What does the term "short time" mean to participants?
(7) Were participants hesitant or unsure about including anyone that lives or stays with them?
    (a) If so, what are the relationships and/or living situations of those people?
    (b) What was the reason they were hesitant or unsure to include them?
    (c) Were they unsure how long someone had to live there to be included?
(8) Do participants have privacy concerns about reporting certain household members?
    (a) If so, what are the relationships and/or living situations of those people?
    (b) What wording increased or decreased their concerns?
(9) For CAI mode: Do participants express annoyance or confusion about the series of coverage questions?
(10) Have participants who do not currently live in complex living situations ever lived in one? If so, how would they answer the household roster question for that situation?

This section details the general as well as mode- and version-specific findings as it relates to these research questions.

Table 1.10: Household Roster Questions by Version (Paper Mode)

Paper Mode	
V1	V2
How many people, including yourself, are living or staying at this address? • **INCLUDE** everyone living or staying here, even if they are not related to you. • **INCLUDE** children, related or unrelated, such as babies, grandchildren, or foster children. • **INCLUDE** anyone else staying here now, such as roommates and other families who have no other place to stay. • **DO NOT INCLUDE** anyone who is living somewhere else, such as a college student living away or someone in the Armed Forces on deployment. **Number of people**	**How many people, including people not related to you, are living or staying at this address?** **INCLUDE...** ✓ yourself if you live here. ✓ children, related or unrelated, such as babies, grandchildren, or foster children. ✓ anyone else staying here now, such as roommates and other families who have no other place to stay. **DO NOT INCLUDE...** ✗ anyone who is living somewhere else, such as a college student living away or someone in the Armed Forces on deployment. **Number of people**

Table 1.11: Household Roster Questions by Version (CAI Mode)

CAI Mode	
V1	V2
1a. Let's create a list of everyone, including people not related to you, living or staying at this address. What is your name? (What is the name of the next person living or staying here?) The following questions are to make sure everyone is included. 1b. The people you have listed so far are… Other than these people, is there anyone else staying here such as… • Babies • Grandchildren • Foster children • Any other children, related or unrelated to you • Roommates • People or families who have no other place to stay? The following questions are to make sure everyone we have listed should be included in this survey. I have… 1c. Do any of these people live somewhere else now, such as a college student or someone in the Armed Forces on deployment? I have listed… 1d. Are any of these people staying here for a short visit or for an overnight stay? I have listed… 1e. Are you/Is <Name> staying here for MORE than two months?	1a. Let's create a list of everyone living or staying at this address, even if they are not related to you. What is your name? (What is the name of the next person living or staying here?) The following questions are to make sure everyone is included. 1b. Other than the people you have already mentioned, are there any children living or staying here, such as babies, grandchildren, or foster children? These children could be related or unrelated to you. 1c. Other than the people you have already mentioned, is there anyone else staying here, such as roommates and other people or families who have no other place to stay? I have listed… 1d. Do any of these people live somewhere else, such as a college student or someone in the Armed Forces on deployment? I have listed… 1e. Are any of these people staying here for a short time?
1a. Hagamos una lista de todas las personas, incluyendo aquellas que no están emparentadas con usted, que viven o se quedan en esta dirección. ¿Cuál es su nombre? (¿Cuál es el nombre de la siguiente persona que vive o se queda aquí?) Hacemos las siguientes preguntas para asegurarnos de incluir a todos. 1b. Las personas que usted incluyó en la lista hasta ahora son … Aparte de estas personas, ¿se está quedando alguien más aquí, tal como … • Bebés • Nietos • Hijos de crianza (foster) • Otros niños, emparentados o no con usted • Compañeros de casa o cuarto • ¿Personas o familias que no tienen otro lugar donde quedarse? Hacemos las siguientes preguntas para asegurarnos de que todas las personas que incluimos en la lista se incluyan en esta encuesta. Tengo en la lista a… 1c. ¿Alguna de estas personas vive en otro lugar ahora, tal como un estudiante universitario o alguien en las Fuerzas Armadas en movilización? He listado a … 1d. ¿Alguna de estas personas está quedándose por una visita corta o por una noche? He listado a… 1e. ¿Está usted/Está <Name> quedándose aquí por MÁS de dos meses?	1a. Hagamos una lista de todas las personas que viven o se quedan en esta dirección, incluso si no están emparentadas con usted. ¿Cuál es su nombre? (¿Cuál es el nombre de la siguiente persona que vive o se queda aquí?) Hacemos las siguientes preguntas para asegurarnos de incluir a todos. 1b. Además de las personas que ya mencionó, ¿hay niños que vivan o se estén quedando aquí, tales como bebés, nietos o hijos de crianza (foster)? Estos niños pueden estar emparentados o no con usted. 1c. Aparte de las personas que ya mencionó, ¿hay alguna otra persona que se esté quedando aquí, tales como compañeros de casa o cuarto y otras personas o familias que no tengan otro lugar donde quedarse? He listado a … 1d. ¿Alguna de estas personas vive en otro lugar, tal como un estudiante universitario o alguien en las Fuerzas Armadas en movilización? He listado a … 1e. ¿Alguna de estas personas está quedándose aquí por un período corto?

1.1.1 English and Spanish Interview Findings

a. Research question 1: Version 1 better helps participants understand they should include unrelated people in their household roster.

Out of the 20 version 1 participants, only three felt unrelated people should not be included in the household roster.

- "If they live here yeah. They don't have to be direct family, but they should be included if they live here."
- "Yes, considering this is the Census, like roommates and people like that, should be included."
- "Related and unrelated because it's everyone living in your household. For me, it's related because I only live with a family member."

Out of the 17 version 2 participants, four felt unrelated people should not be included in the household roster. This is a slightly higher percentage of participants who think unrelated people should be excluded than in version 1.

b. Research question 2: Participants do notice the text about who to include and exclude in their household roster. When responding, participants do use these instructions to guide their response.

Out of the 22 paper participants, 13 indicated that they read or skimmed the instructions about who to include and exclude. Of the remaining nine participants, only one noted that they did not notice the instructions—all others noticed the instructions but skipped over them for various reasons.

- "I read them, but mine is a definite answer because there is no one else in my household besides my husband and myself. Maybe it should include something about including people staying temporarily, and how long they are staying to be included."
- "I skipped them. It was too much text to read. It looked like too much information. I feel like I already knew the answer after seeing "including yourself", and "living or staying at this address."
- "I skipped over the instructions because my living situation is simple, and I live only with my immediate family. If I had a more complicated living situation "if I had a roommate or other family who had no other place to stay, then I think I would be more inclined to read it"

Those who read the instructions felt they were clear and helpful in answering the question.

- "I had not read the instructions but when I reviewed them, I thought they were helpful, especially the students away at college or someone in the military."
- "The descriptions were very informative and weren't complicated at all."
- "It was clear about who I should include, whether they are related or not, whether they are adults or not, whether they are family or not. It did influence me by helping me to know who I should include or not include."

c. Research question 3: Version 1 yielded a more accurate household roster.

All 20 version 1 participants produced an accurate roster before answering probes or coverage questions.

- One participant was hesitant about including/excluding their sister who is currently in a federal penitentiary, but correctly decided to exclude her from the roster.
- Another participant was unsure about whether he should include his girlfriend, who at the time of interviewing had been staying with him for about 1.5 months, because she does not always stay with him. This participant correctly decided to include his girlfriend.
- A participant with children away at college decided to not include these children in the roster because they only come home for holidays/school breaks and the participant considered them to be living elsewhere.

Of the 17 version 2 participants, two participants produced an inaccurate roster.

- One participant incorrectly omitted his sister, who, at the time of interviewing, was staying with him for one month, from his household roster.
- Another participant incorrectly omitted four people from her household roster. Two people were omitted because the participant did not consider herself to be financially responsible for them, and two other people were omitted because they were only staying temporarily.

d. Research question 4: Participants showed a slight preference for version 2 of the paper questionnaire.

Of the 22 paper participants, 12 preferred version 2 of the household roster question over version 1. However, it is important to note that participants also expressed important preferences for version 1.

- "I prefer version 2. The layout is easier to look at and more straightforward. It's more divided, so that you can see the differences (of who to include and not include)."
- "Version 2 is clearer, more explicit, for example 'yourself, if you live here'. Provides that conditional. Also, the little x at the bottom for do not include. The bullets in the first version blend everything together. The second version separates everything out as to what you need to do."
- "This [version 2] is clearer, the way it's formatted. I was more likely to read the bottom note about college students and people deployed in the Armed Forces."
- "I preferred version 1. I think it better emphasizes what to include and not include. I may not have skipped over the version 1 instructions as I did the version 2 instructions."
- "Version 1 is easier to read because of the bigger font."
- "I think version 1 was a little more detailed."

e. Research questions 5 and 6: Participants had varied definitions of a "short visit."

The eight CAI version 1 participants defined a "short visit" to range anywhere from less than one day to a few weeks.

- "I think of a short visit as no overnight. It could be half a day or 7-8 hours."
- "That could be anything.... a day… a week. Anything more than a couple of weeks would be more than a short visit."
- "I would say anything less than a few weeks."

f. Research questions 5 and 6: Participants had widely varied definitions of a "short time."

The seven CAI version 2 participants defined a "short time" to range anywhere from 2 weeks to 1 year.

- "6 months to a year. It's a gray area for me."
- "A couple of weeks, no more than two weeks."
- "A few weeks or a few months."
- "That could be anything. If one of my kids lost their jobs and needed to stay here for a short period of time, I would think off the top of my head 3 months. However, being a senior, and knowing that often times if you are out of a job it generally takes 6 months to possibly find a job, so that would be 6 months. Now, with the pandemic, and all that's happening, if one of my kids had a problem and said they needed to stay with me for a short time, at this moment right now, I would think a year."

One participant felt a "short time" was indefinite as long as there is an established end date to the visit.

- "A short time is if they expressed at the beginning that it's only temporary. It doesn't matter if it's one month, two months, or six months. If there is an end date to how long they're staying, either verbally or written, then that is temporary."

g. Research questions 5 and 6: Participants understood "overnight stay" to mean sleeping over for a single night.

All CAI version 1 participants agreed that an "overnight stay" should be defined as sleeping over at someone's house for one night.

- "Staying overnight until the sun comes up the next day."
- "Over for dinner or crash for the night. Well – overnight stay would be actually sleeping here."
- "Just overnight – stay the night."

h. Research question 7: Very few participants were hesitant/unsure about including certain people in their household roster.

Only four of the 37 participants expressed hesitancy/uncertainty about including certain people in their household rosters. These participants and scenarios are discussed in item (c) above.

i. Research question 8: Participants had very few privacy concerns about reporting certain household members.

Only one participant expressed privacy concerns about reporting certain household members. This participant did not want to give out too much information about his roommates but felt the household roster questions were basic and he was comfortable providing that information. The only information that gave him pause date of birth.

- "I know I didn't want to give out too much information but those are pretty basic questions and I was not afraid to answer them. The birthdates were a little personal. I don't have their permission to give that information out."

j. Research question 9: Very few participants were annoyed/confused with the series of coverage questions (CAI mode).

Only one participant expressed annoyance or confusion at the series of coverage questions. This participant seemed to struggle to understand why these questions were being asked.

- "I think it was just too many questions honestly. [Did the questions feel repetitive?] Yeah like the grandchildren and the Army, it was just too many questions at once. [Were any of them confusing?] No, I don't know why it would matter if someone spent the night once or twice. I am not sure why they would be included."

Other participants recognized that the questions were somewhat repetitive but did not have a negative reaction as they understood the purpose behind the questions.

- "I guess you just wanted to make sure my answer was right. Really no reaction. The questions were repetitive, but it was just you asking the same questions to make sure that my answer wasn't going to change."

k. Research question 10: Participants did not fully understand how to report complex living situations.

Most participants, when reflecting on past complex living situations, indicated that they would have included non-immediate family members in their household rosters.

- "That was years ago, six years ago when I was living with different people. Yes, I would have included them."
- One participant explained that he lived for five years in university housing with roommates while in college. He thought it would be more complicated to fill out the form while living with roommates but was clear on how many people he should include. For example, when he lived with two roommates this would be three people in the household whereas when he lived alone, he would complete the survey just for himself.

However, when answering about the household rosters in the sample vignettes, participants were often divided on whether an individual should be included. This seemed to stem mostly from the lack of clarity surrounding how long an individual must stay in a household to be included in the roster.

- "Mary could argue that her stepson is partially living away, so there could be an argument made that she does not have to include him." This participant though there should be more instruction for "living with split families between two households."
- "I wouldn't [include Billy] because he is going place to place. This is not his steady house."
- "Yes, during those 6 weeks [John's cousin] would be a member of that household."
- "No, [John's cousin is] only there for 6 weeks and he's coming for work."
- "No because Susan spends more days at home with her parents."
- "Absolutely because anywhere from a third to half of the week, [Susan] is a member of his household"

1.1.2 Version 1 Findings by Mode

a. Paper Mode

All 12 English participants answered the household roster question with ease, seemed to understand the question as intended, and answered correctly. No participants excluded anyone who was living or staying at their address, and no participants included anyone who stays or lives someplace else in their roster. Only one participant was hesitant or unsure about including somebody in their response. This participant was unsure if they should include their sister who is currently living in a federal penitentiary. The participant decided not to include their sister because she has not lived in the household for over a year, and before going to the penitentiary she lived elsewhere.

When asked whether the roster should include unrelated household members, only one participant indicated that unrelated people should *not* be included; however, it was unclear why the participant felt unrelated individuals should be excluded. Participants were also asked how long they think someone should live or stay with them for that person to be included in the roster. Responses to this question were highly variable. Four participants answered 6 or more months, four participants said 2–3 months, and one participant said 1 year. Three participants felt there should not be a time limit for including somebody in the roster. Two of these three participants felt all people living in a household at the time of completing the survey should be included, regardless of how long they have lived there, and one participant felt an individual's intention for the future should be the deciding criteria. That is, if an individual intends for a stay to be temporary, they should not be included in the roster.

When answering the household roster question, most participants skipped the instructions about what types of people should be included and excluded. Six of the 12 participants skipped these instructions for various reasons, including (1) the instructions presented too much text to read, (2) the participant felt the instructions were unnecessary because they had a simple living situation, or (3) the participant assumed any important information/clarifications would have been included in the main question text. Five of the 12 participants indicated that they did read the instructions, and one participant quickly scanned the instructions for any information relevant to his situation. Overall, participants found these instructions to be clear; however, four participants identified some potential for confusion. Three participants felt the instructions should include information about how long a person should be staying at your home to be included. The fourth participant expressed that the word "deployed" may be confusing for situations in which military personnel return home early from deployment.

Some participants were asked about past living arrangements in which they did not live with immediate family and whether they would have included all those with whom they lived in their household roster. Nearly all participants asked this question indicated that they would include non-family members in their roster, though three participants had some uncertainties about doing so. One participant noted that they would have included their roommates but would have also wondered if it would have been duplicative to do so if their roommates were also completing the survey. Another participant would have included their roommates but noted that they would not have been able to answer the demographic questions about those individuals. Lastly, another participant indicated that she would have included her ex-boyfriend and herself in her roster, but not the other roommates. The participant would have excluded the other roommates because she and her boyfriend were "independent" from the rest of the house – they paid their own bills and bought their own food. "We were essentially renting a room in the house."

Participants were also asked to view version 2 of the household roster question and indicate which they preferred. Of the 12 participants, nine indicated that they preferred version 2 over version 1 because the formatting is clearer, the information is easier to comprehend, and it groups the information into "include" and "do not include" categories.

b. CAI Mode – English

All eight English participants answered the household roster question with ease, seemed to understand the question as intended, and answered correctly. No participants excluded anyone who was living or staying at their address. One participant included his girlfriend in his household roster who stays at her own apartment about half the year and stays at his apartment about half the year. This participant was hesitant about including her because she does not always live with him. At the time of the interview, his girlfriend had been staying at his apartment for about 1.5 months, and the participant estimated that in a year, she would stay at his apartment for at least 6 months, and no participants included anyone who stays or lives someplace else in their roster.

When asked whether the roster should include unrelated household members, two participants indicated that unrelated people should *not* be included. These participants did not provide much detail about why unrelated people should not be included, but one participant said it was "because I don't know them." Participants were also asked how long they think someone should live or stay with them for that person to be included in the roster. Responses to this question were highly variable. Two participants said 1–2 weeks, two participants answered 1 month, three participants said 6 months, and one participant answered 1 year. Another participant felt the criteria should be whether the household was that person's permanent address, regardless of how long they had lived there.

After completing the household roster, CAI participants were asked a series of coverage questions. During probing, participants were asked whether they felt these coverage questions were repetitive or confusing. Only one of the eight participants felt that the questions were repetitive. This participant felt it was "just too many questions at once…. I don't know why it would matter if someone spent the night once or twice. I am not sure why they would be included." For this participant it seems as if the purpose of the coverage questions was unclear.

Participants were also asked to define two of the phrases included in this series of coverage visits: "short visit" and "overnight stay." Definitions of a "short visit" were somewhat varied among participants. One participant felt a short visit was a stay lasting less than 1 day (i.e., 7–8 hours) while all other participants felt a short visit would range from a few days to a few weeks. Though there was variation in definitions of a "short visit," all participants were in agreement that an "overnight stay" should be defined as a sleeping over for a single night. As one participant described it, "You come in the afternoon, stay the night, and leave the next morning or afternoon."

Some participants were asked about past living arrangements in which they did not live with immediate family and whether they would have included all those with whom they lived in their household roster. Nearly all participants asked this question indicated that they would include non-family members in their roster. One participant indicated that he would not have included his roommate of 4 months in his household roster because 4 months was too temporary of an arrangement. This participant felt he would have needed to live with that roommate for at least one year to be considered in the same household.

Some participants were also asked to consider a set of various complex living situations and determine if certain people should be included in the household roster. In the vignette concerning Mary's stepson Billy, participants were divided on whether Billy should be

included in the roster. One participant felt Billy should be included "because that is her stepson and Bob's biological son. It doesn't matter if he is staying here and there." However, two other participants felt Billy should not be included because he is spending time at Mary's house as well as the biological mother's house. Despite disagreement on this living situation, all participants agreed that John's cousin, in town for a 6-week training program, should not be included in John's household roster because it is too temporary of a living situation. All participants also agreed that Susan should not be included in her boyfriend's household roster because she only stays at his house 3 nights a week and her permanent address is at her parent's house.

c. CAI Mode – Spanish

Of the five Spanish-speaking participants, four understood the questions as intended and answered them correctly. They reported no hesitation about including anyone that lived or stayed there. The fifth participant had trouble understanding who to include in the list. The question was reread several times, but she did not know how to answer. She explained that she did not understand that the question was asking to include anyone living or staying "en esta dirección" [at this address].

- "Si me hubiera dicho ¿quién vive en su casa? entonces ahí yo respondo más claramente." [If you had said to me, who lives in your house? then I would have answered more clearly.]

Four of the five participants were able to provide an amount of time someone would have to live there in order to be included, and this ranged widely from one day to a year. One of these four respondents also explained that the amount of time was not important, but rather whether the person is part of the family or not. The fifth respondent only said that if the person was not living there permanently there was no need to include them.

Four of the participants were able to provide specific amounts of time to explain what the term "short visit" meant to them: One week or a month, one weekend or a week, one night. The fifth participant thought of someone who would stay in her house by necessity or for an emergency. All five participants were able to explain what the term "overnight stay" meant for them: "Spending the night", "Just what it means, for the night".

Only one participant reported having a complex living situation. At that time, the respondent and his family were living with his landlord and his wife, who were not included in the roster. He explained that he had not included them because his situation was not permanent; otherwise, he would have included them.

All five participants said that they understood the reason behind the series of coverage questions, and no one expressed annoyance or confusion. The same way, none of the participants expressed having privacy concerns about reporting on specific members of the household; however, this was inconsistent with some saying they should only report on family members.

1.1.3 Version 2 Findings by Mode

a. Paper Mode

All 10 English participants answered the household roster question with ease and seemed to understand the question as intended. Two participants excluded an individual who was living or staying at their address. One participant excluded his sister who was staying with him at the time. This participant did not include his sister because this was only a one-month temporary living arrangement. Another participant excluded a renter who is living in an

attached studio apartment. This participant did not include this person because the rent has a different apartment number, and thus considers the apartment a separate household. Additionally, one participant included her children in her household roster who stay with their biological father 35% of the time. This participant felt the children should be included in the roster because they are "the most important members of the household and their needs are prioritized."

When asked whether the roster should include unrelated household members, four participants indicated that unrelated people should *not* be included. These participants felt the question was only asking about related household members; however, one of these four participants indicated they would include an unrelated friend in their household roster if that friend lived in the household full time. Participants were also asked how long they think someone should live or stay with them for that person to be included in the roster. Responses to this question were highly variable. Six participants answered 6 or more months, two participants said 1 year. One participant felt anyone living in the household at the time of completing the survey should be included, and another participant felt anyone who intended to stay in the household permanently should be included.

When answering the household roster question, most participants skipped the instructions about what types of people should be included and excluded. Three of the eight participants skipped these instructions for various reasons because they felt their living situation was simple and they did not need additional instructions. Three participants quickly scanned the instructions, and four participants read the instructions in full. All participants felt the instructions were clear and helpful for answering the question, and one participant suggested adding instruction about how long an individual should stay in the household to be included in the household roster.

Some participants were asked about past complex living arrangements in which they did not live with immediate family members. Upon reflection of these living arrangements, all participants indicated they would have included their past roommates in the household roster. Some participants were also presented with vignettes representing various complex living arrangements and were asked to determine whether certain individuals should be included in the vignette's household roster. In the vignette concerning Mary's stepson Billy, participants were divided on whether Billy should be included in the roster. Five participants felt Billy should not be included because he goes back and forth between houses, two participants indicated it would depend on whether Billy spent more than 50% of his time at Mary's house, and three participants indicated Billy should be included because he stays there at least some of the time. Participants also disagreed on whether John's cousin, in town for a 6-week training program, should be included in John's household roster. Two participants felt he should be included because he is a member of the household for those six weeks, but the remining eight participants felt he should not be included. Similarly, two participants felt Susan should be included in her boyfriend's household roster because three nights per week is roughly 6 months per year, but all other participants felt Susan should not be included.

Participants were also asked to view version 2 of the household roster question and indicate which they preferred. Of the 10 participants, seven indicated that they preferred version 1 over version 2 because the instructions were clearer about who should be included in the household roster.

b. CAI Mode – English

All seven English participants answered the household roster question with ease, seemed to understand the question as intended, and answered correctly. No participants excluded anyone who was living or staying at their address. One participant included her children in

her household roster who stay overnight with their biological father every other weekend. This respondent felt her children stayed with their father so rarely that they essentially lived in her household 100% of the time. Another participant was unsure about including four members of her household—her two parents and her nephew and nephew's girlfriend. This participant initially excluded her parents because they lived independently of her support. The participant was interpreting the household roster to include only those for whom she was financially responsible, and her parents do not fall into this category. The participant excluded her nephew and nephew's girlfriend because they had just started staying with her a few days ago and she hoped it would be a temporary living situation.

When asked whether the roster should include unrelated household members, no participants indicated that unrelated people should *not* be included. Participants were also asked how long they think someone should live or stay with them for that person to be included in the roster. Responses to this question were highly variable. Two participants said 1 month, two participants answered 6 months, one participant said 1 year, and two participants felt an individual should be included as soon as they start paying rent.

After completing the household roster, CAI participants were asked a series of coverage questions. During probing, participants were asked whether they felt these coverage questions were repetitive or confusing. None of the seven participants felt these questions were annoying or confusing. Participants were also asked to define one of the phrases included in this series of coverage questions: "short time." Definitions of a "short time" were somewhat varied among participants. Two participants felt a short time was up to 2 weeks, one participant answered a few months, two participants indicated a short time would be up to 1 year, and one participant felt any temporary situation could be considered a "short time" as long as there is an established end date to the visit.

Some participants were asked about past living arrangements in which they did not live with immediate family and whether they would have included all those with whom they lived in their household roster. All participants asked this question indicated that they would include non-family members in their roster. Some participants were also asked to consider a set of various complex living situations and determine if certain people should be included in the household roster. In the vignette concerning Mary's stepson Billy, participants were divided on whether Billy should be included in the roster. One participant felt Billy should be included, but two other participants felt Billy's inclusion depended on whether he spent a significant amount of time (i.e., 3–4 days per week) at Mary's house. These three participants also disagreed on whether John's cousin, in town for a 6-week training program, should be included in the household roster. One participant felt he should be included "because he is occupying space in John's home," but the other two participants felt it was too temporary of a stay to be included in the roster.

c. CAI Mode – Spanish

All five Spanish-speaking participants understood the questions as intended and answered them correctly. They had no hesitation about including anyone that currently lived or stayed there. One participant, however, was not sure if she should include her daughter who was currently living in Mexico. The participant explained that one of her daughters had traveled to Mexico in March 2020 and did not want to come back. She added that she wasn't sure if she should include her; in the end, the participant decided not to do so, because she was not sure if her daughter would ever come back.

Four of the five participants were able to provide an amount of time someone would have to live with them in order to be included. The fifth participant explained that it wasn't a matter of time, and that she would only include someone who was part of her family, regardless of how long they had lived there. None of the respondents reported having a complex living

situation, although this may simply reflect the fact that they did not list on the roster anyone who was not related to them.

Four of the participants were able to provide specific amounts of time to explain what the term "short time" meant to them: 1 month or 3 weeks, a few days or a week, a couple of months, 2 months, 6 months. The fifth respondent provided an example of what this would mean to her, mentioning someone who comes for a vacation, for a visit.

Two of the five participants found the series of coverage questions repetitive, and one of them expressed annoyance or confusion.

- "Primero un poco como curiosas, como preguntas capciosas, pero traté de responder lo más real que pude. Algunas sí (sonaron repetitivas) porque me volvía a repetir una y otra vez así, también como que ya me confundía." (They were a little strange, like trick questions, but I tried to answer as best I could. Some did sound repetitive, like they were trying to confuse me.)

None of the five participants expressed having privacy concerns about reporting on other household members.

1.1.4 Recommendations

RTI/RSS recommends proceeding with a hybrid of version 1 and version 2 for paper interviews. The hybrid version should be formatted in the style of version 2 but should use the text of version 1. Participants revealed a preference for the formatting of version 2, finding it easier to comprehend and organize in their minds; however, version 1 produced a more accurate roster, participants had a less varied understanding of the phrase "short visit" than the phrase "short time," and participants were in 100% agreement on the meaning of "overnight stay."

For CAI interviews, RTI/RSS recommends proceeding with version 1 of the household roster question as CAI participants also produced a more accurate roster with version 1, had a less varied understanding of the term "short visit" than "short time." In addition, all participants agreed on the meaning of the phrase "overnight stay."

RTI/RSS also recommends the Census Bureau consider adding more specific guidance on the amount of time an individual needs to stay at a household to be included in the household roster. Overall, participants did not illustrate a strong understanding of this, particularly when responding to the various example scenarios during probing. Responses to questions of whether the people in the example scenarios should be included in the household roster varied among participants, and most often, participants noted that their answer would depend on the amount of time the person stayed at the household.

RTI/RSS does not recommend any Spanish-language-specific changes. The fact that some participants are unwilling to list non-family members does not appear to be something that can be improved with modified instructions. For Round 2 testing we recommend reducing the number of vignettes, since low education Spanish monolinguals had difficulty answering this type of probes.

1.2. Septic Systems

The next Group 1 test topic was septic systems. ***Tables 1.12 and 1.13*** display versions 1 and 2 of this question by interview mode and language. The two versions of the question differ in their phrasing of the main question, as well as the response options. Version 1 asks respondents "What is the MAIN type of sewage disposal for this house, apartment, or mobile

home" and provides response options for "Public sewer," "Septic system or cesspool," and "Other type of sewage disposal." Versions 2 alters the question by asking, "Is this house, apartment, or mobile home connected to a public sewer?" Response options include "Yes, connected to a public sewer," "No, connected to septic system or cesspool," and "No, use other type of system."

The key research goals of cognitive testing were to determine:

(1) Do participants know the difference between a septic system or cesspool versus one connected to a public sewer?
(2) Do participants have more than one type of disposal system? If so, how do they answer this question?
(3) What type of system do participance who choose "Other type of sewage disposal" (version 1) or "No, use other type of system" (version 2) have?

This section details the general as well as mode- and version-specific findings as it relates to these research questions.

Table 1.12: Septic System Question by Version (Paper Mode)

Paper Mode	
V1	V2
What is the MAIN type of sewage disposal for this house, apartment, or mobile home? ☐ Public sewer ☐ Septic system or cesspool ☐ Other type of sewage disposal	**Is this house, apartment, or mobile home connected to a public sewer?** ☐ Yes, connected to public sewer ☐ No, connected to septic system or cesspool ☐ No, use other type of system

Table 1.13: Septic System Questions by Version (CAI Mode)

CAI Mode	
V1	V2
14. What is the MAIN type of sewage disposal for this <FILL BUILDING TYPE>? Public sewer Septic system or cesspool, or Another type of sewage disposal	14a. Is this <FILL BUILDING TYPE> connected to a public sewer? Yes No 14b. Is it connected to a septic system or cesspool? Yes No
14. ¿Cuál es el tipo PRINCIPAL de eliminación de aguas cloacales de <FILL BUILDING TYPE>? Alcantarillado o desagüe público Sistema séptico, o Otro tipo de eliminación de aguas cloacales	14a. ¿Está <FILL BUILDING TYPE> conectado(a) a un alcantarillado o desagüe público? Si No 14b. ¿Está conectado(a) a un sistema séptico? Sí No

1.2.1 English and Spanish Interview Findings

a. Research question 1: Most participants have a basic understanding of the difference between a public sewer and a septic system/cesspool.

All participants were able to identify at least one element of a public sewer system. The most common elements identified by participants were that a public sewer is (1) publicly owned and operated by the city or county, (2) a system of pipes connected to multiple homes/neighborhoods through which all waste water is channeled, and (3) one in which all waste is sent to a common treatment plant offsite.

- A public sewer is "a system where homes are connected together to a system that cleans the water."
- "Wastewater that is run and operated by a public entity like a city, county, locale, jurisdiction, region…"
- "Wastewater from the house is connected to pipes underneath the street and disposed of by those pipes to the city sewer system at the city wastewater treatment plant."

Though participants had more difficulty describing a "septic system," the majority were still able to provide at least a basic definition and distinguish this from a public sewer. Most commonly, participants focused on septic systems being private tanks on a homeowner's land for which the homeowner is responsible for maintaining.

- "There's a tank in the ground where all the septic waste from the home goes. Privately owned. It's pretty far underground. It's its own functioning system."
- "A tank in your yard that collects the waste in your yard."
- "A set of pipes that go to a septic tank that is on your own property. It's private. You are responsible for getting rid of the sewage collected there."

b. Research question 2: Participants do not have more than one type of sewage disposal system.

None of the 37 group 1 participants indicated that they had more than one type of sewage disposal system. Several were unsure in their response but assumed that they only had one type.

- "I don't think I have more than on type. I only have the one through the city, and I do not have an individual or private one."
- "No. When I bought my mobile home it had a cesspool under it, but we had it connected to the public sewer."
- "I don't know but I wager it would not. Doesn't make sense for a house to have more than one."

c. Research question 3: No participants indicated they have an "Other" form of sewage disposal.

d. General finding: Participants did not have a strong understanding of their sewage disposal system.

About half (19 out of 37) of the English participants did not know the answer to the septic system question. These participants decided on their response by making educated guesses or implementing a process of elimination. Renters had more difficulty answering this question than homeowners.

- "I used process of elimination because it can't be public, otherwise I would know it. It's a relatively new home that was built in 2005 so it would have to be private and it probably has its own septic tank. So, process of elimination."
- "I assumed public sewer because I have no private system that I know of."
- "I honestly don't know where the sewage tank is here at the house. I just rent here, so I really don't know."
- "I just don't know. The others in the household deal with this and we never have conversations about it, so I don't know."

1.2.2 Version 1 Findings by Mode

a. Paper Mode

Four of the 12 English participants knew the answer to the septic system question. The remaining eight participants had some degree of uncertainty and made a guess (or an educated guess) at their response. Though many participants did not know the answer to the question, participants seemed to have a general understanding of the question as intended. For example, all twelve participants understood the phrase "sewage disposal" to refer the wastewater system – that is, the system through which waste and draining is cycled out of homes and cleaned.

Though participants generally understood what was meant by "sewage disposal," there was less understanding of the types of sewage disposal systems. When asked to describe a "public sewer," all participants were able to identify at least one element of a public sewer system, but only one participant, who reported using a public sewer, was able to provide a complete and thorough description. The most common elements identified as part of the public sewer system were (1) publicly owned and operated by the city or county, (2) system of pipes connected to multiple homes/neighborhoods through which all waste water is channeled, and (3) all waste is sent to a common treatment plant offsite.

Participants had more difficulty describing a "septic system." Two participants indicated that they did not know what a "septic system" was and could not describe one. Both participants were unsure in their answer to the septic system question, one guessing that they used a public sewer and the other guessing that they used a septic system. One participant, who reported using a septic system, seemed to confuse a "septic system" with a "sewage system" when they described a septic system as "Anything where you're flushing the toilet, where the sewage would go. I'm not 100% sure." Perhaps this confusion came from the use of the term "septic system" rather than "septic tank." The remaining participants described a "septic system" with varying degrees of certainty. Most commonly, participants expressed that a "septic system" was a private system (i.e., tank) on an individual's property which contains the sewage of that household. The householder would be personally responsible for maintaining the septic system.

Participants had the most difficulty describing a "cesspool." Eight participants, including the three participants who reported using a septic tank or cesspool, indicated that they did not know how to describe a cesspool, and many of them had strong negative reactions to the word itself. For example, one participant stated, "I've only heard of it when it's slang for really germy or gross area. I'm not that familiar with the term." Another participant said, "I know it's not good! [Laughs.] It's some type of containing system that has all kinds of sewage and garbage." When asked if they thought a cesspool was different from/the same as a septic system, participants generally felt there was some difference between them but that they must be similar enough to be listed together in the response options. Some thought the difference between the two was in the level of sophistication (i.e., cesspools were thought to be more rudimentary than septic systems), others thought it depended on how they were constructed (i.e., in a tank vs. open air), and others thought they were different in where they were located (i.e., underground vs. above ground).

No participants indicated that their home uses more than one type of sewage disposal system.

b. CAI Mode – English

Five of the eight English participants knew the answer to the septic system question. The remaining three participants had some degree of uncertainty and made a guess (or an

educated guess) at their response. Two of these participants indicated that they did not know this information because they were currently renting their home. Though some participants did not know the answer to the question, participants seemed to have a general understanding of the question as intended. For example, all eight participants understood the phrase "sewage disposal" to refer the wastewater system—that is, the system through which waste and draining is cycled out of homes and cleaned.

Though participants generally understood what was meant by "sewage disposal," there was less understanding of the types of sewage disposal systems. When asked to describe a "public sewer," all participants were able to identify at least one element of a public sewer system, but only one participant was able to provide a complete and thorough description. The most common elements identified as part of the public sewer system were (1) publicly owned and operated by the city or county, (2) system of pipes connected to multiple homes/neighborhoods through which all waste water is channeled, and (3) all waste is sent to a common treatment plant offsite.

Participants had more difficulty describing a "septic system." Three participants indicated that they did not know what a "septic system" was and could not describe one. One of these participants reported using a public sewer, another indicated that they did not know what type of sewage disposal system they used, and the third participant reported using a septic system or cesspool. One participant, who reported using a public sewer, noted that they thought a septic system was the same thing as a public sewer, stating "I think it is the same thing as public water treatment. A system where they treat the water." The remaining participants described a "septic system" to be one in which a tank holds the waste and must be emptied when it is full. Only one participant, who reported using a septic system, commented on the fact that a septic tank would be found in someone's yard rather than in a public location.

Participants had the most difficulty describing a "cesspool." Five of the eight participants, including one participant who reported using a septic system or cesspool, indicated that they did not know how to describe a cesspool. Three participants, two of whom reported using a septic system or cesspool, attempted to describe a cesspool, and there was much variation and ambiguity in their responses. One participation described a cesspool as "any type of catch and release system where you release it into a pool – it releases it." Another participant said a cesspool was when waste "is just thrown out into a pool in your yard where it is not filtered or contained in any way." The third participant described a cesspool as "where all the dookie goes to, like underground, buried in the group where all the waste goes." When asked whether septic systems and cesspools were different or the same, most participants guessed that they were different systems, primarily because a cesspool is not contained whereas a septic system contains waste in a tank.

No participants indicated that their home uses more than one type of sewage disposal system.

c. CAI Mode – Spanish

Of the five Spanish-language participants, only one of them, who reported living with his family in a trailer park, reported having a septic system. Another participant said he did understand the question but could not provide and answer since he/she said he/she did not know which answer option was right. The three remaining participants said the buildings or single-family houses they live in were connected to a public sewer system.

One participant reported not knowing exactly what "aguas cloacales" [wastewater] meant even when he/she reported having heard the term before. Another participant said he/she did not understand the probe; however, they had previously mentioned the term "aguas negras" [wastewater] and when probed about the concept, he/she answered those were "aguas sucias" [dirty water, sewage]. Most participants - even the participant who was not sure about the term - identified "aguas cloacales" as wastewater collected mainly from kitchen, shower and toilet needs.

Participants understood the response choice "alcantarillado o desagüe público" [sewage system] as intended. However, the response option for septic system, "sistema séptico", posed more difficulties. Of the five Spanish-language participants, one reported not knowing what that was, and two understood it as a latrine.

- "Es donde uno hace sus necesidades pero no funciona con un sistema, es un pozo donde uno va. [It is where you go to relieve yourself, but it does not work with a system, it is a pit where a person goes…"].

- "El baño, el hoyo que hay para donde va a caer toda la suciedad." [The toilet, the hole that is there where all the filth falls into.]

The two remaining participants had a better understanding of the concept and described the septic system in basic terms.

When probed about an alternative term for septic system, "pozo ciego", two of the Spanish-language participants said they had not heard the term. Another participant said he/she had heard the term before but did not know how it worked. The other two respondents provided a definition, one of them including a treatment process and the other simply as a pit with no treatment system.

- "Es un pozo donde se llevan todos los residuos y cuando se llena… es un problema!" [It is a pit where all residues are kept, and when it is full… there is a problem!]

- "Es ahi donde llega toda la suciedad, donde se tiene que limpiar, echarle quimicos para volverla a purificar" [That is where all the filth ends up, where it is cleaned with chemicals and purified.]

1.2.3 Version 2 Findings by Mode

a. Paper Mode

Seven of the 10 English participants knew the answer to the septic system question. The remaining three participants had some degree of uncertainty and made a guess (or an educated guess) at their response. Though many participants did not know the answer to the question, participants seemed to have a general understanding of the question as intended.

Participants had the strongest understanding of a "public sewer." When asked to describe a "public sewer," all participants were able to identify at least one element of a public sewer system, and three participants were able to provide a complete and thorough description. The most common elements identified as part of the public sewer system were (1) publicly owned and operated by the city or county, (2) system of pipes connected to multiple homes/neighborhoods through which all wastewater is channeled, and (3) all waste is sent to a common treatment plant offsite.

Participants had a little more difficulty describing a "septic system," but still had a general understanding. Two participants, both of whom reported using a public sewer, provided detailed descriptions of a septic system. For example, one participant explained that she grew up on a farm in a rural community and had a strong understanding of septic tanks. She described septic tanks as "a catch system for wastewater that is either contained or drained into a drain field or cesspool." The remaining eight participants, including the two participants who reported using a septic system or cesspool, described a "septic system" with varying degrees of certainty. Most commonly, participants expressed that a "septic system" was a private system (i.e., tank) on an individual's property which contains the sewage of that household. The householder would be personally responsible for maintaining the septic system. One of the participants who reported using a septic tank or cesspool described a septic system as "something behind the house or to the side of the house, which we don't have." Thus, even though this participant reported using a septic system, their responses during probing indicate that this may not be the case. The other participant who reported using a septic system vaguely described it as "something you have to dig in the backyard and pay to have cleared out."

Participants had the most difficulty describing a "cesspool." Seven participants indicated that they did not know how to describe a cesspool. One of these seven participants noted that he "had no idea" what a cesspool was but has "heard the word used as a derogatory term for nasty water. Like water that doesn't really get cleaned up." Of the three participants that described a cesspool, two described it as a field or tank where sewage and water is held. The other participant was very familiar with cesspools and described them as "A field where liquid will go after it goes through the filtration of a septic tank and wastewater is retuned back out after being filtered. A cesspool is also known as a drain field." Participants were generally unsure whether there was a difference between septic systems and cesspools. Most participants made a guess but were unable to articulate the reasoning behind their guess. Only one participant articulated that they were different systems that could operate together.

No participants indicated that their home uses more than one type of sewage disposal system.

b. CAI Mode – English

Two of the seven English participants knew the answer to the septic system question. The remaining three participants had some degree of uncertainty and made a guess (or an

educated guess) at their response or used a process of elimination to come to their answer. Though many participants did not know the answer to the question, participants seemed to have a general understanding of the question as intended.

Participants had the strongest understanding of a "public sewer." When asked to describe a "public sewer," six participants were able to identify at least one element of a public sewer system, and two participants were able to provide a complete and thorough description. The most common elements identified as part of the public sewer system were (1) publicly owned and operated by the city or county, (2) system of pipes connected to multiple homes/neighborhoods through which all wastewater is channeled, and (3) all waste is sent to a common treatment plant offsite.

Participants had more difficulty describing a "septic system." Two participants, one who reported using a public sewer and one who was unsure of their sewage disposal system, indicated that they did not know what a septic system was and could not describe one. One participant described a septic system very generally as, "having to do with the plumbing systems," suggesting that they were unfamiliar with this term. Three participants seemed to be confusing a "septic system" with a "sewage disposal system" and described a septic system as a general system for disposing of waste that is connected to a public sewer. Two of these participants reported using a septic system, though both guessed or used a process of elimination to come to their answer. Only one participant, who reported using a public sewer, was able to thoroughly and accurately describe a septic system.

Participants had the most difficulty describing a "cesspool." None of the seven participants indicated that they were familiar with this term or were able to describe it. Several had strong negative reactions to the word itself. For example, one participant said "I've not really heard of it, it sounds horrible. I think probably plumbers discussing whether they have to dig up your septic system, that maybe it was a breach of a pipe." Another participant commented, "Yech! A system where the poop and waste are being cleaned, like a bunch of pipes and pumps and tanks. The pipes are underground, and the tanks are somewhere. I don't know where, but somewhere."

No participants indicated that their home uses more than one type of sewage disposal system.

c. CAI Mode – Spanish

Of the five Spanish-language participants all of them reported living either in an apartment building or single-family home. Four participants answered 'Yes' to this question and only one said that she did not know. Participants assumed that their apartment or house must have a connection to the public sewer given that they do not see or smell wastewater. Responses did not indicate whether participants knew if their apartment or houses were connected to the public sewer system with certainty.

The question was understood as intended and participants described the term 'alcantarillado o desagüe público' somewhat accurately. One participant expressed there was a difference between both terms.

- "Desagüe Público" es donde van las cosas del baño" [*Desagüe público* is where the bathroom stuff goes.]. "Alcantarillado es donde va toda la basura de toda la ciudad." [*Alcantarillado* is where all the trash from the whole city goes.]

The term "pozo ciego" [cesspool] was not known to the participants. A Puerto Rican participant described a "pozo muro" which he considered was the same as a septic system.

- "La forma que lo construyen allá [al pozo muro] es diferente, en la isla. Pues sería lo mismo también porque si es de la manera como yo lo estoy pensando ahí irían los deshechos, los desperdicios y eso." [The way they build it there is different, on the island. Well, it would be the same thing because if it's the way I'm thinking it is, the waste, the garbage and so on would all go there.]

1.2.4 Recommendations

RTI/RSS recommends proceeding with version 2 of the septic system question. Participants seemed to have the strongest understanding of a "public sewer," so this is likely the best starting point for this question. First asking respondents whether they are connected to a public sewer will eliminate the possibility of those who are connected to a public sewer being confused by the other response options as in version 1 of the question. RTI/RSS also recommends the below adjustments to the question text and response options:

(1) Remove "or cesspool" from item (b) of the septic system question. Very few participants understand what a cesspool is and its relationship to a septic system.
(2) Change "septic system" to "septic tank" in item (b) of the septic system question. The phrase "septic system" seemed to confuse participants at times, making them think of a sewage disposal system in general rather than a type of disposal system. Additionally, "septic tank" seems to be a more common phrasing used to refer to a septic system. Thus, using this terminology may reduce the possibility for respondent confusion.

For Spanish interviews, RTI/RSS recommends continuing to test without changes to determine which version to keep, with more evidence. At this point, both versions appear to be functioning adequately.

1.3. Home Heating Fuel

Group 1 also tested two versions of the home heating fuel question. ***Tables 1.14 and 1.15*** display versions 1 and 2 of this question by interview mode and language. The two versions of the question differ in their phrasing of the first two response options. Both versions differ from the current production version of the question in that they add the phrase "natural gas" to the first response option; however, version 1 labels this option as "Natural gas" whereas version 2 labels it as "Gas." In the second response option, version 2 includes the phrase "bottled or tank" to describe propane and butane while version 1 does not.

The key research goals of cognitive testing were to determine:

(1) Do participants understand what "natural gas" is as opposed to "gas"?
(2) Do the words "butane" or "propane" help respondents find the correct heating fuel category?
(3) What is the effect of removing "bottled or tank" from the second response option in version 1?
(4) Are participants only reporting the fuel they use "MOST"?

This section details the general as well as mode- and version-specific findings as it relates to these research questions.

Table 1.14: Home Heating Fuel Question by Version (Paper Mode)

Paper Mode	
V1	V2
Which fuel is used MOST for heating this house, apartment, or mobile home? ☐ Natural gas: from underground pipes serving the neighborhood ☐ Gas: propane, butane, etc. ☐ Electricity ☐ Fuel oil, kerosene, etc. ☐ Coal or coke ☐ Wood ☐ Solar energy ☐ Other fuel ☐ No fuel used	**Which fuel is used MOST for heating this house, apartment, or mobile home?** ☐ Gas: Natural gas from underground pipes serving the neighborhood ☐ Gas: Bottled or tank (propane, butane, etc.) ☐ Electricity ☐ Fuel oil, kerosene, etc. ☐ Coal or coke ☐ Wood ☐ Solar energy ☐ Other fuel ☐ No fuel used

Table 1.15: Home Heating Fuel Questions by Version (CAI Mode)

CAI Mode	
V1	V2
22a. To heat this <FILL BUILDING TYPE>, which fuel do you use MOST— Gas, Electricity, Fuel oil or kerosene, Coal or coke, Wood, Solar energy, or Some other fuel? 22b. Is it natural gas from underground pipes serving the neighborhood? Yes No 22c. Is it a gas such as propane or butane? Yes No	22a. To heat this <FILL BUILDING TYPE>, which fuel do you use MOST— Gas, Electricity, Fuel oil or kerosene, Coal or coke, Wood, Solar energy, or Some other fuel? 22b. Is it natural gas from underground pipes serving the neighborhood? Yes No 22c. Is it bottled or tank gas, such as propane or butane? Yes No

(continued)

Table 1.15: Home Heating Fuel Questions by Version (CAI Mode) (continued)

CAI Mode	
V1	V2
22a. Para calentar <FILL BUILDING TYPE>, ¿qué tipo de combustible utiliza usted PRINCIPALMENTE – Gas, Electricidad, Aceite combustible o queroseno, Carbón o coque, Leña, Energía solar, Algún otro combustible, O no se utiliza combustible? 22b. ¿Se usa gas natural de tuberías subterráneas que abastecen al vecindario? Sí No 22c. ¿Es un gas como el propano o butano? Sí No	22a. Para calentar <FILL BUILDING TYPE>, ¿qué tipo de combustible utiliza usted PRINCIPALMENTE – Gas, Electricidad, Aceite combustible o queroseno, Carbón o coque, Leña, Energía solar, O algún otro combustible? 22b. ¿Se usa gas natural de tuberías subterráneas que abastecen al vecindario? Sí No 22c. ¿Es gas embotellado o en tanque, tal como propano o butano? Sí No

1.3.1 English and Spanish Interview Findings

a. Research questions 1 and 3: Version 2 participants are better able to distinguish between natural gas and propane/butane because of the use of "bottled or tank" in the second response option.

Nine of the seventeen version 2 participants were able to distinguish between the two "Gas" response options.

- "Natural gas is a piped underground source connected to the gas company. Bottled you have to buy, and someone delivers it to your home and fills your tank."
- "Bottled is when large tanks have to be filled. Trucks come out under pressure. Gas lines is when the main gas lines that service other homes also service yours."
- "Propane can be in liquid form, it can be in cannisters or a tank, and natural gas is in its gassiest state and can be used through a pipeline."

Thirteen of the twenty version 1 participants were unable to distinguish between natural gas and propane/butane.

- "I'm not sure what natural gas is to be honest. I don't know what the difference would be. Underground pipes for the whole neighborhood, maybe."
- "No, I can't. I would imagine natural gas is more environmentally friendly? That's all I have."
- "Well propane and butane are specific gases. This is more confusing as it is specific, compared to just natural gas."

b. Research question 2: It is unclear if the words "butane" and "propane" help participants find the correct heating fuel category.

Only two of the participants who selected "gas," commented on using the words "butane" and "propane" to make their decision. For these participants, the words helped; however, this does not provide enough information to conclude whether including "propane" and "butane" helps participants identify the correct heating fuel category.

- "Natural gas is how we heat the home. Electricity is used for lights and appliances and things like that. Natural gas is the only heat and it comes from the furnace. Surely you wouldn't use propane or butane to heat your house, and when I go to the gas company's website to pay the bill, it says 'natural gas.'"
- "I had to think about it for a second. I've been in the basement before, and I've seen the heaters. I think a gas butane/propane thing would be almost like those heaters you see outside of restaurants, and I haven't seen that in the basement."

c. Research question 4: Participants nearly always only report the fuel they use MOST.

Eight of the 37 English participants use more than one source of fuel to heat their home. Seven out of these eight participants reported only the fuel they use most.

- "Electricity is used more. We use a kerosene heated to heat our home only when it's really cold. Most of the time, when I want to heat the house, I go to the thermostat and turn on the heater."
- "We use natural gas, electricity, and maybe solar energy, depending on how you think about it. We have solar panels on the house that generate electricity that is used to turn on the furnace, so that could technically be part of my heating. Electricity and solar are not the main sources of heat, though. When the gas is off, the house is cold. Electricity and solar can't heat the house by themselves. When I want to get the house warm, I turn on the gas furnace."
- "Mostly it's just one – electricity. Sometimes we use the stove which runs on gas."

Only one participant who uses more than one type of fuel to heat their home did not report the fuel they use most often for heating, but instead reported based on which is used most for cooling *and* heating.

- "I thought about which fuel source I used more and found it hard to choose. I live in Arizona where there is extreme heat in the summer months and even in the colder months it isn't necessary to run the heater very often. I was not thinking about fuel used to heat my home only, but also fuel used to cool my house. Electricity for the AC is used more often."

1.3.2 Version 1 Findings by Mode

a. Paper Mode

Eleven of the 12 English participants were either certain in their response to the home heating fuel question or were able to come to answer through strategies such as process of elimination or thinking about which utility bills they pay. These 11 participants found it easy to find the correct response in the list of options and seem to have interpreted the question as intended. One participant did not know which fuel was most used to heat his home and guessed based on what he perceived to be a common source. This participant stated, "I legitimately have no idea. My parents' house has natural gas and I know it's common, so that's what I chose." Three participants indicated that they use more than one type of fuel to heat their home. Based on these participants' responses during probing, they selected

the correct response to the home heating fuel question. Each of these participants selected the fuel that was used MOST to heat their home.

Though most participants were able to answer this question, five participants shared aspects of the question that were confusing or unclear. One participant wanted to be able to select more than one type of fuel. This participant used both electricity and propane/butane; however, electricity is used more often. When answering the question, the participant asked if they could pick more than one option. The interviewer pointed out that the question asked for fuel used "MOST" often and the participant selected electricity as they only use propane when "it's really cold." Another participant, who used natural gas most, noted that electricity is required to turn on the natural gas furnace, and this may cause some confusion for others in similar situations. Two participants noted that if they were homeowners, they would be more familiar with these terms and would not need to use process of elimination to decide on their answer. One of these participants also noted that wood and coal seemed to be "archaic" response options. Lastly, one participant was unsure what was meant by the response option "No fuel used." However, when the interviewer asked what she thought this meant, the participant seemed to have a strong understanding of the phrase: "You don't use any heating devices. You don't have access to a heater, and you don't buy anything additional or use any device to heat your home."

When asked to describe the difference between natural gas and propane/butane, several participants indicated that they did not know the answer or had a hard time articulating the difference. Five participants answered that they did not know the difference between natural gas and propane/butane, five participants were able to articulate that natural gas came from underground pipes and propane/butane were contained in tanks, one participant differentiated based on how cleanly they burn, and one participant differentiated based on how they think the gases are produced. Three of the five participants who did not know the difference between natural gas and propane/butane indicated that they used some form of gas to heat their home. Two of these participants used natural gas, and one used propane/butane as a secondary heat source. Additionally, one participant who used natural gas to heat their home indicated that they knew there was a difference between the two types of gas but did not elaborate on how they were different. Overall, there was little certainty about the differences between natural gas and propane/butane, and two participants commented on propane/butane being used for something other than heating a home, for example a gas grill.

b. CAI Mode – English

Seven of the eight English participants were either certain in their response to the home heating fuel question or were able to come to answer through strategies such as process of elimination, recalling conversations with roommates or landlords, or thinking about which utility bills they pay. One participant was very uncertain in their response because they rent their home rather than own it. This participant knew electricity was used but was unsure if gas was also used. Thus, the participant selected electricity as this was the source of which he was certain. Three participants indicated that they used more than one type of fuel to heat their home. For each of these participants it was easy to identify which fuel type is used most often. For example, one participant noted that they use mostly electricity but will sometimes use the gas stove. Overall, participants seemed to interpret the question as intended and answer as best they were able according to their living situations.
Though all participants were able to answer this question, one participant shared that the question was initially confusing because it followed the series of questions about household vehicles. This participant explained that he first thought the question was asking about fuel for his car and was confused by the series of response options. However, after rereading the question, the participant realized his mistake and knew immediately that his answer was natural gas.

Three participants were asked to describe the difference between natural gas and propane/butane. Of these three participants, one participant, who reported that he used natural gas to heat his home, indicated that he was confused by this distinction because "natural gas" is vague whereas "propane" and "butane" are specific gases. The other two participants distinguished between these forms of gas by noting that natural gas is underground and funneled through pipes, but propane/butane is stored in tanks and canisters. One of these participants also noted that when they think of "butane" they think of lighter fluid. This participant did not think people would use butane to heat their home.

c. CAI Mode – Spanish

Of the five Spanish-language participants, one responded "Electricity." This participant lives in a trailer park. Three of the four remaining participants answered "Gas", and confirmed it was gas supplied by pipes that run underground.

All four participants confirmed there was only one source of energy to heat their homes, either electricity or gas.

Participants were asked about the difference in types of gas. Responses did not show a clear understanding of the difference between types of gas. One of the participants said that propane is used in torches when camping. He said butane is the one sold in gas stations contained in tanks, but admitted he was not familiar with these types of fuels. Another participant said, referring to propane and butane: "Esos son más explosivos, mas peligrosos." [Those are more explosive, more dangerous.]. They added that they had heard that those gases were not safe to use inside the house.

1.3.3 Version 2 Findings by Mode

a. Paper Mode

All 10 of the English participants were either certain in their response to the home heating fuel question or were able to come to answer through strategies such as process of elimination or thinking about which utility bills they pay. Eight out of ten of these participants found it easy to find the correct response in the list of options. One participant had some difficulty finding their response in the list of options and felt "electricity" should be listed first because "most people, at least in Chicago, are powered by electricity." Another participant indicated that they also had some slight difficulty finding their response in the list of options; however, this difficulty seemed to stem mostly from the uncertainty in their response rather than the way in which the response options were presented.

Nine of the 10 participants seemed to interpret the question as intended and answered correctly based on their individual situation. One participant, however, slightly misinterpreted the question. This participant indicated that they use more than on type of fuel in their home. In probing this participant shared that he found it very difficult to choose between natural gas and electricity. This participant lived in Arizona where there is extreme heat in the summer months, and in winter months it is not always necessary to use the heater. Rather than thinking only of the fuel used to heat him home, this participant was also thinking of the fuel used to cool his home. Because electricity for the AC is used more often than natural gas for the heater, this participant selected electricity as his response.

When asked to describe the difference between natural gas and propane/butane, four participants, one of whom used natural gas to heat their home, indicated that they did not know the answer or had a hard time articulating the difference. Seven participants were able to distinguish between natural gas and propane/butane using the clues offered in the

response options. These participants emphasized the fact that natural gas is stored underground and serves communities through a series of pipes, whereas propane and butane are bottled in canisters or tanks that need to be refilled by gas companies. One participant also noted that gas grills come to mind when he thinks of butane tanks, and he was unfamiliar with anybody using butane to heat their home.

b. CAI Mode – English

All seven English participants were either certain in their response to the home heating fuel question or were able to come to answer through strategies such as process of elimination or thinking about which utility bills they pay. Two participants found this question confusing or unclear simply because they were unfamiliar with the system used at their home. Thus, the confusion stemmed more from their uncertainty in their response than the question itself. Additionally, one participant thought it was strange only one option could be selected. This participant thought "a lot of people, at least around here, use a lot of different methods depending on how cold it is and what time of day it is." This participant noted that she uses a wood burning fireplace for heat during the day then switches to electricity at night. This participant was also the only participant who used more than one type of fuel to heat their home (wood and electricity). This respondent selected electricity as their response but noted in probing that they use each type of fuel about 50% of the time.

Three participants were asked to describe the difference between natural gas and propane/butane. Of these three participants, both of whom indicated they used gas to heat their home, had difficulty explaining natural gas. One participant didn't know what natural gas was and the other participant was only able to articulate that natural gas is provided by the gas company. However, all three participants asked to describe the difference between natural gas and propane/butane were able to articulate that propane and butane are stored in tanks or canisters.

c. CAI Mode – Spanish

Of the five Spanish-language participants, four answered only "Gas". One other participant clarified that that she also uses an electric heater, but gas was the main fuel she uses. A participant who responded "Gas and electricity" was not sure if electricity should be considered as an actual fuel to heat up her house.

Since all five participants said the gas comes in underground pipes, question 22c could not be tested.

As found in version 1, participants did not appear to have a clear understanding of different types of gas. Three participants gave a vague answer based on what they have heard or seen before but mentioned the fact that propane and butane come in tanks rather than through pipes.

1.3.4 Recommendations

RTI/RSS recommends proceeding with version 2 of the home heating fuel question. Including "bottled or tanked" in the second response option seems to make it easier for respondents to distinguish between the two types of gasses and provides them more information when selecting their answer from the list of response options. Version 2 participants were better able to describe the difference between the two "Gas" response options. RTI/RSS also recommends including a probe in future rounds of data collection to directly measure whether the words "butane" and "propane" help participants find the correct heating fuel category.

For Spanish interview, RTI/RSS recommends continuing to test to accumulate further evidence to help identify the most effective version.

1.4. Solar Panels

The next Group 1 test topic was solar panels. ***Tables 1.16 and 1.17*** display versions 1 and 2 of the solar panels question by interview mode and language. The terminology used to describe solar panels differs between the two versions. Version 1 uses the phrase, "solar panels that generate electricity," and version 2 uses the phrase "solar power or photovoltaic panels that generate electricity."

The key research goals of cognitive testing were to determine:

(1) How do participants understand the terms "solar panel" (version 1) and "solar power" (version 2)?
(2) How do participants decide if they have solar panels or solar power?
(3) Do participants understand the term "photovoltaic" (version 2)?

This section details the general as well as mode- and version-specific findings as it relates to these research questions.

Table 1.16: Solar Panel Question by Version (Paper Mode)

Paper Mode	
V1	V2
Does this house, apartment, or mobile home use solar panels that generate electricity? ☐ Yes ☐ No	**Does this house, apartment, or mobile home use solar power or photovoltaic panels that generate electricity?** ☐ Yes ☐ No

Table 1.17: Solar Panel Question by Version (CAI Mode)

CAI Mode	
V1	V2
23. Does this <FILL BUILDING TYPE> use solar panels that generate electricity? Yes No	23. Does this <FILL BUILDING TYPE> use solar power or photovoltaic panels that generate electricity? Yes No
23. ¿Usa <FILL BUILDING TYPE> paneles solares que generan electricidad? Sí No	23. ¿Usa <FILL BUILDING TYPE> energía solar o paneles fotovoltaicos que generan electricidad? Sí No

1.4.1 English and Spanish Interview Findings

a. Research question 1: Participants understood the term "solar panel."

All version 1 participants have a basic understanding of solar panels to be large, rectangular panels that are installed on rooves and convert energy from the sun into electricity.

- "Solar panels are panels you put on the roof in your house and they are powered by the sun and it's supposed to keep your house warm in the winter and cool in the summer."
- "It's a panel that captures the sun's rays and generates electricity. They are usually on the roof but sometimes on a pole."
- "They look like glass, and it's on the roof or someplace on the building to attract sunlight that can turn into electricity. They are expensive. We looked into it one time and it just wasn't worth it for us."

Some version 1 participants had a deeper, more scientific understanding of solar panels, and were able to provide a more technical description of solar panels.

- "Solar panels are large collectors of solar radiation that convert solar energy into electrical storage, or in our case, back into our grid. They either convert solar energy into electricity to run the house, or it goes into the grid, for which we get credit."
- "Panels are rectangular and have reflective material on top that is usually placed toward the sun. The panels themselves are made out of certain materials that transfers the sun's energy into a battery where it can be stored as electricity or energy."

b. Research question 1: Participants often conflated the terms "solar panels" and "solar power."

Eight of the 17 version 2 participants referred to "solar panels" when describing "solar power."

- "Where they install solar panels on your roof, and it uses the heat of the sunshine to heat your house"
- "Panels or devices are setup to absorb the sun throughout the day, store it, and use it for various things like power."
- "Panels that get power from the sun that then powers the house."

Five of the version 2 participants had a deeper understanding of "solar power," and were able to describe it a separate concept.

- "Uses photons from the sun and creates electric current through inductions, which is tied to the house's system and generates electricity immediately or is stored and can be given back to the utilities company."
- "Power generated by the sun by a power than comes into the house as electricity."
- "Basically, your house has a certain solar exposure on the roof so a company can come and put up photovoltaic panels made of thin film with semiconductor cells and they can take sunlight ad convert it into useable electricity for the house. The electricity can go right into your appliances or it can go into a battery bank where it can be stored until you need it."

c. Research question 2: Participants determined whether they have solar power/panels primarily by reflecting on whether they had solar panels on their roof.

All 20 version 1 participants commented on whether they have panels on their roof when

describing how they decided on their answer for the question.

- "We don't have solar panels on our roof."
- "I have two solar power kits that I have on my roof. I got them from [local company name]."
- "I've been on our roof and there are no solar panels up there."

Despite version 2 not using the phrase "solar panels," 13 of the 17 version 2 participants comment on whether they have panels on their roof when describing how they decided on their answer for the question. The four participants who did not comment on roof solar panels referenced their electric bill, and solar power equipment or products.

- "I use solar power to heat my pool, but not my house. It's a different type of system."
- "I know because neither me nor my roommate use any solar powered equipment"
- "I know because I see the electric bill every month"
- "We don't have any solar products at home"

d. Research question 3: Most participants do not understand the term "photovoltaic panels."

Ten of the seventeen version 2 participants had never heard of the term "photovoltaic panels." Four version 2 participants had heard the term but were unable to describe what it meant.

- "Well, photo is a picture or something, but I don't know exactly what it [photovoltaic panels] is."
- "I have not heard of them [photovoltaic panels] and am not sure what they are. A photo is when you take a photo of yourself. I think it has to do with solar power, but I don't know. I could Google it. Since the question is asking about solar power, I assume it has something to do with solar power."
- "No, this is the first time I've heard of it [photovoltaic panels]. I have no guess about what it means."

Only three of the seventeen version 2 participants had heard of "photovoltaic panels" and were able to describe them.

- "I have heard of photovoltaic panels. They are a type of solar power system."
- "The panels have some kind of chemical or physical structure that allows them to convert sunlight into electricity due to the photoelectric effect from physics."
- "Yes, they are basically the same as solar panels."

1.4.2 Version 1 Findings by Mode

a. Paper Mode

All 12 English participants indicated that nothing about this question was confusing or unclear, were able to answer it easily, and those with solar panels felt "solar panels that generate electricity" was the terminology they would use to describe the system their home uses. Nearly all participants seemed to understand the question as intended and answered it correctly. One participant, however, slightly misinterpreted the question. This participant indicated that they did use solar panels that generate electricity, but during probing it became clear that the solar panels are primarily used to heat water rather than generate

electricity. This participant lives in a multiunit building and was "informed that solar panels were installed on the roof…the majority of it would be used to heat the water." Because this participant lived in a multiunit building, he was somewhat unsure of the specifics about what type of panels were installed and how they were used. Throughout probing, the participant did maintain that the solar panels were used primarily for hot water, and that changes in his electricity bill were minimal. This participant also had some difficulty providing examples of what it meant to "generate electricity." In his response, the participant did note lighting a lightbulb as an example, but felt the question was very broad and had some difficulty answering.

When asked for their thoughts on version 2 of the question, eleven participants indicated that they preferred version 1 over version 2. Nine of these eleven participants noted the use of "photovoltaic panels" as the reason they preferred version 1. These participants were unfamiliar with this term, felt it was too technical, and would cause confusion for respondents. Three of these eleven participants felt version 2 was more ambiguous than version 1 because it asks about "solar power," which they perceived to be different from "solar panels." For example, one participant stated:

- "This question [version 2] is more ambiguous and I do not prefer it. If the intention is to ask about getting electricity from solar panels, then the first question [version 1] gets at that. Version 2 asks about solar power, and that could come from something other than solar panels, and if you have a plan where you are getting part of your electricity from alternative energy, you might not know if it's coming from solar or wind."

Lastly, when asked whether solar lights in a garden should be included in this question, three participants indicated that they should. These participants felt they should be included because the lights would provide electricity for the garden, which they felt was "part of the house". All other participants felt these solar garden lights should not be included because they interpreted the question to be asking about providing electricity for the main house, something the garden lights would not have the power to do.

b. CAI Mode - English

All eight English participants indicated that nothing about this question was confusing or unclear, were able to answer it easily, and those with solar panels felt "solar panels that generate electricity" was the terminology they would use to describe the system their home uses. All participants seemed to understand the question as intended and answered it correctly.

When asked for their thoughts on version 2 of the question, seven participants indicated that they preferred version 1 over version 2. All seven of these participants noted the use of "photovoltaic panels" as the reason they preferred version 1. These participants were unfamiliar with this term, felt it was too technical, and could lead to respondents incorrectly answering "no" because of their lack of understanding of the term. Some participants indicated they had heard of "photovoltaic panels" before, but felt it was unlikely that most people were familiar with the phrase. For example, one respondent stated, "I would get it, but I think a lot of people would be like 'What are those?' I would just go with "solar panels." The second one [version 2] sounds fancier, but I would have to ask what it ["photovoltaic panels"] is."

When asked whether solar lights in a garden should be included in this question, two participants indicated that they should. These participants felt they should be included because the lights use the same product (i.e., solar panels) being asked about in the question.

c. CAI Mode - Spanish

The five Spanish speakers answered "No" to the solar panels question. They exhibited differing abilities to provide definitions, including one participant who works for a company that installs solar panels and could provide a clear and concise definition. In total, four understood what solar panels are and knew they did not have them. The fifth respondent said she did not know what "paneles solares" [solar panels] are. She wondered if they are the same as "planta solar" [solar plant] which she had heard of in Honduras, but she did not know exactly what that meant either.

Two of the participants thought having solar powered lights might have led them to answer Yes to the question. This could lead to false positives.

When comparing with using the phrase "paneles fotovoltaicos", one participant thought that would mean something different. Three others thought it meant the same, but it would make the question harder to understand for many people.

1.4.3 Version 2 Findings by Mode

a. Paper Mode

Seven of the 10 English participants indicated that nothing about this question was confusing or unclear and were able to answer it confidently. Two participants noted two aspects of this question that were confusing or unclear. First, the phrase "solar energy" is somewhat ambiguous. One participant referred to the option some electric companies offer their customers to receive some of their electricity from renewable resources; however, the renewable resources "may or may not be solar energy," making it difficult for people who are enrolled in such programs to answer this question. For this reason, the respondent felt it would be better to ask if a home "has solar panels rather than if the home uses solar power." Second, one respondent indicated that they did not know what "photovoltaic panels" were, and this caused some confusion. Despite these comments, both respondents seem to have answered the question correctly for their personal situation.

Another participant, however, did not answer the question correctly. This participant indicated that he did use solar panels that generate electricity, but during probing it became clear that the solar panels installed on his multiunit building are used for electricity in the main building of the apartment complex, and not within his individual unit. This participant also indicated that they had never heard of "photovoltaic panels" and when asked to guess what the term referred to, answered, "Some type of panel that records photos or images or heat or what have you to produce heat within the panel."

Overall, very few of the participants had heard of "photovoltaic panels" or were able to describe them. Five of the participants had never heard the phrase, two had heard of the phrase but were unsure what it meant, and three had heard of the phrase and were able to provide some description of them. Of the five participants who had never heard of photovoltaic panels, two assumed they had something to do with solar power or were closely associated with solar panels, two associated the prefix "photo" with photographs or images, and one guessed they had to do with "some other kind of energy like wind energy." Despite being unfamiliar with "photovoltaic panels," all participants were familiar with "solar power." When asked to describe solar power, six of the ten participants described it in terms of solar panels. For example, one participant said that solar power was "panels or devices setup to absorb the sun throughout the day, store it, and use it for various things like power."

When asked for their thoughts on version 1 of the question, seven participants indicated that they preferred version 1 over version 2. All seven of these participants felt version 1 was easier to understand and used terminology with which people are more likely to be familiar. One participant also noted that what classified as "solar power" was unclear in version 2 of the question:

- "I think more people will understand the term solar panels than would understand photovoltaic panels. I also think the question [version 2] is not clear whether the source of solar energy must be attached to the house or could be brought into the house through an energy provider."

Lastly, when asked whether solar lights in a garden should be included in this question, two participants indicated that they should because the garden should be included as part of the house and because the solar lights would be replacing a "traditional type of light".

b. CAI Mode – English

All seven of the English participants indicated that nothing about this question was confusing or unclear and were able to answer it confidently. One participant did note that she uses solar power to heat her pool, a common practice in her state, but she did not include this in her response.

Overall, very few of the participants had heard of "photovoltaic panels" and were able to describe them. Five of the participants had never heard the phrase, two had heard of the phrase but were unsure what it meant. Of the five participants who had never heard of photovoltaic panels, two assumed they were a "type of solar panels…like New Balance tennis shoes and Adidas – both shoes, but just different names," or were related to solar energy. Despite being unfamiliar with "photovoltaic panels," all participants were familiar with "solar power." When asked to describe solar power, four of the seven participants described it in terms of solar panels. For example, one participant described solar power as "panels that are assembled and they take direct sunlight and convert it to electricity and that's how you get your electricity."

When asked for their thoughts on version 1 of the question, four participants indicated that they preferred version 1 over version 2. All four of these participants felt the use of "solar panels" was more straightforward, concise, and easier to understand.

- "I think for the general public solar panels would be better to use because everyone knows solar energy and solar panels. Some people may be confused by the term photovoltaic. They may know 'PV' but they may not know what it stands for."

Lastly, when asked whether solar lights in a garden should be included in this question, one participant indicated that they should because "they generate light from the sun, similar to solar power." However, this participant also noted that they do have solar lights in their garden but did not include them in her response.

c. CAI Mode – Spanish

All five Spanish-speaking participants answered No to this question. In probing, they had a vague general idea of what "energía solar" [solar power] is. None of them had heard of "paneles fotovoltaicos" [photovoltaic panels] before. They had a strong preference for the alternate phrase "paneles solares" [solar panels].

- One participant explained this. "Por lo general uno dice paneles solares, no dice paneles fotovoltaicos. Es lo más común que uno oye… Como dice voltaico, uno piensa que viene de voltaje, y voltaje viene de electricidad. Entonces uno se imagina otra cosa, no que viene del sol." [In general, you say solar panels, not photovoltaic panels. It's the most commonly heard… Since it says voltaic, you think it comes from voltage, and voltage comes from electricity. So, you imagine something else, not that it comes from the sun."

Most had difficulty providing a definition of "generar electricidad" [generate electricity], although they seemed to understand it in context.

1.4.4 Recommendations

RTI/RSS recommends proceeding with version 1 of this question as 29 of the 37 English participants preferred this version of the question because it was easier to understand, less technical, and would create less confusion for respondents. Of the eight remaining English participants, only three preferred version 2, and the remaining five had no preference. RTI/RSS does not recommend any additional changes to the question text.

Spanish speakers preferred "paneles solares" regardless of which version they saw first. Thus, RTI/RSS recommends using version 1, as most did not understand "paneles fotovoltaicos".

1.5. SNAP

The final Group 1 test topic was SNAP receipt. ***Tables 1.18 and 1.19*** display versions 1 and 2 of the SNAP question by interview mode and language. As is noted in the tables, the difference between version 1 and 2 of the SNAP question was its placement within the survey instrument. Version 1 placed the question in its present location in the survey, whereas version 2 moved the question to the end of the housing module.

In testing this question, the Census Bureau was interested in determining whether one placement of the SNAP question was better for respondents. In particular:

(1) Is one placement better than the other at getting respondents to understand the reference period and how it differs from other questions (i.e., 2019 vs. past 12 months)?
(2) Does the placement of the SNAP question at the end of the housing module (version 2) result in the question being overlooked?

This section details the general as well as mode- and version-specific findings as it relates to these research questions.

Table 1.18: SNAP Question by Version (Paper Mode)

Paper Mode	
V1	V2
[QUESTION IS IN ITS PRESENT LOCATION IN THE SURVEY.] **In 2019, did you or any member of this household receive benefits from the Food Stamp Program or SNAP (the Supplemental Nutrition Assistance Program)?** *Do NOT include WIC, the School Lunch Program, or assistance from food banks.* ☐ Yes ☐ No	[QUESTION IS MOVED TO THE END OF THE HOUSING SECTION.] **In 2019, did you or any member of this household receive benefits from the Food Stamp Program or SNAP (the Supplemental Nutrition Assistance Program)?** *Do NOT include WIC, the School Lunch Program, or assistance from food banks.* ☐ Yes ☐ No

Table 1.19: SNAP Question by Version (CAI Mode)

CAI Mode	
V1	V2
[QUESTION IS IN ITS PRESENT LOCATION IN THE SURVEY.] 25. In 2019, did you or any member of this household receive benefits from the Food Stamp Program or SNAP, the Supplemental Nutrition Assistance Program? Do NOT include WIC, the School Lunch Program, or assistance from food banks. Yes No	[QUESTION IS MOVED TO THE END OF THE HOUSING SECTION.] 35. In 2019, did you or any member of this household receive benefits from the Food Stamp Program or SNAP, the Supplemental Nutrition Assistance Program? Do NOT include WIC, the School Lunch Program, or assistance from food banks. Yes No
25. En 2019, ¿recibió usted o algún otro miembro de este hogar beneficios del gobierno por medio del Programa de Cupones de Alimentos o SNAP, el programa de Asistencia Nutricional Suplementaria? NO incluya WIC, ni el Programa de Almuerzos Escolares, ni ayuda de bancos de alimentos. Sí No	25. En 2019, ¿recibió usted o algún otro miembro de este hogar beneficios del gobierno por medio del Programa de Cupones de Alimentos o SNAP, el Programa de Asistencia Nutricional Suplementaria? NO incluya WIC, ni el Programa de Almuerzos escolares, ni ayuda de bancos de alimentos. Sí No

1.5.1 English and Spanish Interview Findings

a. Research question 1: The version 1 placement of the SNAP question performed slightly better in getting participants to understand the reference period and how it differs from other questions.

Out of the 20 version 1 participants, 11 correctly identified the reference period to be 2019, and understood 2019 as January 1, 2019 – December 31, 2019. This share of participants is slightly higher than the share of version 2 participants who correctly identified the reference period to be 2019. Of the 17 version 2 participants, 7 identified 2019 as the reference period.

- When asked what time period they were thinking about when answering the question, one respondent answered "2019. Beginning of the year to end of the year – January to December."
- Another respondent answered "It was asking me about 2019, so I was thinking about the year 2019."

Of those participants who did not identify 2019 as the reference period, 12 felt the SNAP question was asking about 2020 or the past 12 months. Additionally, four participants indicated that they were not thinking of a specific period because they had never received SNAP benefits.

- One respondent indicated that he was thinking of the last 12 months, "or one year ago from the date I would be taking the survey" when answering the SNAP question.
- Another respondent was also thinking of the year 2020 when answering: "I was thinking currently – all of 2020 – but now that I re-read it, it says 2019. My answer is still 'No.'"
- A respondent who has never received SNAP benefits said that she "thought of now or the current time period. I have never gotten this benefit, so when I see this question it doesn't matter what time the question is talking about."

b. Research question 2: The version 2 placement of the SNAP question did NOT result in the question being overlooked.

None of the 17 English version 2 participants overlooked the SNAP question at the end of the housing module.

1.5.2 Version 1 Findings by Mode

a. Paper Mode

All 12 English participants expressed that this question was very easy to answer as they were familiar with these benefits and were certain whether they had received them. One participant noted that they liked that the question included instructions for which programs to not include, and recommended bolding "DO NOT" in the question text to draw more attention to these instructions. Two of the 12 participants indicated that they do use an EBT or electronic benefit transfer card for food in grocery stores, and both participants were including use of this card in their response. Though all 12 participants indicated that this question was easy to answer, 5 participants were thinking of the wrong time period when answering. Rather than thinking of 2019, these participants were thinking of 2020; however, each of these 5 participants indicated their answer would not change when reporting for 2019.

When asked if there was a difference between "2019" and "the past 12 months," 11 out of the 12 participants noted that these time periods were different and were able to correctly identify "2019" as referring to January 1, 2019, to December 31, 2019, and "the past 12 months" to be referring to one year ago from the time of filling out the survey. Only one participant, interviewed in early October, felt these two time periods were the same, stating, "You're asking for the same year. With the past 12 months, I'm still thinking 2019. They are the same." It seems as if this participant felt they were the same because "the past 12 months" included some time in 2019. This participant indicated that they did not received SNAP benefits in 2019 or in the past 12 months.

b. CAI Mode – English

As in the paper mode, all eight English participants expressed that this question was very easy to answer as they were familiar with these benefits and were certain whether they had received them. One participant also expressed that they liked that the question included the list of which programs to exclude. Unlike version 1 paper, none of the eight participants indicated that they were thinking of a time period different from 2019. In fact, two participants noted that they preferred the 2019 reference period because it is "easier and

you don't have to think as much when answering for 2019 as opposed to the past 12 months".

Though all eight participants agreed that the question was asking about 2019, they did not all agree on whether "2019" was different from "the past 12 months." While five of the participants identified these as different time periods with "2019" referring to January 1, 2019, to December 31, 2019, three participants felt they were the same. For these three participants, the time periods were the same because "the past 12 months" included some time in 2019. One of these participants was interviewed in October; the second of these participants was interviewed in November; and the third of these participants was interviewed in early December. Two of these three participants indicated that they did not receive SNAP benefits in 2019 or in the past 12 months; however, one participant answered that they did receive benefits in 2019 but did not in the past 12 months.

There was also some disagreement on whether EBT cards should be included in this question. Of the four participants who use an EBT card, one included this in their response, one did not include this in their response, and two did not indicate whether they included this in their response.

c. CAI Mode – Spanish

The five Spanish speakers answered this question. Three said "No" and two said "Yes," although one of the two hesitated. Upon probing, the participant explained he was not familiar with "cupones de alimentos" as a name for food stamps and wondered if the question was about "estampillas de comida", an alternative name for food stamps in Spanish. But he decided from context that it had to be the same and answered "Yes." Both participants who answered "Yes" indicated they use an EBT for their SNAP benefits.

Aside from that hesitation, participants found the question easy to answer. They provided various explanations about what made it easy, including distinctions between government and private assistance and benefits eligibility.

Three of the five participants answered the question thinking of the intended timeframe, 2019. One other, who has never received SNAP, simply thought about that rather than focusing on a specific timeframe. Finally, one of the two participants who had answered "Yes" to the question, turned out to be a false positive because he received SNAP in 2020 but not in 2019.

Three participants thought asking about the past 12 months is different from asking about 2019, because 2019 refers to the whole year, January through December. Two others, including the participant who gave the false positive response, felt that "past 12 months" was the same period as asking about 2019. When asked the question again with the alternative phrasing "In the past 12 months," the two participants who had originally answered "Yes," did so again. All respondents were interviewed in the last quarter of 2020.

1.5.3 Version 2 Findings by Mode

a. Paper Mode

All 10 English participants expressed that this question was very easy to answer as they were familiar with these benefits and were certain whether they had received them. Though all 10 participants indicated that this question was easy to answer, four participants were thinking of the wrong time period when answering. Rather than thinking of 2019, these participants were thinking of 2020. Of these four participants, one indicated that a 2019

reference period *would* change their answer to the question as they did not receive SNAP benefits in 2019 but did receive benefits in 2020.

When asked if there was a difference between "2019" and "the past 12 months," six out of the 10 participants noted that these time periods were different and were able to correctly identify "2019" as referring to January 1, 2019, to December 31, 2019, and "the past 12 months" to be referring to one year ago from the time of filling out the survey. Of the four participants who felt these two reference periods were the same, three felt they were the same because some of 2019 was included in "the past 12 months" and one felt they were the same because "nothing in my life has changed. I haven't switched jobs or moved." One of these participants was interviewed in mid-December, two were interviewed in early December, and one was interviewed in October.

There was also some disagreement on whether EBT cards should be included in this question. Of the three participants who use an EBT card, one included this in their response, one did not include this in their response, and one did not indicate whether they included this in their response.

b. CAI Mode – English

Once again, all seven English participants expressed that this question was very easy to answer as they were familiar with these benefits and were certain whether they had received them. Though all seven participants indicated that this question was easy to answer, one participant was thinking of the wrong time period when answering. Rather than thinking of 2019, this participant was thinking of 2020. This participant was unclear as to whether their answer would change if they were thinking only of 2019.

When asked if there was a difference between "2019" and "the past 12 months," five out of the seven participants noted that these time periods were different and were able to correctly identify "2019" as referring to January 1, 2019, to December 31, 2019, and "the past 12 months" to be referring to one year ago from the time of filling out the survey. One participant, interviewed in late December, answered that they were the same but seemed to be indicated that their *response* would be the same with either time period as they have never received SNAP benefits. This participant stated, "They would be the same thing to me. It was easy for me to answer that because I have worked all my life and never needed to take advantage of any of those types of programs." Only one participant, interviewed in early October, indicated that they felt the time periods would be the same because "the last 12 months still includes 2019."

There was also some disagreement on whether EBT cards should be included in this question. Of the four participants who use an EBT card, two included this in their response, one did not include this in their response, and one indicated that they did use an EBT card in 2020 but did not include this in their response because they were answering for 2019.

c. CAI Mode – Spanish

Four Spanish-speaking participants answered "No" and one answered "Yes. "One of the "No" answers represented a false negative.

- One participant thought she did not receive enough to warrant a "Yes." "En el 2019 me lo darían como por cuatro meses para $40, cuatro por cuatro es dieciséis, $160 por un año es como si no me hubieran dado nada." [In 2019 they must have given it to me for four months at $40, four times four is sixteen, $160 for one year is as though they had not given me anything."]

Participants were able to focus their answer on 2019, including two who received benefits in 2020. There were different opinions as to whether the past 12 months is the same as asking about 2019. Time constraints limited the probing in one case, but of the four who were probed, three found it different and one thought it was the same time period. All respondents were interviewed in the last quarter of 2020.

1.5.4 Recommendations

RTI/RSS recommends proceeding with version 1 of the SNAP question as this placement of the question seemed to result in a larger portion of participants recognizing change in reference period from the surrounding items. To further improve the accuracy of responses collected from version 1 of the SNAP question, RTI/RSS recommends the additional changes listed below:

(1) Clarify the reference period by changing "In 2019…" to "Between January 1 and December 31, 2019…" This change will make the reference period more explicit and will reduce respondent confusion about which dates should be included in their response.

(2) In the paper version of the questionnaire, underline the reference period to draw respondent attention to the difference in reference period from previous questions. It seems as if the reference period is clearer in CAI interviews, in which the interviewer reads the question aloud, than paper interviews. This may be because paper participants are quickly skimming over the reference period assuming it is the same the surrounding questions.

(3) Lastly, to better understand the ambiguity surrounding the inclusion of EBT cards in the SNAP question, RTI/RSS recommends additional probing during round 2 of data collection to better understand why some participants do not include their EBT card in their response.

For Spanish interview, RTI/RSS recommends the Census Bureau consider adding "estampillas de comida" as an alternative translation for food stamps, as in: "por medio del Programa de Cupones de Alimentos, Estampillas de Comida, o SNAP…" […from the Food Coupons or Food Stamps Program or SNAP, the Supplemental Nutrition Assistance Program?]. The different placement of the question in each version did not appear to make a difference in Spanish.

2 Group 2 Findings

Group 2 participants were tested on three topics: Educational attainment, Health insurance coverage and Disabilities. Respondents assigned to Group 2 completed the survey Cover Page, the entire Basic Person Section and part of the Detailed Person Section and responded to detailed cognitive probes surrounding the selected test questions.

One rationale for testing the educational attainment questions is that a higher percentage of people select "No schooling completed" in self-response modes. About 1.4% selected "No schooling completed" in ACS (2017), and 0.3% selected "Less than 1 year of school" in CPS (2017). These are different categories, where "No schooling completed" is a subset of "Less than 1 year of school." Changes to be explored included (1) use of the terms grade versus level of school, (2) "grade" or "level" preceding/following "degree received" in the question text, and (3) wording the first category as Less than grade 1 versus Less than 1 year of school completed.

Potential revisions to the health insurance coverage question would enhance question reliability and validity. Prior research found that (1) Medicaid and other means-tested programs are underreported in the ACS and (2) direct-purchase coverage is over-reported. Potential revisions are also intended to capture changes to the health insurance landscape that occurred with the passage of the Patient Protection and Affordable Care Act.

Potential changes to the disability question include capturing population information on functioning in a manner that reflects advances in the measurement of disability and are conceptually consistent with the World Health Organization's International Classification of Functioning, Disability, and Health (ICF) disability framework. Testing the inclusion of a question on communication is important given that it captures difficulties related to psychosocial and cognitive disability in addition to problems with speech. The Washington Group Short Set has been recommended by the UN Statistical Commission and the UN Economic Commission for Europe's Council of European Statisticians as the method for collecting information on disability in the upcoming 2020 round of international censuses.

RTI/RSS completed 33 group 2 English interviews and 12 group 2 Spanish interviews. ***Table 1.20*** shows the distribution of group 2 interviews by language, mode, and version. The distribution of group 2 interviews by recruitment criteria, mode, and version are shown below in ***Table 1.21*** (English) and ***Table 1.22*** (Spanish). This chapter presents findings from each of the group 2 test topics.

Table 1.20: Group 2 Interviews by Language, Mode, and Version[a,b]

Mode/ Language	English			Spanish		Total		
	Paper	CAI w/ show cards	CAI w/o show cards	CAI w/ showcards	CAI w/o showcards	Paper	CAI w/ show cards	CAI w/o show cards
Version 1	9	4	5	2	4	9	6	9
Version 2	9	3	3	1	5	9	4	8
Total	**18**	**7**	**8**	**3**	**9**	**18**	**10**	**17**

[a] A few Spanish language interview participants assigned to interviews with showcards could not view the showcards because the device they used to participate did not have the capability for downloading and viewing PDF files.

[b] Imbalance between the number of paper and CAI interviews for Groups 2 and 3 resulted from a combination of three factors: (1) random variation in the schedule/interviewed participants not actually fulfilling the sub-characteristic for which they were selected, (2) difficulty in recruiting participants who fulfilled more than one sub-characteristic, such as a non-native English speaker who meets a second criterion, and (3) the final push to target recruited participants who fulfilled specific rare sub-characteristics, which could move the number of interviews for those sub-characteristics closer to Round 1 targets.

Table 1.21: Group 2 English Interviews by Recruitment Criteria, Mode, and Version

Characteristic	Sub-characteristic	Paper Mode		CAI Mode		Total
		V1	V2	V1	V2	
Educational Attainment	Parents of homeschooled children	0	1	1	0	**2**
	Age 25+ with less than high school education	0	2	1	0	**3**
	Parents of children age 3 to 5	2	2	2	1	**7**
Health Insurance Coverage	Age 65+	2	1	2	3	**8**
	Enrolled in Medicaid	4	5	3	2	**14**
	Enrolled in CHIP	2	3	1	1	**7**
	Enrolled in state or federal marketplace	2	1	2	1	**6**
Disability	Parents of children with disabilities	2	3	3	1	**9**
	Individuals with disabilities	4	4	2	2	**12**
	Non-native English speakers[2]	2	0	2	0	**4**
	Age 50+	5	4	3	4	**16**

[2] Participants in Spanish language interviews were not counted as part of the total for non-native speakers in English language interviews.

Table 1.22: Group 2 Spanish Interviews by Recruitment Criteria, Mode, and Version

Characteristic	Sub-characteristic	CAI Mode		Total
		V1	V2	
Educational Attainment	Parents of homeschooled children	1	1	**2**
	Age 25+ with less than high school education	2	2	**4**
	Parents of children age 3 to 5	1	1	**2**
Health Insurance Coverage	Age 65+	1	0	**1**
	Enrolled in Medicaid	2	1	**3**
	Enrolled in CHIP	4	3	**7**
	Enrolled in state or federal marketplace	0	0	**0**
Disability	Parents of children with disabilities	2	0	**2**
	Individuals with disabilities	0	2	**2**
	Non-native English speakers	0	0	**0**
	Age 50+	3	1	**4**

*Note: While these sub-characteristics were tracked during data collection, there were not target quotas for sub-characteristics for Spanish language interviews.

2.1 Educational Attainment

The first test topic for group 2 participants was Educational Attainment. ***Tables 1.23 and 1.24*** below show the version 1 and version 2 test questions. Primary differences between versions were use of the word "Grade" vs. "Level" of school, Grade or Level of school asked following degree received (as opposed to prior in current production version), as well as testing new language "Less than Grade one" (version 1) and an expanded "Less than one year of school completed/nursery school or preschool/kindergarten" (version 2) replacing the current "No schooling completed" category which has shown overreporting in self-response.

The key research goals of cognitive testing were to determine:

(1) Do participants understand the question and the overall meaning?
(2) Is the use of the term "grade" (version 1) or "level" (version 2) of school in the base question easier to understand?
(3) How do people currently enrolled in school answer this question? Does the instruction help them answer?
(4) Use of "less than grade 1" (version 1) vs. expanded three categories "less than 1 year of school completed," "nursery school or preschool," and "kindergarten"

(version 2) – Does one version better help people understand who should select these response options?

(5) Unlike the current version, both test versions remove the heading and subheading "No schooling completed." Do those with no schooling know how to respond?

(6) Do individuals with homeschooled children understand the question and response categories and know where their child should be classified?

Table 1.23: Educational Attainment Question by Version (Paper Mode)

Paper Mode

V1	V2
What is the highest grade of school or degree this person has COMPLETED? *If currently enrolled, select the previous grade or highest degree received. Mark (X) ONE box.* **LESS THAN GRADE 1** ☐ Less than grade 1 **GRADE 1 THROUGH GRADE 12** ☐ Grade 1 through 11 – *Specify grade 1 – 11* ☐ 12th grade – **NO DIPLOMA** **HIGH SCHOOL GRADUATE** ☐ Regular high school diploma ☐ GED or alternative credential **COLLEGE OR SOME COLLEGE** ☐ Some college credit, but less than 1 year of college credit ☐ 1 or more years of college credit, no degree ☐ Associate's degree *(for example: AA, AS)* ☐ Bachelor's degree *(for example: BA, BS)* **AFTER BACHELOR'S DEGREE** ☐ Master's degree *(for example: MA, MS, MEng, MEd, MSW, MBA)* ☐ Professional degree beyond a bachelor's degree *(for example: MD, DDS, DVM, LLB, JD)* ☐ Doctorate degree *(for example: PhD, EdD)*	**What is the highest level of school or degree this person has COMPLETED?** *If currently enrolled, select the previous grade or highest degree received. Mark (X) ONE box.* **LESS THAN 1 YEAR OF SCHOOL COMPLETED** ☐ Less than 1 year of school completed **NURSERY OR PRESCHOOL THROUGH GRADE 12** ☐ Nursery school or preschool ☐ Kindergarten ☐ Grade 1 through 11 – *Specify grade 1 – 11* ☐ 12th grade – **NO DIPLOMA** **HIGH SCHOOL GRADUATE** ☐ Regular high school diploma ☐ GED or alternative credential **COLLEGE OR SOME COLLEGE** ☐ Some college credit, but less than 1 year of college credit ☐ 1 or more years of college credit, no degree ☐ Associate's degree *(for example: AA, AS)* ☐ Bachelor's degree *(for example: BA, BS)* **AFTER BACHELOR'S DEGREE** ☐ Master's degree *(for example: MA, MS, MEng, MEd, MSW, MBA)* ☐ Professional degree beyond a bachelor's degree *(for example: MD, DDS, DVM, LLB, JD)* ☐ Doctorate degree *(for example: PhD, EdD)*

Table 1.24: Educational Attainment Question by Version (CAI Mode)

CAI Mode	
V1	V2
14. [IF SHOWCARD VERSION: Using this list,] what is the highest grade of school or degree you have/<NAME> has COMPLETED? If you are/<NAME> is currently enrolled, select the previous grade or highest degree received. Less than grade 1 Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 6 Grade 7 Grade 8 Grade 9 Grade 10 Grade 11 Grade 12, no diploma Regular high school diploma GED or alternative credential Some college, no degree Associate's degree (for example: AA, AS) Bachelor's degree (for example: BA, BS) Master's degree (for example: MA, MS, MEng, MEd, MSW, MBA) Professional degree beyond a bachelor's degree (for example: MD, DDS, DVM, LLB, JD) Doctorate degree (for example: PhD, EdD)	14. [IF SHOWCARD VERSION: Using this list,] what is the highest level of school or degree you have/<NAME> has COMPLETED? If you are/<NAME> is currently enrolled, select the previous grade or highest degree received. Less than 1 year of school completed Nursery school or preschool Kindergarten Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 6 Grade 7 Grade 8 Grade 9 Grade 10 Grade 11 Grade 12, no diploma Regular high school diploma GED or alternative credential Some college, no degree Associate's degree (for example: AA, AS) Bachelor's degree (for example: BA, BS) Master's degree (for example: MA, MS, MEng, MEd, MSW, MBA) Professional degree beyond a bachelor's degree (for example: MD, DDS, DVM, LLB, JD) Doctorate degree (for example: PhD, EdD)
[IF SHOWCARD VERSION: Usando esta lista,] ¿cuál es el grado de educación o título más alto que usted/que /<NAME> ha COMPLETADO? Si está/<NAME> está matriculado(a) actualmente, seleccione el grado anterior o título más alto recibido. Inferior al grado 1 Grado 1 Grado 2 Grado 3 Grado 4 Grado 5 Grado 6 Grado 7 Grado 8 Grado 9 Grado 10 Grado 11 Grado 12, sin diploma Diploma de escuela secundaria o preparatoria GED o examen equivalente Algunos créditos universitarios, sin título Título asociado universitario (por ejemplo, AA, AS) Título de licenciatura universitaria (por ejemplo, BA, BS) Título de maestría (por ejemplo: MA, MS, MEng, MEd, MSW, MBA) Título profesional más allá de un título de licenciatura universitaria (por ejemplo: MD, DDS, DVM, LLB, JD) Título de doctorado (por ejemplo: PhD, EdD)	[IF SHOWCARD VERSION: Usando esta lista,] ¿cuál es el nivel escolar o título más alto que usted/que /<NAME> ha COMPLETADO? Si está/<NAME> está matriculado(a) actualmente, seleccione el grado anterior o título más alto recibido. Menos de 1 año escolar completo Guardería o preescolar Kindergarten Grado 1 Grado 2 Grado 3 Grado 4 Grado 5 Grado 6 Grado 7 Grado 8 Grado 9 Grado 10 Grado 11 Grado 12, sin diploma Diploma de escuela secundaria o preparatoria GED o examen equivalente Algo créditos universitarios, sin título Título asociado universitario (por ejemplo, AA, AS) Título de licenciatura universitaria (por ejemplo, BA, BS) Título de maestría (por ejemplo: MA, MS, MEng, MEd, MSW, MBA) Título profesional más allá de un título de licenciatura universitaria (por ejemplo: MD, DDS, DVM, LLB, JD) Título de doctorado (por ejemplo: PhD, EdD)

2.1.1 English and Spanish Interview Findings

a. Research question 1: Do participants understand the question and the overall meaning?

Overall, participants understood the question as intended and answered accurately. Only three of the 33 group 2 participants answered the educational attainment question incorrectly – two of these participants answered incorrectly for other household members and one answered incorrectly for themselves.

- "I messed up on my [relative]. He's only completed the 6th grade. He's in 7th grade right now."
- [Participant who selected "Regular high school diploma"] "I went up to [high school grade] and I dropped out of high school. I am working on my GED now. "
- "I selected grade 4 for my [child]. Oh no – highest grade completed would be grade 3. [Did you notice that we were asking about highest grade completed or did you look straight to the categories?] I went right to the categories."

b. Research question 2: Is the use of the term "grade" (version 1) or "level" (Version 2) of school in the base question easier to understand? Row 85

Participants interpreted both phrases in the same way – that is, "highest grade of school" and "highest level of school" were interpreted to mean the highest education one had received. However, when asked about the terms "grade" and "level" separately, participants shared a variety of interpretations.

- "They are different. Grade is Kindergarten through 12th grade, and level I feel like is college or any type of degree."
- "Level doesn't mean anything. Grade is more concrete. More people talk about grade."
- "Grade means the score, the examination at school. A grade of school is like the education quality. A level of school is like middle school or high school."
- "I think level refers to what I am going to subcategorize as preschool, elementary school, middle school, high school, college, graduate school."

Despite various definitions of "grade" vs. "school," participants used these terms interchangeably during probing, and the terminology used in the version they received did not seem to affect their response. Overall, it seems as if, within the context of the educational attainment question, participants understand these phrases in the same way.

- "They are interchangeable."
- "On a survey asking this type of stuff, they are basically the same thing."
- "They mean the same thing. The question is the same with either."
- "Same thing. I can only speak for myself. Youngsters may see it differently, but I think they are the same thing."

c. Research question 3: How do people currently enrolled in school answer this question? Does the instruction help them answer?

Only one participant currently enrolled in school answered this question incorrectly. This participant answered "Regular high school diploma" then explained during probing that they had completed some school before dropping out of high school, and they were *currently* working on their GED. All other participants currently enrolled in school answered correctly – that is, answered for the highest level of school they had *completed*.

- [Participant who selected "Associates degree"] "I saw the one that fit me. I have an Associate's degree, and am working on my bachelor's."
- [Participant who selected "Master's degree"] "For me, I have [two master's degrees], and now I'm currently studying for a PhD, but I haven't completed it yet."

Those currently enrolled in school indicated that they did not notice or read the instructions about how to answer if currently enrolled. These participants did not feel they needed to read these instructions as they already knew the answer, or they assumed all necessary information would be included in the bold text.

Though nearly all participants currently enrolled in school answered correctly for themselves, several participants incorrectly reported the highest grade completed when reporting for a young child. This is likely because participants do not seem to be reading the italicized instructions.

d. Research question 4: Use of "less than grade 1" (version 1) vs. expanded three categories "less than 1 year of school completed," "nursery school or preschool," "and "kindergarten" (version 2). Does one version better help people understand who should select these response options?

Version 2's expanded categories of "Less than 1 year of school completed," "Nursery school or preschool," and "Kindergarten" caused a lot of confusion among participants. Participants did not have a strong understanding of the difference between these categories, and participants provided highly varied definitions of "Less than 1 year of school completed."

- "Less than 1 year of school completed" is when someone starts college and then does not complete anything. Like when they say, 'this is not for me,' and leave."
- "I would think that's maybe one year of high school. Maybe? I don't understand who has one year of school." [This participant did not think this option would make sense for a small child because they felt it was referencing dropping out of school.]
- "When somebody is just introduced to preschool or kindergarten or elementary school. You just entered 3, 4, or 5 years old."
- "I don't know why 'Less than 1 year of school completed' is there when you already have nursery school or preschool. Nursery school or preschool is when you start school, so I don't know what would be less than that."
- "This [V2] is puzzling. There's a difference without a distinction. The first version was easier without including nursery school and kindergarten. Adding it in this version [V2] is just confusing."

When asked about "less than grade 1," participants indicated that this response option would include anybody who never went to school or children who had only attended preschool, pre-K, or Kindergarten.

- "If they never went to school. If they have no formal education. They can't read or write."
- "When they have no formal education, or if it were a child in preschool or Kindergarten."
- "I don't really know. Maybe someone who has never attended school?"
- "Preschool, Head Start, daycare, Kindergarten."

e. Research question 5: Unlike the current version, both test versions remove the heading and subheading "No schooling completed." Do those with no schooling know how to respond? Talk about vignettes – did not interview anybody with no schooling

RTI/RSS did not interview any participants with no schooling; however, probing included asking participants how they would answer each version of the question for an adult who had never attended school. Overall, both versions performed similarly, with most participants selecting "Less than grade 1" or "Less than 1 year of school completed" for each version; however, some participants felt an additional option of "Not Applicable" or "Never attended school" should be added for this scenario.

- All version 1 paper participants probed answered "Less than grade 1" for version 1 of the question and "Less than 1 year of school completed" for version 2 of the question.
- All but one of the version 2 paper participants probed answered "Less than grade 1" for version 1 of the question and "Less than 1 year of school completed" for version 2 of the question. The remaining participant indicated that they would answer "None of the above" (i.e., would not select an option) for both versions.
- All seven of the version 2 paper participants probed answered, "Less than grade 1" for version 1 of the question. Five of the seven participants answered "Less than 1 year of school completed" for version 2 of the question. The two remaining participants felt there should be an option for "Not Applicable."
- Of the three version 2 CAI participants probed, one answered "Less than grade 1" for version 1 of the question and the other two suggested adding an option for "Never attended school." For version 2, two participants answered, "Less than 1 year of school completed" for version 2 and one suggested adding an option for "Never attended school."

f. Research question 6: Do individuals with homeschooled children understand the question and response categories and know where their child should be classified?

All parents of homeschooled children were able to easily answer the question and knew the grade/level of school in which their child should be classified.

- One participant knows when their child advances to the next grade from the transcripts they receive from the school that provides the child's curriculum.
- Another participant receives certificates that serves as proof of completion of specific grades.
- One participant completes biannual reviews of their child's portfolio with the County. After a successful Spring review, the child advances to the next grade.

2.1.2 Version 1 Findings by Mode

a. Paper Mode

Of the nine English participants, two had some difficulty answering the educational attainment question. Of these two participants, one answered incorrectly when responding for his relative who is currently enrolled in 7th grade. This participant answered that his relative had completed 7th grade rather than 6th grade and realized his mistake during probing. The other participant noted that they find education questions such as these frustrating because they don't feel the response options accurately capture their level of education. This participant completed two years of schooling at a four-year university before transitioning into a program affiliated with a community college. The participant shared that they have three certifications but did not receive college credit for these certifications, so they selected "1 or more years of college credit, but no degree" as their response. The participant knew this was the correct response but did not like selecting this option as it "makes me look like a dropout." Overall, this participant was disappointed there were no options for trade school or certification completion.

All other participants were able to answer the educational attainment question without difficulty, and one participant noted that it was helpful for "completed" to be in all caps in the question stem. Only one participant noted that they were unsure about the meaning behind any of the response options. This participant was not sure what a professional degree would be within their specialty but knew that it was different from a Master's (which was the highest degree they had completed). This confusion seemed to be specific to the participant's profession rather than a general confusion about the meaning behind the response option.

When asked about the phrase "highest grade of school," all participants understood this phrase to mean the highest level of education that one has completed. When asked if there was a difference between the phrase "highest grade of school" and "highest level of school," participants had varied responses. Three participants felt they were different as "grade" referred to K-12 whereas "level" referred to education beyond high school. The remaining 6 participants felt these terms were the same. In describing the meaning of the phrase "highest grade of school," those participants who indicated that "grade" and "level" were different used these terms interchangeably, suggesting that, in the context of this question, these phrases have similar meanings.

Participants were also asked to provide examples of when people should select "Less than grade 1" for this question. Of the nine participants, four mentioned a scenario in which a person had never been to school or received formal education, and seven participants mentioned scenarios in which only pre-K or Kindergarten had been completed. One participant included preschool and Head Start programs in examples of "Less than grade 1" and one participant noted that "preschool doesn't count" because it's before schooling begins.

When asked to distinguish between "Less than grade 1" and version 2's "Less than 1 year of school completed," two participants reported that these two phrases were the same "just written in a different way." Four participants interpreted "Less than grade 1" to mean completed Kindergarten or pre-K and "Less than 1 year of school completed" to mean less than Kindergarten completed. One participant noted that they did not know what "Less than 1 year of school completed" would mean and they would instead answer "Nursery school or preschool" or "Kindergarten" if answering version 2. One participant felt "Less than 1 year of school completed" would describe a scenario in which a child moves before completing a school year. Only one participant related "Less than 1 year of school completed" to someone who had never completed school and felt this phrasing would better represent a person in such a situation.

Participants were also asked to describe the difference between "Less than 1 year of school completed" and "Nursery school or preschool." Eight of the nine participants expressed confusion over this distinction. Participants were unsure what "Less than 1 year of school completed" meant when it was combined with the option for "Nursery school or preschool" as they considered nursery school and preschool to be less than one year of school. One participant noted that the "first version was easier without including nursery school and kindergarten." One participant thought "Less than 1 year of school completed" would refer to degrees (i.e., post-high school education) when interpreting this response option in combination with "Nursery school or preschool." Only one participant thought that "Less than 1 year of school" would refer to somebody who had never attended school.

To better understand how participants interpret the different response categories, they were also asked to identify how they would answer each version of the educational attainment question for various scenarios. When asked how they would answer about a toddler enrolled in a daycare center, all four participants who were asked this probe answered "Less than

grade 1" for version 1 and "less than 1 year of school completed" for version 2. Two participants were then asked how they would answer about a 4-year-old currently enrolled in preschool. Once again, both participants answered "Less than grade 1" for version 1. For version 2, one participant answered, "Less than 1 year of school completed" and the other answered "Nursery school or preschool." These two participants were also asked how they would answer about an adult who had never been to school. Both participants answered "Less than grade 1" for version 1 and "Less than 1 year of school completed" for version 2. Finally, three participants were asked how they would answer about an adult who attended 8th grade but did not complete that year and never went back to school. For both version 1 and version 2, two participants would answer "8th grade" and one participant answered, "7th grade."

All nine participants indicated that they did notice the category headings, though three of the participants felt they did not need to read them because they already knew what their answer was or were able to easily spot their answer from the list of options. Of the nine participants, eight expressed that the headings were helpful for categorizing the response options, including those three participants who did not read the headings when answering the question. Though the headings were considered helpful, three participants felt that the headings may be more helpful/visible if they were a color other than green; however, one participant felt the green used for the headings was distinct enough from the background color to make them easily visible. Only one participant recommended substantive changes to the headings. This participant felt the heading of "Less than grade 1" could be removed and that a separate category should be added for trade school, certifications, or apprenticeships.

Two participants were currently enrolled in school or attended school within the last 3 months. Each of these participants correctly answered the educational attainment question by reporting their highest *completed* degree rather than the level in which they were currently enrolled. Each of these participants indicated that they had noticed the instructions about how to respond if currently enrolled in school but did not read them when answering the question. One of these participants "just read what was in black" because they felt this was where the important instructions were. However, when reviewing these instructions during probing, both participants indicated that they were clear.

b. CAI Mode - English

Of the nine English participants, two had some difficulty answering the educational attainment question. Of these two participants, one answered incorrectly when reporting their own education and the education of their partner. This participant indicated that their partner graduated from high school, but selected "Grade 12, no diploma" when responding to the educational attainment question. Additionally, this participant selected "Regular high school diploma" for themselves but explained that they dropped out of high school are *currently* working on their GED. Another participant incorrectly answered "4th grade" when responding to the educational attainment question for their child. During probing, this participant reported that their child is *currently* in the 4th grade. The participant noted that they just immediately looked at the response categories (displayed on the showcard) and did not realize the question was asking for highest grade completed.

Two other participants, who had no difficulty answering the educational attainment question, shared some additional feedback. One of these participants noted that they found it "a little confusing" that there is an option for "Some college, no degree" because "your question is asking about highest degree completed, but then you have a category for some college no degree." This confusion did not interfere with the participant's ability to answer the question as their highest level of education was a master's degree. The other participant noted that they had a teaching certificate that they wanted to report, but there was no

category in which that certificate would fit. The participant noted that the certificate "ties into" their degree but is not the same thing.

No other participants had additional feedback on the response options or had difficulty answering the question for themselves or other household members. Two participants, who were parents of homeschooled children, also had no difficulty answering this question for their children. One of these participants noted that, because of a disability, their child is enrolled in a "homebound school" in which a teacher comes to their house to teach the child. This school provides the participant a grade indicating that they are ready to move onto the next level, so the participant had no trouble determining how to report their child's education level. The other participant homeschools their child and participates in biannual review of the child's portfolio with the County each year—once in the Fall and once in the Spring—and the year is considered complete after the Spring review.

When asked about the phrase "highest grade of school," all participants understood this phrase to mean the highest level of education that one has completed. When asked if there was a difference between the phrase "highest grade of school" and "highest level of school," seven of the nine participants felt they were the same or within the context of the question could be interpreted in the same way. For example, one participant said, "On a survey asking this type of stuff, they are basically the same thing." Another participant who felt the phrases meant the same thing went on to express a preference for "level of school" because "grade of school sounds a little juvenile, like someone completing K-12," but also expressed that either phrase would work fine in the context of the question. Of the two participants who felt they were different, one noted that "grade" referred to K-8th grade, while "level" referred to anything beyond 8th grade. The other participant, who thought they were different thought "grade" referred to the quality of education (i.e., a score on an examination) whereas "level" referred middle school or high school. This participant was from another country and used different language to describe these concepts than the other participants. For example, this participant noted that in that country "degree" is used to refer to completing *any* level of education (i.e., middle school, high school), not just education beyond high school.

Participants were also asked to provide examples of when people should select "Less than grade 1" for this question. Of the five participants who answered this probe, four of them mentioned an individual who never went to school or received no formal education. Three of the five participants also mentioned nursery school, daycare, preschool, or Kindergarten.

When asked to distinguish between "Less than grade 1" and version 2's "Less than 1 year of school completed," three participants reported that these two phrases were the same. Of these three participants, one went on to say that it would be easier to have an option for "Did not attend school at all" and that it was "a little bit confusing" to have options for "Nursery or preschool" and "Kindergarten" as these were before the first year of schooling. Three other participants felt these two phrases were different. One participant expressed concern that adults may misinterpret "Less than 1 year of school completed" to be related to their current enrollment—for example, less than one year of college completed. Another participant noted that "Less than 1 year of school completed" means "the total education received is less than one year…this is broader than 'Less than grade 1.'" This statement seemed to imply that this participant felt "Less than 1 year of school completed" would include an adult who had never gone to school, but it is somewhat unclear.

Participants were also asked to describe the difference between "Less than 1 year of school completed" and "Nursery school or preschool." Several participants expressed confusion over this distinction. Some were unsure why "Nursery or preschool" was included with "Less than 1 year of school completed" as nursery/preschool is less than one year of schooling, or because nursery/preschool "isn't really school." One participant indicated that thought "Less

than grade 1" was unclear, so they preferred including the option for "Nursery school or preschool."

To better understand how participants interpret the different response categories, they were also asked to identify how they would answer each version of the educational attainment question for various scenarios. When asked how they would answer about a toddler enrolled in a daycare center, all six participants who were asked this probe answered "Less than grade 1" for version 1. Five of the six participants answered, "Nursery school or preschool" for version 2 and one answered, "Less than 1 year of school completed." Seven participants were then asked how they would answer about a 4-year-old currently enrolled in preschool. Once again, all participants answered "Less than grade 1" for version 1. For version 2, all participants answered, "Nursery school or preschool." Five participants were also asked how they would answer about an adult who had never been to school. Four of the five participants answered, "Less than grade 1" for version 1, and the other participant indicated that they would answer, "None of the above" if it were an option. For version 2, all five participants answered, "Less than 1 year of school completed." One of these participants noted that "Less than 1 year of school completed" should include a clarification that the category includes individuals who never attended school. Finally, three participants were asked how they would answer about an adult who attended 8th grade but did not complete that year and never went back to school. For version 1, two participants answered, "7th grade," one participant answered, "8th grade," and one participant answered, "Grade 1- 12" but did not specify which grade. For version 2, one participant answered, "8th grade," and three answered, "Grade 1-11" but did not specify which grade.

Four participants received showcards for the educational attainment question. All four of these participants found the showcard helpful and three participants indicated that they used the showcard to arrive at their response. The only participant who indicated they did not use the showcard noted that they did not use it because they were familiar with this type of question, but if they had not been familiar with the question, they would have found the card helpful.

c. CAI Mode – Spanish

All six Spanish-speaking participants understood question 14 as intended but only four of them were able to answer it correctly for all members of the household.

One of the participants, whose interview was completed using a showcard, was not able to select the correct answer for a household member who had completed "Secundaria" (up to 9th grade) in Mexico. She selected the answer option of "Less than grade 1" for him because she just couldn't find an appropriate answer for his situation. She did not think that the option of "Grade 1 through 12" was the applicable because she found the response categories underneath the heading confusing. For this participant, having the specific grade completed as an answer option, in the household member's case "grade 9" would have been ideal.

The other participant, whose interview was completed without a showcard, was only able to provide answers with the help of the interviewer. She answered "Secundaria" when she had only completed 11th grade. She was a month shy from completing high school, and was only able to select "Grade 12, no diploma" when the interviewer reminded her that this was an answer option.

These participants were two of the five participants who also reported someone in the household currently enrolled in school. And they were the only two participants who were not able to answer this question correctly even with the instructions.

The first participant answered "Grade 11" for her child who was currently enrolled in school attending 11th grade. This participant said that she did not pay attention to the instructions because the question with the instructions felt a little long for her. However, reading the instructions by themselves helped this participant select the correct answer. The second participant answered "Grade 9" for her child who was currently enrolled in school attending 9th grade. She was only able to provide the highest grade completed when the interviewer prompted for clarification.

To all six participants the term "grado de educación" [grade] and "nivel escolar" [level] meant basically the same thing. Although, to one participant "'nivel escolar" seemed to only refer to elementary and middle school. Two participants expressed that they preferred the term "grado de educación". The other four did not express a preference.

Out of the six participants, five understood "Inferior al grado 1" [Less than grade 1] as either "someone who has never gone to school" or "someone who hasn't gone past 1st grade." The participant who picked this option for her household member who had completed 9th grade (secundaria) in Mexico, said that this option could also mean someone who had not completed 1st grade, but she wasn't sure because the rest of the answer categories did not make sense to her either. She said that she couldn't use the rest of the options as reference to understand what the first one meant.

When asked alone what "Menos de 1 año escolar completo" (Less than 1 year of school completed) meant to the participants, two of the six participants explained that this meant that someone had not completed the first grade. One participant said this could mean less than first grade, but it could also mean someone who never attended school, including Pre-K and Kindergarten. For another participant this meant that a person only completed 1st grade, and another participant said that it meant that a person "never attended school." The sixth participant couldn't provide a specific answer for what this meant to her.

However, when participants were asked if "menos de 1 año escolar completo" (less than 1 year of school completed) and "guardería o preescolar" (nursery school or preschool) meant the same thing, four out of the six participants were able to differentiate between the two options. One participant said that that they were very different because nursery school and preschool are very specific and right away you think about small children, while less than 1 year of school completed could be an answer that applies to anyone who had never attended school. Another participant explained the difference by saying:

- En la 'guardería' se puede saber cuánto tiempo tiene un niño ahí, y arriba dice 'menos de un año escolar completo'. Esa es la diferencia." [In the 'guardería' you can't tell how long a child has been there, and above it says, 'less than a full school year'. That's the difference]

Another participant said:

- "Menos de un año escolar completo es que [la persona] fue unos meses a la escuela, o no completó la escuela; y en el otro, que por lo menos fue a la guardería o prescolar". [Less than a school year completed means that [the person] went to school for a few months or did not complete school; whereas in the other option, the child at least attended childcare or preschool.]

The fourth participant explained:

- "No porque cuando está hablando de un año de educación completo, eso es el año. Prescolar también para que lo complete tienen que ir el año escolar. Si usted empieza primero y usted no completa el año pues no tiene el año completo. En

prescolar es lo mismo, si usted retira al niño antes del año pues no tiene el año completo." [When you talk about a school year completed you are talking about the year in general. For preschool you also have to go the entire school year to complete it. If you start first grade and you don't complete the year, you don't have the whole year. In preschool it is the same. If you remove a kid from school while he is in preschool, he didn't complete the school year.]

Five of the six participants were able to provide the correct answer (guardería) with version 2 if they were answering about a young child enrolled in a childcare center. Out of the five participants who were asked this question using version 1, four were able to answer "Inferior al grado 1" [Less than grade 1], including one of them who was not too certain about this option.

2.1.3 Version 2 Findings by Mode

a. Paper Mode

All nine of the English participants answered the educational attainment question accurately. One participant was a parent of a homeschooled child and had no difficulty selecting their child's level of education from the options given. This participant explained that their child is homeschooled because of a disability and the school district in which they live "can't handle it." This participant knows when their child has completed a grade because the school provides them with transcripts and certificates as proof of completion of specific grades.

Though all participants answered accurately, some participants expressed some uncertainty with their response option. One participant who answered "Kindergarten" for their child explained that their child had completed Kindergarten, but they decided to hold them back a year, so they are also currently enrolled in kindergarten. Another participant indicated that she was "thrown off" by the option of "Less than 1 year of school completed" when answering for her relative. This participant's relative had not yet started pre-K, but the participant felt the option "Less than 1 year of school completed" referred to somebody who started school and then dropped out, so was unsure about selecting this response. This participant ended up selecting "Less than 1 year of school completed" because it was the most accurate. Lastly, one participant mentioned that she had a license in addition to her master's degree but did not see an option on the list to report these licenses. This participant did not feel her license was up to the level of an MD or professional degree, so she selected "Master's degree." The participant felt categories should be added for licenses, certifications, and technical schools. This participant also questioned whether it was possible to complete 12th grade and not get a diploma, but recognized that school districts operate differently, so this may be a possibility.

When asked about the phrase "highest level of school," all participants understood this phrase to mean the highest that you went in your schooling, or your "terminal degree." When asked if there was a difference between the phrase "highest level of school" and "highest grade of school," participants had varied responses. Six participants felt they were the same, and a couple thought that "grade" may be more common terminology and easier for people to understand. The three remaining participants felt the phrases were different because "grade" was a "more concrete" concept whereas "level" could take on a variety of meanings. One of these three participants noted that though they have different meanings, in the context of this question, "they are essentially the same."

Participants were also asked to provide examples of when people should select "Less than 1 year of school completed" for this question. Of the nine participants, only two mentioned a scenario in which a person (i.e., adult) had never been to school or received formal education. Five participants mentioned scenarios in which young children were beginning

pre-K or had not yet attended Kindergarten. One participant thought the phrase referred to "less than 1 year of college" and another participant felt it referred to "less than 1 year of high school." This participation specifically mentioned that this would not apply to young children "because you can't drop out of school that early."

When asked to distinguish between "Less than 1 year of school completed" and version 1's Less than grade 1," participants provided varied responses. Two participants felt they meant the same thing "described in a different way." One of these participants noted they preferred version 2 because the wording is "more consistent with other things I have read." Another participant felt "Less than 1 year of school completed" included any grade between kindergarten and 12th grade, whereas "Less than grade 1" refereed to things like Head Start and Kindergarten. Another participant indicated "Less than grade 1" would refer to not having completed grade 1, whereas "Less than 1 year of school completed" would refer to having never gone to school but could have had some nursery or pre-K schooling. Lastly, one participant felt "Less than 1 year of school completed" referred to high school (i.e., dropping out of high school) and "Less than grade 1" referred to first grade.

Participants were also asked to describe the difference between "Less than 1 year of school completed" and "Nursery school or preschool." One participant interpreted "Less than 1 year of school" to be a measure of time – that is, the actual amount of time a person has been in school. It is unclear if the participant would consider completing a grade in less than 12 months would be categorized as "Less than 1 year of school completed." Others felt that preschool and nursery school were not considered education/schooling and were unsure how to answer because of that. One participant noted that "Less than 1 year of school completed" was very broad and would include someone who just enrolled in nursery school. Another participant again mentioned that "Less than 1 year of school completed" referred to attending college for less than one year whereas "Less than grade 1" would mean the person had graduated from kindergarten.

To better understand how participants interpret the different response categories, they were also asked to identify how they would answer each version of the educational attainment question for various scenarios. When asked how they would answer about a toddler enrolled in a daycare center, all eight participants who were asked this probe answered "Less than grade 1" for version 1. For version 2, three participants answered, "Nursery or preschool," three participants said their answer would depend on whether the child had completed nursery school/preschool and if the daycare center was teaching the child. One participant answered, "Less than 1 year of school completed." The participants were then asked how they would answer about a 4-year-old currently enrolled in preschool. Once again, all participants answered "Less than grade 1" for version 1. For version 2, two participants answered, "Less than 1 year of school completed" and five participants answered, "Nursery or preschool." When asked how they would answer about an adult who had never been to school, all participants answered, "Less than grade 1" for version 1. For version 2, five participants answered, "Less than 1 year of school completed," and two answered that none of the categories were appropriate. These participants suggested adding an option for "Not Applicable," which they would have selected in this scenario. Finally, participants were asked how they would answer about an adult who attended 8th grade but did not complete that year and never went back to school. For both version 1 and version 2, all but one participant answered, "7th grade," and the one other participant answered, "8th grade."

Six of the nine participants indicated that they did notice the category headings. During probing, participants were asked if these category headings were helpful in selecting their answer. Seven participants felt they were helpful, one of whom mentioned that the color of the headings was useful in stand out against the green background. One participant who did had not noticed the headings felt they were repetitive, and it was simple enough to just read through the response options. Another participant did not notice the headings until the

interviewer explicitly pointed them out during probing. After seeing them, this participant acknowledged that they were useful.

Two participants correctly reported on household members who were currently enrolled in school. These participants noted that they did not notice the italicized instructions about reporting for people currently enrolled in school. After reviewing the instructions during probing, they confirmed that the instructions would not have changed their answer to the question.

b. CAI Mode – English

All six English participants correctly answered the educational attainment question for themselves and other household members. All participants were able to find an option that fit with their personal situation, though one participant, who was in the process of completing their PhD, noted that if there had been an option for "some advanced higher degree" they would have chosen that instead of "master's degree." This participant expressed that "completed" was the operative word, and thus, selected "master's degree" as they had not yet completed their PhD.

When asked about the phrase "highest level of school," participants generally understood this to mean the highest grade or level of education one has completed. One participant felt the phrase did not refer to individual grades, but instead to categories of schooling – that is, preschool, elementary school, middle school, etc. When asked if there was a difference between the phrase "highest level of school" and "highest grade of school," three participants indicated that they were different in that "grade" referred to K-12 whereas "level" referred to education beyond high school. The other three participants, however, felt the two expressions were "interchangeable," though one of these participants noted that "grade" is clearer as "level" makes them think of category of school (e.g., elementary school) whereas "grade" makes them "think of a number."

Participants were also asked to provide examples of when people should select "Less than 1 year of school completed" for this question. Two participants thought young children who are just beginning school (i.e., pre-K or Kindergarten) would fall into this category. Two other participants felt this referred to anybody who started but did not complete college. One participant provided the example of an "old non-American-born person without schooling." This participant found it difficult to imagine a young person with no schooling. The final participant referred to a scenario in which a person's education is interrupted by an intervening event, such as war, illness, or natural disaster.

When asked to distinguish between "Less than 1 year of school completed" and version 1's "Less than grade 1," two participants referenced people who had no schooling at all; however, they disagreed on which phrase best captured this. One participant said that "Less than 1 year of school completed" would refer to no schooling at all, whereas "Less than grade 1" referred to pre-K or Kindergarten. The other participant felt "Less than grade 1" referred to no schooling at all. Another participant felt that "Less than grade 1" referred to Kindergarten or pre-K and "Less than 1 year of school completed referred to being enrolled in 1st grade without having attended Kindergarten or pre-K. Lastly, another participant noted that both expressions were unclear, but that "Less than grade 1" was more clear than "Less than 1 year of school completed."

Participants were also asked to describe the difference between "Less than 1 year of school completed" and "Nursery school or preschool." Several participants expressed confusion over this distinction. One participant felt the options were "redundant" as "Nursery or preschool" could be categorized as "Less than 1 year of school completed." Another felt the distinction between "Nursery or preschool" and "Less than 1 year of school completed" was

clear, but they were not clear on the difference between "Nursery or preschool" and "Kindergarten."

To better understand how participants interpret the different response categories, they were also asked to identify how they would answer each version of the educational attainment question for various scenarios. When asked how they would answer about a toddler enrolled in a daycare center, all three participants who were asked this probe answered "Less than grade 1" for version 1. Two of the three participants answered, "Less than 1 year of school completed." One of these two participants answered this way because "preschool isn't an education center" and the other answered this way because "daycare isn't the same as nursery or preschool." The remaining participant answered, "Nursery or preschool" for version 2. These participants were then asked how they would answer about a 4-year-old currently enrolled in preschool. Once again, all participants answered "Less than grade 1" for version 1. For version 2, one participant answered, "Less than 1 year of school completed" because the child had not completed preschool, and two other participants answered, "Nursery or preschool." When asked how they would answer about an adult who had never been to school, one participant answered, "Less than grade 1" for version 1 and two participants indicated that they would add a response option for "Never attended school" and select that option. For version 2, two participants answered, "Less than 1 year of school completed" and the other participant again suggested adding an option for "Never attended school." Finally, two participants were asked how they would answer about an adult who attended 8th grade but did not complete that year and never went back to school. For both version 1 and version 2, one participant answered, "7th grade" and one participant answered, "8th grade."

Two participants received showcards for the educational attainment question. Both participants found the showcard helpful and the headings accurate.

c. CAI Mode – Spanish

Out of six of the Spanish-speaking participants, five understood question 14 as intended and only four of them were able to answer it correctly for all members of the household. One participant understood this question to be asking about the highest grade they had reached instead of completed. She answered "Grade 9" for herself even though she had not completed it. She explained that she was 4 months away from completing 9th grade when she dropped out of school. She also answered "Grade 2" for a household member who is currently enrolled in school attending 2nd grade.

The second participant whose interview was completed using a showcard, was not able to select the correct answer for herself. She hesitated while she answered "graduada de escuela secundaria" (high school graduate) paying attention to the main headings. When probed for specifics she said:

- "¿Pues que sería? Soy secretaria. ¿GED sería o credencial equivalente? (So, what would it be? I'm a secretary, would that be a GED or equivalent credential?)

This participant explained that in her country she completed what they call a "carrera" (career) which would be "secretaria" (secretary). She also explained that she started taking GED classes here in the US but did not complete them. She did not consider selecting "Diploma de escuela secundaria o preparatoria" (regular high school diploma) because "secundaria" in her country is the equivalent to "9th grade", which is less that what she has completed, and "preparatoria" did not mean anything to her (because that is a term used only in Mexico).

Out of the five participants who reported someone in the household currently enrolled in school, only one participant was not able to answer this question correctly even with the instructions.

Out of the six participants, two thought that the term "grado de educación" (grade) and "nivel escolar" (level) meant two different things. One participant explained that they meant different things to her because "nivel escolar" sounds like something related with "school", "only up to elementary" and "grado de educación" sounds related to "bachillerato" (high school). The second participant explained the differences by saying:

- (Grado de educación, es en el grado que está, nivel de educación es a que nivel han llegado en la educación, el título." (Grado de educación is the current grade they are enrolled in; nivel escolar, is the level they have reached, the degree.)

For this participant, 6th grade would be considered "grado de educación", whereas elementary school would be considered "nivel de educación".

Out of the six participants, only five were able to explain what "Menos de 1 año escolar completo" (Less than 1 year of school completed) meant to them. One participant said: "somebody who dropped out but completed 'preparatoria'", which in her country means Preschool or Kindergarten. Another participant explained that this could be a person that was enrolled in school attending 1st grade, but only attended three months or so and never came back. The third participant explained:

- "Menos de un año escolar es que pues no estuvo todo el año. Menos de un año escolar es como los niñitos de prekínder tal vez, pero abajo dice guardería o preescolar. Menos de un año escolar completado es como que alguien entro a la escuela y se salió, no completó ese año. No necesariamente tiene que ser niño o adulto, pero sí pienso que no completó ese año…" (Less than a school year is that he was not there the whole year. Less than a school year is like prekindergarten maybe, but below it says daycare or preschool. Less than a completed school year is like someone who started school and left, not completing that year. It doesn't necessarily have to be a child or an adult, but I think that they didn't complete that year…)

The fourth participant only explained it as: "It means the person did not finish the grade", but she was not sure what grade that would be. The fifth participant simply said: "Somebody who did not complete their studies."

When asked if "inferior a grado 1" (less than grade 1) and "menos de 1 año escolar completo" (less than 1 year of school completed) meant the same thing or meant something different to them, only one participant said that they meant the same thing. Two participants were not able to provide an answer, and the three other participants explained the differences by saying:

- "Como que es menos al grado que ha llegado. Es diferente, 'Inferior al grado 1' es Kinder – o sea antes de llegar al primer grado." (It means that it's less than the grade they have gotten to. I feel they're different. 'Inferior' is like 'kinder' – before getting to first grade.)
- "Inferior a grado 1 es que nunca ha estado en la escuela. Sí, para mí es diferente." (Below grade 1 is that he has never been to school. Yes, it's different for me.)
- "'Inferior a grado uno' como que solo hizo prescolar. 'Menos de 1 año escolar completo' es que no terminó primero de primaria." ([(Less than grade 1] That the

person only completed preschool. [Less than 1 year of school completed] That the person did not complete 1st grade of elementary school.

It is important to note that comparing both versions was difficult for those whose interviews were conducted without using showcards. When answering about what option they would select for a young child enrolled in a childcare center, only two participants were able to answer using version 2. One participant said either 'preschool or nursery school' or 'less than one year of school completed' would be appropriate in this case. And another participant said that 'preschool or nursery school' would be the right answer.

It seemed that some of the participants understood that 'Menos de 1 año escolar completo' could apply to any grade that was left unfinished, whereas 'Inferior a grado uno' was understood as anything less than first grade.

2.1.4 Recommendations

RTI/RSS recommends proceeding with version 1 of the educational attainment question for the following reasons:

(1) The terms "grade" and "level," though explained with various meanings are interpreted similarly within the context of the educational attainment question.
(2) The category "Less than grade 1" was better understood by participants to include adults who had never attended school as well as young children who had not yet completed first grade.

Additionally, RTI/RSS recommends the following:

(4) Incorporate the italicized instructions into the bolded question text. Participants who were reporting on the educational attainment of young children often reported the grade in which the child was *currently* enrolled as opposed to the *completed* grade. Participants indicate that they were not reading the instructions because they assumed all relevant information was included in the bolded text.
(5) Conduct additional probing in future rounds of data collection to better understand how people are classifying individuals with no schooling, and if an additional "No schooling completed" category is needed.
(6) Continue use of showcards. CAI participants shown showcards found them helpful in both versions.

For Spanish interviews, we recommend testing a change in the translation of "high school diploma" from "diploma de secundaria o preparatoria" to possibly "diploma de *high school,*" to avoid confusion for Latin Americans from different national origins. We recommend testing the addition of the word "Completó" [Completed] in front of the grade or degree categories to stress the question is asking about completed grades/levels. We recommend continuing to test both versions. For CATI Spanish interviews, RTI/RSS recommends asking this question in an open-ended fashion with probes to help the interviewer code the response. The response list is too long to read to the participant.

2.2 Health Insurance Coverage

The next Group 2 test topic was Health Insurance Coverage. Test versions are shown below in ***Table 1.25*** by mode, version, and language.

The key research goals of cognitive testing were to determine:

(1) How do participants report Medicaid and direct-purchase plans?

(2) Are the additional instructions ("Do NOT include plans that cover only one type of insurance, such as dental, drug, or vision plans") clear to participants and are participants including single-service health insurance plans in their responses?
(3) How do people with Medicare Advantage plans classify their health insurance coverage?
(4) How do people with Marketplace coverage classify their coverage?
(5) How do participants with household members who have coverage through the state Children's Health Insurance Program (CHIP) classify the child's coverage?
(6) For participants who check more than one option, are they double reporting single coverage, or do they have more than one type?
(7) What types of insurance or health plans do participants associate with "current or former employer, union, or professional association"?

Table 1.25: Health Insurance Questions by Mode

Paper Mode	CAI Mode
Is this person CURRENTLY covered by any of the following types of health insurance or health coverage plans? *Do NOT include plans that cover only one type of service, such as dental, drug, or vision plans.* *Mark "Yes" or "No" for EACH type of coverage in items a – h.* a. Insurance through a current or former employer, union, or professional association (of this person or another family member) ☐ Yes ☐ No b. Medicare, for people 65 and older, or people with certain disabilities ☐ ☐ c. Medicaid, Children's Health Insurance Program (CHIP), or any kind of government-assistance plan for those with low incomes or a disability ☐ ☐ d. Insurance purchased directly from an insurance company or through a State or Federal Marketplace, HealthCare.gov, or a similar website (by this person or another family member) ☐ ☐ e. TRICARE or other military health care ☐ ☐ f. VA (enrolled for VA health care) ☐ ☐ g. Indian Health Service ☐ ☐ h. Any other type of health insurance or health coverage plan – *Specify* ☐ ☐	I am now going to ask you some questions about your/<NAME's> health insurance and health coverage. Do NOT include plans that cover only one type of service, such as dental, drug or vision plans. 23a. Are you/Is <NAME> currently covered by health insurance through a current or former employer, union, or professional association of yours or another family member/<[him/her] or another family member>? 23b. Are you/Is <NAME> currently covered by Medicare, for people age 65 or older or people with certain disabilities? 23c. Are you/Is <NAME> currently covered by Medicaid, the Children's Health Insurance Program (CHIP) or any kind of government-assistance plan for those with low incomes or a disability? 23d. Are you/Is <NAME> currently covered by health insurance purchased directly from an insurance company, through a State or Federal Marketplace, HealthCare.gov, or a similar website by you or another family member/<[him/her] or another family member>? 23e. Are you/Is <NAME> currently covered by TRICARE or other military health care? 23f. Are you/Is <NAME> currently covered through the VA or enrolled for VA health care? 23g. Are you/Is <NAME> currently covered through the Indian Health Service? 23h. Are you/Is <NAME> currently covered by any other health insurance or health coverage plan?

(continued)

Table 1.25: Health Insurance Questions by Mode (continued)

Paper Mode	CAI Mode
	Ahora le voy a hacer preguntas acerca [de su seguro y cobertura de salud/del seguro y cobertura de salud de <NAME>. NO incluya planes que cubren solo un tipo de servicio, tales como planes dentales, de medicamentos o de la visión. 23a. ¿Tiene usted/<NAME> cobertura actualmente de un plan de seguro de salud a través de su empleador, sindicato (unión) o asociación profesional actual o previo suyo o de otro miembro de la familia/<de [él/ella] o de otro miembro de la familia>? 23b. ¿Tiene usted/<NAME> cobertura actualmente de Medicare, para personas que tienen 65 años o más, o personas con ciertos impedimentos? 23c. ¿Tiene usted/<NAME> cobertura actualmente de Medicaid, el Programa de Seguro Médico para Niños (CHIP) u otra asistencia gubernamental para esas personas con un ingreso bajo o incapacidad? 23d. ¿Tiene usted/<NAME> cobertura actualmente de un seguro de salud adquirido directamente de una compañía de seguros, a través de un Mercado Federal o Estatal, HealthCare.gov o un sitio web similar por usted u otro miembro de la familia/<[él/ella] u otro miembro de la familia>? 23e. ¿Tiene usted/<NAME> cobertura actualmente de TRICARE u otro seguro de salud militar? 23f. ¿Tiene usted/<NAME> cobertura actualmente a través de la VA o se ha registrado alguna vez para cuidado de salud en la VA? 23g. ¿Tiene usted/<NAME> cobertura actualmente a través del Servicio de Salud Indio (Indian Health Service)? 23h. ¿Tiene usted/<NAME> cobertura actualmente por cualquier otro tipo de seguro de salud o plan de cobertura de seguro de salud?

2.2.1 English and Spanish Interview Findings

a. Research question 1: How do participants report Medicaid and direct purchase plans?

All 16 participants who reported Medicaid coverage—either for themselves or other household members—answered the health insurance question by selecting "Yes" to item (c). When describing their coverage, these participants were able to clearly explain specifics of their coverage to the interviewer, such as when they first enrolled in Medicaid, why they were enrolled in Medicaid, or the population Medicaid insures.

- "I am legally disabled and my gross income for the year is under the threshold, so we are eligible for Medicaid. We get food stamps, so my [children] are eligible for CHIP. I had them set up with Medicaid medical cards when they were born."
- One participant, who adopted a child, indicated that the child was on Medicaid through their birth family, and this insurance coverage carried over after the adoption.
- "Well, the Medicare is a benefit for people 65+ once you turn 65, your mail is plagued by mail for it. The Medicaid, I was disabled and have been on that plan in conjunction with my Medicare plan, so it's always been 50/50 with those plans. They always have to bill the Medicare before the Medicaid, and Medicaid accepts what is not paid for by Medicare"

- "I got Medicare when I turned 65, but I didn't have secondary insurance. I had an emergency surgery/hospitalization a few years ago and the hospital made me apply for [the state's Medicaid program]. They have an agency at the hospital that helps you apply."

Only one participant who received coverage through Medicaid had difficulty selecting a response for the health insurance question. This participant enrolled in Medicaid due to some health issues but purchased the plan through the Affordable Care Act portal. Thus, the participant was unsure if they should select "Yes" for item (c) or item (d). The participant initially answered "Yes" for Medicaid, then changed their response to "No" and selected "Yes" for the state and federal marketplace.

b. Research question 2: Are the additional instructions ("Do NOT include plans that cover only one type of insurance, such as dental, drug, or vision plans") clear to participants and are participants including single-service health insurance plans in their responses?

Only one of the 33 group 2 participants included single-service health insurance plans in their response to the health insurance question. This participant received dental and vision coverage through their employer, but their primary medical coverage through the state marketplace. This participant included the dental and vision plans in their response by selecting "Yes" to item (a). This participant said that he did not notice the instruction to exclude single-service plans when answering and when he reviewed at probing thought it was unclear why the question would not want these insurance plans to be included.

- "Don't they want you to include all insurance? 'Do not include plans that cover only one type of service such as dental or vision' – that part is unclear to me. I would still say "Yes" to insurance through my employer because I have a separate plan through them."

No other participants included single-service plans, and all others found the instructions clear.

- "They want you to tell them exactly what type of health insurance you are on, and what's not included is your dental, drug, or vision plan. Makes complete sense because dental and vision are separate from most plans in America anyway."
- "I heard just 'give me the health insurance part.' Don't include any other policies you have. Some companies have it all in one."
- Just report your general insurance plan and not the other different options that you have. The instructions are very clear."

c. Research question 3: How do people with Medicare Advantage plans classify their health insurance coverage?

Two of the 33 group 2 participants reported members of their households having Medicare Advantage Plans. One of these participants indicated that their partner had a Medicare Advantage plan but did not wish to share more information. The other participant reported that she and her husband were covered under her husband's Medicare Advantage plan that he received as a retirement benefit from his career as a state employee. This participant answered "Yes" to items (a) and (b) for herself and her husband.

- "My husband is a former state employee, and the Medicare Advantage plan is available through them and we are both covered. It's through [state] and is a retiree benefit."

d. Research question 4: How do people with Marketplace coverage classify their coverage?

Nine of the 33 group 2 participants answered "Yes" to item (d), indicating that they or other household members had health insurance coverage through the state or federal marketplace. Of these nine participants, seven were able to report this coverage because they had purchased the coverage themselves, asked other household members for this information during the interview, or had assisted other household members in purchasing this coverage.

- "She is too old to be covered through our insurance, so we went through the marketplace and I was involved in the process of purchasing her insurance."
- "I listened to everything you said, and I chose that one because I am covered by the Affordable Healthcare Act which is the state marketplace."
- "I have insurance through [state insurance plan] …Premiums for health insurance through my employer were higher than through [state insurance plan], so I went with that for my main insurance… [State insurance plan] is available to everyone. Premiums depend on your income level, and the coverage is comparable to getting insurance through your employer."

Two of these participants (both CAI participants) reported that it was somewhat difficult to identify the correct response option because the descriptions for other response options included elements that aligned with their marketplace plans. One participant with healthcare through her state marketplace explained that she considered item (c) because the description includes the term "low-income." Both participants noted that common terminology, such as "Affordable Care Act" and "Obamacare" were not included in the description.

- "Maybe include 'Affordable Care Act' as I was a little confused. I was clued in because of the state marketplace. It is a bit wordy. Some people know of it as 'Obamacare.'"
- "I heard 'government-assisted program' [item c] so I thought this was the right option, but then I heard 'low-income.' When you read the next option it also had government assisted language in there and it sound more like Obamacare. Having this option first might have helped, or just read all the options first so it would be easier for me to choose. I think it would be helpful to include 'Obamacare' or 'Affordable Care Act.'"

Two of the participants may have incorrectly reported marketplace coverage. One of these participants indicated during probing that he answered "Yes" to item (d) about the purchase of his Medicare plan which was purchased through an online portal. The other participant also answered "Yes" to item (d) to report Medicare coverage that had been purchased through the Affordable Care Act site.

e. Research question 5: How do participants with household members who have coverage through the state Children's Health Insurance Program (CHIP) classify the child's coverage?

All participants with children enrolled in the state Children's Health Insurance Program (CHIP) classified their child's coverage under item (c). Only one of these participants had some difficulty with this response. This CAI participant initially selected "No" and then changed her answer to "Yes" when answering item (c) about her child.

- "My child is enrolled in [state program name]. It is public aid government assistance through the state. At first, I didn't think that option was considered to be in that category, but now I understand the question."

f. Research question 6: For participants who check more than one option, are they double reporting single coverage, or do they have more than one type?

Of the 33 group 2 participants, 13 reported more than one type of health insurance coverage. Of these 13 participants, two double reported single coverage, and one reported single coverage plans in addition to their primary medical insurance.

- One participant, who is self-employed, selected "Yes" for items (a) and (d) because their coverage is purchased by their company through the state marketplace.
- One participant answered "Yes" to items (b) and (d) for Medicare coverage purchased through an online portal.
- And one participant reported dental and vision coverage plans provided through his employer (item a) and medical insurance purchased through the state marketplace (item d).

g. Research question 7: What types of insurance or health plans do participants associate with "current or former employer, union, or professional association"?

Ten of the 33 group 2 participants indicated that they received health insurance coverage through a "current or former employer, union, or professional association." Of these ten participants, most reference insurance through their current employer or their spouse's current employer; however, two of these participants reference retirement coverage through previous employers.

- "I retired after working nearly 30 years at [employer], so I have [insurance] through them, and they cover whatever Medicare doesn't cover."
- "My husband is a former state employee, and the Medicare Advantage plan is available through them and we are both covered."

One participant answered the health insurance question by answering "Yes" to both items (a) and (d). During probing, this participant clarified that they do receive insurance through their employer, but they are self-employed, and thus the employer. The insurance plan provided through the company was purchased through the marketplace. This participant was unsure if they should answer "Yes" for item (a) or (d).

- "I may have misunderstood. I thought you were asking about an employer, but we are the employer. It's through our company name, and the company provides our insurance. We are self-employed, so it's health insurance through our company, but it's through the marketplace."

2.2.2 Findings by Mode

a. Paper Mode

Most of the 18 English participants had no difficulty responding to the health insurance question and describing how they came to their answer. In general, participants were familiar with their insurance coverage and could articulate the kind of coverage they had, when and how they enrolled in their coverage, and why they enrolled in their coverage. These participants were able to locate their response on the list of options by reading through each response option or looking for specific words that applied to their coverage. For example, one participant stated that they read items (a) and (b) and knew he had those, then looked through the remaining items to see if any applied. Another participant noted that they knew they had both Medicare and Medicaid, so they just looked for those words on the list to locate their answer. One participant also noted that they liked that the list of response options provided a definition for each option.

Five of the group 2 participants, however, did have some difficulty answering the health insurance question, either for themselves or other household members. One participant answered "No" to all items for a household member because he was unsure what type of coverage he had but knew that other people related to this household member were both uninsured. This participant also noted that he felt it would be beneficial for an "Uninsured" or "No insurance" option to be included. Another participant, who receives care through a community clinic at which he pays based on a sliding scale fee, was unsure how to classify his coverage and ended up answering "Yes" to item (h) and entering "Community health care through community clinic" in the text box.

- "I'm able to go see a physician for preventive care, checkups, illnesses. It's based on a sliding scale fee. They ask to see your check stub and you have to fill out a little form that asks how many people are in your household and how much you pay to see a physician. It also comes with some sort of drug plan. I don't know what you call it. It lasts for a year, so I have to fill it out every year."

Another participant did not answer the question for himself stating that he thought the response options seemed "complicated and had too many words." During probing this participant reviewed the response options and said he was clear that his response should have been "Medicaid." A different participant was unsure whether to select item (c) or item (d) because he obtained Medicaid through the Affordable Care Act connector. This participant initially selected item (c) then changed his answer to select item (d). Lastly, one participant selected both item (a) and item (d) and explained that his primary insurance was purchased through the marketplace because premiums were lower, but he also had dental and vision coverage through his employer.

This participant was the only participant to report single-service plans and noted that he did not notice the instruction to not include these plans when answering the question. During probing it became clear that the reasoning behind these instructions was unclear to the participant: "Don't they want you to include all insurance?" One other participant also felt the instructions could be clarified with more examples; however, this participant indicated that they did not report any single-service plans in their response and did not have any single-service plans they omitted because of these instructions. All other participants felt the instructions were clear.

Only one participant indicated that a member of their household had a Medicare Advantage Plan, but they did not know additional information about the plan, and the household member did not wish to share additional information with the interviewer. Another participant, when asked if they had a Medicare Advantage plan indicated that they were

unsure and referenced their Medicare card to answer the question. This participant noted that their card said an insurance name and they thought this was something different from an Advantage plan.

Five participants reported more than one type of coverage. Of these five participants, none double reported single coverage, but one did report both his primary medical insurance and single-service dental and vision plans. This participant noted that he purchased his primary medical insurance through the state marketplace because the premiums were cheaper than the plan offered through his employer; however, he also had coverage for dental and vision through his employer. This is the same participant who did not notice the instructions to not include single-service plans and did not understand why the question would instruct a respondent to exclude any type of insurance coverage. Additionally, even after reading the instructions during probing, this participant indicated that he would still report his single-service plans through his employer because he "has a separate plan through them."

Two participants indicated that a member of their household had no health insurance coverage. One of these participants said that his daughter had not had insurance coverage since giving birth to her son 30 years ago. When asked how his daughter pays for healthcare when sick, the participant respondent that his daughter has not seen a doctor in 30 years. The other participant indicated that her partner and daughter do not have health insurance coverage and that they visit the emergency room when they need healthcare, paying for expenses out of pocket.

Only one participant suggested adding a new response option to the health insurance question. This participant felt it would be beneficial to include an option for "Uninsured" or "No insurance."

b. CAI Mode – English

Most of the 15 English participants had no difficulty responding to the health insurance question and describing how they came to their answer. In general, participants were familiar with their insurance coverage and could articulate the kind of coverage they had, when and how they enrolled in their coverage, and why they enrolled in their coverage. Two participants, who were enrolled in the state or federal marketplace, were able to identify the correct response, but had some suggestions to make it easier on others with similar coverage. One of these participants noted that it would have been easier to hear all response options first rather than answering "Yes" or "No" for each option before moving onto the next. This participant heard a description of a government-assisted program in item (c) and considered answering "Yes." When the participant heard the description for item (d), they decided it sounded more in line with the federal marketplace and answered "Yes" to this item. This participant and the other participant both felt it would be helpful for item (d) to include some reference to the "Affordable Care Act" or "Obamacare," as these are common terms people use to refer to that type of insurance coverage.

Two participants changed their response to an item while completing the health insurance question. One of these participants changed their response from "No" to "Yes" when answering item (c) about their child. This participant indicated that the child is enrolled in [state CHIP program] but did not initially think this program would be included in item (c). Upon probing, the participant realized they should have answered "Yes" to item (c). The other participant changed their response from "Yes" to "No" on item (h) because they misheard the question to be asking "Is this person covered through any type of health insurance" rather than "any *other* type of health insurance."

Two other participants had some degree of difficulty or uncertainty when answering the health insurance question. One participant noted that she was unsure of what type of

coverage her husband had until she heard item (f) which included VA insurance. Once this participant heard this option, she knew this was the correct response. Another participant incorrectly answered "Yes" to item (d). This participant had enrolled in Medicare through an online platform, and thus, when they heard the phrase "or a similar website" in item (d), answered "Yes" even though they did not enroll in Medicare through the state or federal marketplace.

None of the 15 CAI participants reported single-service plans, such as dental, drug, and vision plans. Three participants noted that they did have these plans, but that they excluded them from their response because of the instructions to do so. Overall, all participants found the instructions clear and understood that they were asking participants to only report their general medical coverage; however, one participant did note that they found it "a little confusing" to omit types of health insurance because, for example, "vision is a type of health insurance." After re-reading these instructions during probing, this participant decided that they were clear and easy to understand. Another participant felt the instructions were clear, but also said there was potential for clarification surrounding additional health plans. This participant stated that they have a plan that covers "cancers, wellness, hospitalizations, accidents, and short-term disability." The participant interpreted these to be supplemental insurance and wanted more clarity on whether a plan such as this should be included.

Only one participant indicated that a member of their household had a Medicare Advantage Plan. This participant explained that the Advantage plan was provided as a retiree benefit to her husband for his service as a state employee, and that it covered both herself and her husband: "My husband is a former state employee, and the Medicare Advantage plan is available through them and we are both covered." This participant reported the plan by answering "Yes" to items (a) and (b) for herself and her husband. This participant was one of three CAI participants to double-report single coverage.

Of the remaining two participants who double reported single coverage, one answered "Yes" to items (a) and (d) because they receive health insurance through their employer that is purchased through the state marketplace. This participant also noted that they are self-employed, thus they are their own employer:

- "I may have misunderstood. I thought you were asking about an employer, but we are the employer. It's through our company name, and the company provides our insurance. We are self-employed, so it's health insurance through our company, but it's through the marketplace."

The second of these participants incorrectly answered "Yes" to items (b) and (d) because he had enrolled in Medicare through an online platform that he confused with the Affordable Care Act platform.

Two participants indicated that they or a member of their household had no health insurance coverage. One participant noted that she used to be covered under her husband's plan but was removed from the plan once her daughter was born because they could not afford the premium to keep all three family members on the plan. This participant did not mention how she pays for healthcare when she is sick but did report that she had health insurance coverage in another country. The other participant reported that she and her partner do not have health insurance and they pay in cash for medical care when they are sick.

Only one participant suggested adding new response options to the health insurance question. This participant noted that Social Security Disability Insurance (SSDI) was not mentioned in any of the response options, but that they would likely include this under item

(c) because "it falls under low income or disability." Additionally, this participant suggested adding pay-in-advance plans and paying out of pocket to the list of response options.

c. CAI Mode – Spanish

Twelve Spanish speakers answered Q23a-g. Generally, these participants were able to answer about each type of coverage for each member of their household. The population of Spanish monolingual speakers in the U.S. includes many uninsured, and our sample did as well. Many participants reported having no insurance coverage. Their US-born children, however, qualify for and are receiving CHIP coverage because the family's income falls within the eligible range.

Participants were not necessarily familiar with all the types of coverage included in the questions but tended to recognize the coverage of household members and to answer "No" to the types they did not recognize. All said "No," likely accurately, to TRICARE/military coverage, to VA coverage, and to Indian Health Service coverage, given their demographics.

Of the five participants who answered "Yes" to 23c, all but one answered correctly: they were reporting on children that have CHIP coverage. One participant answered "Yes" in error when asked about herself. She was thinking the question asked whether anyone in the household had this coverage and did not realize she would be asked about the children later, individually. Another participant answered "No" in error and misclassified the coverage as "Other" (i.e., "Yes" to 23h). In probing she said the other coverage was government-sponsored coverage for low-income persons.

One participant was confused by all the types of coverage mentioned in the questions. She reported her daughter's coverage multiple times under different types. Her daughter, as she later clarified, had CHIP coverage which she was eligible for as a US-born child. She realized during probing that she should only have answered Yes in 23c. She also answered Yes to 23a, 23d, and 23h. In 23a she seemed eager to say her daughter does have coverage, after listening to the lengthy introduction, and did not process the question in full. At 23d, the mention of a government website made her think this too may apply. At 23h she still was thinking of her daughter's CHIP coverage.

Seven participants answered "Yes" to someone in the household having coverage under a plan not mentioned in 23a-g. Of these, two described coverage based on income at local hospitals, which is likely referring to sliding-scale payment for services rather than insurance, a common type of arrangement used by uninsured immigrants. The other five participants were double reporting coverage they had already mentioned in previous questions, mostly referring to Medicaid or CHIP.

Spanish-speaking participants had no difficulty following the instruction to exclude plans that offer dental or vision coverage alone. They understood the instruction and indicated they kept it in mind in responding.

Cognitive testing also identified two terminology issues in the health insurance coverage question. These issues are discussed below.

ISSUE 1:
In 23b, interviewers probed on the interpretation of "ciertos impedimentos" [certain impediments] and whether other terms such as "incapacidades" or "discapacidades" [disabilities] might be preferred terms. The term "impedimentos" was understood as intended, as disabilities. Depending on country of origin and – possibly – idiosyncracies, participants gave different opinions. For some "discapacidades" felt derogatory, while to

someone else "incapacidades" suggested inability to afford or pay for expenses or even inability to reason:

- "Incapacidad para mí es alguien que no razona, que no puede pensar. Incapacidad para mí es alguien que no es capaz de hacer algo." [*Incapacidad* to me is someone who cannot reason, who cannot think well. *Incapacidad* to me is someone who is not capable of doing something.]

Some participants from Honduras in particular, associated *incapacidad* with disability benefits provided in their country where disability benefits are called *Incapacidad.*

RTI/RSS recommends keeping *impedimentos* rather than replacing the term with *incapacidad* or *discapacidad*, as neither of these terms is equally well received by varied Spanish speakers.

ISSUE 2:
In question 23g, the Indian Health Service is referred to in Spanish as "Servicio de Salud Indio". In probing, RTI/RSS asked participants which term they preferred, the one in the question or "Servicio Médico para Indígenas" [Medical Service for Indigenous Population]. Eight respondents answered the probe and five of them showed a preference for "Servicio Médico para Indígenas", with three explaining that "indio" means someone from India, two indicating that "indio" is a derogatory term in their countries and a third one said both terms are used in derogatory fashion in their country.

RTI/RSS recommends continuing to test with the term "Indígenas."

2.2.3 Recommendations

RTI/RSS recommends the following:

(1) Consider adding response option for "No Insurance" or "Uninsured," as many participants are inclined to select "Yes" for options that apply, but not always "No" for the options that do not apply, even with instruction.
(2) Keep the additional instructions ("Do NOT include plans that cover only one type of insurance, such as dental, drug, or vision plans") as these were clear to most although applied only to a few.

2.3 Disability

The final group 2 test topic was Disability. The test questions are display in ***Tables 1.26 and 1.27*** by mode, version, and language. Reasons for testing on disability questions was to examine potential changes to ensure accurate measurement of disability consistent with the World Health Organization's ICF disability framework as well as testing the inclusion of a question on communication aimed to capture difficulties related to psychosocial and cognitive disability in addition to problems with speech.

The key research goals of cognitive testing were to determine:

(1) How do participants distinguish between response categories when selecting a category?
(2) CAI mode: Does having introductory text before Q18 ("The next questions ask about difficulties [NAME] may have doing certain activities") help transition from the previous set of questions to the disability section?
(3) Q19a: Do participants think there is a difference between "stairs" (version 1) and "steps" (version 2)? Does one term help participants understand the question better than the other?
(4) Q19b: Do adults think this question only applies to people with dementia? Do respondents focus on the term "remembering", on the term "concentrating," or both? How do people with a learning disability answer this question? Do respondents associate health conditions with difficulty remembering or concentrating?
(5) Q19c: Do participants understand the text "washing all over" (version 2) as being a broader (i.e., inclusive) description of bathing? Do participants find "washing all over" to be odd or too personal? Do participants find "bathing" (version 1) to be odd or too personal?
(6) Q19d: What types of disabilities/conditions are being identified for children when the response indicates difficulty with communication? Does the question make sense for younger children who are not old enough to talk? Do respondents understand that this question is not referring to mastering English as a second language (particularly those who do not speak English very well)?
(7) Q20: In version 2, the question preamble is included in the beginning of the question. Does this preamble result in a better understanding that this question is asking about disability limitations regarding doing errands? What types of problems/issues do respondents mention when discussing "difficulty doing errands alone such as visiting a doctor's office or shopping"?
(8) Do participants age 50+ interpret the difficulties in this series of questions as part of the normal aging process? If so, do respondents age 50+ underreport?

Table 1.26: Disability Questions by Version (Paper Mode)

Paper Mode	
V1	V2
a. Does this person have difficulty walking or climbing stairs? ☐ No difficulty ☐ Some difficulty ☐ A lot of difficulty ☐ Cannot do at all	**a. Does this person have difficulty walking or climbing steps?** ☐ No difficulty ☐ Some difficulty ☐ A lot of difficulty ☐ Cannot do at all
b. Does this person have difficulty remembering or concentrating? ☐ No difficulty ☐ Some difficulty ☐ A lot of difficulty ☐ Cannot do at all	**b. Does this person have difficulty remembering or concentrating?** ☐ No difficulty ☐ Some difficulty ☐ A lot of difficulty ☐ Cannot do at all
c. Does this person have difficulty bathing or dressing? ☐ No difficulty ☐ Some difficulty ☐ A lot of difficulty ☐ Cannot do at all	**c. Does this person have difficulty with self care, such as washing all over or dressing?** ☐ No difficulty ☐ Some difficulty ☐ A lot of difficulty ☐ Cannot do at all
d. Using his or her usual language, does this person have difficulty communicating, for example, understanding or being understood? ☐ No difficulty ☐ Some difficulty ☐ A lot of difficulty ☐ Cannot do at all	**d. Using his or her usual language, does this person have difficulty communicating, for example, understanding or being understood?** ☐ No difficulty ☐ Some difficulty ☐ A lot of difficulty ☐ Cannot do at all
Does this person have difficulty doing errands alone such as visiting a doctor's office or shopping? ☐ No difficulty ☐ Some difficulty ☐ A lot of difficulty ☐ Cannot do at all	**Because of a physical, mental, or emotional condition, does this person have difficulty doing errands alone, such as visiting a doctor's office or shopping?** ☐ No difficulty ☐ Some difficulty ☐ A lot of difficulty ☐ Cannot do at all

Table 1.27: Disability Questions by Version (CAI Mode)

CAI Mode	
V1	V2
The next questions ask about difficulties you/<NAME> may have doing certain activities. 26a. Do you/does <NAME> have difficulty walking or climbing stairs? No difficulty Some difficulty A lot of difficulty Cannot do at all 26b. Do you/does <NAME> have difficulty remembering or concentrating? No difficulty Some difficulty A lot of difficulty Cannot do at all 26c. Do you/does <NAME> have difficulty bathing or dressing? No difficulty Some difficulty A lot of difficulty Cannot do at all 26d. Using your/<his/her> usual language, do you/does <NAME> have difficulty communicating, for example understanding or being understood? No difficulty Some difficulty A lot of difficulty Cannot do at all 27. Do you/does <NAME> have difficulty doing errands alone such as visiting a doctor's office or shopping? No difficulty Some difficulty A lot of difficulty Cannot do at all	The next questions ask about difficulties you/<NAME> may have doing certain activities. 26a. Do you/does <NAME> have difficulty walking or climbing steps? No difficulty Some difficulty A lot of difficulty Cannot do at all 26b. Do you/does <NAME> have difficulty remembering or concentrating? No difficulty Some difficulty A lot of difficulty Cannot do at all 26c. Do you/does <NAME> have difficulty with self care, such as washing all over or dressing? No difficulty Some difficulty A lot of difficulty Cannot do at all 26d. Using your/<his/her> usual language, do you/does <NAME> have difficulty communicating, for example understanding or being understood? No difficulty Some difficulty A lot of difficulty Cannot do at all 27. Because of a physical, mental, or emotional condition, do you/does <NAME> have difficulty doing errands alone such as visiting a doctor's office or shopping? No difficulty Some difficulty A lot of difficulty Cannot do at all

(continued)

Table 1.27: Disability Questions by Version (CAI Mode) (continued)

CAI Mode	
V1	V2
Las siguientes preguntas son sobre las dificultades que usted/<NAME> pueda tener al hacer ciertas actividades. 26a. ¿Tiene usted/<NAME> dificultad para caminar o subir escaleras? No tiene dificultad Un poco de dificultad Mucha dificultad No puede hacerlo 26b. ¿Tiene usted/<NAME> dificultad para recordar o concentrarse? No tiene dificultad Un poco de dificultad Mucha dificultad No puede hacerlo 26c. ¿Tiene usted/<NAME> dificultad para bañarse o vestirse? No tiene dificultad Un poco de dificultad Mucha dificultad No puede hacerlo 26d. Usando su idioma habitual, ¿tiene usted/<NAME> dificultad para comunicarse, por ejemplo, entender o ser entendido(a)? No tiene dificultad Un poco de dificultad Mucha dificultad No puede hacerlo 27. ¿Tiene usted/<NAME> dificultad para hacer diligencias solo(a), tal como ir al consultorio de un médico o ir de compras? No tiene dificultad Un poco de dificultad Mucha dificultad No puede hacerlo	Las siguientes preguntas son sobre las dificultades que usted/<NAME> pueda tener al hacer ciertas actividades. 26a. ¿Tiene usted/<NAME> dificultad para caminar o subir escalones? No tiene dificultad Un poco de dificultad Mucha dificultad No puede hacerlo 26b. ¿Tiene usted/<NAME> dificultad para recordar o concentrarse? No tiene dificultad Un poco de dificultad Mucha dificultad No puede hacerlo 26c. ¿Tiene usted/<NAME> dificultad con su cuidado personal, tal como lavarse o vestirse? No tiene dificultad Un poco de dificultad Mucha dificultad No puede hacerlo 26d. Usando su idioma habitual, ¿tiene usted/<NAME> dificultad para comunicarse, por ejemplo, entender o ser entendido(a)? No tiene dificultad Un poco de dificultad Mucha dificultad No puede hacerlo 27. Debido a una condición física, mental o emocional, ¿tiene usted/<NAME> dificultad para hacer diligencias solo(a), tal como ir al consultorio de un médico o ir de compras? No tiene dificultad Un poco de dificultad Mucha dificultad No puede hacerlo

2.3.1 English and Spanish Interview Findings

a. Research question 1: Distinguishing between response categories

In general, participants did not have difficulty responding to the disability questions for themselves or household members and were able to explain how they selected their response from the scale of options.

- One version 1 paper participant selected "Cannot do at all" when answering 19c for his child. This participant was certain in his response and explained that his child is not able to bathe or dress himself due to very limited mobility caused by a condition.
- Another version 1 paper participant who selected "A lot of difficulty" walking or climbing stairs (19a) explained that after suffering a stroke they have use of only one limb.
- Another version 2 paper participant explained her thought process when responding for her severely disabled child who is unable to bathe or dress herself. This participant selected "A lot of difficulty" for her child at item 19d and explained that while the child is mostly nonverbal, immediate family members can understand them

when they communicate using their "usual language" of signs and noises, and therefore she did not choose "Cannot do at all."
- Two participants explained their responses to 19a in terms of medical conditions. One participant answered "some difficulty" for 19a due to arthritis, and the other selected "A lot of difficulty" due to an inflammatory disease, diabetes, and other health issues.
- All six version 2 CAI participants selected and explained their responses for the disability questions without issue. For example, one participant explained that she selected "Some difficulty" for herself because she has asthma and struggles with obesity so climbing steps can be difficult.

Of the 34 group 2 participants, very few expressed uncertainty or reconsidered a response for the disability items. A few participants noted when selecting a response that limitations caused by disability may vary by the day.

- One Group 2 participant expressed some uncertainty when responding about a household member that is unable to see out of one eye, upon probing this R confirmed that they would select "A lot of difficulty" for this person.
- One participant selected "No difficulty" hearing but had mentioned a hearing aid. At probing this R explained, "I read this question at first as asking me if I used a hearing aid. Now that I re-read it, I do realize that I should have said some difficulty, because I do have some hearing loss, but I don't use a hearing aid."
- One version 2 paper participant responded that he has "Some difficulty" walking or climbing steps but said it wasn't easy to answer as he has a pinched nerve and how much it bothers him depends on the day.
- One version 1 paper participant initially selected "A lot of difficulty" remembering or concentrating but upon probing explained that some days are better than others and changed their response to "Some difficulty."

b. Research question 2: Use of introductory text in CAI mode

Participants tested in CAI mode were read extra introductory text by interviewers as a transition to the disability section. As participants generally understood the disability items across modes and versions, there is no evidence that this additional introductory text made a difference.

c. Research question 3: Usage of "steps" vs. "stairs"

Although many participants thought the two terms meant the same or were interchangeable, a number or participants across versions and modes thought "stairs" was clearer than "steps." Overall, participants seemed to better understand the term "climbing stairs" and more participants preferred this phrase to "climbing steps."

- When probed, 17 of the total 33 group 2 participants said they thought the words "stairs" and "steps" meant the same thing.

- Explanations of how the terms are different varied somewhat but generally conveyed "steps" as being fewer in number and requiring less effort and "stairs" being greater in number and require more effort. One participant explained in detail why "steps" was preferred:

    - "I think steps would give you a more accurate answer because going up two steps is different than stairs, more than 4 steps is a stairwell, a string of steps. So, steps would be good because it's asking elderly people if they can climb anything. When I was disabled, going up two steps was difficult, if it

was a stairway that was a lot of difficulty. Steps is a shorter distance than stairs."

- Another explained how he thought of the difference between the two terms:
  - "…like you have a front steps that are 4 or 5 steps but I think of stairs as a flight of stairs… like going to a 2nd floor."

- Another explained why he thought "climbing stairs" was more specific:
  - The participant felt the same action was required to climb "steps" as "stairs," but they preferred "climbing stairs" as it "put the actual process of climbing stairs in your head."

- Two participants mentioned that "climbing" was the operative word in the question as it indicates the level of effort required, noting that "taking steps" is much easier than "climbing steps."
- Two version 1 paper participants thought "climbing steps" did not make sense. One thought "climbing" works only with "stairs" and the other thought "climbing steps" was "weird syntax."

d. Research question 4: Responding about "remembering" and "concentrating"

Participants were asked cognitive probes to determine whether they were thinking of household members with a health condition or learning disability that affects memory or concentration.

Participants did not indicate that they felt this question only applied to people with dementia but considered a range of mental and physical conditions, including stroke, depression, ADD/ADHD, and age.

- One version 1 paper participant had suffered strokes and took this into consideration when answering.
- Another participant explained that her household member has a mental illness, and she did consider this when responding for him as depression can at times affect his concentration. She also mentioned that she suspects her child may have an undiagnosed learning disability.
- One version 1 CAI participant also mentioned that they have been diagnosed with depression that causes problems with memory and concentration.
- Another participant, when responding for her child, indicated that she considered her child's (likely) undiagnosed learning disability. A different participant also considered her son's ADD diagnosis and answered "Some difficulty" when answering for him.
- One version 2 paper participant responded "No difficulty" for himself but noted during probing that he has some forgetfulness and difficulty concentrating that he attributes to age.

Participants were probed as to whether they were thinking of "remembering" differently than "concentrating" when reporting difficulty for themselves or household members. Most indicated that they were considering both "remembering" and "concentrating" when selecting their response.

- One participant who had a neurological disorder said he has a lot of difficulty both remembering and concentrating.
- Four other participants noted they would report the same level of difficulty for both remembering and concentrating.

- One participant, who selected "A lot of difficulty" for her child with ADD, noted during probing that the child has "A lot of difficulty" concentrating but "Some difficulty" remembering.

Most participants who responded to this item for children did include learning difficulties and several mentioned conditions related to attention deficit disorder. One participant noted that they would not include learning disabilities in their response to item (b).

- One version 2 paper participant explained that while her daughter has not been diagnosed, her attention is "all over the place" and she considered this when selecting "Some difficulty."
- A version 2 CAI participant selected "Some difficulty" for 19b and explained this is due to an ADD/ADHD diagnosis.
- One participant selected "A lot of difficulty" for herself and her child explaining that they both have learning disabilities.
- One participant noted that she and her children have ADD which causes difficulty remembering and concentrating.
- Another participant selected "Some difficulty" and explained "I have ADD and sometimes I have very wild ADD so my concentration levels can vary quite a bit"
- A version 1 CAI participant had a child with a neurological disorder that causes difficulty remembering and concentrating. This participant noted that they would not consider learning in the same way as they do remembering and concentrating and was not thinking about learning when responding for their child.

e. Research question 5: Use of term "washing all over" (version 1) vs. "bathing" (version 2)

Participants across modes and versions had a clear understanding of the meaning of item Q19c and offered interpretations of varying specificity:

- "I consider it to be any activity of daily living. So, for washing, can you wash your hair, rub your body down with soap and a washcloth, bend down, reach across your back and reach behind you. For dressing I think about buttons, or bra clasps, the little things."
- Other more general interpretations included cleaning oneself, bathing or showering and putting on clothes, or getting ready for the day.

Version 1 used the phrase "washing all over" and version 2 used the phrase "bathing." Both versions performed well and were understood as intended, when asked to compare the two versions, two participants noted that "washing all over" could be awkward or embarrassing for some people.

- "Yes, that's an interesting way of phrasing it and you have to be careful not to embarrass someone. Washing all over or do you need any help with bathing, I don't know which one would be better. Washing all over seems a little embarrassing whereas bathing seems more neutral."
- "I would use 'dressing'. 'Washing all over' seems weird to me, but dressing is self-explanatory. Grooming maybe? Grooming is shaving, brushing your teeth, brushing your hair."
- A third participant (version 1 paper) had a suggestion for alternate wording: "Maybe throw in 'shower'? Some people may not know what bathing is."

f. Research question 61: Reporting difficulty with communication for young children or non-native English speakers

Three participants reported a child who had some degree of difficulty communicating. These participants reported difficulties due to learning disorders, ADD, and disabilities that result in the child being mostly nonverbal.

- One version 2 paper participant selected "A lot of difficulty" for her child on item 19d and explained that while the child is mostly nonverbal, immediate family members can understand them when they communicate using their "usual language" of signs and noises so she did not choose "Cannot do at all." This participant considered "communication" inclusive of "anything you use to notify you want something."
- Another version 2 paper participant selected "Some difficulty" for her child with ADD, explaining that they can be unfocused when communicating at times.
- One version 2 CAI participant selected "Some difficulty" for her child explaining, "I was thinking more about miscommunication because of the learning disorder that we have, one child doesn't hear blend sounds, so they may hear 'black' vs. 'back', they understand they just hear something different from what you say."

For participants in general the term "usual language" was clear and understood to mean any language one might communicate in or speak at home. One non-native English speaker indicated that he may have responded differently if thinking about communicating in English outside of his home:

- One participant, who is a native speaker of another language, did not report difficulty with communication for his physically disabled child who communicates at home with his family in both English and the native language of the participant. During probing, this participant noted that when responding to this item he was thinking about his family communicating with each other at home in the other language but if he were thinking of communication outside of the home he may have answered differently as he considers himself as speaking English "not well."
- Another participant explained that when she selected "No difficulty" she was thinking of her "daily" language, which, for herself was English but another language for her mother.
- A version 1 paper participant selected "No difficulty" for himself and explained that he speaks another language with his family but English at home with his partner and everyone else in daily communication.

g. Research question 7: Version 2 preamble to question on disability limitations regarding doing errands

The version 2 test question included additional preamble text: "Because of a physical, mental or emotional condition…" Participants were not directly probed on this text, but participants tested with both versions seemed to understand this item as intended and described limitations surrounding both mental and physical conditions.

- One version 1 paper participant selected "Cannot do at all" due to very limited mobility after suffering strokes.
- Another version 1 paper participant answered "Some difficulty" explaining that they use a walker and don't have a car so getting on and off the bus can be difficult.
- Other version 1 paper participants reported no difficulty for themselves or others but understood the question to include inability to carry out daily tasks due to physical or mental disability.
- Several participants mentioned that if someone was unable to drive or did not have access to a car they might have difficulty running errands. One version 1 CAI participant responded "Some difficulty" for herself explaining that she doesn't

drive and needs her husband to drive her to run errands or for medical appointments.

Three version 1 paper participants did not notice the instruction to answer only if the person was 15 or older. One participant selected "Cannot do at all" for his young son and acknowledged he had not noticed the skip instructions when answering. This participant suggested using bold font for the skip instructions.

h. Interpreting questions based on age group among participants aged 50 or older

Participants were probed as to whether they had interpreted the level of difficulty reported for someone in relation to their age when responding to the disability question series. Some participants indicated they thought about which level of difficulty to select based on their expectations for the persons' age group, instead of thinking about the level of difficulty more generally. This led these participants to underreport difficulty because of different expectations for older persons. Four participants who had reported "No difficulty" for themselves noted they had interpreted the questions and adjusted their responses based on their age – i.e., had they not taken their age into consideration, they would have reported higher levels of difficulty.

- One 65+ participant acknowledged that she did make some interpretation and adjustment due to age when responding for herself: "I took my age into account, so I meant no difficulty for someone my age, but overall, it should probably be some difficulty."
- Two version 1 CAI participants, both over 60, noted they had adjusted for their age when responding to these items for themselves. One of these participants indicated they responded based on their assessment of their ability compared to others their age. The other indicated she would have answered the same way for somebody younger but would have wondered what the cause for the difficulty was, it not age.
- One version 2 paper participant in her 40s indicated that she did consider her age when responding about memory and concentration but did not provide more detail on how she adjusted.
- Another version 2 paper participant responded "No difficulty" for himself but at probing noted that he has some forgetfulness and difficulty concentrating that he attributes to age.

2.3.2 Version 1 Findings by Mode

a. Paper Mode

Group 2 version 1 paper mode participants were generally clear on the intent of the disability questions. Participants who reported some or more difficulty for any item were able to explain their reasoning. One participant selected "Cannot do at all" on item 19c and explained that his son is not able to bathe or dress himself due to very limited mobility caused by a spinal condition.

Four version 1 paper participants said they thought the words "stairs" and "steps" meant the same thing, and the other five thought of the two terms differently. One participant explained that he thinks of "stairs" as levels of stairs between floors or stories of buildings, and he thinks of "steps" as low and "easy to get over," so stairs would be more difficult to climb than steps. Another explained the distinction in this way: "Stairs would be walking upstairs a lot, like in a house. Steps would just be a couple, like front porch steps." Overall, participants assigned version 1 paper mode seemed to better understand the phrase "climbing stairs."

One version 1 paper participant has suffered strokes and kept this in mind while responding to the items about difficulty remembering or concentrating. Others responded to this item without difficulty and offered various examples of health conditions that may impact concentration or memory, including but not limited to dementia, ADHD, traumatic brain or head injury, and mental illness.

One participant aged 65 years old or older acknowledged that she interpreted the questions based on age and made some adjustments to her responses due to age, when responding for herself: "I took my age into account, so I meant no difficulty for someone my age, but overall, it should probably be some difficulty."

Three participants tested in version 1 paper mode did not notice the skip instruction above Q15 to answer only if a person is 15 or older. One participant who recognized this error at probing suggested using bold font for the skip instructions to make more noticeable.

b. CAI Mode – English

Participants assigned version 1 CAI responded to the disability questions without issues.

All version 1 CAI participants were clear on the meaning of having difficulty climbing stairs. Four of the nine participants thought "steps" and "stairs" meant the same thing. The others thought the terms meant something different and two specifically noted that they thought "stairs" was the better term.

Participants were clear when responding about difficulty "remembering" and "concentrating." One participant confirmed she was not thinking of any learning difficulty when responding for her child with a neurological disorder. Another explained that her husband has a mental illness, and she did consider this when responding for him as depression can at times affect his concentration. She also mentioned that she suspects her child may have an undiagnosed learning disability, and she took this into consideration.

Participants were clear on the meaning of "usual language". One participant explained that when she selected "no difficulty" she was thinking of "daily" language which for herself was English but another language for her mother.

Two participants, both over 60, noted when probed that they had adjusted their responses for their age when responding to these items for themselves. One explained: "I thought of myself at my present age and adjusted for my age compared to others my age." The other selected "some difficulty" and noted at probing: "I can't get upstairs in 3 minutes but I can in 6 minutes." So, based on that example, she answered, "some difficulty."

c. CAI Mode – Spanish

All six Spanish-speaking participants understood the questions as intended and were able to answer the series correctly for all members of the household.

When asked about difficulty walking or climbing stairs, all participants were able to provide an answer not only for themselves, but also for other members of the household. They were able to explain what difficulty climbing stairs meant to them. One participant said that this could relate to persons in wheelchair, or on crutches. Two participants explained at having a "problem" with your legs or feet that would prevent you from being able to climb stairs.

Four of the six participants thought that "escalones" (steps) and "escaleras" (stairs) meant the same thing. The other two respondents explained the difference by saying:

- "They are different. Because 'escaleras' are very high, and 'escalones' are only four of them –they are not high."
- "'Escalera' (stairs) does not mean one 'escalón' (step), 'escalera' is going from one floor to another, 'escalones' is something else. An 'escalón' is where you step to climb 'un paso' [one step]. 'Escalera' is from one floor to the next, and there can be 20, 30, 10 'escalones'.

Is important to note that these two participants were able to answer the question without any problems.

When asked about difficulty remembering or concentrating, all participants were able to provide an answer not only for themselves but also for other members of the household. While some participants thought about both concentrating and remembering, others only thought about one of the two. Three participants who had not reported any difficulty for any of the members of the household explained that they thought about "remembering things", "forgetting where you left the keys", or "not forgetting anything". Another participant explained that he thought about both things, remembering and concentrating. He talked about being able to remember his family member's dates of birth and other things without any difficulty. He also said that even though it's been a while since he had attended classes, he thought that he was very good at concentrating. He added that completing the interview had required him to really concentrate in order to be able to provide the right answers.

One participant who reported some difficulty for one of the members of the household explained that she had also thought about both, remembering and concentrating. She said: "Porque él tiene problemas de aprendizaje por eso es que a veces para concentrarse le cuesta trabajo." [Because he has learning problems, that's why sometimes he has trouble concentrating.] The participant explained that her son's mental capacity is that of a 12-year-old, even though he is already 20 years old, and has difficulties concentrating. The participant added that she would have answered 'some difficulty' as well if the question only asked about 'recordar' [remembering]. She explained that she always has to remind her son about things he needs to do. The participant also talked about what happens when her son reads a book. She said that, if she asks what he is reading, he is not able to answer because he might not remember what he just read or was not concentrating enough while reading.

Another participant who reported some difficulty for one of the members of the household explained that this child has learning difficulties as well as attention deficit disorder. When answering this question this respondent said that she had decided to answer 'some difficulty' because this child takes medication to help him concentrate. The respondent confirmed that if the child did not take the medication, he would have much difficulty concentrating.

When asked about difficulty bathing or dressing, all six participants were able to provide an answer for themselves as well as for other members of the household. Participants explained "dificultad para bañarse" [difficulty bathing] as "needing help from someone else", "not being able to perform basic personal functions", and "not being able to clean your own body". One participant who reported some difficulty for one of the members of the household, explained that her son, who has learning disabilities, was not able to do certain things on his own, for example not being able to wash off all the soap when taking a shower.

- "A veces su coordinación también es un poco más abajo de su edad, entonces a veces cosas que para nosotros son… quizás para él es un poquito más difícil." [Sometimes his coordination is also a little bit below his age, so

sometimes things that for us are... maybe for him it's a little bit more difficult.]

When asked about difficulty communicating, all six participants were able to provide an answer for themselves as well as for other members of the household. Two participants, however, considered not being able to communicate using a language other than their usual language. One participant who reported some difficulty for two of the children in the household, explained that since they speak both English and Spanish, they sometimes get confused and tend to mix English and Spanish words. Another participant who did not report any difficulties communicating, explained that this could also include not being able to communicate in another language:

- "De pronto pueden ser personas que no hablan bien el idioma, la dificultad para comunicarse es que no se dan a entender a otras personas." [It could be people who don't speak the language, they cannot explain themselves to other people.]

Another participant who reported some difficulty for one of the members of the household explained that she thought about her son who has language problems. She explained that he did not talk right away when he was little, and now that he is older, he gets nervous when he has to talk and has trouble communicating.

When asked about difficulty doing errands, all six participants were able to provide an answer not only for themselves but also for other members of the household. When asked what "difficulty running errands" meant to them, the participants provided a variety of answers. Respondents included types of difficulties that would not necessarily be classified as due to physical, mental, or emotional conditions (which are explicitly included in the wording of Version 2 but not of Version 1). One participant talked about her young daughter and how she does not run errands on her own just yet, and the participant thought that, if she did, she would have some difficulty because she is very shy. Another participant spoke about herself who is just learning English. She explained that when she first arrived in this country, she had a lot of trouble when going to grocery stores because Spanish was not spoken at the places where she used to go and running errands on her own was difficult. Another participant included transportation limitations and said:

- "Si usted tiene dificultad para hacer una diligencia es que usted no está bien, no está en sus cinco sentidos, o tiene alguna dificultad. Como estábamos hablando, tiene alguna discapacidad. O no puede manejar o no tiene licencia, o no tiene carro. Hay personas que están normales, pero no tienen en qué ir a hacerlo… dificultades de transportarse. [If you have difficulties doing an errand it's that you are not well, you are not of sound mind, or you have some kind of difficulty. As we were saying before, having some disability. Or perhaps you cannot drive, or you don't have a car. Some people are normal but they have nothing to use to get there… transportation difficulties.]

Two participants said that they took into consideration the age of the person when answering, whether they were either too old or too young to be able to do errands on their own.

There were very few reports of difficulties, which prevents analyzing how respondents chose a specific response category over others.

2.3.3 Version 2 Findings by Mode

a. Paper Mode

All Version 2 paper mode participants responded to the disability questions with no issues and no confusion was expressed over any terms or phrases. Participants reported various disabilities and limitations for themselves and household members and were able to articulate reasoning for their response choices.

Only one of the nine version 2 paper participants expressed some uncertainty in his response, explaining that he has a pinched nerve and how much it limits him varies daily. Because of this, he thought the question was difficult to answer.

One participant explained her thought process when responding for her severely disabled child who is unable to bathe or dress themselves. This participant selected "A lot of difficulty" for their child on item 19d and explained that while the child is mostly nonverbal, immediate family members can understand them when they communicate using her "usual language" of signs and noises, so she did not choose "Cannot do at all."

Two participants selected "Some difficulty" remembering and concentrating when responding for children with attention deficit disorders. Another explained that he has a lot of difficulty with his memory and concentration due to an injury suffered while serving in the military.

Four participants thought the terms "stairs" and "steps" meant the same or were interchangeable. One of these participants noted that the operative word was "climbing." Two participants expressed a preference for the word "stairs" while one preferred "steps."

One participant who is in their 40s said that she considered her age when responding about memory and concentration but did not specify how this affected her response. Another responded "No difficulty" for himself on item (b) but at probing noted that he has some forgetfulness and difficulty concentrating that he attributes to age. This participant did not change his response.

b. CAI Mode – English

All six version 2 participants responded to the disability questions and explained reasoning for their responses without issue.

One participant explained that she selected some difficulty for herself at 26a because she has asthma and struggles with obesity so climbing steps can be difficult. Another explained how he selected a response for his son:

> "I look at in general do they have any difficulty. I think that the option choices are very black and white, it's either yes, some, or no. Whereas if my son is having a rough day and the weather changed and his [condition] is acting up, he may have a small amount of difficulty, but 90% of the time he doesn't have any difficulty, so it's overall."

Another participant, when responding to 26b, discussed that she and her children have ADD and she considered whether they are taking medication to determine level of difficulty.

Five of the six participants thought the terms "stairs and steps" meant the same, and one participant mentioned that the word "climbing" was more notable to her as "taking steps" is much easier than "climbing steps." Another participant explained in detail why "steps" was

preferred: "I think steps would give you a more accurate answer because going up two steps is different than stairs, more than 4 steps is a stairwell, a string of steps… When I was disabled, going up two steps was difficult, if it was a stairway that was a lot of difficulty. Steps is a shorter distance than stairs."

All six participants were clear on the meaning of "bathing." When presented with the alternative phrase "washing all over" two participants noted that this language could be awkward or embarrassing to some:

- "Yes, that's an interesting way of phrasing it and you have to be careful not to embarrass someone. Washing all over or do you need any help with bathing, I don't know which one would be better. Washing all over seems a little embarrassing whereas bathing seems more neutral."
- "I would use 'dressing'. 'Washing all over' seems weird to me, but dressing is self-explanatory. Grooming maybe? Grooming is shaving, brushing your teeth, brushing your hair."

All six participants were clear when responding about difficulty communicating. One selected "some difficulty" for her preteen daughter explaining, "I was thinking more about miscommunication because of the learning disorder that we have, one child doesn't hear blend sounds, so they may hear 'black' vs. 'back', they understand they just hear something different from what you say."

c. CAI Mode – Spanish

When asked about difficulty walking or climbing stairs, all participants were able to provide an answer not only for themselves, but also for other members of the household. They were able to explain what difficulty climbing stairs meant to them. One participant said, "That it is hard for me to do it". Another participant said "That it's difficult for them. There's some pain that prevents them from doing it." Another participant explained it as "having any impediment" or not being able to do it "because it's hard to lift a foot or it's painful". A fourth participant said, "can't climb a step and you need someone's help to do it." These respondents explained the physical conditions that caused the difficulties (e.g., damage in two disks, a limp, and degenerative arthritis) and chose some difficulty or a lot of difficulty based on their perceived degree of pain and impairment.

All six participants thought that "escalones" (steps) and "escaleras" (stairs) meant the same thing. Only one participant expressed a preference for "escaleras". She said "'Escaleras'" is better, because that's how we say it, it's better understood."

When asked about difficulty remembering or concentrating, once again all participants were able to provide an answer not only for themselves but also for other members of the household. While two participants did not share if they thought about both concentrating and remembering, one participant said that she only thought about remembering, and three participants explained that they thought about both.
One participant whose daughter suffers from depression shared that her daughter sometimes cries, sometimes laughs a lot, and sometimes forgets about things, and sometimes has trouble concentrating. Another participant talked about her elder father who not too long ago suffered from a stroke.

- "Digamos si uno le dice algo ahorita, pues el recuerda en los primeros, póngale tal vez ni 20 minutos, y ya después si vuelve a preguntarle uno ya no recuerda." [Let's say you tell him something now, he remembers in the first few minutes, maybe not even 20 minutes, and if you ask him again later, he doesn't remember.] "Concentrarse, digamos en el aspecto que, si está hablando de algo, digamos un tema entonces uno le está diciendo la plática

entonces el hace otra plática. No se está concentrando, no se está enfocando en lo que uno le está diciendo." [Concentrating, let's say that, if he is talking about something, let's say a topic, then you are telling him about that conversation, then he starts another conversation. He's not concentrating, he's not focusing on what you're telling him.]

Another participant who reported having some difficulty remembering said that she tends to forget things, she said that not everything but some things, for instance sometimes she goes to the kitchen and forgets why she went to the kitchen. She added that she has the level of difficulty to remember things that is normal for a person her age (she is in her 40s). She also said that her level of difficulty concentrating would be 3 out 10, where is 10 is the lowest level of concentration.

When asked about examples of health conditions that make it difficult to remember or concentrate, one participant said: "Alzheimer's disease, depression, mourning." Another participant talked about her father who had just had a stroke. She explained that her father had been hospitalized because of a brain hemorrhage. The participant had explained that this was the reason her father was having trouble remembering and concentrating.

When asked about difficulty washing all over or dressing, all six participants were able to provide an answer for themselves as well as for other members of the household. Participants explained "dificultad para lavarse" (difficulty washing up) as "when somebody cannot perform those activities by themselves and need the assistance of somebody else", "That they can do those things on their own", "Someone who is assisted by somebody else." One participant, whose daughter suffers from depression said: "A person who suffers from depression, you do not want to do anything, not to bathe or get dressed" (una persona que tiene depresión, no quieres hacer nada ni bañarte ni vestirte). This respondent explained that her daughter physically can do those things but does not have the desire to do it.

When asked what "lavarse" (washing up) meant to them, the participants answered:

- "Lavarse es que se pueda bañar, él pueda lavarse las manos o eso. Personalmente, aseo personal pienso yo." ['Lavarse' is to be able to bathe, to wash his hands. Personally, I think it refers to personal care.]
- "Quiere decir bañarse y cambiarse la ropa." [It means bathing and changing clothes.]

Another participant said that "lavarse" for her was "like washing clothes". She said that somebody who has difficulty washing up is a person who cannot wash his/her clothes. This respondent said that she would use the term "bañarse" instead. Another participant offered the term "aseo personal" [personal care] as an alternative to "lavarse".

When asked about difficulty communicating, all six participants were able to provide an answer for themselves as well as for other members of the household. However, two of the six participants considered not being able to communicate using a language other than their usual language. One participant explained that in the household they speak Spanish, so if they go to a pharmacy or a store, they cannot communicate in their language because in those places people speak English. This question was not tested with any households with pre-verbal children.

When asked about difficulty doing errands, all six participants were once again able to provide an answer for themselves as well as for other members of the household. When asked what difficulty running errands meant to them, the participants provided many different answers. One participant once again talked about her daughter who suffers from depression. She said that she does not feel comfortable asking her daughter to run errands

because she is afraid that she might get lost. Another participant who did not report any difficulty doing errands for any of the members of the household talked about her household member who has a heart condition and gets short of breath. She explained that when he has to go out to run errands other people pick him up in the car and take him, but his heart condition could be considered a difficulty. A third participant explained that she has to drive her father around wherever he needs to go, because he had just suffered a stroke.

2.3.4 Recommendations

For English interviews, RTI/RSS recommends proceeding with version 1 of the disability questions, as the terminology used in this question was more clearly understood across modes and language. RTI/RSS also recommends additional testing of the disability questions with older participants to better determine why this subpopulation is taking age into consideration when answering these questions and adjusting their responses based on their expectations for the person's age group.

For Spanish interviewing, RTI/RSS recommends proceeding with version 1 of question 26a, if the intent is to include respiratory issues such as shortness of breath. If the intent is limited to the mechanical aspect of lifting oneself step by step, either version works in Spanish.

For question 26c, both versions worked equally well in Spanish and no one found either formulation as odd or too personal. It is worth mentioning that the Spanish translation does not convey the notion of "all over." The Spanish formulation is closer to "washing up."

For question 26d, further discussion is needed regarding the intended response by monolingual persons whose usual language is not English and are thus impeded from communicating when they leave home. There should be some mention of the language ability of the person they are trying to communicate with.

For question 27, RTI/RSS recommends using Version 2 to exclude situations as explained by a respondent, where a person has difficulties doing errands alone because of transportation issues, or because of language barrier. These interpretations only appeared in Version 1 testing.

Lastly, RTI/RSS recommends paying special attention in further testing to placement effects of question 27 coming right after 26d. In one case it appeared that the participant considered the answer to question 27 as related to language difficulties evoked by question 26d: the participant said no one in the household had difficulty running errands by themselves because they go to places where Spanish is spoken.

3 Group 3 Findings

Thirty-four English participants and eleven Spanish participants completed interviews in group 3, which focused on three main topics—electric vehicles, commuting mode, and income and weeks worked.

Questions about electric vehicles were proposed to estimate the prevalence of electric vehicle ownership in the United States, and to help determine future energy needs. The prevalence of electric vehicle ownership may help evaluate the effectiveness of energy and tax policies. Two versions of these questions were evaluated for terminology used for both fully electric and any other type of vehicles used that uses electricity.

The question about travel mode used most for commuting to and from work has been revised to incorporate the growing use of ride-hailing or ride-sharing. The goals were to

reduce ambiguity about the appropriate category for ride-hailing commutes and to track changes in ride-hailing patterns for transportation planning purposes. Two versions of this response category were evaluated for terminology and to see how this new mode of transportation relates to the current "Taxicab" category.

Income and weeks worked questions were revised to reduce underreporting and bring them into alignment with other reference periods used in administrative data. Research has shown underreporting of income that leads to biases in income statistics, such as poverty, median household income, and inequality. Other changes tested included self-employment earnings and financial assistance, as suggested from previous cognitive testing. Multiple versions of these questions were evaluated for respondent comprehension and usability.

RTI/RSS completed 34 group 3 English interviews and 11 group 3 Spanish interviews. ***Table 1.28*** shows the distribution of group 3 interviews by language, mode, and version. The distribution for group 3 interviews by recruitment criteria, mode, and version are shown below in ***Table 1.29*** (English) and ***Table 1.30*** (Spanish). This chapter presents findings from each of the group 3 test topics.

Table 1.28: Group 3 Interviews by Language, Mode, and Version[a,b]

Mode/ Language	English			Spanish		Total		
	Paper	CAI w/ show cards	CAI w/o show cards	CAI w/ showcards	CAI w/o showcards	Paper	CAI w/ show cards	CAI w/o show cards
Version 1	11	3	4	2	3	11	5	7
Version 2	9	5	2	2	4	9	7	6
Total	**20**	**8**	**6**	**4**	**7**	**20**	**12**	**13**

[a] A few Spanish language interview participants assigned to interviews with showcards could not view the showcards because the device they used to participate did not have the capability for downloading and viewing PDF files.

[b] Imbalance between the number of paper and CAI interviews for Groups 2 and 3 resulted from a combination of three factors: (1) random variation in the schedule/interviewed participants not actually fulfilling the sub-characteristic for which they were selected, (2) difficulty in recruiting participants who fulfilled more than one sub-characteristic, such as a non-native English speaker who meets a second criterion, and (3) the final push to target recruited participants who fulfilled specific rare sub-characteristics, which could move the number of interviews for those sub-characteristics closer to Round 1 targets.

Table 1.29: Group 3 English Interviews by Recruitment Criteria, Mode, and Version

Characteristic	Sub-characteristic	Paper Mode		CAI Mode		Total
		V1	V2	V1	V2	
Electric Vehicles	Purchased a vehicle in the past 10 years	11	9	6	6	**32**
	Own/lease plug-in electric vehicle	1	2	1	1	**5**
	Own/lease non-plug-in or hybrid electric vehicle	2	1	1	2	**6**
Commuting Mode	Use ride-share to get to work	5	5	6	5	**21**
	Alternate multi-passenger transportation	3	3	2	3	**11**
Income	Irregular worker in prior year	3	3	2	1	**9**
	Regular worker in prior year	8	4	3	3	**18**
	Did not work in prior year	1	2	2	3	**8**
	Earned retirement or rental income, or commission/bonus/tips in prior year	4	5	4	2	**15**
	Received SNAP or public assistance benefits in prior year	2	5	3	3	**13**

Table 1.30: Group 3 Spanish Interviews by Recruitment Criteria, Mode, and Version

Characteristic	Sub-characteristic	CAI Mode		Total
		V1	V2	
Electric Vehicles	Purchased a vehicle in the past 10 years	4	5	**9**
	Own/lease plug-in electric vehicle	0	1	**1**
	Own/lease non-plug-in or hybrid electric vehicle	2	0	**2**
Commuting Mode	Use ride-share to get to work	3	4	**7**
	Alternate multi-passenger transportation	1	1	**2**
Income	Irregular worker in prior year	4	2	**6**
	Regular worker in prior year	0	2	**2**
	Did not work in prior year	1	2	**3**
	Earned retirement or rental income, or commission/bonus/tips in prior year	0	0	**0**
	Received SNAP or public assistance benefits in prior year	4	3	**7**

*Note: While these sub-characteristics were tracked during data collection, there were not target quotas for sub-characteristics for Spanish language interviews.

3.1 Electric Vehicles

Versions 1 and 2 of the electric vehicle questions were similar in structure but were different in phrasing and terminology. (See ***Tables 1.31 and 1.32***.) Version 2 was more specific, directing the participant to think about vehicles that were owned and leased, and specifically asked only about hybrid electric vehicles in the second question. Out of the 34 participants who received these questions, six endorsed ownership of any type of plug-in electric vehicle, and six owned another type of electric vehicle. Most participants interpreted the questions as intended, except for two participants who answered Version 1's second question incorrectly.

The key research goals of cognitive testing were to determine:

(1) Are participants reporting hybrid vehicles that do not require connecting to an electrical source for charging?
(2) Are participants going to consider ever household member that might own an eligible vehicle?
(3) Are participants reporting vehicles that they are currently leasing?

(4) Version 1: What other type of electric vehicles do people have when they respond "Yes" to item (b)?

Table 1.31: Electric Vehicle Questions by Version (Paper Mode)

Paper Mode	
V1	V2
Are any of the following types of electric vehicles kept at home for use by members of this household? **a. A plug-in electric vehicle?** ☐ Yes ☐ No **b. Another type of electric vehicle?** ☐ Yes ☐ No	**At this house, apartment, or mobile home, do you or any member of this household own or lease any of the following types of electric vehicles?** **a. A plug-in electric vehicle?** ☐ Yes ☐ No **b. A hybrid electric vehicle?** ☐ Yes ☐ No

Table 1.32: Electric Vehicle Questions by Version (CAI Mode)

Paper Mode	
V1	V2
21. Are any of the following types of electric vehicles kept at home for use by members of this household? A plug-in electric vehicle? Another type of electric vehicle?	21. At this <FILL BUILDING TYPE>, do you or any member of this household own or lease any of the following types of electric vehicles? A plug-in electric vehicle? A hybrid electric vehicle?
21. ¿Se encuentran alguno de los siguients tipos de vehículos eléctricos en la casa para que lo usen los miembros del hogar? ¿Un vehículo eléctrico que se enchufa? ¿Otro tipo de vehículo eléctrico?	21. En este/a <FILL BUILDING TYPE>, ¿tiene o alquila usted o algún otro miembro de este hogar alguno de los siguientes tipos de vehículos eléctricos? ¿Un vehículo eléctrico que se enchufa? ¿Un vehículo eléctrico híbrido?

3.1.1 English and Spanish Interview Findings

a. Research question 1: Participants reporting hybrid vehicles that do not require connecting to an electrical source for charging

Across versions and modes, when asked to describe how their plug-in electric vehicles or other electric vehicles/hybrids were charged, participants outlined a recharging process that illustrated they correctly classified the type of electric vehicle they owned. All participants with plug in electric cars described having to plug in their cars to an electrical source, mostly charging stations housed on their property. Participants with other electric vehicles or hybrids described a recharging process similar to the two noted below.

- One participant for version 1 in the paper mode said…" Regenerative braking system - charged through a braking system that recharges the battery when you brake or pump the brakes. Not plugged in at all."
- One participant for version 2 in the CAI mode described their car as electrically charged through the battery, but it is still gas. When asked if they have to charge their car or plug it in in any way, they responded that they did not.

b. Research questions 2 and 3: Participants including all household members' vehicles, regardless of ownership

Participants were asked follow-up questions to see whether they were including all household members' vehicles when answering these questions, and whether they thought the questions referred to vehicles that were leased, owned, or both. All those who responded to both versions of the questions indicated that they were thinking of all household members when answering these questions, and all participants except for one indicated they thought the questions referred to vehicles that were both owned or leased, or didn't take ownership into consideration. This participant, a plug-in electric vehicle owner, reported thinking that the question was geared towards vehicles that were owned, not leased. No participants reported leasing their electric vehicles.

c. Research question 4: Participants including other types of electric vehicles in part (b) of version 1

Part b in version 1 did not specifically ask about hybrid vehicles, however most participants that reported having another type of electric vehicle referred to it as a hybrid. The two participants who misinterpreted this question were version 1 participants, indicating that version 1 may need clarification.

- One participant that endorsed having another type of electric vehicle in the paper mode of version 1 read the question as "do we have another type of vehicle" instead of another type of electric vehicle.

- Another participant in the CAI mode of version 1 reported that he did have a hybrid but answered "No" to Question 14b and said "I don't really think of it as an electric vehicle because it does not plug in. It is just a regular hybrid that needs gas and has one of those battery things."

No one included other types of electric vehicles, although two participants did mention that they thought about electric scooters when answering the question, although it is not clear whether they owned one or were just providing examples of other types of electric vehicles.

3.1.2 Version 1 Findings by Mode

a. Paper Mode

Out of the 11 participants who completed version 1 in paper mode, two people reported owning a plug-in electric vehicle ("Yes" to Question 14a) and two people endorsed having another type of electric vehicle ("Yes" to Question 14b). One of the participants who reported owning a plug-in electric vehicle answered the question correctly by responding "Yes" to 14a; however, this participant expressed some confusion with the question during probing. In particular, the participant felt question 14b was unclear because "plug-ins are also hybrids. It's not explicit enough for me to be 100% sure of my answer." This suggests the participant categorized plug-in electric vehicles and hybrid electric vehicles in the same way, and thus, was unclear of the difference between questions 14a and 14b. The other participant who reported owning a plug-in electric vehicle answered the question correctly

by responding "Yes" to 14a and did not report any difficulty with the question. Both participants described charging their vehicles by plugging them into an electrical source.

Of the two participants who reported owning a hybrid electric vehicle, one answered the question correctly, and specifically mentioned endorsing 14b because they have a hybrid electric vehicle that recharged through a regenerative braking system. The other participant who reported owning a hybrid electric vehicle answered the question incorrectly. During probing, this participant revealed that they did not own a plug-in or hybrid electric vehicle. When they were asked what they thought the electric vehicle questions were asking, the participant replied that Question 14 asked whether they had an electric vehicle (part a) or not (part b), and they answered "Yes" to part b because they did not have an electric vehicle. This participant misread 14b to be asking if they had "another type of vehicle" rather than "another type of electric vehicle."

When discussing their answers, all participants without electric vehicles reported they answered the way they did because they knew they did not have an electric car, or that they had a car with only a gas engine. Only two participants answered a follow-up question about whether they were thinking of their whole household when answering these questions, and both indicated they were. Nine participants indicated that the questions pertain to leased and owned vehicles. No one included additional types of electric vehicles in their answers, but two participants mentioned that the question could include electric scooters.

b. CAI Mode – English

Of the seven English participants to version 1 in the CAI Mode, one reported owning a purely electric car, and one reported having a hybrid during probing. However, the participant that reported having a hybrid during probing answered "No" to question 14b because they did not think of it as an electric vehicle since it does not plug in. They described it as just a regular hybrid that needs gas and has "one of those battery things". The electric car owner reported having a charging station that they plug their vehicle into. Four participants said they thought the question pertained to both leasing and owning. Two participants mentioned they were thinking of all household members, and the plug-in electric car owner said he was thinking of his car only but acknowledged the other car at the household was a gas-only vehicle. No one was considering additional vehicles in this question.

c. CAI Mode – Spanish

Of the five Spanish-language participants, four understood the questions as intended and answered them correctly. Three of them had non-electric cars and they described them as powered with gasoline exclusively, or as not plug-in vehicles. The fourth one had a hybrid vehicle which they reported under "another type of electric vehicle"; in discussing their response, they made a distinction between hybrids and (other) electrical cars.

- "I understand that hybrid cars have two mechanisms that supply energy, two engines; one electric engine that works with a hybrid battery and a regular engine that works with gas… An electric car must be plugged in because the engine is completely electrical."

The fifth participant answered correctly but probing uncovered a possible source of error that others might share: a lack of understanding of what electric vehicles are, as opposed to gas-only vehicles. This misunderstanding could lead to a false positive in version 1 of Q21b ("Otro tipo de vehículo eléctrico" [Other type of electric vehicle]). This respondent said that

she should have answered yes to 21b because the car battery requires an electric connection to run.

- "Ours is not a plug-in vehicle but it obviously also receives electricity, … Because the car always has an electrical connection." [El nuestro no es un vehículo que se enchufa, pero obviamente recibe electricidad también, … Porque siempre lleva conexión eléctrica el carro]

3.1.3 Version 2 Findings by Mode

a. Paper Mode

Of the nine participants who answered version 2 in paper mode, two reported owning a fully electric vehicle that is recharged by plugging it in to a recharging station that they own. One participant reported owning a hybrid. All three of the participants who reported owning plug-in or hybrid electric vehicles answered the question correctly. Seven participants said they were thinking about the entire household when answering, and no other vehicles. Four participants were asked if they thought the question was asking about leased or owned vehicles, and three said both, while one of the electric plug-in owners said: "I think it's geared toward the owned, I think it's asking more about owned, probably."

b. CAI Mode – English

Of the seven participants who answered these questions, one reported owning a fully electric vehicle that is charged via a plug-in station in their garage and at work, and two reported hybrids that do not need to be plugged in, but are recharged through the battery, with secondary gas engines. All three of the participants who reported owning plug-in or hybrid electric vehicles answered correctly. The remaining participants either did not have a car or reported having gas vehicles with no electric option. participants with multiple household members, reported they were thinking of everyone in their household when answering these questions, and all seven participants reported not taking ownership into consideration when answering. One participant stated specifically that since the question did not specify ownership or leasing, they thought of both, and another thought of both because they were thinking of vehicles specifically on the property.

- "It really doesn't tell me clearly because it's asking if the vehicle is plug-in or hybrid which is about the car, not the ownership."

c. CAI Mode – Spanish

None of the six participants reported having a plug-in or a hybrid electrical vehicle. All explained their vehicles run on gas only and are not plugged in. All seemed to understand the questions as intended. Those with multiple vehicles at home indicated they considered all of them in their response.

3.1.4 Recommendations

Results from this round of data collection indicated version 2 may perform better than version 1 as the only two participants to incorrectly report owning plug-in/hybrid electric vehicles received version 1. However, because this question was tested on a small number of participants with electric vehicles (12), more testing of versions 1 and 2 could be beneficial in collecting additional data. Additionally, future testing could focus on how those who lease their electric vehicles respond to these questions. Lastly, wording differences between the two versions of Part b could be further tested further to understand if

additional participants have difficulty answering version 1 and adding a specific probe for 14b asking if their vehicle is a hybrid or something else.

For Spanish interviews, future testing might focus more on the differences in the question stem, to determine whether participants will report additional vehicles they keep at home but that no member of the household owns or leases (for example, a car owned by a relative that they borrow on a continuous basis).

There were no translation issues identified in testing. However, we identified a grammatical issue that requires a correction to the Spanish version. In the following current formulation of the question in Version 1, the verb is in plural and the subject in singular.

> ¿Se encuentran alguno de los siguientes tipos de vehículos eléctricos en la casa para que lo usen los miembros del hogar? [Are any of the following types of electric vehicles at home for the use of household members?]

RTI/RSS recommends changing the verb to be in singular: "encuentra."

3.2 Means of Transportation to Work

The only difference between versions 1 and 2 of the question on means of transportation to work was in the response option for taxi/ride-hailing services. See ***Tables 1.33 and 1.34***. Of the participants who received this question, the majority of participants reported driving alone in a car, truck, or van to and from work for themselves or household members, while other participants reported taking the subway, the bus, riding a motorcycle, and two participants reported a combination of walk/bus/light rail and car/bus/long distance train or commuter rail. Most of the participants understood the response options, with only one participant who did not know what an "elevated train" was. Participants understood ride-hailing, but suggested it be re-named ridesharing, and a few participants suggested carpooling as an added option.

The key research goals of cognitive testing were to determine:

(1) Is the meaning of the "taxi or ride-hailing services" category clear? If not, what descriptive words would have made the meaning clearer? Are there descriptive words missing?
(2) Among those who chose ride-hailing as their primary commuting mode what is their second most common commuting mode?
(3) Among those who did not choose ride-hailing as their primary commuting mode, do they ever use ride-hailing services to travel to or from work? How often? In what context?
(4) Do participants have any travel modes they use to get to work that are not represented in the ACS travel mode question? What are they?

Table 1.33: Means of Transportation to Work Question by Version (Paper Mode)

Paper Mode	
V1	V2
How did this person usually get to work LAST WEEK? *Mark (X) ONE box for the method of transportation used for most of the distance.* ☐ Car, truck, or van ☐ Bus ☐ Subway or elevated rail ☐ Long-distance train or commuter rail ☐ Light rail, streetcar, or trolley ☐ Ferryboat ☐ Taxi or ride-hailing services ☐ Motorcycle ☐ Bicycle ☐ Walked ☐ Worked from home ➔ *SKIP to question 39b* ☐ Other method	**How did this person usually get to work LAST WEEK?** *Mark (X) ONE box for the method of transportation used for most of the distance.* ☐ Car, truck, or van ☐ Bus ☐ Subway or elevated rail ☐ Long-distance train or commuter rail ☐ Light rail, streetcar, or trolley ☐ Ferryboat ☐ Ride-hailing services (including taxi) ☐ Motorcycle ☐ Bicycle ☐ Walked ☐ Worked from home ➔ *SKIP to question 39b* ☐ Other method

Table 1.34: Means of Transportation to Work Question by Version (CAI Mode)

CAI Mode	
V1	V2
25. Using this list, LAST WEEK, how did you/<NAME> USUALLY get to work? Car, truck, or van Bus Subway or elevated rail Long-distance train or commuter rail Light rail, streetcar, or trolley Ferryboat Taxi or ride-hailing services Motorcycle Bicycle Walked Worked from home Other Method	25. Using this list, LAST WEEK, how did you/<NAME> USUALLY get to work? Car, truck, or van Bus Subway or elevated rail Long-distance train or commuter rail Light rail, streetcar, or trolley Ferryboat Ride-hailing services (including taxi) Motorcycle Bicycle Walked Worked from home Other Method
25. Usando esta lista, ¿cómo llegó usted/ <NAME> USUALMENTE al trabajo LA SEMANA PASADA? Automóvil, camión o van Autobús Tren subterráneo o elevado Tren de viajes largos o de cercanías Tren ligero, tranvía o tranvía eléctrico Lancha (ferry) Taxi o servicios de viajes a pedido Motocicleta Bicicleta Caminó Trabajó en el hogar Otro método	25. Usando esta lista, ¿cómo llegó usted/ <NAME> USUALMENTE al trabajo LA SEMANA PASADA? Automóvil, camión o van Autobús Tren subterráneo o elevado Tren de viajes largos o de cercanías Tren ligero, tranvía o tranvía eléctrico Lancha (ferry) Taxi o servicios de viajes a pedido Motocicleta Bicicleta Caminó Trabajó en el hogar Otro método

3.2.1 English and Spanish Interview Findings

a. Research question 1: How do participants interpret "taxi or ride-hailing services?"

Participants were asked follow-up questions to see if they included Uber and Lyft in the "ride-hailing" category. All participants across versions and modes did understand "ride-hailing" to include Uber, Lyft, or taxis, offering all three, mostly Uber and Lyft, as examples when asked what "ride-hailing" would include. However, two participants (one from Version 1's paper mode and one from Version 2's paper mode) remarked that a better term for Uber and Lyft would be "ride-sharing."

- One participant said "hailing sounds like a Taxi. You hail a Taxi, you don't hail an Uber. Ride-share would be a better term."
- Another participant suggested "ride-sharing" be an option and that "ride-hailing" really wasn't the best term to include an Uber or Lyft. They said "You can hail a cab, you can't hail an Uber or Lyft…you schedule it".

Additionally, while discussing this question with other follow-up questions, seven participants across modes and versions referred to "rideshare" or "ridesharing", which suggests this term may be more widely known than "ride-hailing". A few examples are below:

- A participant in version 1 paper mode when asked what "ride-hailing" meant, responded with Uber, Lyft and ridesharing apps.
- A participant in version 2 CAI mode when asked two follow-up questions on what other modes of transportation they used to get to work, and what additional modes should be included, replied "ride sharing" for both follow-up questions.
- A participants in version 2 paper mode when asked how they determined how another household member usually got to work before COVID, said: "I don't know. I guess I saw that they drove all cars or trucks so that's a possible answer. They didn't rideshare or take the metro or the bus. That's how I figured that one out."

b. Research questions 2 and 3: Use of ride-hailing services

No participants chose ride-hailing as their primary commuting mode, but some did say they used ride-hailing services to travel to and from work occasionally. Eight participants reported using ride-hailing services to get to and from work in situations where public transportation is their primary mode, and they are running late to catch public transport to get to work, or if they work past when public transport stops running for the day. Ride-hailing services were also used if a participant was working in another city or at a location different from their regular office in their own city, and do not want to drive or navigate, or if the household only has one car, and another household member needs to use it. These participants reported using ride-hailing services "rarely", "once a month", "several times a month", "2-3 times a month", "once or twice a week", suggesting that ride-hailing services may be used by participants, but sparingly.

- One participant whose primary mode of transportation to and from work is the subway, when asked if they ever use ride-hailing services, replied "Yes, took an Uber recently when I had to be at work at 7:00 am. Since it's expensive, I only use it if I need to get into work really early, or if I'm running really late."

c. Research question 4: Travel modes not included in the commuting mode question

A few participants pointed out that the response options for this question are comprehensive, however, respondents did offer additional response options they thought other people may endorse, with the most mentioned:

- Carpool (6)
- Airplane/helicopter (6)
- Scooter (5)

None of the participants indicated that they carpool to work; however, one participant mentioned that another member of their household sometimes carpools with coworkers. When asked how they would classify this commuting mode, the participant indicated that they would have selected "Other" from the list of response options. This, along with the six participants who suggested adding "Carpool" to the list of response options, suggests that participants classify carpooling as a separate mode of transportation from the options listed.

3.2.2 Version 1 Findings by Mode

a. Paper Mode

Of the 11 participants, four mentioned "car, truck or van" as their or a family member's primary mode of transportation to and from work. One participant reported "subway or elevated train", and two reported "bus", and one reported "motorcycle" for a family member. The other participants did not work last week or worked from home. One person who reported "worked from home" said it was due to the pandemic and would mostly drive a car to work prior to that. Those who drove cars, drove alone. No one had issues answering this question and all participants said the question was easy to answer and the options made sense. One participant initially chose two because they took multiple modes to work (subway and bus) but ended up reporting the mode they used the most during the prior week (subway). This participant, who lives in a larger city, suggested allowing for more than one response for city dwellers as they have more options available to them. Another participant pointed out that there is no option to specify for "other". For other ways to get to work, three participants mentioned "carpooling", saying that it was different from ride-hailing services or taxis. Three participants mentioned getting to work via airplane, two mentioned scooters, and one participant each mentioned unicycle, skateboard, limousine, SUV and horse.

All participants interpreted ride-hailing as Uber or Lyft. One participant suggested replacing "ride-hailing" with "ride-sharing": "Ride-hailing sounds like a Taxi. You hail a Taxi, you don't hail an Uber." Although no participants mentioned ride-hailing as their primary way to get to work, five respondents said they have used ride-hailing (specifically Uber or Lyft) to get to or from work rarely, once or twice a week, several times a month or once a month. Participants who reported public transportation as their primary mode said they used ride-hailing services in situations where they were running very late and did not have time to take the subway or bus, or if they were working late past when public transportation stopped running. Other participants reported using ride-hailing services when working in another city or had a work meeting in their own city where they did not want to navigate to.

b. CAI Mode – English

Of the seven participants, two reported "car, truck or van," and one reported "subway or elevated train" for themselves and household members. Those who drove cars, drove alone. The other participants did not work in the prior week or worked from home. One participant who reported "worked from home" said it was due to the pandemic and would mostly drive a car to work prior to that. All participants said the options made sense, were clear, and not confusing. For other possible modes of transportation, one participant mentioned an airplane, one mentioned a unicycle, and one mentioned a Segway (scooter). All participant interpreted "ride-hailing" as Uber, Lyft, or taxi. Although no one mentioned ride-hailing as their primary way to get to work, one respondent said they used it to get to work "when I'm lazy".

c. CAI Mode – Spanish

The five Spanish-language participants answered for seven persons traveling to work. Four answered "car, truck, or van" for all household members, and all but one drove themselves to work. The fifth participant answered "bus." All seemed to interpret the question as intended and to answer correctly.

One participant suggested adding a response option for getting a ride, which she said is common practice among those with temporary jobs. She would not pick "car" for such situations because it is not the person's own car. She felt it would be closer to getting a ride from Uber or Lyft.

All five participants understood "servicios de viajes a pedido" [ride-hailing services] as referring to Uber or Lyft, as intended. Three of the five respondents reported having used Uber or Lyft to go to work on a few occasions (e.g. when one did not have a car, when another one was pregnant). One participant suggested separating "taxi" from "Uber or Lyft" as two different options.

3.2.3 Version 2 Findings by Mode

a. Paper Mode

Of the nine participants, six reported "car, truck or van" as the primary mode of transportation to and from work for themselves or a household member, and one reported "subway or elevated train". The other participants did not work in the prior week or worked from home. One participant who reported "worked from home" for one of their household members said it was due to the pandemic and that person would mostly drive a car to work otherwise. Most who drove cars, drove alone, except for one respondent who reported driving a family member to work every day. No one had issues with answering this question. All respondents said the options made sense, although one participant suggested replacing "ride-hailing" with "ride sharing" since that was a better term for Uber and Lyft. Another participant mentioned that a household family member sometimes got rides from co-workers to work, and that they would not consider that "ride-hailing" but would classify it as "other". For other possible modes of transportation to and from work, two participant mentioned carpooling, and one each mentioned a scooter, airplane or helicopter, and roller skating.

All participants saw "ride-hailing" as Uber or Lyft, but two participants suggested calling it "ride-sharing" because they considered "ride-hailing" for taxis only. In addition to Uber and Lyft as "ride-hailing", two participants included taxis and one included carpooling. Although no one mentioned "ride-hailing" as their primary way to get to work, two participants said

they would use it for work, rarely or once a month, respectively. One of those participants said they would use it in situations where they were running very late and could not make it to public transportation on time, and the other respondent said they would use it when another family member needed to take the car. Other participants reported having used Uber or Lyft before, but not for work.

b. CAI Mode – English

Of the seven participants, four participants reported "car, truck or van" for themselves or a household member as the primary way to get to work. Two participants reported a combination instead of one answer; one reported "walked", "bus" and "light rail, streetcar or trolley", and the other reported "car," "bus" and "long distance train or commuter rail." For both participants, all three are used to get to and from work daily. The other participants did not work in the prior week or worked from home. Those who drove cars, said they drove alone, except for one participant who had their child with them as they went to and from work approximately 5% of the time. Two participants who reported "worked from home" said it was due to the pandemic and would mostly drive a car to work under normal circumstances. Most participants said the options made sense, were clear, and were not confusing, except for one participant who said they were unsure as to what an "elevated rail" was.

As secondary modes of transportation, one participant each reported they have also used a train, Uber and "ridesharing" to get to work. For other possible ways to get to work, two participants mentioned group rides or ridesharing and one each mentioned carpooling (but said that would probably count as a car), helicopter, and scooter. All participants interpreted "ride-hailing" as Uber or Lyft, and one participant reported using Uber rarely and only if they were running late for work.

c. CAI Mode – Spanish

The six Spanish-speaking participants answered for eight people traveling to work and indicated seven travel by "car, truck, or van", and one by bus. One of these seven, one participant, did not feel any of the response options included her husband's "troca" [truck] but selected that category because it was the closest (see discussion of translation issue below). For the eighth commuter, the participant selected "Other", because she gets a ride from someone else and she did not feel any of the response options covered this type of situation:

- In reference to the "car, truck, or van" response option: "With that response option, I understand that it is one's own vehicle, so I did not pick that option for me because I usually hitch a ride with another person". The interviewer asked what type of vehicle this involved, and the respondent said it is a car. The respondent did not pick car, she said, because it is not her own car. She added, "There is even an option for ride-hailing services like Uber or Lyft, and those are cars too." She wished there was an option for getting a ride.

Although she answered "car, truck, or van" as intended, another participant wondered in probing if she should have selected "Other" for P2, because he does not drive and gets a ride from someone else.

The response option for ride-hailing services was understood in Spanish as referring to Uber and Lyft. Although several of the participants have taken these to work on selected occasions, they do not do so regularly but understood which response option covered them.

3.2.4 Recommendations

Both version 1 and version 2 of the commuting mode question performed equally well. There was no evidence of participants preferring one version over the other or understanding one version better than the other. For both test versions 1 and 2, future testing could focus on how participants would classify "carpool," whether they see ride sharing and ride hailing as the same thing or different, and whether participants consider taxis as different or the same as Uber or Lyft.

For Spanish interviewing, one translation issue was identified in testing. A participant had difficulty finding a response choice for the "troca" her husband drives to work. This participant lives in Texas and is of Mexican origin. To her, both "camión" and "van" are enclosed, while the "troca" has an open truck bed. Although it was not identified in testing, it is important to know that "camión" is commonly interpreted by Mexican immigrants living in US cities as referring to a city bus, and this could create confusion with the response choice "autobus".

RTI/RSS recommends probing more on these terms and exploring alternative terminology in future rounds.

3.3 Income & Weeks Worked

These questions were tested across versions 1 and 2 and paper and CAI modes to evaluate the following updates (See ***Tables 1.35, 1.36,*** and ***1.37***):

- Number of weeks worked – addition of "for at least one day"
- Net rental income – separated from interest, dividend, royalty and trust income questions
- Self-employment income – addition of "including work paid for in cash"
- Total Income amount – addition of "include all sources"
- Public Assistance income – new wording and instructions

Of the participants who received these questions, the majority of participants seemed to understand the concept of "for at least one day" as it pertains to the question about number of weeks worked, but testing showed a split in whether participants include paid vacation when answering how many weeks they worked. While answers about net rental income did not seem to be affected by the separation from the other income categories, more evaluation of this question should be done. Participants seemed to understand the new concepts included for self-employment income and total income amount, but testing did show that participants are unclear as to what types of public assistance should be included in the public assistance income question, which could result in overreporting for household members by the participant.

While there is some question as to the reference period participants thought about while answering the weeks worked questions, all participants across versions and mode answered the income questions in reference to the calendar year 2019.

The key research goals of cognitive testing were to determine:

(1) Do the changes to the weeks worked series (in addition to the year change) obtain the appropriate information for that year?
(2) Do the previous questions set up the universe for the weeks worked questions properly? Or, do respondents get confused by the additional questions and skip patterns?

(3) Adding "for at least one day" is supposed to let the participant know that we consider a week being worked even if they just worked one day in that week. Do the participants seem to understand this concept?
(4) Do the participants report income for the appropriate reference period (prior year)?
(5) Are the participants reporting income accurately, especially with regard to (1) Total Income Amount, (2) Self-employment Income, (3) Net Rental Income, and Public Assistance Income?

Table 1.35 Weeks Worked Questions by Mode

Paper Mode	CAI Mode
39 **a. When did this person last work, even for a few days?** ☐ Within the past 12 months ☐ 1 to 5 years ago ☐ Over 5 years ago or never worked → *SKIP to question 43* **b. In 2019, did this person work at a job or business at any time, even for a few days?** ☐ Yes ☐ No → *SKIP to question 42* **40** **During the weeks that this person WORKED in 2019, how many HOURS did this person usually work each WEEK?** Usual hours worked each WEEK ☐☐ **41** **a. In 2019, did this person work EVERY week?** *Include all jobs and count paid vacation, paid sick leave, and military service as work.* ☐ Yes → *SKIP to question 42* ☐ No **b. Of the 52 weeks in 2019, how many WEEKS did this person work for at least one day?** *Include all jobs, paid time off, and weeks when this person only worked for a few hours.* Weeks ☐☐	32a. When did you/<NAME> last work, even for a few days? Within the past 12 months 1 to 5 years ago Over 5 years ago or never worked 32b. In 2019, did you/<NAME> work at a job or business at any time, even for a few days? Yes No 33. During the weeks that you/<NAME> WORKED in 2019, how many hours did you/<NAME> usually work each week? 34a. In 2019, did you/<NAME> work EVERY week? Include all jobs and count paid vacation, paid sick leave, and military service as work. Yes No 34b. Of the 52 weeks in 2019, how many WEEKS did you/<NAME> work for at least one day? Include all jobs, paid time off, and weeks when you/<NAME> only worked for a few hours.

(continued)

Table 1.35: Weeks Worked Questions by Mode (continued)

Paper Mode	CAI Mode
	32a. ¿Cuándo trabajó <Nombre>/usted por última vez, aunque fuera por unos pocos días? Dentro de los últimos 12 meses Hace 1 a 5 años Hace más de 5 años o nunca trabajó 32b. En 2019, ¿trabajó <[Nombre]/usted> en un empleo o negocio en algún momento, incluso por unos pocos días? Sí No 33. Durante las semanas que <Nombre>/ usted> TRABAJÓ en 2019, ¿cuántas horas trabajó <Nombre>/ usted> usualmente cada semana? 34a. En 2019, ¿trabajó <Nombre/ usted> TODAS las semanas? Incluya todos los trabajos y cuente como trabajo vacaciones pagadas, licencia por enfermedad pagada y servicio en las Fuerzas Armadas. Sí No 34b. De las 52 semanas en 2019, ¿cuántas SEMANAS trabajó <Nombre/ usted> por lo menos un día? Incluya todos los trabajos, licencias pagadas e incluya semanas en que <Nombre/ usted> trabajó solo unas pocas horas.

Table 1.36: Income Questions by Version (Paper Mode)

Paper Mode

V1

INCOME IN 2019

Report all types of income received, taxable and non-taxable, from January 1, 2019 to December 31, 2019.

Mark (X) the "Yes" box for each type of income this person received, and give your best estimate of the TOTAL AMOUNT.

Mark (X) the "No" box for each type of income NOT received.

For income received jointly, report the appropriate share for each person – or, if that's not possible, report the whole amount for only one person and mark the "No" box for the other person.

a. Wages, salary, commissions, bonuses, or tips from all jobs. *Report amount before deductions for taxes, bonds, dues, or other items.*

☐ Yes → $,,, .00
☐ No
TOTAL AMOUNT for 2019

b. Self-employment income from own nonfarm businesses or farm businesses, including proprietorships and partnerships. *Report NET income after business expenses. If net income was a loss, mark (X) the "Loss" box next to the dollar amount.*

☐ Yes → $,,, .00 ☐ Loss
☐ No
TOTAL AMOUNT for 2019

c. Interest, dividends, net rental income, royalty income, or income from estates and trusts. *Report even small amounts credited to an account. If net income was a loss, mark (X) the "Loss" box next to the dollar amount.*

☐ Yes → $,,, .00 ☐ Loss
☐ No
TOTAL AMOUNT for 2019

d. Social Security or Railroad Retirement.

☐ Yes → $,,, .00
☐ No
TOTAL AMOUNT for 2019

e. Supplemental Security Income (SSI).

☐ Yes → $,,, .00
☐ No
TOTAL AMOUNT for 2019

f. Any public assistance or welfare payments from the state or local welfare office.

☐ Yes → $,,, .00
☐ No
TOTAL AMOUNT for 2019

V2

INCOME IN 2019

Report all types of income received, taxable and non-taxable, from January 1, 2019 to December 31, 2019.

Mark (X) the "Yes" box for each type of income this person received, and give your best estimate of the TOTAL AMOUNT.

Mark (X) the "No" box for each type of income NOT received.

For income received jointly, report the appropriate share for each person – or, if that's not possible, report the whole amount for only one person and mark the "No" box for the other person.

a. Wages, salary, commissions, bonuses, or tips from all jobs. *Report amount before deductions for taxes, bonds, dues, or other items.*

☐ Yes → $,,, .00
☐ No
TOTAL AMOUNT for 2019

b. Self-employment income, including work paid for in cash. Report income from own businesses (farm or non-farm), including proprietorships and partnerships. *Report NET income after business expenses. If net income was a loss, mark (X) the "Loss" box next to the dollar amount.*

☐ Yes → $,,, .00 ☐ Loss
☐ No
TOTAL AMOUNT for 2019

c. Interest, dividends, royalty income, or income from estates and trusts. *Report even small amounts credited to an account.*

☐ Yes → $,,, .00
☐ No
TOTAL AMOUNT for 2019

d. Net rental income. *Report income after expenses. If net rental income was a loss, mark (X) the "Loss" box next to the dollar amount.*

☐ Yes → $,,, .00 ☐ Loss
☐ No
TOTAL AMOUNT for 2019

e. Social Security or Railroad Retirement.

☐ Yes → $,,, .00
☐ No
TOTAL AMOUNT for 2019

f. Supplemental Security Income (SSI).

☐ Yes → $,,, .00
☐ No
TOTAL AMOUNT for 2019

(continued)

Table 1.36: Income Questions by Version (Paper Mode) (continued)

Paper Mode	
V1	V2
What was this person's total income in 2019? *Add entries in questions 43a to 43h; subtract any losses. If net income was a loss, enter the amount and mark (X) the "Loss" box next to the dollar amount.* ☐ OR $,,, .00 ☐ None TOTAL AMOUNT for 2019 Loss	**Including all types of income, what was this person's total income in 2019?** *Add entries in questions 43a to 43i; subtract any losses. If net income was a loss, enter the amount and mark (X) the "Loss" box next to the dollar amount.* ☐ OR $,,, .00 ☐ None TOTAL AMOUNT for 2019 Loss
g. Retirement income, pensions, survivor or disability income. *Include income from a previous employer or union, or any regular withdrawals or distributions from IRA, Roth IRA, 401(k), 403(b), or other accounts specifically designed for retirement. Do NOT include Social Security.* ☐ Yes → $,,, .00 ☐ No TOTAL AMOUNT for 2019 **h. Any other sources of income received regularly such as Veterans' (VA) payments, unemployment compensation, child support or alimony.** *Do NOT include lump sum payments such as money from an inheritance or the sale of a home.* ☐ Yes → $,,, .00 ☐ No TOTAL AMOUNT for 2019	**g. Any financial assistance from the state or local welfare office.** *Do NOT include non-cash benefits, such as energy or housing assistance, the Food Stamp Program, or SNAP.* ☐ Yes → $,,, .00 ☐ No TOTAL AMOUNT for 2019 **h. Retirement income, pensions, survivor or disability income.** *Include income from a previous employer or union, or any regular withdrawals or distributions from IRA, Roth IRA, 401(k), 403(b), or other accounts specifically designed for retirement. Do NOT include Social Security.* ☐ Yes → $,,, .00 ☐ No TOTAL AMOUNT for 2019 **i. Any other sources of income received regularly such as Veterans' (VA) payments, unemployment compensation, child support or alimony.** *Do NOT include lump sum payments such as money from an inheritance or the sale of a home.* ☐ Yes → $,,, .00 ☐ No TOTAL AMOUNT for 2019

Table 1.37: Income Questions by Version (CAI Mode)

CAI Mode	
V1	V2
The next few questions are about all types of income, taxable and non-taxable, received in 2019 (from January 1, 2019 to December 31, 2019). For income received jointly, report the appropriate share for each person – or, if that's not possible, report the whole amount for only one person and do not report the income for the other person. 36a. Did you/<NAME> receive any wages or salary in 2019? 36b. Did you/<NAME> receive any commissions, bonuses, or tips in 2019? 36c. Did you/<NAME> receive any self-employment income in 2019? Report income from own businesses (farm or non-farm) including proprietorships and partnerships. 36d. Did you/<NAME> receive any interest or dividends in 2019? Report even small amounts credited to an account. 36e. Did you/<NAME> receive any net rental income in 2019? Net rental income is the total amount after expenses. 36f. Did you/<NAME> receive any royalty income or income from estates and trusts in 2019? 36g. Did you/<NAME> receive any Social Security or Railroad Retirement benefits in 2019? 36h. Did you/<NAME> receive any Supplemental Security Income (SSI) payments in 2019? 36i. Did you/<NAME> receive public assistance or public welfare payments from the state or local welfare office in 2019? 36j. Did you/<NAME> receive any survivor or disability income in 2019? 36k. Did you/<NAME> receive a pension or any retirement income from a previous employer or union, or any regular withdrawal or distributions from retirement accounts such as 401(k), 403(b), IRA, Rother IRA, or other accounts designed specifically for retirement in 2019? 36l. Did you/<NAME> receive income on a REGULAR basis from any other sources such as Department of Veterans Affairs (VA) payments, unemployment compensation, child support, or alimony in 2019? 36m. What is the best estimate of the TOTAL income you/<NAME> received from all sources in 2019?	The next few questions are about all types of income, taxable and non-taxable, received in 2019 (from January 1, 2019 to December 31, 2019). For income received jointly, report the appropriate share for each person – or, if that's not possible, report the whole amount for only one person and do not report the income for the other person. 36a. Did you/<NAME> receive any wages or salary in 2019? 36b. Did you/<NAME> receive any commissions, bonuses, or tips in 2019? 36c. Did you/<NAME> regularly receive any self-employment income in 2019, including work paid for in cash? Report income from own businesses (farm or non-farm) including proprietorships and partnerships. 36d. Did you/<NAME> receive any interest or dividends in 2019? Report even small amounts credited to an account. 36e. Did you/<NAME> receive any net rental income in 2019? Net rental income is the total amount after expenses. 36f. Did you/<NAME> receive any royalty income or income from estates and trusts in 2019? 36g. Did you/<NAME> receive any Social Security or Railroad Retirement benefits in 2019? 36h. Did you/<NAME> receive any Supplemental Security Income (SSI) payments in 2019? 36i. Did you/<NAME> receive any financial assistance from the state or local welfare office in 2019? 36j. Did you/<NAME> receive any survivor or disability income in 2019? 36k. Did you/<NAME> receive a pension or any retirement income from a previous employer or union, or any regular withdrawals or distributions from retirement accounts such as 401(k), 403(b), IRA, Roth IRA, or other accounts designed specifically for retirement in 2019? 36L. Did you/<NAME> receive income on a REGULAR basis from any other sources such as Department of Veterans Affairs (VA) payments, unemployment compensation, child support, or alimony in 2019? 36m. What is your best estimate of the TOTAL income you/<NAME> received from all sources in 2019?

(continued)

Table 1.37: Income Questions by Version (CAI Mode) (continued)

CAI Mode	
V1	V2
Las siguientes preguntas son sobre todos los tipos de ingreso, sujetos a impuestos o no, recibidos en 2019 (desde el 1 de enero de 2019 hasta el 31 de diciembre de 2019). Para el ingreso recibido en conjunto, informe la parte que le corresponde a cada persona, o, si eso no es posible, informe la cantidad total bajo una sola persona y no informe el ingreso para la otra persona. 36a. ¿Recibió <Nombre>/usted algún sueldo o salario en 2019? 36b. ¿Recibió <Nombre/usted> alguna comisión, bono o propina en 2019? 36c. ¿Recibió <Nombre/usted> algún ingreso de empleo por cuenta propia en 2019? (Informe ingresos de sus propios negocios (agrícolas o no agrícolas), incluyendo de propiedad única o en sociedad). 36d. ¿Recibió <Nombre/usted> algún interés o algunos dividendos en 2019? Mencione cantidades, aunque sean pequeñas, acreditadas a una cuenta. 36e. ¿Recibió <Nombre>/usted algún ingreso neto de rentas en 2019? 36f. ¿Recibió <Nombre/usted> algún ingreso por derecho de autor o ingreso por herencias y fondos de fideicomisos en 2019? 36g. ¿Recibió <Nombre/usted> algunos pagos por beneficio del Seguro Social o pagos de retiro para personal de los ferrocarriles en 2019? 36h. ¿Recibió <Nombre/usted> algún pago de Seguridad de Ingreso Suplementario (SSI) en 2019? 36i. ¿Recibió <Nombre/usted> algún pago de asistencia o bienestar público (welfare) de la oficina de bienestar estatal o local en 2019?	Las siguientes preguntas son sobre todos los tipos de ingreso, sujetos a impuestos o no, recibidos en 2019 (desde el 1 de enero de 2019 hasta el 31 de diciembre de 2019). Para el ingreso recibido en conjunto, informe la parte que le corresponde a cada persona, o, si eso no es posible, informe la cantidad total bajo una sola persona y no informe el ingreso para la otra persona. 36a. ¿Recibió <Nombre/usted> algún sueldo o salario en 2019? 36b. ¿Recibió <Nombre/usted>alguna comisión, bono o propina en 2019? 36c. ¿Recibió <Nombre/usted> algún ingreso de empleo por cuenta propia regularmente en 2019, incluyendo el trabajo pagado en efectivo? (Informe ingresos de sus propios negocios (agrícolas o no agrícolas), incluyendo de propiedad única o en sociedad). 36d. ¿Recibió <Nombre/usted> algún interés o algunos dividendos en 2019? Mencione cantidades, aunque sean pequeñas, acreditadas a una cuenta. 36e. ¿Recibió <Nombre/usted> algún ingreso neto de rentas en 2019? 36f. ¿Recibió <Nombre/usted> algún ingreso por derecho de autor o ingreso por herencias y fondos de fideicomisos en 2019? 36g. ¿Recibió <Nombre/usted> algunos pagos por beneficio del Seguro Social o pagos de retiro para personal de los ferrocarriles en 2019? 36h. ¿Recibió <Nombre/usted> algún pago de Seguridad de Ingreso Suplementario (SSI) en 2019? 36i. ¿Recibió <Nombre/usted> algún pago de asistencia financiera o bienestar público (welfare) de la oficina de bienestar estatal o local en 2019?

36j. ¿Recibió <Nombre/usted> alguna pensión por retiro, pensión para viudos(as) y dependientes de fallecidos o pensión por incapacidad en 2019? 36k. ¿Recibió <Nombre/usted> una pensión o algún ingreso de jubilación de un empleador o sindicato (union) previo, o alguna cantidad retirada o distribuida regularmente de cuentas de jubilación tales como 401(k), 403(b), IRA, ROTH IRA o de otras cuentas diseñadas específicamente para la jubilación en 2019? 36L. ¿Recibió <Nombre/usted> ingreso en forma REGULAR de alguna otra fuente, tal como pagos de la Administración de Veteranos (VA), compensación por desempleo, pensión para hijos menores, pensión alimenticia, o pensión de su ex pareja en 2019? 36m. ¿Cuál es su mejor estimado del ingreso total que <Nombre/usted> recibió de todas las fuentes en 2019?	36j. ¿Recibió <Nombre/usted> alguna pensión por retiro, pensión para viudos(as) y dependientes de fallecidos o pensión por incapacidad en 2019? 36k. ¿Recibió <Nombre/usted>una pensión o algún ingreso de jubilación de un empleador o sindicato (union) previo, o alguna cantidad retirada o distribuida regularmente de cuentas de jubilación tales como 401(k), 403(b), IRA, ROTH IRA o de otras cuentas diseñadas específicamente para la jubilación en 2019? 36L. ¿Recibió <Nombre/usted> ingreso en forma REGULAR de alguna otra fuente, tal como pagos de la Administración de Veteranos (VA), compensación por desempleo, pensión para hijos menores, pensión alimenticia, o pensión de su ex pareja en 2019? 36m. ¿Cuál es su mejor estimado del ingreso total que <Nombre/usted> recibió de todas las fuentes en 2019?

3.3.1 English and Spanish Interview Findings

a. Research questions 1 and 3: Participant interpretation of "a week of work"

Although most participants were able to answer this question easily, participants with atypical work schedules or multiple jobs found it harder to answer. Most were able to answer but did have to think through their answer. One participant who worked 30 hours per week in 2019 was not able to calculate the number of weeks worked in 2019 and responded with "don't know" to Question 41a in the paper mode.

On the other hand, another participant (CAI mode) said "Easy for me…If you worked even one day, it's easy for me because I did but thinking back a few years ago when I temped It's harder to determine the month that I temped. But if it's just, did you work even one day, that's a very easy question for me to answer."

Participants were given follow-up scenario questions to see if they understood what is to be considered a week of work. The newly added "for at least one day" was not mentioned by participants to be an issue, and all participants who answered the scenario question pertaining to that concept (How do you think someone should answer [IF PAPER: 41b] [IF CAI: 34b] if they worked for only one day all year?) correctly replied "one week".

Another scenario question pertaining to that concept ([IF PAPER: Question 41a] [IF CAI: Question 34a], which answer do you think someone should select if the person worked every Thursday but did not work any other days of the week?) was answered correctly by all participants. For this question, all participants answered that they should say Yes to Question 41a/34a.

Most participants answered the other scenario questions correctly, showing a general understanding of the concept of what is to be considered a "week of work". A few participants, however, did not. For the last scenario in both versions of the paper mode (If a person had a job all year in 2019 but they took 1 week off for paid vacation and another week off with paid sick leave, how should they answer?), six participants answered 50 and five answered 52. One participant who answered 50 said:

- "The question asks about how many weeks you worked, it doesn't ask for how many weeks you were reimbursed for. So regardless of paid time off and sick leave, you worked 50."

b. Research question 2: Impact of previous questions and skip patterns on response to the weeks worked questions.

In general, the previous questions and skip patterns did not create difficulty or confusions for participants and seemed to set up the series of weeks worked questions properly. No participants mentioned or indicated uncertainty stemming from the previous questions when responding to the weeks worked questions; however, two noted that the questions seemed repetitive or similar to prior questions.

c. Research questions 4 and 5: Participants reporting income accurately with regard to changes in self-employment income, net rental income, public assistance income and total income amount

Self-employment Income. Adding "including work paid for in cash" to the paper and CAI version 2 did not appear to influence participants' reports of self-employment income. No participants reported anyone in their household having a side job, and the few instances where income was excluded did not fit income not reported for tax purposes. The three version 1 participants (paper) and two version 2 participants (1 paper, 1 CAI) who reported self-employment income classified themselves as receiving 1099, a small business owner, an independent contractor, and an Uber driver. One participant reported their spouse as receiving self-employment income, but then replied during follow-up questions that no one in their house had self-employment income and that their spouse only had one job (where they received wages). Participants who did not report self-employment income were asked to provide examples of what to include in that category. Most participants mentioned Uber or Lyft driver, small business owner or consultant. They included anything that constituted a side job or a job where you pay yourself. A participant in the paper mode of version 2 did, however, mention the newly added instruction.

- R said they thought the instruction at 43b to include work paid for in cash made this item clear.

Two participants had this additional feedback on the self-employment question for version 1 of the paper mode.

- 'Proprietorship' is throwing me off, because I don't know what it means. 'nonfarm' and 'farm' and 'partnership' are also throwing me off. It's kind of a run-on sentence. Any type of self-employment business you run.
- The farm part of it doesn't make sense. Just say self-employment. Personal businesses. Small business, contracting services, Non-farm and farm makes it sound agricultural and I don't think that's what you guys are trying to get at. Just say Small businesses and maybe include farm as an example. There are more small businesses out there than farms.

Net Rental Income. Only three participants, all in version 2 of the paper mode, reported rental income, and all three reported receiving this income from properties that they rent out. All participants who did not report rental income were asked if they received rental income, to which all replied they did not. When asked how they would report rental income if they had lost money or broke even on a rental property, all three said that, for a loss, they would check the Loss box, with one participant saying they would enter the amount in that was a loss. One participant said if they broke even, they would leave the item blank.

Public Assistance Income. Two CAI mode participants, one in version 1 and one in version 2, reported receiving public assistance income. The version 2 participant's assistance received was not specified, but the version 1 participant included benefits received from SNAP. Participants who did not receive public assistance were asked to provide examples of income that they think should be included in this question. Most participants provided examples of non-cash benefits such as SNAP, food stamps, housing assistance and Medicare; however, participants who received version 2 also included these non-cash benefits as examples. Unemployment was also mentioned by many participants.

Total Income Amount. When asked if there was any income excluded from Question 43, one participant replied they did not originally include distribution from an IRA. This participant had already answered "Yes" to 43g in the paper mode, so the amounts entered there and in Question 44 were updated.

d. Research question 4: Reporting prior year as the reference period

Participants were probed about what reference period they had in mind when reporting income and weeks worked. All participants, across both paper and CAI modes, reported that they were considering the full prior year—that is, January 1, 2019, to December 31, 2019—when responding.

e. Skip patterns in employment section

Four participants tested in paper mode did not skip question 41b when they answered "Yes" to 41a. Of those four participants, three answered question 41b with "52," but one participant answered "50." It is not clear, however, if these participants would have answered question 41b if filling out the form on their own, or if the skip (or non-skip) issue was due to the testing environment. Additionally, a paper version 1 interviewer reported one participant had difficulty navigating through the employment section for he and his spouse and needed assistance from the interviewer to navigate the skip patterns.

3.3.2 Weeks Worked Findings by Mode

a. Paper Mode

Most participants found Question 39 easy to answer except for two participants. One of these participants, who had not worked in over five years, said the question was hard because 'A few days' "throws it off" and it should say 'even if it was a temporary job or temporary work'. When asked if this wording change would make them give a different answer, they replied that their answer would be the same, but the question would have been easier to answer, and probably would be for other people. The other participant, who had worked all of 2019, said the 'even for a few days' threw her off. "It just made me think even if someone worked a few months in 2019, they would still put yes".

For Question 40, participants who worked less than 30 hours per week in 2019 (4) estimated their answer by counting the hours they worked over multiple jobs. One

participant said they were just guessing. Another participant who worked less than 40 hours said they had a hard time with specifics, saying "It's not hard to understand but it's long. I guess a lot of, most people work 40-45 hours a week so it's not that hard to answer but when you work sporadically it is." Another participant thought Question 40 was clear but suggested including an instruction to respond with average hours if one's work hours vary. This participant also suggested adding the following to question 41b "If you did not work all 52 weeks, how many weeks did you work?" Those participants who worked 40 hours and over a week in 2019 said they were salaried, knew the hours they worked, or averaged it over the weeks. Participants interpreted correctly what Questions 40 and 41 were asking, but two participants who had worked less than 40 hours per week mentioned that the question assumed a 9-5 work week and requires those who work less than that, or have an atypical job history within a year, to spend additional time calculating their answer. One participant who worked 30 hours per week in 2019 was not able to calculate the number of weeks worked in 2019 and responded with "don't know" to Question 41a.

For those that answered the scenario follow-up questions for Questions 41a and b, all participants answered correctly except for the last question (If a person had a job all year in 2019 but they took 1 week off for paid vacation and another week off with paid sick leave, how should they answer?). Six participants answered 50 and five answered 52. One respondent who answered 50 said:

- "The question asks about how many weeks you worked; it doesn't ask for how many weeks you were reimbursed for. So regardless of paid time off and sick leave, you worked 50."

Two participants answered Question 39a, when they should have skipped to 39b, and three participants did not skip Question 41b when they answered Yes for 41a. Of two participants who had young children in their household (ages three and four), one participant with the three-year-old skipped all work and income questions for the child, and the other participant said "Awkward thinking through these questions for my 4-year-old daughter."

b. CAI Mode – English

Most participants found Questions 32 through 34 easy to answer with a few exceptions. For Question 32, one participant said it could be hard to answer for someone in her situation as she is a student. "As a student you do work but are not necessarily getting paid. Maybe it should be clearer like "work for wages"" [As a student, does she have a work-study arrangement where she is earning a wage while working?]. Also, this participant, when asked what Question 33 was asking in their own words, said that it is asking how many hours on average do I work per work week." Which may indicate the participant answered the question in terms of 2020 instead of 2019. Another participant reported having a hard time in Question 33 answering for a housemate that they don't know well. For Question 34a, a participant said "At first, I wasn't exactly sure what it meant like if I was on vacation for a week, but then you said paid vacation counted. So, it was getting at whether I was employed every week which I was."

One participant said of Question 34 "That one's a little harder because our office is only open 49 weeks a year and I can choose to use PTO or not on the weeks that we are closed and I think that I chose to use PTO but I'm not 100% sure. But if I were to take vacation on the weeks the office is open, I would not have enough PTO to take on the weeks that the office is closed. I typically try to save hours so that when the office is not open, I take PTO." Another respondent expressed difficulty answering for other members of the household.

Of the participants who answered the scenario questions for Questions 34a and b, all answered correctly for Question 34a. Only one participant gave an incorrect answer to one

of the questions for Question 34b (How do you think someone should answer [IF PAPER: 41a] [IF CAI: 34a] if they worked for 3 months last year?), answering 52 weeks.

b. CAI Mode – Spanish

For Spanish, the weeks worked and income questions were not probed for all participants or not probed in full because of interview length issues. If the interview had already lasted 75 minutes, the interviewer administered selected probes only. Because full probing was only performed on a subset of Spanish interviews, and because version 1 and version 2 of the income and weeks worked questions are quite similar, version 1 and version 2 Spanish findings are discussed in this section.

Weeks worked questions 32a and 32b appeared to work well. All 11 participants were able to answer for themselves and for other household members. There was hesitation in one case, where the participant needed the question repeated before she could answer. In probing, participants' narratives supported their answers to these questions, both in terms of when they had last worked as well as for keeping in mind the 2019 timeframe for 32b. Question 33 did not present problems. Participants tended to answer about themselves without hesitation, and they said they know how many hours they were working last year. For other household members they sometimes had think harder. In some cases, however, they explained that hours were not regular and varied depending on how much work was available.

Question 34a worked well too, and participants were able to respond with a "Yes" or a "No." Question 34b presented some difficulties for Spanish speakers. Technical issues impeded showing many participants the showcard intended to refresh their memory about question wording during probing. The mention of counting even weeks where the person worked at least one day was confusing to two of the respondents and the interviewers had to read the question again slowly.

We recommend considering making slight tweaks to the translated question 34b for clarity in Spanish to reduce some of the processing difficulties that appeared to affect respondents in testing, as follows:

> 34b. En 2019, ¿en cuántas de las 52 SEMANAS del año trabajó <NAME/usted> aunque sea un día? [In 2019, in how manyo of the 52 WEEKS in the year did <NAME/usted> work, even if just for one day?

3.3.3 Version 1 Income Findings by Mode

a. Paper Mode

Of the 11 participants who completed the income questions, the majority (seven) reported someone in their household receiving income from wages, three reported self-employment income, two reported social security, two participants reported interest income, and one participant each reported retirement income and other (child support). One participant answered the yes or no portions of the questions, but refused to give amounts, and one participant adamantly refused to complete this section at all, stating they feel that detailed level of information, especially income, has no place on a Census form, and that the Census has the ability to get this information from the IRS. They additionally stated that "asking for this information from other people in the household who have not given consent violates the Privacy Act at the most and is shady at the least."

The participant who reported child support expressed difficulty finding that category, and in the interest of time, the interviewer pointed out that it should be placed in 43h. Another participant questioned where to include Disability payments. The participant did not have that type of income, but a parent (who lives in another household) did, and the participant was questioning where that would go since they would probably have to help the parent fill out the survey. Participants who reported income from wages stated that they thought of their salary, W2 or taxes when answering the question. Participants who included non-wage income read carefully through the instructions and reported income accordingly. For example:

- One participant who reported self-employment income thought about what she and her husband make at the shop they co-own and split that out between the two of them on the form.
- The participant who received social security and child support thought about what they received for each in a month and multiplied that by 12 to get their answers for those two income categories.
- The two participants who reported income in 43c added up interest income, bonuses, opening accounts, credit cards, investments, stocks, and income from savings and checking accounts, respectively.

When asked what time period they were thinking of when answering these questions, all participants answered that they were thinking of January through December of 2019. Participants were also asked if non-taxable income should be reported in these questions, and if so, where it should be reported. Three participants said "No," with one participant saying that the Census should already have that information. Seven participants said that it should be included, with two saying it should be in 43a, one placing it in 43b, one guessing that it might go in 43c, one saying 43a or b, one saying either 43a or g, and one respondent mentioning that it should probably have its own category. Two of the participants who mentioned placing it in 43a referenced the question instructions to include non-taxable income.

Of the participants who were asked to provide examples of self-employment income, most mentioned Uber or Lyft driver. Other examples included Etsy store owner, farm owner, real estate agent, independent contractor, small business owner and consultant. Two respondents had this additional feedback on 43b.

- 'Proprietorship' is throwing me off, because I don't know what it means. 'nonfarm' and 'farm' and 'partnership' are also throwing me off. It's kind of a run-on sentence. Any type of self-employment business you run.
- The farm part of it doesn't make sense. Just say self-employment. Personal businesses. Small business, contracting services, Non-farm and farm makes it sound agricultural and I don't think that's what you guys are trying to get at. Just say Small businesses and maybe include farm as an example. There are more small businesses out there than farms.

Of the participants who were asked to provide examples of income that should be included in 43f, most mentioned Food Stamps, SNAP, and unemployment. Other examples included TANF, Medicaid, SSI, WIC, AFDC and housing assistance. One participant provided the additional feedback on 43f.

- "There are different types of public assistance. TANF, Section 8, and Food Stamps, so if I was to answer this question, I would just think of the TANF part. It's not asking specifically about the other types of welfare." "I don't receive welfare payments. I receive public assistance – public housing, and I receive

Food Stamps, but I didn't see that as part of the question. I also receive Medicaid, but that's not a payment."

When asked if there was any income, they excluded from Question 43, one participant replied they did not originally include distribution from an IRA. This participant had already answered "Yes" to 43g, so the amounts entered there and in Question 44 were updated. Four other participants replied that they did not exclude any income, but provided the following:

- Sold a condo in 2019 and didn't know where that would go. They did not include that when answering the question 43 series. Respondent reported they would probably add it to 43c but was not exactly sure where it would go.
- "No. I do focus groups and research studies from time to time, but I've heard that it isn't enough to declare on my taxes. I did think about my side business I just started, but the question was for 2019, not 2020."
- "I know I make money on my 401K, but it's not income because it's sitting in my 401K. I didn't include it because I didn't make any withdrawals."

All participants added up their answers in Questions 43a-h to reach their answer to Question 44. However, one participant reported a figure that was $10,000 less than their only income reported (in 43a). The participant was not asked about this discrepancy.

b. CAI Mode – English

Of the seven participants who answered this set of questions, all seven reported income from wages or salary (36a), two received income from commissions, bonuses, or tips (36b), two received income from interest or dividends (36d) and one participant additionally received income from public assistance (36i) and survivor or disability income (36j) When answering these questions, all participants considered the entire calendar year of 2019, and thought about their W2, taxes, average paycheck or salary when answering. One participant responded "don't know" to all income amounts, but said that they knew, they just did not want to share that information. Another participant mentioned that they could only estimate for another household member. To answer Question 37, participants referred to their tax returns, or added up the entries in 36a-j.

When participants were asked if non-taxable income should be included, and if so, in which income question, four said yes, but only one specific a question (36c). One participant said No. The participant that thought nontaxable income should be included in 36c also said they felt that the income questions did not apply to one household member because they have an unregistered business and does not file a tax return. When asked about their answer for non-taxable income, they explained that the household member would not be included because they do not have a formal business.

When asked to provide examples of what should be included as 'self-employment' three mentioned owning a business. Other examples were consulting, Uber driving, food delivery, tutoring, babysitting, and under the table work. When asked to provide examples of what should be included for 'public assistance' or 'public welfare payments', three participants specified unemployment, and other examples included food stamps, welfare, SNAP, disability, anything given by the government, social services like "work first", and government assistance payments.

One participant mentioned that they have a friend who has an overseas account, and was not sure which category to include that would be included in.

c. CAI Mode – Spanish

This subsection addresses both versions 1 and 2 for the weeks worked and income questions. For Spanish, the income questions were not probed for all participants or not probed in full because of interview length issues. If the interview had already lasted 75 minutes, the interviewer administered selected probes only. Because full probing was only performed on a subset of Spanish interviews, and because version 1 and version 2 of the income/weeks worked questions are quite similar, version 1 and version 2 Spanish findings are discussed in this section.

Question 36a-m generally worked well for Spanish speakers. Participants kept the prior year (2019) reference period in mind in responding. They reported few sources of income, but consistently supported their answers during probing. Aside from salary or wages, some self-employment and commissions/bonuses/tips, there were no reports of other income in questions 36d-36l. In 36i, respondents did not include non-cash benefits (e.g. SNAP), as intended.

Here too it was difficult to probe on parts of question 36 without the benefit of showing a flashcard. General probing on what, if any, parts of this question were unclear or confusing did not uncover any problems.

3.3.4 Version 2 Income Findings by Mode

a. Paper Mode

Of the nine participants that answered these questions, eight received income from wages (43a), two from self-employment (43b) two from interest or dividends (43c), three from net rental income (43d), one from social security (43e), one from retirement income (43h) and one from other means (selling drugs) (43i). One participant refused to answer the questions in this section but did acknowledge that he received social security and retirement benefits as his only income. Two of the participants that reported net rental income confirmed that it was income from property that they owned and rented out.

- One participant expressed difficulty classifying her spouse's income. She explained that she estimated his total wages based on hourly income for 43a and felt it was clear to enter his disability income in 43h. Then, upon probing, the respondent was unsure whether she should enter this income at 43h or 43i because her spouse received disability payments and is also a veteran. The participant said she was going only by the word "disability" but felt she should have entered this income in 43i and thought this option should include the word "disability" as well.

All participants reported thinking of the entire calendar year of 2019 when answering these questions.

When asked if nontaxable income should be included questions 43a-i, and if so, which question should it be included with, three said "No," three said "Yes" (without specifying which question it should go in), one said "Yes, it should be included in 43i" (Other), and one respondent said that it didn't matter.

When asked for examples of self-employment, respondents mentioned small business, owning your own business, being a notary, working for yourself, being an independent contractor, or having a side gig. Being an Uber or Lyft driver, "income on the side", or was also mentioned. One participant, said

- "I think things like a local moving company, extra help so they hire people, or like, something along that sort. I don't think watching a neighbor's dog would count…. Because you make less than $600."
- Another participant said they thought the instruction at 43b to include work paid for in cash made this item clear.

The three participants who reported net rental income were asked how they would fill out 43d if they lost money or broke even on their rental property. One participant replied they would check the box for loss, another replied they would check 'loss' and enter the amount, and the third said they would check loss, but if they broke even, they would leave it empty.

When asked for examples of 'financial assistance from a state or local welfare office', four participants mentioned food stamps. Other examples included welfare, SNAP, CalFresh, AFDC, state benefits, housing assistance, and help with health care.

Three participants reported excluding income from Questions 43a-i. One participant excluded bonuses because "it varies". Another participant did not think of investments when answering these questions but thought they might have some of those. A third participant reported a hobby of collecting gold coin and selling them for around $15,000. The participant said they did not consider that when answering Questions 43a-i, but agreed that it should probably be included, under stocks.
All participants added up their answers in Questions 43a-i to reach their answer to Question 44. However, one respondent did not add correctly, according to the interviewer.

b. CAI Mode – English

Of the seven participants who answered this set of questions, all seven reported income from wages or salary (36a), two received income from commissions, bonuses, or tips (36b), three received income from interest or dividends (36d), one participant additionally received income from self-employment (36c), one participant additionally received income from net rental income (36e), and one participant additionally received income from royalties, estates or trusts (36f), financial assistance (36i) and another source (child support) (36l). The participant who endorsed 36f at first said no, but then said technically yes because they have a tribal account and receives funds from land their family owns on a reservation. The participant who receives net rental income verified that it is rent received from renting out a place they own. To answer Question 36m, participants referred to their tax returns, or added up the entries in 36a-l. During question administration, two participants brought up these points:

- "I don't report the bonuses I get because it's included in my W2, but I mentioned it because it's bonus and not hourly wage. So no, because the money is reported, I just stated it differently." (Participants did not endorse 36b).

- One participant mentioned during the interview that he is not going to know any information about employment or income with any of his roommates. They all live in the house but rent the house individually, and don't discuss employment or income with one another.

When participants were asked if non-taxable income should be included, and if so, in which income question, three said yes without specifying which question it should be included into, and one participant said "No." When asked to provide examples of what should be included as 'self-employment' two participants mentioned outside jobs with cash, while other participants mentioned owning your own business, consultant, outside Etsy store owner, a business generating income using yourself and no other person, paid research participants, babysitting, and dog sitting.

When asked to provide examples of what should be included for 'financial assistance from a state or local welfare office', respondents mentioned government assistance, WIC, housing assistance, disability, and Medicare.

3.3.5 Recommendations

Round 1 of testing indicates that the weeks worked question performed quite well, as participants were clear in their understanding of what was meant by a "week of work." The only trouble participants had with this series of questions was when determining whether paid time off and sick leave should be considered work. Future testing could explore this in more detail. The Census Bureau may also want to consider reordering the weeks worked questions to first ask about working in the past year, then how many weeks worked in the past year, then how many hours per day in the past year. This structure may be less cognitively burdensome for participants, especially those with irregular work schedules. Additionally, round 2 of data collection could test the effect reprinting the skip instructions currently positioned after question 35 in the paper mode on the following page. This may help remind participants to skip to question 39b if they worked in the past week. Lastly, RTI/RSS recommends adding instructions to skip the weeks worked/income questions for children as some participants were confused by this. The Census

For the income questions, RTI/RSS recommends proceeding with version 2 for two main reasons:

(6) Adding "including work paid for in case" to version 2 did not seem to influence reports of self-income;
(7) The instructions to not include non-cash benefits in reports of public assistance income (version 2) seem to be necessary as many participants reported non-cash benefits or provided non-cash benefits as examples of income that should be reported for this item.

To further improve the version 2 income questions, RTI/RSS also recommends doing additional testing of the public assistance income instructions. Participants in both version 1 and version 2 reported non-cash benefits, suggesting the instructions are not effective as written. The instructions may need to be modified to list explicit times of income *to* include rather than listing the income to *not* include.

Additionally, targeted usability testing on the employment section might help determine exactly how participants are navigating, correctly or incorrectly, through that section. Usability testing could include probing participants on how and why they are navigating from one question to the next as they complete the questionnaire. This can be done in conjunction with cognitive probing in which participants reflect on how they came to their answers retrospectively after completing the questionnaire.

4 Brief Summary of Round 1 Results

RTI/RSS conducted 104 English interviews and 33 Spanish interviews during Round 1 of data collection. Round 1 interviews tested two versions of nearly all test topics in each group and assessed the effectiveness of potential changes to questions. RTI/RSS provided recommendations for changes to questions or response options or for future testing for each test topic.

The results of the Spanish interviews revealed that additional testing was required on the septic systems, home heating fuel, and educational attainment test topics to provide a better recommendation on which version of the question performed best. Additionally,

RTI/RSS recommends additional testing of the household roster test topic with low-education Spanish participants to better understand how this population may interpret the household roster question and instructions. Further, RTI/RSS recommends that future testing of the electric vehicles topic focuses on participants' comprehension of the question stem in each version of the question to determine which version performs best. More substantial changes to the Spanish questions were recommended for the following test topics: SNAP, health insurance coverage, disability, and income/weeks worked.

The results of the English interviews revealed that additional testing was needed for the electric vehicles test topic as few round 1 participants owned/leased electric vehicles. RTI/RSS also recommends future testing of the disability questions include more interviews with older individuals to better understand whether they are taking their age into consideration when answering the disability questions. RTI/RSS was able to recommend a single version that be tested further in round 2 for nearly all test topics (no single version was recommended for electric vehicles and means of transportation to work). Minor changes were recommended for the response options in the septic systems and health insurance coverage test topics, and to the question text and/or instructions in the SNAP and educational attainment test topics. More substantial changes were recommended for the Income and Weeks Worked test topics to improve participant comprehension and reduce cognitive burden.

Round 2 Briefing and Recommendations

Project Background

After Round 1 of testing, the Census Bureau stakeholders for each question topic area reviewed Round 1 findings and made recommendations for revised questions to be tested in Round 2. This included a determination of potential revisions to questions to be tested again in Round 2 and a determination of whether two versions of each question would be tested in Round 2. As noted in the question group and topic subsections in this report, some Round 2 topics tested two versions of a question, and other topics tested only a single version of a question. In Round 2, 121 (unique) English interviews and 72 Spanish interviews were completed. This produced a total of 225 English interviews and 105 Spanish interviews for the first two rounds combined.

Round 2 Methodology

This section provides an overview of the recruitment and interviewing methodologies used during Round 2 of data collection. The sub-sections below include an overview of recruitment strategies and advertisements; an overview of interview protocols and procedures; a description of the protocol changes made to accommodate virtual interviewing; and a description of how participants were assigned to interview group, version, and mode.

Overview of Round 2 Recruitment Methods

The original plan for Rounds 1 and 2 was to recruit participants from selected metropolitan areas and interview participants in person, either in the offices of contractors RTI or RSS or other convenient sites for participants. The RTI/RSS team has cognitive interviewers in seven metropolitan areas, which were considered as the primary locations for participant recruitment. Because of the COVID-19 global pandemic, in-person interviewing was not possible in any of the targeted metropolitan areas during Round 1. In Round 2, in-person interviewing became feasible in some metropolitan areas, but the Census Bureau determined that incorporating in-person interviewing into Round 2 could disrupt interviewing progress. Like Round 1, Round 2 participants from the primary location areas and other metropolitan areas were recruited to complete virtual interviews via videoconference software or, when necessary, by telephone.

The recruitment plan for Round 2 involved three main components:

(1) RTI/RSS looked at the Round 1 locations research intended to identify at least two metropolitan areas that appeared to have a relatively higher proportion of residents meeting rare sub-characteristics. Using this set of locations, RTI/RSS considered whether any new or revised rare sub-characteristics for Round 2 could likely be fulfilled via recruitment focused on people living in these metropolitan areas or whether additional locations would be needed to meet specific sub-characteristic targets. One change for Round 2 locations was made to fulfill the Census Bureau's request to recruit people with septic tanks who lived in rural areas or small towns. RTI/RSS used information provided by the Census Bureau to identify rural/small town areas and the states with higher rates of septic tanks usage for focusing recruitment efforts.
(2) RTI/RSS focused recruitment advertisements and other recruitment efforts based on the information from the locations research report to target rarer sub-characteristics

in specific metropolitan areas. (See ***Appendix 2A*** for sample English and Spanish recruitment advertisements.) Two major other sources of recruitment in Round 2 included (1) a file with former ACS respondents to identify and recruit participants with no or low formal education and (2) posted flyers or personal contacts to recruit participants who met specific sub-characteristics. The list of former ACS respondents was used for outbound calling to contact people likely to have no formal education or less than high school education. Examples of the use of flyers or personal contacts include posting flyers in Asian supermarkets to recruit non-native English speakers and using local networks to recruit electric or hybrid vehicle owners, small town residents with septic systems, and people who use butane fuel for home heating.

(3) RTI/RSS adapted recruitment strategies and advertisements throughout the course of Round 2 recruitment, as needed, based on the relative success of prior recruitment efforts to maximize identification of participants who met the targeted sub-characteristics.

Even though Round 2 interview participants were not interviewed in person in their local area, RTI/RSS used prior and additional research to determine where a relatively higher proportion of residents were likely to meet specific recruitment criteria to target ads toward these corresponding metropolitan areas. This approach maximized efficiency in identifying participants with rare sub-characteristics. Because the recruitment ads were posted online and no in-person interviewing took place, participants who met the criteria for needed sub-characteristics were not required to live in the targeted metropolitan area(s).

Prior to data collection, RTI/RSS provided the Census Bureau with a recruitment plan focused on meeting Round 2 goals and updated this plan a few times during data collection. During Round 2 data collection, RTI/RSS provided the Census Bureau with a weekly recruitment and interviewing progress update report, reflecting results to date. For Round 2, RTI/RSS added the number of English and Spanish recruits to this report to allow tracking of overall recruitment and interviewing results. RTI/RSS also included a section in the weekly report with updated goals and results for recruiting Spanish participants who fulfill one of four national origin categories—Mexican/Mexican American/Chicano, South American, Central American, or Puerto Rican/Cuban/Dominican/other Caribbean Islander.

Tables 2.1 through ***2.6*** provide key participant demographics for the final set of Round 2 interview participants. The full sample of respondents was recruited from 37 states across all four census regions (south, northeast, midwest, and west). Interviews were completed with respondents from 26 states across all census regions. See the ***Round 2 Recruitment Methods Summary Report*** for more details on recruitment strategies, recruitment advertisements, and the results of recruitment efforts.

Table 2.1: Age and Sex of Round 2 English Participants by Interview Outcome

Age Group	Full Sample[a]		Completed Interviews	
	Frequency	Percentage	Frequency	Percentage
18–20	15	2.6	6	5.0
21–30	137	23.3	27	22.3
31–40	131	22.3	27	22.3
41–50	121	20.6	23	19.0
51–60	79	13.5	13	10.7
61–70	85	14.5	22	18.2
71 and above	19	3.2	3	2.5
Total	**587**	**100**	**121**	**100**

Sex	Full Sample[b]		Completed Interviews	
	Frequency	Percentage	Frequency	Percentage
Male	230	41.4	55	45.5
Female	324	58.6	66	54.5
Total	**554**	**100**	**121**	**100**

[a] Based on 632 unique respondents who were not Spanish monolingual speakers. Age was missing for 45 cases.

[b] Based on 632 unique respondents who were not Spanish monolingual speakers. Sex was missing for 78 cases.

Table 2.2: Hispanic/Latino Ethnicity of Round 2 English Participants by Interview Outcome

Hispanic/Latino Ethnicity	Full Sample[a]		Completed Interviews[b]	
	Frequency	Percentage	Frequency	Percentage
Non-Hispanic /Latino	467	73.9	102	84.3
Mexican, Mexican American, Chicano	40	6.3	7	5.8
Puerto Rican	8	1.3	1	0.8
Cuban	3	0.5	0	0.0
Other	41	6.5	11	9.1
Total	**559[c]**	–	**121**	–

[a] Based on 632 unique respondents who were not Spanish monolingual speakers.

[b] Based on 121 unique respondents who were not Spanish monolingual speakers.

[c] The total of 559 reflects the total count of responses because some respondents endorsed multiple ethnic origins. For the full sample, 553 cases provided valid responses to the ethnicity question and 79 cases did not provide a response.

Table 2.3: Race of Round 2 English Participants by Interview Outcome

Race	Full Sample[a]		Completed Interviews[b]	
	Frequency	Percentage	Frequency	Percentage
White	330	57.6	64	52.9
Black or African American	152	26.5	36	29.8
American Indian or Alaska Native	13	2.3	3	2.5
Asian	41	7.2	14	11.6
Native Hawaiian or other Pacific Islander	3	0.5	0	0.0
Other	34	5.9	7	5.8
Total	**573[c]**	–	**124[c]**	–

[a] Based on 632 unique respondents who were not Spanish monolingual speakers.

[b] Based on 121 unique respondents who were not Spanish monolingual speakers.

[c] The total of 573 for the sample and 124 for completed interviews reflect the total count of responses because some respondents endorsed multiple races; 549 cases in the full sample and 120 cases in the complete interviews provided valid responses; 83 cases in the full sample and 1 case in the completed interviews were missing race.

Table 2.4: Education of Round 2 English Participants by Interview Outcome

Education	Full Sample[a]		Completed Interviews[b]	
	Frequency	Percentage	Frequency	Percentage
Less than high school diploma or equivalent	27	3.8	5	4.1
High school diploma	52	9.5	13	10.7
Some college, no degree	121	22.0	28	23.1
Associates degree (AA, AS, or equivalent)	41	7.5	8	6.6
Bachelor's degree (BA, BS, or equivalent)	191	34.8	44	36.4
Post Bachelor's degree (MA, PhD, MD, etc.)	117	21.3	23	19.0
Total	**549[b]**	**100**	**121**	**100**

[a] Based on 632 unique respondents who were not Spanish monolingual speakers. Education was missing for 83 cases.

[b] Based on 121 unique respondents who were not Spanish monolingual speakers.

Table 2.5: Cohabitation Status and Household Size of Round 2 English Participants by Interview Outcome

Cohabitation Status	Full Sample[a]		Completed Interviews	
	Frequency	Percentage	Frequency	Percentage
Live with others	429	78.6	97	80.2
Live alone	117	21.4	24	19.8
Total	**546**	**100**	**121**	**100**
Household Size[b]	**Full Sample[a,c]**		**Completed Interviews[c]**	
	Frequency	**Percentage**	**Frequency**	**Percentage**
1 person	11	2.6	1	1.0
2 people	155	36.9	38	39.2
3 people	82	19.5	17	17.5
4 people	80	19.0	20	10.6
5 people	54	12.9	13	13.4
6 people	22	5.2	5	5.2
7 people	9	2.1	1	1.0
8 people and more	7	1.7	2	2.1
Total	**420**	**100**	**97**	**100**

[a] Based on 632 unique respondents who were not Spanish monolingual speakers. Cohabitation status was missing for 86 cases.

[b] Excludes cases that indicated they lived alone. This variable was constructed by adding the counts of both adults and children in the household.

[c] Results excluded any inconsistent and missing responses to Q13 and Q14 that asked about the number of adults and children living with the respondent.

Table 2.6: Round 2 Spanish Monolingual Participants by Ethnic Origin, Mode, and Version

Ethnic Origin	Group 1		Group 2		Group 3		Total
	V1	V2	V1	V2	V1	V2	
Mexican, Mexican American, Chicano	8	7	9	5	9	6	**44**
Central American	0	1	1	3	2	1	**8**
South American	0	2	1	2	1	2	**8**
Puerto Rican, Cuban, or Dominican	2	0	2	3	1	4	**12**
Total	**10**	**10**	**13**	**13**	**13**	**13**	**72**

Overview of Interview Protocol and Procedures

To maintain reasonable burden for cognitive interview participants, the 2022 ACS Content Test questions were divided into three question groups. Based on fulfillment of desired sub-characteristics, each participant selected for an interview was assigned to one of these three groups. For Round 2, HOA fees was a new topic added to Group 1. To accommodate this addition to Group 1 and align green energy topics, solar panels was moved from Group 1 to Group 3 for Round 2. The main content areas for the three question groups in Round 2 were as follows:

Group 1:
Household roster
Septic system
Home heating fuel
Supplemental Nutrition Assistance Program (SNAP)
HOA fees

Group 2:
Educational attainment
Health insurance coverage
Disabilities

Group 3:
Electric or hybrid vehicles
Solar panels
Commuting mode
Income and weeks worked

RTI/RSS trained all interviewers on the protocols for each question group and other key procedures, including Title 13 requirements and applicable communications rules. Three interviewer training sessions were held to accommodate all Round 2 interviewers. Bilingual interviewers who interviewed monolingual Spanish speakers were required to attend an additional training session focused on unique issues with recruiting this target population and interviewing in Spanish.

All interviews were conducted remotely, either via Teams videoconferencing software or, when technical issues arose, just using the telephone conference line. Like Round 1, RTI/RSS interviewers used a set of guidelines to follow when technical issues arose. In addition to providing guidance to interviewers in addressing technical issues during an interview, these guidelines assisted interviewers in making decisions on whether to continue with an interview or re-schedule it. See ***Appendix 2B*** for these guidelines.

Census Bureau observers were able to schedule opportunities to listen in on interviews. At the end of each interview, the interviewer provided an opportunity for observers to suggest a few last questions to ask participants. RTI/RSS created an observation spreadsheet for this purpose and posted an updated spreadsheet two or three times each week of Round 2 data collection. Interviewers checked this spreadsheet before each interview and forwarded the interview invitation to all observers.

With permission from participants, interviewers recorded all sessions using SnagIt software or a digital recorder placed near their computer speakers (English and Spanish consent forms, which included consent for audio recordings, can be found in ***Appendix 2C***). These recordings were posted for the Census Bureau to review and used for confirming details for

interview case summaries and this briefing report. Once the interview began, participants answered all survey questions either using the paper form (paper mode) or by telling the interviewer their response to each question (CAI mode). After all questions had been answered, interviewers then administered probes on each of the test topics, prioritizing those topics for which the participant had been selected. After each interview, interviewers completed the appropriate case summary template for the question Group (1, 2 or 3).

At the end of the interview, interviewers offered participants $40.

Changes to Interviewing Modes and Procedures Due to COVID-19 Pandemic

Because of the continued impact of COVID-19 global pandemic, in-person interviewing was not initiated for any locations in Round 2. For most of Round 2, RTI/RSS tracked COVID-19 infection rates and state travel restrictions based on data compiled by Johns Hopkins University. Because an increasing number of locations appeared feasible for in-person interviewing during the data collection period, RTI/RSS prepared a set of considerations for switching some locations to in-person interviewing for the Census Bureau on May 26, 2021. After review and discussion with RTI/RSS, the Census Bureau decided on June 7, 2021 that interviewing should proceed using videoconferencing (or telephone, when needed), to avoid disrupting the progress of Round 2 interviewing. As a result, all Round 2 interviews were conducted by videoconference or telephone.

For remote interviewing modes in Round 2, RTI/RSS maintained the same set of alterations to the original protocols developed for Round 1, including changes to

- Obtaining consent,
- Recording interviews,
- Completing questionnaires,
- Showcards, and
- Incentives.

Appendix 2D provides the complete list of protocol changes followed in Round 2 for videoconference or phone interviews.

Assigning Recruited Participants to Interviewing Groups and Modes

All participants assigned to interviews were assigned to one of the three question groups and, for English language interviews, paper or CAI mode. CAI mode for both English and Spanish interviews was further varied between interviews with and without showcards. In advance of Round 2 interviewing, the Census Bureau set target numbers of interviews for each of these question groups, mode of administration, and showcard conditions.

Using an Excel formula, all participants were automatically assigned to the group for which they were eligible for the most sub-characteristics. For example, should a participant be eligible for four Group 1 sub-characteristics, three Group 2 characteristics, and two Group 3 characteristics, that participant would automatically be assigned to Group 1. The Lead Recruiter reviewed all initial group assignments and assessed whether assignments should change because of eligibility for rare sub-characteristics. RTI/RSS typically assigned participants who met one of the rare sub-characteristics to the appropriate group that included the questions related to that rare sub-characteristic(s). If the number of participants assigned to a specific group based on one or more sub-characteristics appeared

to be sufficient to attain interviewing targets, RTI/RSS assigned participants to other groups when they fulfilled other sub-characteristics to maximize the potential for group and sub-characteristics targets to be met.

After participants were assigned to one of the three question groups, RTI/RSS assigned them to CAI versus paper mode and for CAI interviews, either showcards or not showcards. Mode and showcard condition assignments were designed to balance the numbers of completed interviews evenly for each combination of these conditions as much as possible. Likewise, RTI/RSS assigned interviews to Version 1 or Version 2 of each protocol to balance the number of interviews completed with each version.

RTI/RSS created a spreadsheet to track recruitment, assignment, and interviewing across sub-characteristics, groups, modes, and showcards daily. Occasionally, participants recruited based on meeting specific sub-characteristics were determined to not meet these criteria when interviewed. When a "false positive" case was encountered, the interviewer communicated this information to the Lead Recruiter. The Lead Recruiter then updated this information in the tracking sheet to ensure the sub-characteristic and question group information was accurate for each participant and the overall targets for each sub-characteristic and group.

The following three sections provide results for each of the desired participant sub-characteristics, question groups, interview language, question version, and mode of administration.

5 Group 1 Findings

Group 1 test topics included the household roster, septic systems, home heating fuel, SNAP benefits, and HOA fees. Changes to the household roster question were tested with the goal of improving ACS within-household coverage, particularly for young children and tenuously attached residents. The household roster instructions for the current production version have not changed since the 1990s; however, household living arrangements have increased in complexity. Updated instructions aim to simplify the rostering process for those with complex living situations while also improving coverage.

The septic system question was included to test the effectiveness of proposed changes in collecting accurate data on decentralized wastewater infrastructure in rural areas. Determining the prevalence of existing septic systems and regular updates on new septic system construction at the local level would assist in meeting the country's growing infrastructure needs. Regular and accurate updates may help to address changes in housing development, support regular planning and funding cycles at the local, state, and national level, and broaden understanding of environmental and health impacts.

The question on home heating fuel was altered to change the two response options that reference gas in the current production version. Cognitive interviews can shed light on whether these changes can provide a more accurate count of heating fuel used MOST.

The SNAP question was tested to determine if the changes to the income reference and/or the placement of the SNAP question would cause confusion or lead to item non-response. Research has shown that underreporting of income that causes biases in income statistics, such as poverty, median household income, and inequality. The use of administrative data could help address these biases but would require a change in the reference period used in the current production version of the question.

Finally, the condominium and HOA fees question was tested based on a recommendation from the Department of Housing and Urban Development to incorporate homeowners association (HOA) fee wording into the current condominium status and fee question. It is believed that these data will help improve the accuracy of monthly housing cost estimates, an important indicator of homeowner costs and any associated burden these costs place on a household.

All Group 1 participants were assigned to either Version 1 or Version 2 of the test questions for each topic. Participants assigned to Version 1 answered the household roster, the entire basic person section, and part of the housing section. Participants assigned to Version 2 answered the household roster, the entire basic person section, and the entire housing section.

RTI/RSS completed 37 English Group 1 interviews and 10 Spanish Group 1 interviews. The distribution of interviews by version, mode, and language is shown in ***Table 2.7***. The distribution of interviews by recruitment criteria, mode, and version is shown in ***Table 2.8*** (English) and ***Table 2.9*** (Spanish) below. This chapter presents findings from each of the Group 1 test topics, for both English and Spanish interviews.

Table 2.7: Group 1 Interviews by Language, Mode, and Version

Mode/ Language	English			Spanish			Totals		
	Paper	CAI w/ show cards	CAI w/o show cards	Paper	CAI w/ show cards	CAI w/o show cards	Paper	CAI w/ show cards	CAI w/o show cards
Version 1	10	8	0	4	5	1	14	13	1
Version 2	9	11	0	4	5	1	13	16	1
Total	**19**	**19**	**0**	**8**	**10**	**2**	**27**	**29**	**2**

***** All Group 1 interviews were showcard interviews, given that all testing questions in Group 1 do not use flashcards for assistance.

Table 2.8: Group 1 English Interviews by Recruitment Criteria, Mode, and Version

Characteristic	Sub-characteristic	Paper Mode		CAI Mode		Total
		V1	V2	V1	V2	
Household roster	Related subfamilies	1	2	5	2	**10**
	Unrelated subfamilies	4	3	1	3	**11**
	Subfamilies with children 0–5	0	0	2	0	**2**
	Children in custody arrangements	2	0	1	0	**3**
	Foster or unrelated children	2	0	0	1	**3**
	Households with temporary residents	1	1	1	3	**6**
	Households with tenuous residents	3	1	2	2	**8**
	Unrelated individuals	1	2	2	1	**6**
Septic systems	Live in a housing unit with septic tank	1	3	2	1	**7**
	Live in a housing unit with public sewer	9	6	6	9	**30**
	Live in small town with only septic tank	2	3	1	2	**8**
	Live in urban area with only public sewer	6	6	3	3	**18**
Home heating fuel	Natural gas most	4	3	1	4	**12**
	Butane/propane most	2	2	1	2	**7**
	Other fuel most	5	4	6	5	**20**
SNAP	No prior year SNAP benefits	6	6	6	9	**27**
	Prior year SNAP benefits	5	3	2	2	**12**
HOA Fees	Homeowners in a housing unit with required HOA fee	4	2	3	3	**12**
	Homeowners who live in a condominium	3	2	2	1	**8**
	Homeowners belonging to voluntary neighborhood associations	3	1	2	1	**7**
	Renters living in a housing unit that is part of an HOA/condo	0	0	1	1	**2**

Table 2.9: Group 1 Spanish Interviews by Recruitment Criteria, Mode, and Version

Characteristic	Sub-characteristic	Paper Mode		CAI Mode		Total
		V1	V2	V1	V2	
Septic systems	Live in a housing unit with septic tank	0	0	0	0	**0**
	Live in a housing unit with public sewer	3	3	6	5	**17**
Home heating fuel	Natural gas most	3	2	3	5	**13**
	Butane/propane most	1	0	1	0	**2**
	Other fuel most	0	2	2	1	**5**
SNAP	No prior year SNAP benefits	2	4	3	5	**14**
	Prior year SNAP benefits	1	0	3	1	**5**

5.1 Household Roster

The first test topic in Group 1 was the household roster. A single version of this question was tested in Round 2. Although the Round 2 version incorporated some elements of each of the two versions tested in Round 1, much of the wording was revised from the Round 1 versions. ***Table 2.10*** displays this question by interview mode and language.

The key research goals for Round 2 cognitive testing of the household roster questions were to determine the following:

(1) Do participants understand that they should include unrelated people on the roster?
(2) For paper mode: Do participants notice and comprehend all of the text about who to include or exclude outside of the main question stem? If so, are they utilizing this text when responding?
(3) For CAI mode: What does "short visit" mean to respondents? "Overnight stay?"
(4) Did participants list any people on the roster who should not have been listed? Did they omit anyone from the roster? For CAI, assess this in the final roster.
(5) Were participants hesitant or unsure about including anyone that lives or stays with them?
(6) Do participants have privacy concerns about reporting certain household members?
(7) For CAI mode: Do participants express annoyance or confusion about the series of coverage questions?
(8) Have participants who do not currently live in complex living situations ever lived in one? If so, how would they answer the household roster question for that situation?
(9) For CAI mode: Did participants have any questions or concerns about each of the rostering questions? Were there any terms that were not understood or were unclear?
(10) In overcount question 1, is the word "now" necessary to understand the intent of the question?
(11) For people with tenuous living situations, are they included on the roster?
(12) For people with temporary or tenuous living situations, do they have another place to live or stay?

(13) When answering the roster questions, how do participants interpret the "two month" time period? Does it imply a continuous number of days staying at the address?
(14) Are the roster check (overcount and undercount) questions understood by participants? Are they able to answer the question with details about the living situation? Are they comfortable providing that information?

This section details general and mode-specific findings related to these research questions.

Table 2.10: Household Roster Question by Mode

Paper Mode	CAI Mode
How many people, including yourself, live or stay at this address? **INCLUDE** everyone who is here for more than 2 months, such as... ✓ anyone not related to you, like roommates and other families. ✓ babies and children, related or unrelated, including grandchildren and foster chilren. **ALSO INCLUDE** anyone staying here now who has no other place to stay, even if it is less than 2 months. **DO NOT INCLUDE** anyone who is living somewhere else, such as... ✗ a college student living away. ✗ someone in the Armed Forces on deployment. **Number of people**	**1a. Let's create a list of everyone, including people not related to you, living or staying at this address.** What is <your name / the name of the next person living or staying here>? 1b. The following questions are to make sure everyone is included. Other than the people you have already mentioned, are there any children living or staying here, such as babies, grandchildren, or foster children? These children could be related or unrelated to you. 1c. Other than the people you have already mentioned, are there any other people staying here, such as roommates and other people or families who have no other place to stay? 1d. Do any of these people live somewhere else now, such as a college student or someone in the Armed Forces on deployment? 1e. Are any of these people staying here for a short visit or for an overnight stay? 1f. <Are you/Is NAME> staying here for MORE than two months? 1g. <Do you/Does NAME> have another place to live?

(continued)

Table 2.10: Household Roster Question by Mode (continued)

Paper Mode	CAI Mode
Incluyéndose a usted mismo, ¿cuántas personas viven o se quedan en esta dirección? **INCLUYA** a todas las personas que estén aquí por más de 2 meses, tales como... ✓ personas que no están emparentadas con usted, como compañeros de casa o *roommates* y otras familias. ✓ bebés y niños, emparentados o no con usted, incluyendo nietos e hijos de crianza *(foster)*. **INCLUYA TAMBIÉN** a cualquier persona que se esté quedando aquí ahora y que no tenga otro lugar donde quedarse, aunque sea menos de 2 meses. **NO INCLUYA** a alguien que vive en otro lugar, tal como... ✗ un estudiante universitario que vive en otra parte. ✗ alguien en las Fuerzas Armadas en movilización. **Número de personas**	**1a. Hagamos una lista de todas las personas, incluyendo aquellas que no están emparentadas con usted, que viven o se quedan en esta dirección.** ¿Cuál es <su nombre / el nombre de la siguiente persona que vive o se queda aquí>? 1b. Hacemos las siguientes preguntas para asegurarnos de incluir a todos. Además de las personas que ya mencionó, ¿hay niños que vivan o se estén quedando aquí, tales como bebés, nietos o hijos de crianza (foster)? Estos niños pueden estar emparentados o no con usted. 1c. Además de las personas que ya mencionó, ¿hay alguna otra persona que se esté quedando aquí, tales como compañeros de casa o *roommates* y otras personas o familias que no tengan otro lugar donde quedarse? 1d. ¿Alguna de estas personas vive en otro lugar ahora, tal como un estudiante universitario o alguien en las Fuerzas Armadas en movilización? 1e. ¿Alguna de estas personas está quedándose aquí por una visita corta o por una noche? 1f. ¿Está usted/Está <Nombre> quedándose aquí por MÁS de dos meses? 1g. ¿Tiene usted/Tiene <Nombre> otro lugar donde vivir?

5.1.1 English Interviews Findings

(1) Do participants understand that they should include unrelated people on the roster?

All participants understood that unrelated people who are living in the home should be included in the household roster.

(2) For paper mode: Do participants notice and comprehend all of the text about who to include or exclude outside of the main question stem? If so, are they utilizing this text when responding?

Of the 19 English paper participants, 10 indicated that they read or skimmed the instructions about who to include or exclude. Of the remaining nine participants, only one noted that they did not notice the instructions—all others noticed the instructions but

skipped over them, mainly because they assumed that the instructions would not apply to their simple living arrangements.

- "I skipped over it because I knew it didn't apply to me. There are no college students living anywhere or dependents or in the armed forces. It was not related to my current living situation."
- One participant who skipped over the instructions explained that they have lived alone for so long that her response was easy.
- "I'm the only person that lives in my house, so all of that is irrelevant. There's nothing in those instructions that would pertain to me."

One of the participants who skipped over the instructions explained that she did so because "it said for two months; I didn't need to include anyone else." However, she continued, "I see now that the instructions say to include someone who doesn't have another place to stay, even if it's less than two months." She said after reading the instructions her answer would change from three people to include a foster child who stayed for four nights the previous week and did not have anywhere else to stay during that time. The foster child was not staying at the home at the time of the interview.

The 19 paper participants were asked if they thought anything about the instructions was confusing or unclear, and several identified points of confusion.

- "It's a little unclear if there were an on-and-off situation where a person leaves and then comes back."
- "They're helpful, but they don't talk about time and they don't include adult relatives. So, if someone reads this, they're going to take it as it says. It doesn't talk about other generations."
- "The part that says 'Everyone who is here for more than two months' [is confusing]. That could be if they are going to be here for two months, or if they have been here for two months. It could be present or past.
- One participant thought the instructions were straightforward except for not including a minimum of consecutive nights needed to count someone.
- One participant was confused about whether people should be counted if they stayed for more than two months or for less than two months. After reviewing these instructions, she acknowledged her confusion and said, "It sounds like it's saying exclude people who have a different place to stay but slept over once."
- "Just the college student instruction [is confusing] because some students, with remote learning, stay at home even during academic time. Students may live at home really frequently, even if a college student."

(3) For CAI mode: What does "short visit" mean to respondents? "Overnight stay"?

Participants' understanding of "a short visit" ranged from one to two days to one month.

- "A day or two, spending the night."
- "A week or less but possibly a few days."
- "So for example, if I have family coming from [another state] and they are spending like a week or two with me, that's a short visit. Or maybe just over the weekend."

All but three of the 19 CAI participants thought an "overnight stay" meant just a 1-night stay. One participant thought an overnight stay could be a week and another interpreted an "overnight stay" the same as a "short visit." The third participant noted that the question about anyone staying for an overnight stay was a strange question and did not understand what this had to do with listing the people living in the household.

Additionally, one participant thought the follow-up question asking if anyone has "another place to live" was challenging.

- "I have an aunt that comes from [another country] during the summer so she will come and stay at different family members' houses for three or four months, and then she goes back to the [country]. So, the [country] is her home, that's where she lives, but when she is here, she is at her kid's house, or one of her sister's houses. So, to me that question is kind of tricky because maybe you have people visiting and they are just staying a couple of weeks, or a month or two, but then they have their own home to go back to. Like in the summer if you have family in [another state] and the kids want to go spend the summer in [another state], they are in your house for those 2 months but then they go back home. If my aunt were staying with me now, I would have included her in the list as an overnight stay or short stay, she is only visiting for a short period of time."

(4) Did participants list any people on the roster who should not have been listed? Did they omit anyone from the roster? For CAI, assess this in the final roster.

Three of the 38 participants listed at least one person who should not have been included.

- One participant listed a daughter who owns the home the participant rents. The daughter only stays there three nights per week because it is convenient for her job; she has an additional home where she stays for the remainder of the week. The participant was unsure if the daughter should have been included on the household roster.
- One participant has a complex living situation with several relatives staying there temporarily over the summer. The relatives are staying for different amounts of time and some are not sure how long they will be staying. For example, one relative is staying for more than two months. Four relatives have been there for two or three weeks and have another place to live, but they are visiting for the summer and are not sure when they will return home. Another relative is just staying for a short visit, but the participant included her because she was visiting at the time of the interview.
- One participant is in the process of moving and listed a roommate, with whom she had lived for the past year. The roommate recently moved to a separate place and no longer sleeps in the apartment she had shared with the participant, but some of her things are still there.

An additional participant did not list residents who should have been included on the roster. This participant omitted a foster child who stayed for four nights because the question says to include people there for more than two months. However, after reading the instructions when prompted by the interviewer, the participant said the foster child should have been included because they had no other place to stay.

(5) Were participants hesitant or unsure about including anyone that lives or stays with them?

Six of the 38 participants expressed hesitancy or uncertainty about including certain people in their household rosters. Three of these participants were unsure whether they should include relatives who stayed in the home previously but are not currently staying there.

- "It was a matter of what time are we answering this. People have come in and out. I was hesitant." The participant indicated that three relatives had stayed in their home throughout the past couple years, staying anywhere from three to nine months each. The participant did not include any of them because they are not currently staying in the home.

Other situations that participants were hesitant or unsure about included the following:

- The participant's granddaughter is visiting and has been there for "about a week." The participant was not sure if she should include her and acknowledged that she would have likely omitted her if she had not been there at the time of the interview.
- The participant was unsure about including herself because she is a college student who has been home for the summer since about mid-May.
- The participant was initially unsure about including a close friend who "hangs around a lot" but eventually decided not to include that friend because he lives somewhere else.

(6) Do participants have privacy concerns about reporting certain household members?

None of the participants expressed privacy concerns about reporting certain household members.

(7) For CAI mode: Do participants express annoyance or confusion about the series of coverage questions?

One participant expressed annoyance at the series of coverage questions, and three participants expressed some confusion.

- "Honestly it was somewhat annoying. I felt the questions were repetitive."
- "[The questions are] kind of confusing. I just don't want things complicated in my life."
- One participant was not sure how she would answer if a relative was visiting briefly.
- "I thought the overnight stay was kind of weird; I don't really know what that has to do with anything. Deployed or in college makes sense. If someone stayed overnight, I don't know why someone would ask that or why I would tell them or why they should be included in a list like that."

Other participants acknowledged that the questions were somewhat repetitive, but they did not have a negative reaction because they understood the purpose behind the questions.

- "I think it was meant to give clarity to identify someone that occasionally dropped in."

(8) Have participants who do not currently live in complex living situations ever lived in one? If so, how would they answer the household roster question for that situation?

Ten participants reported that they had previously lived with someone other than immediate family, and only one of them would *not* have included non-related household members on their household roster. This participant had previously lived with roommates in high school but would not have included them because "it wasn't a permanent situation." Among the nine participants saying they would have included their non-related household members on their household rosters, most recalled typical situations of living with roommates (e.g., in college), but one described that she stayed with a friend after experiencing a house fire. An additional participant described having lived with various roommates and explained, "Roommates come and go. Within a year it might be four people or one person or two." Initially, she said she would probably report the higher number of roommates that she had lived with at that particular location, but then she remembered that the question asks about who currently lives there.

Some participants were presented with a series of vignettes to see how they think someone should answer for complex situations, and participants were often divided on whether an individual should be included in the household roster. The first vignette asked how someone

should answer if their 19-year-old stepson stays with them half the time and with their other parent the other half of the time. Three participants wanted more information to be able to answer the question: One said she would ask the Census interviewer, two said the stepson should not be included, one said he should be included "partially," and the others thought the stepson should be included. Participants' responses to the vignette also included the following:

- "One person should only be included once, because it will throw the count off for the Census. The person claiming them on their taxes should be the one to count them. In this case, it would be the parent they stay with most of the time, so would need more information as to which parent they consider they live with more."
- "How often is the stepson staying at his dad's vs his mom's? Is he here for more than two months?" This participant wanted to know if the stepson stays for two months consecutively or switches between the two homes more frequently.
- "No, I think Billy should be included on whomever claims him on their taxes."
- "I would say yes. He has some of his personal belongings at their home."
- "If it's been for more than 2 months then yes."
- "I would say partially because he doesn't permanently stay with Mary and the three others. He's only there part-time. Yes and no. He stays at his mother's house as well, so partially."
- "I would include him because it's half the time. And he probably has a room there. […] If it's half the time, it's probably more than 2 months. And it says include children who are related and unrelated. He's 19 but he's still someone's child who lives there. He's not a college student or anything like that."
- One participant explained that the stepson should be counted because "he is sleeping in her house. Length doesn't matter."
- "If Billy is there when filling out the survey, then yes. If he isn't there when filling out the survey, then no."
- "No, because he's only there half time."
- "She may have to. When Billy gets a job, he will need an address. She may have no choice. He will need some address information."
- "Since this is a co-parenting situation, I'd ask the other parent if they're including him on the Census. If they are, then you don't. If they aren't, then you do. Personally, I would include him since he's there half the time."

Twenty participants were presented the next vignette, which asked about someone whose cousin is staying with him from out of state while he completes a 10-week training program. Participants were evenly divided with 10 each thinking the cousin should or should not be included. Their disagreement seemed to stem mostly from confusion about how long an individual must stay in a household to be included in the roster, but some participants also considered the cousin's home in another state and the impact of his stay on the household.

- "Ten weeks is not that long. I wouldn't consider him to be a permanent resident."
- "No, because he's only there for 10 weeks. It's not like he's homeless. He just doesn't want to spend the money on a hotel."
- "No…because you said he has his own residence in another state and he should be included where he lives."
- "I'm going to say no because he's just there temporarily. He can go back at any time."
- "Yes, because it doesn't matter how long but they are staying so he should include him."
- "Yep, it's more than two months."

- One participant said she thought he should be counted because 10 weeks is longer than two months but acknowledged that it is a "gray area" because it is a one-time training event.
- "Yes, because he is going to be using a lot of John's stuff, utilities, electricity."

Seventeen participants were presented with the third vignette, which was about someone who was staying with different friends for about a month at a time because she lost her job and had to move out of her apartment. Six participants thought she should not be counted because she was only staying for one month. Eight participants thought she should be counted, mainly citing the length of her visit, but one of these participants noted that she has nowhere else to stay and two of these participants suggested that the follow-up question asking whether anyone is staying for a short visit implies that she should be counted. Three participants wanted more information before answering.

(9) For CAI mode: Did participants have any questions or concerns about each of the rostering questions? Were there any terms that were not understood or were unclear?

Participants understood what is meant by "living somewhere else now."
- "Away at college or having another residence where they sleep, live and eat."
- "Like my niece who lives in [another state]. She's staying here for a while, but she has her own place."
- "A college student or a child who has split custody."

"Someone who this is their permanent residence but they are deployed, or staying abroad, or in some other program."

(10) In overcount question 1, is the word "now" necessary to understand the intent of the question?

Participants understood the intent of the question, including "living somewhere else now." When asked what that means, they gave explanations that confirmed they were thinking about the present time.
- "They moved to another home, it could be in the same city but a different home, or they moved out of state. They are no longer living with you."
- "Away at college or having another residence where they sleep, live and eat."
- "It means just that that they are not here…that they reside someplace else."
- "Once living with you but now live somewhere else." This participant said they would omit them from their roster after living somewhere else for one to two weeks.

(11) For people with tenuous living situations, are they included on the roster?

Five participants described tenuous living situations. Of the five, only two included those people on the roster, but in both cases, their description of the situation suggested they should not have included those people. In addition, one participant in a tenuous living situation counted people whom they should not have counted, one correctly did not count the person, and one did not share enough information to determine which of the other residents should have been counted; the latter participant lives in a 45-resident boarding house and listed only herself.
- One participant said her daughter stays with her three nights per week because it is convenient for her job, but she has an additional home where she stays for the remainder of the week. She included her daughter on the roster.
- One participant has several relatives staying with participant them over the summer. The relatives are staying for different amounts of time and some are not sure how

long they will be staying. One of the relatives is just staying for a short visit, but the participant included her because she was visiting at the time of the interview.
- One participant omitted a foster child who stayed for four nights when they had no other place to stay.
- One participant's girlfriend stays with him "every now and then," but he did not include her.

(12) For people with temporary or tenuous living situations, do they have another place to live or stay?

Examples noted previously under research question 11 indicate some people with tenuous living situations are included on the roster despite having another place to live or stay.

(13) When answering the roster questions, how do participants interpret the "two month" time period? Does it imply a continuous number of days staying at the address?

Although participants generally understood that the two-month period was intended to determine if a person is using the home as their permanent residence or a temporary place to stay, one participant was initially confused and was unsure if it meant that the person stayed there "in the last two months." This participant reread the question and then understood that it is asking about who lives there currently.

Participants had mixed understandings of whether the number of days staying at the address must be consecutive. When asked what they think is meant by "more than two months," participants provided answers such as the following:
- "They live with you; they permanently live with you."
- "They are a resident.
- "[They stay there for] more than 60 days but not necessarily consecutively. […] It doesn't say 'seven days straight'."
- "I would say spending consecutive days and nights."
- "Someone has been there on a daily basis, sleeping there every night, for two months."
- "Continuing to have this as my residence for 2 months or longer." When asked if staying off-and-on would count, the participant said "Yes."

(14) Are the roster check (overcount and undercount) questions understood by participants? Are they able to answer the question with details about the living situation? Are they comfortable providing that information?

No participants were asked the undercount follow-up question, and only four were asked the overcount follow-up question. All participants understood the question and were willing and able to provide sufficient detail about their living situation. For instance, one participant explained that she and her roommate are in the process of moving to separate places. Her roommate has already moved out and no longer sleeps there, but some of her things are still in the apartment. The participant included her because she had lived there for the past year and only recently moved out.

5.1.2 Spanish Interviews Findings

(1) Do participants understand that they should include unrelated people on the roster?

Out of the 20 Spanish interview participants, three did not think that unrelated people living in the home should be included in the household roster. However, this was not a problem

for these three participants when completing the household roster because none of them had a complex living situation.

- When asked if they thought they should include unrelated people living in the home in their household roster, one participant said, "I think everyone should be family." [And when asked if someone who was not family lived in the home would you include them] "I think I would not include them."

(2) For paper mode: Do participants notice and comprehend all the text about who to include or exclude outside of the main question stem? And, if so, are they utilizing this text when responding?

Of the eight paper mode participants, only three reported having noticed the text about who to include or who to exclude, but all three either skimmed through it or read only part of it.

- "Sí lo leí, pero no le puse la atención que debería de tener." [I certainly read it, but I did not pay the attention I should have paid.]
- One participant said they read who to exclude but skipped the instructions on who to include. This participant explained that they were more worried about who to exclude and not who to include.

The eight paper mode participants were asked if they thought anything about the instructions was confusing or unclear, and three of them identified points of confusion.

- One participant asked if they should not include a son who was a college student and lives there because that was his house, but who also goes and rents somewhere else. This participant said that this was not clear to them after reading the instructions.
- Another participant said that they did not know what the word "roommates" meant.
- The third participant said they did not know what "emparentado" (related) meant.

(3) For CAI mode: Did participants have any questions or concerns about each of the rostering questions? Were there any terms that were not understood or were unclear, such as a "short visit"?

All 12 CAI participants understood what is meant by "to live somewhere else."

- One participant explained it as having a child who is in college and they only come home when they are on vacation or on break from school.
- One participant used an example of a person who has a property somewhere else where they stay due to work or because they are studying.
- "Como si un hijo va a la Universidad y regresa y se va, y regresa y se va." [As if a child of mine attends college and comes back home and returns to campus.] This participant also said that if her husband worked in another state or country and came back home and then returned to his other place, he would have somewhere else to live.
- "Por ejemplo si mi hijo estuviera grande y estuviera en la universidad, él quizás vive en el 'campus' y venga sus vacaciones acá con nosotros, pero él primariamente vive en el 'campus.' O ya fuera si estuviera en el 'Army,' en el ejército, pues estuviera en otro lugar, pero su residencia está aquí." [For example, if my son were grown and in college, he might live on campus and come on vacation here with us, but he primarily would live on campus. Or if he were in the Army, in the military, he would be somewhere else, but his residence would be here.]

The participants' understanding of "a short visit" ranged from a few hours to one month, and some of them thought about someone visiting while on vacation.

- "Entendí que llegan en la mañana y no es para quedarse, sino en el transcurso de la mañana, un rato en la tarde, se despiden y se van a su casa." [I understood that they arrive in the morning and it is not to stay, but during the morning, a while in the afternoon, then they say goodbye and go home.]
- "Que puede quedarse unas tres semanas, máximo un mes." [That the person can stay for about 3 weeks; one month, tops.]
- "Dos días o tres, o una semana." [Two or three days, or a week.]
- "Que venga alguien de vacaciones, por ejemplo, de mi país o del país de mi esposa y se quede aquí por un tiempo. O un amigo que se queda aquí, que hagamos una fiesta y se queda a dormir aquí, o una persona viene de otra ciudad a visitar y se quedan a dormir aquí un fin de semana." [Having someone come on vacation, for example, from my country or my wife's country and stay here for a while. Or a friend staying here, we have a party and they stay overnight, or a person comes from another city to visit and they stay here for a weekend.]
- "Alguien que está visitándolo tal vez de vacaciones." [Somebody who is visiting, maybe on vacation.]
- "Puede ser un familiar de México, o alguien que necesite ayuda, que esté buscando un trabajo o que venga de vacaciones." [It could be a relative from Mexico or somebody who needs help, that is in town searching for a job or on vacation.]

All 12 CAI participants thought an "overnight stay" meant just a one-night stay, and most of them explained it as sleeping at the home that night and then leaving the next morning.

- "Que nada más es un huésped. Que nada más llega, duerme y se va." [That he is just a guest. He just arrives, sleeps there, and leaves.]
- "Que tal vez hubo una fiesta y la persona ya no se pudo ir a su casa y al otro día se fue." [That maybe there was a party and the person could not go back to their place, but that person leaves the next day.]
- "Tal vez alguien que no tuvo donde quedarse esa noche, o simplemente se le hizo tarde y se quedó a dormir." [Maybe someone who had no other place to stay that night, or it just got late and that person stayed overnight.]
- "El día de hoy y la noche… ya mañana se va." [Today and tonight… they are leaving tomorrow.]

(4) Did participants list any people on the roster who should not have been listed? Did they omit anyone from the roster?

Most participants had simple living arrangements, such as just spouses and children. Two participants also had at least one of their parents or another relative living in the household. Only one participant had a more complex living situation. They rented a room in what they called "a single-family house" and lived with 11 other roommates. Although they had their own bedroom, they shared the kitchen and the bathrooms with the rest of the residents. They did not know all their information such as names and age but knew their ethnic background and race, how some were related to each other, and even the time they left the house to go to work and the time they came back. This participant also listed someone in the roster who should not have been listed. One of their roommates had a boyfriend who came to visit every day and sometimes spent the night there, even though he had his own apartment. This participant thought that this person should be included in the roster because "he is there every day."

(5) Were participants hesitant or unsure about including anyone that lives or stays with them?

Only one participant mentioned that they thought about their sister and her family who lived

in the apartment below, but they knew they did not have to include them because they are a separate family in a separate living space.

(6) Do participants have privacy concerns about reporting certain household members?

Five of the eight participants in paper mode expressed privacy concerns about reporting certain household members. Sometimes it was not about having to include them in the roster that worried them but sharing the rest of their information.

- "Por mí no, pero por ellos a lo mejor sí porque… Uno a veces le da miedo dar su información porque realmente no sabe con quién habla. Y sin embargo uno primero a veces reviso, pregunto conoce esta página, conoce esto, y entonces uno ya dice no. Por ejemplo, con ustedes. Pero no a cualquiera le doy mi información y la información de mi familia." [For me, no, but for them, yes. Sometimes you are afraid to give out your information because you really don't know who you are talking to, but look into it and ask if they know this page, if they know this and that, and then ones can say no. Like for example with you all. But I don't give just anyone my information or my families information.]
- "Sí, la verdad sí tenía como miedo porque, de que tengan toda mi información, de dar toda mi información, sin embargo, creo que es importante porque de esa manera saben también cuántas personas viven aquí y pueden hacer más programas y ayudar a toda la comunidad. O sea, si no estaríamos como en el limbo, sí estaríamos, pero no sabrían de nuestra existencia." [Yes, I was afraid of them having all of my information, but I still thought it was important because that way they know how many people live here and they can provide more programs and help the whole community. If not, it would be like we were in limbo. We would be here, but they would not know about our existence.]
- "Sí preocupa un poco porque piden realmente muchos datos. O sea, datos importantes, fecha de nacimiento, datos con los que realmente lo registran a uno aquí pues. O sea, en una cita médica lo ubican por la fecha de nacimiento, va para un tema de inmigración y lo buscan por la fecha de nacimiento. Sí preocupa un poco." [A little. Because they ask for a lot of data. Important data like date of birth, data that they use here to register you for everything. Like here if you go to a doctor's appointment, they look you up with your date of birth. If you go for an immigration issue, they look you up with your date of birth. So, it did worry me a little.] This participant also said that they felt like they needed to answer because she had agreed to the interview. She was asked if she thought she would have answered those questions if she was alone at home with the form, and she said she would have answered unless she had something to fear with anyone else in her household and would have left it blank.
- One participant said privacy worried them a bit. They filled out the census form last year without asking their spouse or their children, who are minors, and that also worried them a bit, but they felt it was important to respond.

Only one of the 12 CAI participants expressed having privacy concerns about reporting certain household members.

- One participant said they did worry about their dad's privacy because he was the one who paid most of the bills in the household.

(7) For the CAI mode: Do participants express annoyance or confusion about the series of coverage questions?

None of the participants expressed confusion about the series of coverage questions, but two participants expressed annoyance about the repetitiveness of the questions.

- "A veces un poco repetitivas, pero bien, normal." [Sometimes repetitive, but okay, normal.] When asked what he found repetitive, this participant said: "Cuando me preguntaba a cerca de los miembros de la familia. Y luego que volvió a preguntarme de nuevo, para cerciorarse de que estaba todo bien, para que no cambiaba de opinión, que había entendido bien las cosas." [When you asked me about the members of the family. And then you came back to ask me again, to make sure that it was all right, that I didn't change my mind, that I had understood things correctly."]

(8) Have participants who do not currently live in complex living situations ever lived in one? If so, how would they answer the household roster question for that situation?

Only four participants reported they had previously had a complex living situation. Two indicated they would have included their non-related household members in their household rosters, one said they would not have included them, and one said they were not sure if the other people they lived with would have included them.

- One participant reported they had stayed with their brother-in-law's ex-wife when they first came to the United States. They said they would have included her if they had answered the survey at that time.
- One participant said they first lived with friends, and later, when they were still single, they lived with their godparents. This participant also said they would have included their friends in the counting had they answered the survey when they were living with them because it was very important to have an accurate counting to know the needs of the communities.
- "I would not have included because I'm not sure how long they would be staying with me."
- One participant said that they had lived with their uncle's girlfriend when they had first arrived in the United States, and because their uncle lived with several roommates, so his girlfriend let them stay with her for a month. When asked if they would have included the girlfriend in the roster, this participant said that they thought that the girlfriend should have been the one responding the survey, and they were not sure if she would have included them but probably not because it was a temporary situation.

Some participants were presented with a series of vignettes to see how they thought someone should answer in complex situations, and they were often divided on whether an individual should be included in the household roster or not. The first vignette was presented to nine of the 20 participants. This vignette asked how someone should answer if their 19-year-old stepson stays with them half the time and with their other parent the other half of the time. All but one participant believed the stepson should be included in the household roster. One thought the person answering the questions should ask this individual's mother first to see if she was including him to avoid double counting.

- "I think she should include him. Because the instructions say to include the names of people who live at that address. Now, even if he is not a direct relative of hers and that he is not there 365 days a year, but he is a participant in the house, and he stays there half the time."
- One participant said that he should be included because he is living with them, he is still not working, and he is still not moving to another house on his own.

- One participant said that he should be included because even though he does not live in the household full time, he shares both homes on a part-time basis and divides his time between both places.
- "Aunque divide la mitad del tiempo con su mamá, es como un miembro más de la familia, habita ahí por algo de tiempo." (Although he lives half of the time with his mother, he is like another household member, he lives there part of the time.)
- "Sí, porque se queda al menos la mitad del tiempo entonces puede que se quede un día más y si está buscando trabajo es porque se quiere establecer ahí cerca, ya se quedaría ahí con el papá y con ellos." (Yes, because he stays at least half of the time then he might stay one more day and if he is looking for work it is because he wants to settle down nearby, he would already stay there with the dad and with them.")

Nine participants were presented the next vignette, which asked about someone whose cousin is staying with him from out of state while he completes a 10-week training program. Seven participants thought the cousin should be included, one thought he should not, and one thought the person answering the survey should ask his cousin if he was being accounted for somewhere else before answering.

- One participant said that the cousin should be included because it is going to take him 8 weeks to finish the program and he is going to use water and electricity.
- One participant said that the cousin should be included because he is staying there more than two weeks, and it would be ideal for him to be included in the survey as if he is living there.
- "Claro, si se está quedando ahí, claro." [Of course; if he's staying there, of course.]
- One participant said that this individual's cousin should not be included in the roster because he is only staying for 10 weeks, not permanently.
- One participant said again that this individual should ask his cousin where he is declaring his residency for Census purposes. This participant added that his cousin should declare his residency the place he spends most of the time.

Seven participants were presented with the third vignette, which was about someone who was staying with different friends for about a month at a time because she lost her job and had to move out of her apartment. Four participants thought she should not be included because she was only staying for one month or because this was not a steady situation, and three participants thought she should be included because she had nowhere else to stay and she needed to be counted.

- "No, because Kelly is staying only for a month, if she stayed longer then she should be accounted."
- One participant said that because the person's living situation is not steady, the participant should not include her in the roster.
- One participant said that if he followed the same criteria of two months, then she should not be included.
- "Yo pienso que sí porque va a estar un mes ahí con ella, y hay que contarla." [I think so, because she's going to stay there for one month and she needs to be counted."
- "Claro, si se queda con ella sí. Si se queda con ella y no tiene otro lugar donde vivir, y se queda ahí con la amiga." [Yes. If she's staying with her, yes. If she's staying with her and has no other place to live, and she's staying there with her friend, yes.]
- One participant said that the friend should include her, because she is staying with the friend and has no other established place to live.

(9) For CAI mode: Did participants have any questions or concerns about each of the rostering questions? Were there any terms that were not understood or were unclear?

Participants found the questions clear and not confusing. One of the CAI participants said the questions were repetitive, but the other 11 did not find them so. They understood they were necessary, as in this example:

- "Para mí estuvo bien porque asi no hay confusión, de que se vayan a contar doble vez" [For me it was fine, so there is no chance to double count them.]

All understood the meaning of "another place to live" and "another place to stay".

(10) For CAI mode: In overcount question 1, is the word "now" necessary to understand the intent of the question?)

This follow-up question was not asked to any of the Spanish participants because no college students were reported.

(11) For people with tenuous living situations, are they included on the roster?

Most participants had simple living arrangements, such as just spouses and children. None of the 20 participants reported having a tenuous living situation, except for one participant who reported someone who only spent the night there sometimes, had another place to live, and should not have been included.

(12) And do people with tenuous living situations have another place to live or stay?

Most participants had simple living arrangements, such as just spouses and children. None of the 20 participants reported having a tenuous living situation, except for one participant who reported someone who only spent the night there sometimes, had another place to live, and should not have been included.

(13) When answering the roster questions, how do participants interpret the "two month" time period? Does it imply a continuous number of days staying at the address?)

It was not clear if participants understood the "two month" period to imply a continuous number of days staying at the address. However, 10 of the 12 participants understood that if someone stayed there for at least a "two month" period, the person would have already established permanent residency and, therefore, they should be included in the household roster.

- "Es una visita a largo plazo. Es decir, es una visita que ya se encuentra establecido para vivir permanentemente." [It's a long-term visit. It's a visit that has been established to live on a permanent basis.]
- One participant said that a person who is living there more than a week, it means they are living there permanently.
- "Quedarse por más de dos meses es prácticamente quedarse a vivir ahí." [Staying for longer than two months is for practical purposes just the same as living there]
- "Tal vez mas de dos meses significa que ya vive aquí." [Maybe more than 2 months means that the person already lives here.]
- One participant said that "staying here for more than two months" means that "the person lives there; it is not just visiting."
- "A person who has been there for two months, who is no longer paying rent in another place where they no longer are. Because they truly have no other place to go. They really live here."
- One participant said that sometimes one gets used to living with someone else and after two months the person wants to stay, or you want them to stay. After two

months the person needs to get mail, find a job, have an address to give. So, this person should be included.

Two participants did not think a "two month" period was enough for someone to be included in the roster.

- One participant said they did understand that this question was asking about people who had lived there for at least two months, but they did not think that a two-month period was enough to consider someone as living with her.
- One participant said, "Que, si ya tenían tiempo conmigo viviendo, o si se pueden quedar a partir de hoy dos meses más." [That if they have been living with me for a while, or if they are staying with me two more months starting today.] However, when asked how long a person would have to stay with them for them to include them in the roster, they said: "2 años, mínimo." (At least 2 years.)

(14) Are the overcount and undercount questions understood by participants? Are they able to answer the questions with details about the living situation? Are they comfortable providing that information?

Of the 72 Spanish interview participants, no participants were asked the undercount follow-up question and only two participants were asked the overcount follow-up question. These participants understood the question and were very comfortable providing sufficient detail about their living situation.

- One participant takes care of a relative while his mother works the night shift. They included this relative in the roster. When asked how long the relative stays there, the participant said that he stays there every night from Monday to Thursday every week. His mother drops him at 7:00 pm and picks him up at 7:00 am. He spends every morning and every Friday to Sunday night with his mother.
- One participant explained that their friend, who they included in the roster, has her own house, but sometimes visits them and stays there overnight. When asked how often their friend spends the night at their home, the respondent answered: "Once a year, once every six months." The participant explained that they felt they should include the friend because she was the only person who would visit them and ever spend the night.

5.1.3 Other Findings by Mode

a. Paper Mode – English

All 19 paper English participants understood that they should include unrelated people who are living in the home on the household roster. All but one of the participants noticed the instructions about who to include or exclude on the household roster, but only 10 participants read or skimmed the instructions. Those who chose not to read them did so because they did not think they needed them, for example because they live alone or do not live with anyone in college or the armed forces. However, one participant who initially skipped the instructions realized after reading them (when probed) that she had answered incorrectly—she had omitted a foster child who only stayed four nights but did not have anywhere else to stay.

When completing the household roster, none of the 19 paper English participants listed someone who should not have been included, but two failed to list residents who should have been included on the roster. One participant omitted a foster child who only stayed for four nights but had no other place to stay, and another participant omitted her mother who stayed with her for four weeks. She explained, "She was also unhoused at that point and I

considered her as living here and included her on my Census form." None of the participants expressed privacy concerns about reporting certain household members on the roster.

None of the 19 paper English participants expressed privacy concerns about reporting certain household members on the roster, but three expressed some hesitancy or uncertainty about who to include: (1) One participant was unsure if she should include herself because she is a college student who normally lives away at college but is currently living at home for the summer; (2) One participant considered listing a friend who "hangs around a lot" but decided against it because he lives somewhere else; and (3) One participant thought about listing relatives who stayed for three to nine months over the past few years but decided against it because they are not currently staying in the home.

Some participants were asked about past living arrangements in which they did not live with immediate family and whether they would have included all those with whom they lived in their household roster. All participants asked this question indicated that they would include non-family members in their roster.

b. Paper Mode – Spanish

Although most of the participants ignored the text about who to include or exclude outside of the main question stem, all eight Spanish-speaking paper mode participants understood the questions as intended and answered them correctly. It is important to note that all eight participants had simple living arrangements, but no one showed hesitation about including anyone that lived or stayed there.

Compared with the CAI participants where only one reported having concerns about privacy, five of the eight paper mode participants expressed this concern. One participant expressed concerns about sharing information such as date of birth, which is something that was not asked in the CAI questionnaire for cognitive testing purposes.

c. CAI Mode – English

All 19 CAI English participants understood that they should include unrelated people who are living in the home on the household roster. They also understood what the question meant by "living somewhere else now" and an "overnight stay," with one exception of a participant who thought that could mean a week-long visit. However, participants had varied understandings of "a short visit," with interpretations ranging from one to two days to one month.

When completing the household roster, three of the 19 CAI English participants listed at least one person who should not have been included: (1) one participant listed her daughter, who has her own home but stays with the participant three nights per week; (2) one participant listed several relatives who are staying there temporarily over the summer, but at least one of them is only there for a short visit; and (3) one participant is in the process of moving and listed her roommate, who has already moved out and begun sleeping in her new home, although some of her belongings remain. None of the CAI English participants omitted someone from the roster who should have been listed.

None of the 19 paper CAI participants expressed privacy concerns about reporting certain household members on the roster, but three expressed some hesitancy or uncertainty about who to include. For instance, one participant was unsure if she should list her granddaughter who had been visiting for "about a week" and decided to include her because she was staying there at the time of the interview.

Only four of the 19 participants expressed annoyance or confusion at the series of coverage questions, saying that they were repetitive or did not provide clarity. Other participants acknowledged that the questions are repetitive, but they understood the purpose of the questions and did not seem bothered by the repetition.

Some participants were asked about past living arrangements in which they did not live with immediate family and whether they would have included all those with whom they lived in their household roster. Nearly all participants asked this question indicated that they would include non-family members in their roster. One participant indicated that he would not have included the roommates he lived with in high school because "it wasn't a permanent situation."

c. CAI Mode – Spanish

Of the 12 Spanish-speaking CAI participants, all understood the questions as intended and answered them correctly. They reported no hesitation about including anyone that lived or stayed there.

All 12 participants were able to provide an amount of time someone would have to live there to be included in the roster, and this ranged from as little as one week to as much as two years. One of these four respondents also noted the amount of time was not important but rather the situation.

- "No importa el tiempo, importa más la situación." (Time is not that important; the situation is what matters most.] This participant said regardless of the time a person has stayed with them, if the person is living with them, they should include them. On the other hand, if the person is not planning to stay with them indefinitely, they should not include them. When asked how long a person should live with them so that they would include them, this participant said about a year, or stay with them for short but frequent and consistent periods of time.

The 12 participants' understanding of "a short visit" ranged from a few hours to one month, and some thought about someone visiting while on vacation. All 12 participants thought an "overnight stay" meant just a one-night stay, and most of them explained it as sleeping at the home that night just to get up the next morning and leave.

Only one participant reported having a complex living situation. They lived with 11 roommates, who they included in the roster. They also included one of their roommates' boyfriend, who has his own apartment but comes to visit every day and sometimes spends the night.

All 12 participants said they understood the reason behind the series of coverage questions, and only two expressed annoyance or confusion. Only one of the 12 CAI participants expressed having privacy concerns about reporting on specific members of the household.

5.1.4 Recommendations

RTI/RSS recommends modifying the household roster question to better clarify the amount of time an individual should be living in a household to be included in the household roster and to define other terminology more explicitly, such as "short visit."

First, some participants were unclear about the anchor point for the two-month window—they were uncertain if this referred to the two months prior to the interview or the two

months following the interview. In the CAI script, interviewer instructions state that this question can refer to either window of time. RTI/RSS recommends the paper version of the question be updated to read, "INCLUDE everyone who has been or will be here for more than two months, such as…"

Second, participants' definition of a "short visit" ranged from a few hours to one month; however, participants had a strong understanding of "overnight stay" to mean a single night. To better define "short visit," RTI/RSS recommends separating CAI roster question 1e into two questions: (1) Are any of these people staying here for an overnight stay? And (2) Are any of these people staying here for a short visit, which is for less than one week? Alternatively, the two questions could read as follows: (1) Are any of these people staying here for any overnight stay? And (2) Are any of these people staying here for less than one week? (Note: Here, the "one week" definition of short visit is an example. This can be replaced with the Census Bureau's preferred timeframe.)

Finally, RTI/RSS recommends continued testing with individuals living in impermanent living arrangements, such as children in custody arrangements and college students.

For Spanish, RTI/RSS has no specific recommendations to add to this list.

5.2 Septic Systems

The next Group 1 test topic was septic systems. A single version of this question was tested in Round 2; it was the same as Version 2 from Round 1, except that the "No, connected to septic system or cesspool" response option from Round 1 was changed to "No, connected to septic tank" for Round 2. ***Table 2.11*** displays this question by interview mode and language.

The key research goals of cognitive testing were to determine the following:

(1) Do participants know the difference between a decentralized wastewater treatment system and one connected to a public sewer?
(2) How do participants decide their answer choice?
(3) Are participants selecting public sewer when their home is connected to a septic system? How many false positives are there with this question?

This section details the general and mode-specific findings related to these research goals.

Table 2.11: Septic System Questions by Mode

Paper Mode	CAI Mode
Is this house, apartment, or mobile home connected to a public sewer? ☐ Yes, connected to public sewer ☐ No, connected to septic tank ☐ No, use other type of system	**14a. Is this <mobile home/house/apartment/unit> connected to a public sewer?** Yes No **14b. Is it connected to a septic tank?** Yes No
¿Está esta casa, apartamento o casa móvil conectada(o) a un alcantarillado o desagüe público? ☐ Sí, conectada(o) a un alcantarillado o desagüe público ☐ No, conectada(o) a un tanque séptico ☐ No, usa otro tipo de sistema	**14a ¿Está <esta casa móvil/esta casa/este apartmento/esta vivenda> conectado(a) a un alcantarillado o desagüe público?** Sí No **14b. ¿Está conectado(a) a un tanque séptico?** Sí No

5.2.1 English Interviews Findings

(1) Do participants know the difference between a decentralized wastewater treatment system and one connected to a public sewer?

All 38 participants except for one were able to identify at least one element of a public sewer system; the other participant said, "I have no idea" when asked what is meant by "public sewer." The most common elements participants identified were that a public sewer is (1) publicly owned and operated by the city or county, (2) a system of pipes connected to multiple homes/neighborhoods through which all waste water is channeled, and (3) one in which all waste is sent to a common treatment plant offsite.

- "It's cared for by the municipality that it's located in."
- "You're connected to the infrastructure that's managed by the town so wastewater would go to pipes that take waste and water away for treatment and provided to you by municipalities."
- "Something that's in the street, for public use, for everyone outside of your house to use. Like I might be sharing my sewer with the people that live in front of my house."
- "It's shared, and you pay your bill to the city. It's not a septic tank which is something just for your home. Something that is shared by a community or a group of homes."

One participant correctly indicated that a public sewer takes wastewater from multiple homes but seemed to have a poor grasp of it overall. This participant reported living in an apartment and answered that it is not connected to a public sewer or a septic tank. The participant had to "pretty much guess" when answering the question and did not know where wastewater goes after leaving the apartment.

Though participants had more difficulty describing a "septic system," the majority were still able to provide at least a basic definition and distinguish this from a public sewer. Most commonly, participants focused on septic systems being private tanks on a homeowner's land for which the homeowner is responsible for maintaining.

- "They dig a big hole in the ground and all the waste goes in there and you have to add this RID-X stuff so the bacteria can keep it functioning."
- "It's a big tank that is buried somewhere."
- "It's on your property and it's underground and it's for your own personal use and you pay for it."
- "It's a sewer system that is not part of the municipality you live in, it's your own to maintain."
- "A septic tank is usually used only in the country when there is no line to the house. I'm pretty sure you have to clean it out. It doesn't run through the normal pipes."

Two participants said they are not sure what a septic system is, but one of them confirmed "I just know we don't have it." Three additional participants seemed to misunderstand (or have a limited understanding of) what a septic system is.

- "I think that would probably be the same thing as a public sewer, I don't see much of a difference."
- "Those containers inside of an RV where you have to drive to drop off the waste."
- "I think it's a tank that's underneath the house and all the sewage goes there. I think it's like stored there or treated. I'm not really sure."

(2) How do participants decide on their answer choice?

Many of the participants who chose the public sewer option said they chose that option because they were certain they did not have a septic tank. Similarly, those who said they had a septic tank often just knew that they did. Other participants knew because they remembered having work done on the sewer line or having their septic tank emptied, or they saw a sewer line item on their water bill. For example, one participant explained that she knew her home was connected to a public sewer because a few years ago she had to have a plumber come out and repair the sewer line to the street. She specifically knew that it was not a septic tank.

The majority of respondents (25 of 38) knew the answer to this question. Twelve participants reported that they made a guess, with nine of them feeling fairly confident or describing it as an "educated guess." The remaining participant did not know enough about this to provide a guess and instead left the question unanswered.

(3) Are participants selecting public sewer when their home is connected to a septic system? How many false positives are there with this question?

Based on participants' descriptions, none appeared to report that their home is connected to a public sewer when it is actually connected to a septic system. However, one participant who seemed confused about the question said that their home is neither connected to a public sewer nor a septic tank, which they described as their best educated guess. When probed for more information, the participant said a septic tank is probably the same thing as a public sewer; the participant did not see much of a difference between the two.

5.2.2 Spanish Interviews Findings

(1) Do participants know the difference between a decentralized wastewater treatment system and one connected to a public sewer?

The main element of a public sewer that participants were familiar with was that it is a system of pipes connected to multiple homes/neighborhoods through which all wastewater is channeled. The public nature of the utility and what happens with the sewage (i.e. treatment) was not frequently mentioned.

- One participant said, "Sí, está conectado al alcantarillado. Yo no pago… yo no tengo una tubería especial para mi departamento, o sea, todas las alcantarillas, todos los desagues se comunican que van a la calle" [Yes, it's connected to an "alcantarillado" (sewer). I don't pay… I don't have a special pipe for my apartment. All "alcantarillas y desagües" (sewers and waste pipes) communicate with one another and go to the street].
- Another oneexplained that he is able to see the sewer behind his house, and he could tell that it was connected to his building and the rest of the city.
- Another one added, "El drenaje de la casa, los desechos de la casa se van a la tuberías de la ciudad" [Drainage from the house, the waste of the house goes out through the city's pipes.]
- And another participant said, "Las tuberías que llevan todo el desecho, se pudiera decir, ya sea por el baño, por la lavandería, y lo llevan a un cierto lugar. A dónde? No sé. Sale de la casa un tubo, se conecta a otro que es el principal, y ese no sé adónde lo lleva" [The pipes that take all waste water from the bathroom, and the laundry, to a certain place. Where? That, I don't know. From the house, there is a pipe that is connected to another pipe, the main one, and that one I don't know where it goes.]

On the concept of a septic tank, most participants had a sense that it was a place for storing wastewater that was not shared across homes.

- "Es como una recámara en el subsuelo en donde todas las aguas sucias de la casa se depositan ahi y se va filtrando hacia el subterráneo." [It is like a room that runs underground where all waste water is deposited. The water gets filtered and goes to the underground.]
- "Es algo que usted tiene en su casa construído… es un tanque enterrado en la tierra… el baño va conectado a depositar solo a ese tanque, no tiene salida a ningun otro lado, solo al tanque que usted construyó." [It is something that is built in your house… is a tank buried in the ground… wastewater from the bathroom is connected to that tank, it is not connected to anything else but the tank that you built.] "Cada casa tendra su propio, como un tanque, que conduce el tubo del bano o de donde salen las aguas negras, pero es uno para cada casa." [That every house has its own, like, a tank that is connected to the pipe from the bathroom or where the black water comes, but it's one for each house.]
- "Algunas casas tienen un tanque o un lugar donde depositan todas sus aguas sucias, pero no sé de ahí para dónde van." [Some homes have a tank or a place where all their dirty water is deposited, but from there I don't know where it all goes.]

(2) How do participants decide on their answer choice?

Some participants based their answer on the fact that wastewater leaves their home through the pipes, assuming that means it goes to the sewer and not realizing that a septic tank would also be connected to the home via pipes.

Some participants were not sure what system they have and said they chose "the most likely answer" or "the logical answer." They were more familiar with the terms "alcantarillado" and "desagüe" than with "tanque séptico."

- Another participant who was unsuresaid, "Yo pensé que era eso, como alcantarillado… Es que no se qué es eso, la verdad… sí yo pensé que era eso… que pasa agua." [But I've heard there is an alcantarillado. But frankly, I don't know what that is [giggling]. I just thought that's what it was, like something where the water goes through.]
- And another participant said, "Porque… donde yo vivía en [home country] era así, todos los alcantarillados estaban conectados a desagües públicos, y me imagino que aqui es así." [I chose it because that's how it was in [home country], and hopefully I'm right that it is here too.]
- A participant assumed public sewers were the only possible system in urban areas in this country: "Yo creo que en Estados Unidos tienen en todas partes desagüe y alcantarillado." [I think that in the United States they have public sewers everywhere.] She went on to say it was possible they have septic tank systems on ranches and places like that but that in cities, and definitely in big cities, they have a public sewer.

(3) Are participants selecting public sewer when their home is connected to a septic system? How many false positives are there with this question?

None of the Spanish speakers reported having a septic system, either in screening or in the probing during the interviews. Therefore, RTI/RSS cannot determine if there were any false positives.

5.2.3 Other Findings by Mode

a. Paper Mode – English

Thirteen of the 19 English participants knew the answer to the septic system question. Of the remaining six participants, five made a guess (or an educated guess) at their response, and one left the question unanswered. Though many participants had to guess to answer the question, participants seemed to have a general understanding of the question as intended.

When asked to describe what is meant by "public sewer," most participants gave responses that indicated they generally understood what it is. For example, one participant explained, "It's connected to water/sewer public utility for your district where you pay a quarterly bill for your usage." Another said public sewer means that "you're connected to the infrastructure that's managed by the town so wastewater would go to pipes that take waste and water away for treatment and it's provided to you by municipalities."

Participants were less clear on what a septic tank is, but those who said they have one tended to give a description that confirmed their understanding of what a septic tank is. For instance, one described it as an "underground tank that needs to be cleaned out every so often; it is designed to capture waste and is used by folks not on public sewer." Another explained, "I've got two cisterns buried underground where my wastewater goes." Some of the participants who said they do not have a septic tank provided descriptions that indicated they understand what a septic tank is. For example, one described it as a big torpedo that you bury; it collects waste and gets cleaned out once a year. However, some others without septic tanks gave descriptions that indicated they do not fully understand what they are,

such as, "I think it's a tank that's underneath the house and all the sewage goes there. I think it's like stored there or treated. I'm not really sure."

b. Paper Mode – Spanish

Of the eight paper mode participants, all answered "yes" with one exception of one who said she did not know, and she would leave the question blank. Otherwise, there was no indication that any of the participants answered the question incorrectly, because no one appeared to have a septic tank. This was consistent with how participants had answered the screener questions.

Nonetheless, participants' understanding of how public sewers and septic tanks work was not necessarily clear. Several exhibited some degree of uncertainty during probing but indicated they selected the most likely or "logical" answer. Two participants assumed that in the United States buildings must be connected to the public sewers.

- "Alcantarillado público es el desagüe"

Participants generally had some understanding of what a septic tank is and described it as a pit or tank where a building's wastewater goes and is not connected to the public sewer.

- "Que se hace de una casa o edificio o negocio, lo que sea, y en estados unidos lo tienen típicamente en la ciudades y pueblos grandes, y yo creo que en estados unidos tienen en todas partes desagüe y alcantarillado." [Public sewer is the drainage that comes from a house or building or store, whatever it is, and in the United States they usually have it everywhere, the public sewers.]
- "Porque… donde yo vivía en [home country] era así, todos los alcantarillados estaban conectados a desagües públicos, y me imagino que aqui es así" [Because where I lived in [home country] it was like this, *alcantarillado* and *desagüe público*, and I imagine it must be the same way here.]

c. CAI Mode – English

Twelve of the 19 English participants knew the answer to the septic system question. The seven remaining participants made a guess (or an educated guess) at their response. Though many participants had to guess to answer the question, participants seemed to have a general understanding of the question as intended.

When asked to describe what is meant by "public sewer," participants gave responses that indicated they generally understood what it is. For example, one participant explained, "There is a bunch of pipes and they all lead to a waste treatment facility to get cleaned." Another said, "It's shared, and you pay your bill to the city. It's not a septic tank which is something just for your home. Something that is shared by a community or a group of homes."

Participants were less clear on what a septic tank is, but those who said they have one tended to give a description that confirmed their understanding of what a septic tank is. For instance, one explained, "They dig a big hole in the ground and all the waste goes in there and you have to add this RID-X stuff so the bacteria can keep it functioning." Some of the participants who said they do not have a septic tank provided descriptions that indicated they understand what a septic tank is. For example, "It's a tank underground to hold a sewer. When you flush or run water it goes into this tank that is in your yard and at some point you have to have somebody come and pump that septic tank; if not that will overflow into your yard." However, a few participants without septic tanks gave descriptions that indicated they do not understand what they are:

- "I think that would probably be the same thing as a public sewer, I don't see much of a difference."
- "The sewer line goes underground on your property."
- "Those containers inside of an RV where you have to drive to drop off the waste."

d. CAI Mode – Spanish

Of the 12 CAI mode participants, all but two answered "yes." One said she did not know,and the other answered she thought so, while looking doubtful. Otherwise, there was no indication that any of the participants answered the question incorrectly because no one appeared to have a septic tank, both based on their responses during probing and their screening and instrument answers.

In this mode, nine participants appeared certain of their answer, and the other three were not sure if their housing was connected to the public sewer. The explanations provided about how they decided what to answer often reflected lack of understanding about how a septic tank works. One participant based her answer on having heard they have a public sewer, although she did not know what that meant.

Some participants were unsure of their response, because they had only a vague understanding of how public sewers are different than septic tanks. For example, some based their response on the fact that their wastewater leaves their apartment through pipes and they felt that was evidence they must be connected to the public sewer. They were not thinking that wastewater can leave a housing unit through the pipes, only to be deposited in a septic tank.

When asked how they decided what response to choose, two participants described what they imagine happens in septic systems, which included flooding and backed up toilets and sinks.

- "Porque hay drenaje debajo de la casa. Hay drenaje, no hay peste, no inunda la casa cuando llueve, los baños sirven bien, los lavabos también, todo…." [Because there is drainage under the house. There is drainage, there is no stink, the house does not flood when it rains, the toilets work well, the sinks work well, everything….]
- "Porque el agua sucia corre y no se queda estancada en la casa ahí mismo, agua sucia o el agua de los baños donde nos bañamos nosotros." [Because the dirty water runs and doesn't stay stagnant in the house right there, the dirty water or the water from the bathrooms where we shower.]

The Spanish question uses two alternative and synonymous terms for public sewer ("alcantarillado" and "desagüe público"). One participant did not interpret the question as a "Yes/No" question but rather as one asking the respondent to which of the two her housing unit is connected. She answered she did not know. In probing, this became apparent. The interviewer asked how she would have answered if asked "¿Está su casa conectada a un desagüe público?" [Is your home connected to a *desagüe público*?] She said she would have answered "yes," but added that she would also have answered "yes" had she been asked about "alcantarillado." The presence of both terms confused her.

5.2.4 Recommendations

Given strong performance of the septic system test topic in Round 2 and participants' ability to distinguish between a public sewer and septic tank and to select a response confidently, RTI/RSS does not recommend any changes to the English version of the question.

The Spanish version of the question uses two terms for public sewer,to provide two synonyms in case some respondents are more familiar with *alcantarillado* than with *desagüe público*. Based on our testing, there is no evidence that anyone had issues interpreting *alcantarillado.* Because one participant thought the question asked whether their unit had *alcantarillado* or had *desagüe público,* RTI/RSS recommends using only one term: *alcantarillado.*

5.3 Home Heating Fuel

Group 1 also tested a version of the home heating fuel question. ***Table 2.12*** displays this question by interview mode and language. The version tested was also tested in Round 1 as Version 2 and was unchanged for Round 2.

The key research goals of cognitive testing were to determine the following:

(1) Do participants understand what natural (piped) gas is as opposed to bottled gas?
(2) Will adding butane help participants find the correct heating fuel category?
(3) Will adding propane help participants?
(4) Are participants only reporting the fuel they used the "MOST"?
(5) Do participants accurately report the home heating fuel they use the most? Does this differ between owners and renters?

This section details the general and mode-specific findings related to these research questions.

Table 2.12: Home Heating Fuel Questions by Mode

Paper Mode	CAI Mode
Which fuel is used MOST for heating this house, apartment, or mobile home? ☐ Gas: Natural gas from underground pipes serving the neighborhood ☐ Gas: Bottled or tank (propane, butane, etc.) ☐ Electricity ☐ Fuel oil, kerosene, etc. ☐ Coal or coke ☐ Wood ☐ Solar energy ☐ Other fuel ☐ No fuel used	**22a. To heat this <mobile home/house/apartment/unit>, which fuel do you use MOST—** Gas, Electricity, Fuel oil or kerosene, Coal or coke, Wood, Solar energy, Some other fuel? **22b. Is it natural gas used from underground pipes serving the neighborhood?** Yes No **22c. Is it bottled or tank gas, such as propane or butane?** Yes No

(continued)

Table 2.12: Home Heating Fuel Questions by Mode (continued)

Paper Mode	CAI Mode
Cuál COMBUSTIBLE es el que MÁS se utiliza para calentar esta casa, apartamento o casa móvil? ☐ Gas: Gas natural de tuberías subterráneas que abastecen al vecindario ☐ Gas: Embotellado o en tanque (propano, butano, etc.) ☐ Electricidad ☐ Aceite combustible, queroseno, etc. ☐ Carbón o coque ☐ Leña ☐ Energía solar ☐ Otro combustible ☐ No se utiliza combustible	**22a. Para calentar <esta casa móvil/esta casa/este apartmento/esta vivenda>, ¿qué tipo de combustible utiliza usted PRINCIPALMENTE:** Gas Electricidad Aceite combustible o queroseno Carbón o coque Leña Energía solar Algún otro combustible? **22b. ¿Se usa gas natural de tuberías subterráneas que abastecen al vecindario?** Sí No **22c. ¿Es gas embotellado o en tanque, tal como propano o butano?** Sí No

5.3.1 English Interviews Findings

(1) Do participants understand what natural (piped) gas is as opposed to bottled gas?

Nearly all participants who selected one of the two gas options were able to distinguish between the different types of gas. Only one of the participants who selected gas indicated that they were unsure what was meant by "butane"; however, this participant used natural gas in their home and they were certain in their response, so this did not cause difficulty in answering the question. None of the participants who selected one of the gas options had difficulty choosing between the two options and all seemed to select the correct option based on their responses to the probes.

Participants who did not select one of the gas options were also able to distinguish between the different types of gas, although some did not seem to understand that bottled gas can be used to heat a home.

- "Natural gas is for the lines, to fuel the lines, and propane gas is for individual use."
- A participant whose bathroom is heated with propane explained that "natural gas means you get a bill every month and you're connected to a system; propane is a bottle or tank outside your house."
- One participant said that natural gas comes into your home by pipes, whereas propane is something you purchase for a gas grill or camping equipment.
- "Natural gas would be from a gas company that provides gas. Then bottled or tank would be propane or butane that you would purchase that you would pour into a heater that you would light, like a furnace."

(2) Will adding butane help participants find the correct heating fuel category?

None of the participants indicated that the inclusion of "butane" helped them find the correct heating fuel category, but it did not seem to inhibit their selection of the appropriate response, either. Two participants commented on other uses for butane (camping stove, cigarette lighter), but both heated their home with electricity, so their limited understanding of butane was not problematic.

Two participants did not know the difference between propane and butane, and a third commented that there are "too many gas options" so the butane and kerosene options should be combined.

(3) Will adding propane help participants?

Two participants mentioned that they know they use propane, but neither indicated if the inclusion of that term helped them find the correct heating fuel category or if they would have found it regardless. No other participants gave any indication of whether the inclusion of "propane" was helpful.

(4) Are participants only reporting the fuel they used the "MOST"?

Twelve of the 38 English participants use more than one source of fuel to heat their home. Eight of these 12 participants reported only the fuel they use the most, but one had to guess which fuel is used the most.

- One participant indicated that the upstairs is heated with electricity and the downstairs with propane. This participant selected propane because the total heated area is greater downstairs, so propane is probably used a little more than 50%.
- Another participant explained that they use a combination of electricity and propane, but propane is only used two or three times per year, so they selected electricity.

Four participants (three paper and one CAI) who use more than one type of fuel to heat their home selected both types of fuel when answering the question. One of these participants explained, "We use exactly 50-50 natural gas and fuel oil. If I had to select one, I would select both!" The other three did not seem to notice that the question asks for the fuel used the most.

(5) Do participants accurately report the home heating fuel they use the most? Does this differ between owners and renters?

Examples noted previously under research question 4 indicate most people with more than one home heating fuel accurately report the fuel the use the most—that is, eight out of 12 participants with more than one type of heating fuel reported only the fuel they use most. However, one of these participants, who rented their home, had to guess which fuel was used most.

All four of the remaining participants who had more than one source of home heating fuel selected both types of fuel when answering this question. All four of these participants were homeowners.

5.3.2 Spanish Interviews Findings

(1) Do participants understand what natural (piped) gas is as opposed to bottled gas?

Participants understood that natural gas is the one that is piped into the home from underground pipes. The fact that the question itself specifically refers to it as natural gas from underground pipes seemed to make it quite clear to them. They were also familiar with the concept of bottled gas and did not appear to confuse the two.

- Two participants said that natural gas is the one that comes from the pipes.
- Another person explained that natural gas is the type of gas that is always flowing on demand; it flows as you need it, and you pay monthly for its use.

Participants were familiar with the concept of bottled gas to use in gas stoves or for outdoor grills.

(2) Will adding butane help participants find the correct heating fuel category?

Adding butane did not appear to be necessary for participants to select the correct heating fuel category for their housing unit. Although they were generally familiar with tank or bottled gas and specifically with propane, most had either not heard of butane or had no idea about its use.

- One participant knew about use of butane for lighters.
- Another participant thought it might be used for small stoves.
- The remaining 24 participants either had never heard of butane or had heard of it as a type of bottled gas but did not know what it was used for.

These findings suggest adding butane would not be helpful.

(3) Will adding propane help participants?

In CAI mode interviews, mentioning propane appeared unnecessary because the main distinction participants made was between piped gas and bottled gas, rather than natural gas versus propane. However, if it is preferable to add propane for other reasons, it would not have negative or confusing effects on Spanish speakers. It simply does not appear necessary.

- Attributes mentioned for propane included "could be harmful" or "I imagine more dangerous."
- It was also identified as the gas that comes in tanks. Propane was mentioned as the bottled gas that is used in outdoor grills.
- One participant had a fuller understanding and explained that propane is a by-product of oil extraction, and it has a different flame than natural gas.

(4) Are participants only reporting the fuel they used the "MOST"?

Across both modes, in most cases Spanish speakers reported only the fuel they use the most. There were two exceptions among the eight paper mode cases, described in section 1.3.3.b., where the participants reported multiple types of fuel.

(5) Do participants accurately report the home heating fuel they use the most? Does this differ between owners and renters?

From answers to probes, it appears that participants generally reported the heating fuel they use the most accurately, with notably few exceptions.

- In one case, the participant had no clear notion of what she uses. She answered natural gas, bottled gas, and electricity: "Porque aqui especialmente donde yo vivo hay tubos que se calientan y que segun ayudan a que la casa se caliente, y también tengo otra cosa aparte que usa gas, éste yo tengo acceso a prenderlo si yo quiero, y

el otro no; el otro todo el tiempo esta [encendido], por eso elegí gas natural de tuberías subterráneas que abastecen al vecindario." [Because here where I live there are pipes that supposedly make the house heat up. It uses gas. That one I don't have access to control, it's just on all the time. That's why I chose that there is gas from underground pipes.] However, she added that because the pipes were "serving the neighborhood" it sounded to her like a public utility run by the city, but she knew she gets gas from a gas company. That made her wonder if she should choose bottled gas. She added that they do have a tank, but she is not sure how it works. The interviewer thought her description sounded like a water heater.

- The other case that exhibited confusion about what they use was a participant who reported using electricity and her explanation suggested inaccuracy in reporting: "Yo escogí esa porque es lo que más usamos; la cocina no es de gas sino es eléctrica. Cuando la calefacción del edificio, no sé si es a gas, pero para mí es una bomba eléctrica que produce el gas caliente que corre en todo el edificio. Eso debe tener electricidad, y el aire acondicionado también usa electricidad." [I chose it because it's what we use most. The kitchen stove is not gas, it's electric. The heat for the building, I don't know if it's gas but to me it's an electric pump that moves the heat through the building. That must use electricity. And the air conditioning also uses electricity.]

Of the 20 Spanish speakers interviewed, 14 were renters. Hence, it is not possible to confidently state whether response patterns differed between homeowners and renters. Homeowners sounded more confident in their responses.

5.3.3 Other Findings by Mode

a. Paper Mode – English

The vast majority of paper participants (17 of 19) said that answering the question was "easy," "very easy," "not difficult," or similar. However, despite describing the question as "easy," one of these participants commented, "I went and looked and saw that my stove is electricity. So, I guess [my home heating fuel] is that. But I really don't know. Maybe gas? I don't have a radiator in this room." One participant thought the question was "a little difficult" to answer because they use two types of fuel, and another participant said it was a "little bit stressful at first because it's a big list and I didn't know what to do, but then I saw 'electricity' and knew that was it."

Ten paper participants use more than one type of fuel to heat their home, and three of them selected both types of fuel when answering the question. One of these participants explained, "We use exactly 50-50 natural gas and fuel oil. If I had to select one, I would select both!" The other two did not seem to notice that the question asks for the fuel used the most.

Participants were generally able to distinguish between the two "Gas" response options, but one participant commented that "there are too many gas options." They were thinking of the "fuel oil, kerosene, etc." option as a third gas option and suggested combining that option with the "gas: bottled or tank (propane, butane, etc.)" option.

b. Paper Mode – Spanish

Four of the eight participants in this mode seemed to understand the question as intended and answered it correctly. They all selected natural gas. They were confident in their response and explained they knew this, for example, because the gas company supplies the

service, it comes through the pipes, or because they know they have gas-powered heated water radiators.

The remaining four participants either did not understand exactly what the question was asking or did not have a good understanding of how their dwelling unit is heated. Although the question asks for the MOST used fuel, two participants marked multiple responses. One reported using natural gas and fuel oil. Another selected natural gas, bottled gas, and electricity. The third participant selected electricity based on other appliances (e.g., stove, air conditioning) without knowing how the heat is produced, as described previously in the sub-section for research goal 4.

The fourth participant simply guessed that their unit must be gas heated, because that is how it is in her country of origin. She said that the gas in her home country also comes through the pipes and through the walls, so she thought it must be the same in the United States.

For the participants who selected multiple types of heating fuel, probing showed they were not focusing on home heating only but were also thinking of other uses for fuel in the home, including air conditioning and cooking, and one was thinking about oil for their car. (This may be because the home heating question placement following the electric vehicle items.[3]) While there did not seem to be anything particularly confusing in the question itself, the long list of responses appeared to distract some participants from the actual question.

- "A veces lo que confunde es tener tantas opciones y a veces no conoce uno los tipos de gases… dice uno ¿cuál escojo?, porque uno no sabe mucho de eso" [It's a little confusing with all the options and types of gas, to know which one because I don't know too much]. She said she had heard of all of them but was not sure what they were used for.

c. CAI Mode - English

Very few of the 19 CAI participants found the question to be confusing or unclear, and most seemed sure of their response. One participant, however, was incredibly confused and kept changing his answer between electricity and natural gas. He thought his building might be heated with electricity because there is a thermostat in his apartment and "the maintenance guy said something about electricity." But then he thought the building might be heated with natural gas because he receives a bill for it. The interviewer probed for more information and learned that the participant has a gas stove; it was not clear if the gas bill was for only the stove, or for the stove and heating.

Only two of the 19 CAI participants said they use more than one type of fuel to heat their home, which was less than the 10 of 19 paper participants reporting this. One of these CAI participants was unsure which fuel to select. The other determined which fuel is used the most based on how much they pay for each, explaining, "I just assumed it was gas because the gas bill is generally more expensive."

Participants associated propane and butane with tanks, and more specifically, some associated propane with grills and butane with lighters.

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[3] The electric vehicles questions were tested in the Group 3 instrument. However, the two questions were also included in the Group 1 instrument and placed directly before home heating.

d. CAI Mode – Spanish

All 12 participants in this mode provided a single type of fuel as their answer: seven answered gas, three chose electricity, and one each answered solar energy and fuel oil. All those who chose gas also chose natural gas rather than bottled. They were all very clear on what type of home heating fuel they have, and their narrative supports their choice of natural gas. They were certain of their answer for different reasons.

- "Cuando llegamos a vivir aqui, asi nos dijeron, que funcionaba con gas que viene de las tuberías." [When we moved in, so we were told, that it worked with gas from the pipes.]
- "Porque la calefacción que yo uso en la casa es a través de un calentador de gas." [Because the heating I use at home is through a gas heater.]
- "Porque yo le he dado servicios al aparato que tenemos de calefacción. Me tocó revisarlo y tuve que cambiar el termostato. Yo sé que es de gas." [Because I've repaired the appliance we have for heating. I had to check it and I had to change the thermostat. I know it is gas-powered.]

Among the three participants who answered electricity, two have a combined heating/air conditioning system powered with electricity. The third explained their apartment is heated with an electric heater. The participant who reported using solar energy also heats their unit with an electric heater, but their landlord informed them when they rented the place that they would not be paying electricity because the building has solar panels on the roof and everything in the home is powered by that no-cost electricity.

Finally, one participant reported heating the home with fuel oil. She explained that she has seen the oil tank being filled.

- "Porque es lo que veo que le echan, es que yo veo por la ventana cuando van los camiones a echarle aceite… ponen una manguera para echar el aceite." [I see the oil trucks from my window and they use a hose to put the oil.]

As indicated above, all 12 participants gave a single response to the question on most used heating fuel. Nine also said in probing that they only use one type of energy source for heating. Two were uncertain about whether they used any other type. One indicated they sometimes use electric heaters in the bedroom instead of using the gas heating that is their main source.

5.3.4 Recommendations

RTI/RSS recommends doing some additional testing of this question with people who use more than one fuel to heat their home. Several Round 2 participants who used more than one type of fuel to heat their home indicated they would have selected both sources of fuel for this question, and some were unsure how to answer the question.

The Spanish interviewing results suggest that moving the electric vehicles question to after the questions about last month utility costs may help avoid error in the question on home heating. This is based on an error detected in Spanish where some participants were thinking of "fuel" as including gasoline for their cars because of the proximity of the electric vehicles questions.

5.4 SNAP

The next Group 1 test topic was receipt of SNAP benefits. ***Tables 2.13*** and ***2.14*** display versions 1 and 2 of the SNAP question by interview mode and language. As noted in the tables, the difference between Version 1 and 2 of the SNAP question was its placement

within the survey instrument. Version 1 placed the question in its present location in the survey, whereas Version 2 moved the question to the end of the housing module.

In testing this question, the Census Bureau was particularly interested in determining whether one placement of the SNAP question was better for respondents:

(1) Is one placement better than the other at getting respondents to understand the reference period and how it differs from other questions (i.e., 2020 vs. past 12 months)?
(2) Does the placement of the SNAP question at the end of the housing module (Version 2) result in the question being overlooked?

This section details the general and mode- and version-specific findings related to these research questions.

Table 2.13: SNAP Queston by Version (Paper Mode)

Paper Mode	
V1	V2
[QUESTION IS IN ITS PRESENT LOCATION IN THE SURVEY.] **In 2020, did you or any member of this household receive benefits from the Food Stamp Program or SNAP (the Supplemental Nutrition Assistance Program)?** *Do NOT include WIC, the School Lunch Program, or assistance from food banks.* ☐ Yes ☐ No	[QUESTION IS MOVED TO THE END OF THE HOUSING SECTION.] **In 2020, did you or any member of this household receive benefits from the Food Stamp Program or SNAP (the Supplemental Nutrition Assistance Program)?** *Do NOT include WIC, the School Lunch Program, or assistance from food banks.* ☐ Yes ☐ No
[QUESTION IS IN ITS PRESENT LOCATION IN THE SURVEY.] **En el 2020, ¿recibió usted o algún otro miembro de este hogar beneficios del gobierno por medio del Programa de Cupones de Alimentos o SNAP (el Programa de Asistencia Nutricional Suplementaria)?** *NO incluya WIC, ni el Programa de Almuerzos Escolares, ni ayuda de bancos de alimentos.* ☐ Sí ☐ No	[QUESTION IS MOVED TO THE END OF THE HOUSING SECTION.] **En el 2020, ¿recibió usted o algún otro miembro de este hogar beneficios del gobierno por medio del Programa de Cupones de Alimentos o SNAP (el Programa de Asistencia Nutricional Suplementaria)?** *NO incluya WIC, ni el Programa de Almuerzos Escolares, ni ayuda de bancos de alimentos.* ☐ Sí ☐ No

Table 2.14: SNAP Question by Version (CAI Mode)

CAI Mode	
V1	V2
[QUESTION IS IN ITS PRESENT LOCATION IN THE SURVEY.] **25. In 2020, did you or any member of this household receive benefits from the Food Stamp Program or SNAP, the Supplemental Nutrition Assistance Program? Do NOT include WIC, the School Lunch Program, or assistance from food banks.** Yes No	[QUESTION IS MOVED TO THE END OF THE HOUSING SECTION.] **35. In 2020, did you or any member of this household receive benefits from the Food Stamp Program or SNAP, the Supplemental Nutrition Assistance Program? Do NOT include WIC, the School Lunch Program, or assistance from food banks.** Yes No
25. En el 2020, ¿recibió usted o algún otro miembro de este hogar beneficios del gobierno por medio del Programa de Cupones de Alimentos o SNAP (el programa de Asistencia Nutricional Suplementaria)? *NO incluya WIC, ni el Programa de Almuerzos Escolares, ni ayuda de bancos de alimentos.* Sí No	**35. En 2020, ¿recibió usted o algún otro miembro de este hogar beneficios del gobierno por medio del Programa de Cupones de Alimentos o SNAP, el Programa de Asistencia Nutricional Suplementaria? NO incluya WIC, ni el Programa de Almuerzos escolares, ni ayuda de bancos de alimentos.** Sí No

5.4.1 English Interviews Findings

(1) Is one placement better than the other at getting respondents to understand the reference period and how it differs from other questions (i.e., 2020 vs. past 12 months)?

Out of the 18 Version 1 participants, 14 correctly identified the reference period to be 2020, and understood 2020 as January 1, 2020 to December 31, 2020. A similar proportion of Version 2 participants (16 of 20) understood the reference period as intended. Those who misinterpreted the reference period thought of periods such as the following:

- "Last five years"
- "Past few years, since turning 18"
- "This present year"
- "Since 2013, since I started it."
- "Recently"
- "The pandemic"
- "Pretty much the pandemic, so most of 2020."
- "The entirety of the pandemic period: March 2020 until now."

When asked how "2020" and "the past 12 months" differ, participants who understood the distinction gave responses such as the following:

- "I feel like they're different because the past 12 months is constantly changing. Now it would be July 2020 – July 2021. But 2020 includes all months of 2020 and that doesn't change."
- "[They're] different. 2020 would be the entire year and 12 months would be last June until now."
- "2020 would be the calendar year, and the past 12 months overlaps two years."

The participants who did not understand the difference between "2020" and "the past 12 months" thought they meant the same thing. One explained, "I think they're the same thing

because 12 months makes a year and 2020 is a year." Another said they mean "the same thing. Twelve months ago was 2020."

(2) Does the placement of the SNAP question at the end of the housing module (Version 2) result in the question being overlooked?

The placement of the SNAP question at the end of the housing module (Version 2) did not result in the question being overlooked. All participants answered this question, regardless of version.

5.4.2 Spanish Interviews Findings

(1) Is one placement better than the other at getting respondents to understand the reference period and how it differs from other questions (i.e., 2020 vs. past 12 months)?

The majority of Spanish speaking participants did not interpret the reference period correctly, regardless of mode or type. Of the 20 Group 1 Spanish speakers who responded to the SNAP question, only three reported having considered the intended timeframe of 2020 when answering.

(2) Does the placement of the SNAP question at the end of the housing module (Version 2) result in the question being overlooked?

Spanish-language participants in the paper mode (Version 2) did not overlook the SNAP question. All participants answered this question.

5.4.3 Version 1 Findings by Mode

a. Paper Mode – English

All 10 English paper participants expressed that this question was very easy to answer because they were familiar with these benefits and were certain whether they had received them. Although the question was easy to answer, two of the 10 participants misunderstood the question's reference period.

One participant found their situation a bit confusing because they applied for benefits while living away from home but then received the benefits in 2020 when they were back at home.

b. Paper Mode – Spanish

Four participants responded to the Version 1 SNAP question in paper mode—two selected "yes," and two answered "no." One participant who answered "no" said the question was very easy to answer as she knew she had never received aid,the other also answered "no" correctly and remarked on the exclusion instruction, "Bueno porque lei la pregunta, y luego dice que no tenía que incluir el WIC o programas de almuerzos, entonces para mi fue NO porque yo solamente ocupo el programa de almuerzos escolares y algunas veces acomodo los bancos de comida, porque los dan en la escuela." [I read the question, and then I saw it said not to include WIC or the school lunch program, so for me it was a no, because I only use the school lunch program and sometimes a food pantry at the school]..] Both participants who selected "yes" did receive SNAP benefits, but both misunderstood the exclusion instruction and thought the question was asking to also report WIC or school lunch programs. All four participants responding in Version 1 Paper mode misunderstood the reference period and said they interpreted "acerca del 2020" and "los últimos 12 meses " as

meaning the same. One explained, "Sí, lo mismo. Porque digamos que aquí está diciendo el año en que estamos y tiene que incluir todos esos 12 meses para decir 2020, pues tienen que pasar todos los meses que están para el año." [It's the same. Because here it says the year we are in, and it has to include all 12 months to call it 2020, it includes the 12 months of that year].

c. CAI Mode – English

All eight English CAI participants expressed that this question was very easy to answer because they were familiar with these benefits and were certain whether they had received them. One described the question as "very easy" because they have never received benefits and none of them sounded familiar. A participant who received these benefits said the question was "not at all difficult because it's the truth." Although the question was easy to answer, two of the eight participants misunderstood the question's reference period.

d. CAI Mode – Spanish

Six participants responded to the Version 1 SNAP question in CAI mode, and all said they found the question easy to answer; two selected "yes" and four answered "no." One participant who responded "no" commented that she would have had difficulty responding had she not been instructed not to include WIC, school lunch benefits, or food pantries. This participant explained that she had used community pantries during the pandemic and thought the food may have come from a government program. Only one of the six correctly considered the reference period as 2020. Two indicated they had never received benefits, two were thinking currently, and one said they were thinking of the hardest months of the pandemic. At probing, however, all six participants understood the difference between "acerca del 2020" and "los últimos 12 meses."

5.4.4 Version 2 Findings by Mode

a. Paper Mode – English

Eight of the nine English paper participants described the question's difficulty using terms such as "easy" or "very easy." One participant described it as "kind of hard." This participant said they received unemployment benefits, including a debit card from unemployment, but it was not food stamps or WIC. The benefit was only received one time, in the month of July.

One of the nine participants misunderstood the question's reference period, despite describing the question as "easy." However, the participant has received food stamps since 2013, so their confusion about the reference period did not impact their response.

b. Paper Mode – Spanish

Four participants responded to the Version 2 SNAP question in paper mode, and all four answered "no." Three said they found the question easy to answer and knew that they have not received benefits. The fourth explained that she does currently receive WIC benefits and found the exclusion instruction helpful: "Realmente, cuando leí lo que está en negritas, yo iba a contestar que sí. Pero despues dice 'no incluya el WIC' entonces inmediatamente me dije que 'no' porque eso es lo que yo… sin eso que no está resaltado donde dice que no incluya WIC, ni el programa de almuerzo ni ayuda del banco de alimentos, yo hubiese contestado que sí." [Truly, when I read the bold text, I was going to answer "yes." But then it says not to include WIC, so immediately I said no, because that's what I use, if I had just

read what was bold…I would have said yes.] None of the four considered the reference period correctly as 2020, one thought of the prior school year, another about their entire time in the United States, and a third considered the months during the pandemic when she applied for SNAP benefits but was not approved. The participant who reported receiving WIC but not SNAP was thinking about benefits received currently and said she thought "acerca del 2020" and "los últimos 12 meses" meant the same whereas the other three participants understood the difference.

c. CAI Mode – English

All 11 English CAI participants expressed that answering this question was "easy," "very easy," or similar to answer because they were familiar with these benefits and were certain whether they had received them. One explained that the question was "very easy because I applied before COVID when I was unemployed but when I got my COVID money and unemployment they said it wasn't accepted." Although the question was easy to answer, three of the eleven participants misunderstood the question's reference period.

d. CAI Mode – Spanish

Six participants responded to the Version 2 SNAP question in CAI mode with five selecting "no" and one answering "yes" to having received SNAP benefits. One participant said they found the question a bit confusing because she does not receive any of the referenced benefits, but she did receive stimulus payments. The other five said they found the question easy to answer and knew whether they received SNAP benefits. Two participants correctly understood the reference period and the difference between "acerca del 2020" and "los últimos 12 meses" when probed whereas the other four did not consider the intended timeframe correctly. Two said they were thinking of both 2020 and 2021, one did not consider any timeframe, and the one participant who reported receiving SNAP benefits said they were thinking of the past six months as they are required to provide proof of income every six months to continue qualifying for benefits.

5.4.5 Recommendations

Version 1 and Version 2 of the SNAP question performed similarly in Round 2. Nearly all participants described this as an easy question to answer and were confident in their responses. RTI/RSS recommends proceeding with either placement of the SNAP question because the placement of the question does not seem to influence participant understanding of the question.

To define the reference period more clearly for this question, RTI/RSS recommends revising the question text to read, "Between January 1, 2020, and December 31, 2020…"

For Spanish, RTI/RSS has no specific recommendations because the placement of the question did not show different patterns of interpretation or response.

5.5 HOA Fees

Group 1 also tested a question about HOA or condominium fees. These versions are shown below in ***Table 2.15*** by mode and language. This question was first introduced for testing in Round 2; it was not tested in Round 1.

The key research goals of cognitive testing were to determine the following:

(1) Do participants know they live in a housing unit that is part of an HOA, and how do they make this determination? Do participants consider an HOA the same as a condominium?
(2) Do participants know to report only required/mandatory HOA fees and not voluntary/optional fees associated with being a homeowner?
(3) Does the participant consider a voluntary association (e.g., neighborhood watch, social club, community council, etc.) the same as an HOA? (This corresponds to original research goal 2.a.)
(4) Does the word "required" in the question help participants determine that the question is only asking about mandatory fees they are required to pay? (This corresponds to original research goal 2.b.)
(5) Do participants report the cost of the HOA fee in the correct fee schedule (monthly fee) or a cost from a different fee schedule?
(6) Does the order of "homeowners association" and "condominium" in the question cause any order effects for certain participants?
(7) Do participants living in a condominium see that condominium fees are included in the question? (This corresponds to original research goal 4.a.)

This section details the general and mode-specific findings related to these research questions.

Table 2.15: HOA Fees Questions by Mode

Paper Mode	CAI Mode
Is this house, apartment, or mobile home part of a homeowners association or condominium? ☐ Yes → **What is the required monthly homeowners association fee or condominium fee?** *For renters, answer only if you pay the fee in addition to your rent; otherwise, mark the "None" box.* Monthly amount – *Dollars* $, .00 **OR** ☐ None ☐ No	**The next few questions refer to this <mobile home/house/apartment/unit>.** **26a. Is this <mobile home/house/apartment/unit>part of a homeowners association or condominium?** Yes No **26b. Is there a required homeowners association fee or condominium fee?** Yes No **26c. What is the MONTHLY homeowners association fee or condominium fee?**

(continued)

Table 2.15: HOA Fees Questions by Mode (continued)

Paper Mode	CAI Mode
¿Es esta casa, apartamento o casa móvil parte de una asociación de propietarios o de un condominio? ☐ Sí → **¿Cuánto es la cuota mensual de la asociación de propietarios o del condominio que se debe pagar?** *Para inquilinos: conteste solo si paga la cuota además del alquiler; de lo contrario,marque la casilla "Ninguna".* Cantidad mensual – *Dólares* $ .00 O ☐ Ninguna ☐ No	**Las siguientes preguntas se refieren a <esta casa móvil/esta casa/este apartmento/esta vivenda>…** **26a. Es <esta casa móvil/esta casa/este apartmento/esta vivenda> parte de una asociación de propietarios o de un condominio?** Sí No **26b. ¿Se debe pagar una cuota mensual de la asociación de propietarios o del condominio?** Sí No **26c. ¿ Cuánto es la cuota MENSUAL de la asociación de propietarios o del condominio?**

5.5.1 English Interviews Findings

(1) Participants know they live in a housing unit that is part of an HOA, and how do they make this determination? Do participants consider an HOA the same as a condominium?

Most participants knew whether they were living in a housing unit that is part of an HOA, and 13 of the 38 Group 1 participants confirmed that they have an HOA. Those with an HOA knew about it because they pay a regular fee, they received paperwork on it when purchasing their home, or their HOA is very active. Participants without HOAs gave explanations such as the following:

- "I know that I'm the one that's taking care of the grass. I know there's not an extra fee because my landlord would tack it on. I'm in a general suburb, but I'm not in a cul-de-sac where every house is the same."
- "It's not part of a condominium; it's a two-story home and I don't pay an HOA."

Two participants (one owner and one renter) indicated that they included parking fees in their response because this fee is grouped together with the condominium/HOA fees they pay. One of these participants was asked if they knew how much of the fee went to parking, but this participant was unable to provide that number because all fees were grouped together in their monthly payment.

However, some renters assumed (possibly incorrectly) that their housing unit must not be part of an HOA because it is not included on their lease or their landlord does not charge them separately for the payments.

Only a couple participants were uncertain, but they guessed they were not in an HOA, and their descriptions confirmed that they most likely answered correctly. One of these participants explained, "I'm only familiar with HOAs from looking at community homes. I know they have fees. But because I live in an apartment, I wasn't sure. It's different

buildings on the same block owned by the same complex so I wasn't sure if it would be an HOA type situation, but also I don't know."

Participants were not directly asked if an HOA is the same as a condominium; however, three participants (of 27 who were asked) felt condominium fees should not be included in the question because they are discrete concepts. One participant thought condominium fees were purely for maintenance and this differed from HOA fees; another felt an HOA was an organization one belonged to and participated in whereas condominiums are not organizations; and another participant felt condominium fees are voluntary, and thus should not be included. None of these participants lived in condominiums. The remaining participants felt condominium fees should be included in the question because they are similar concepts, even if not identical.

(2) Do participants know to report only required/mandatory HOA fees and not voluntary/optional fees associated with being a homeowner?

All 13 of the participants whose housing unit is part of an HOA said they pay a required/mandatory HOA fee. When participants were asked if they had ever paid a voluntary/optional fee, one participant initially answered "don't think so" then changed his answer to "yes" after some discussion; none of the other participants had ever been asked to pay a voluntary/optional fee.

Most participants were not sure what a voluntary fee for their home or neighborhood is and provided varied guesses when asked how that type of fee differs from a required HOA fee.

- "A voluntary fee would be the community working together on a special project everyone agrees upon that isn't funded by municipal government and they weren't under a homeowners association."
- "A required homeowners association fee would have been disclosed when you bought the house. A voluntary fee is added after, for specific improvements."
- "I am not really sure. I never heard of a voluntary fee. I guess if the neighborhood wanted to come together and fund something then there would be a voluntary fee."
- "I have no idea because I have never heard of a voluntary fee."
- "The required payment that I do make is essential to maintain the building and services; a voluntary fee might be discussed at the end of a meeting if we want to upgrade something but it's not necessarily mandatory." The participant thought of landscaping as an example of something that might have a voluntary fee. He differentiated between aesthetic improvements and things "to do with safety."
- "I'm not really sure. I think 'required' means you have to pay it. So, I would probably associate that with the gated communities. […] A voluntary fee would be houses that are not part of a confined area and you can opt into being part of the HOA."

(3) Does the participant consider a voluntary association (e.g., neighborhood watch, social club, community council, etc.) the same as an HOA?)

Participants mentioned a garden club, LGBTQ community group, Nextdoor, and mutual aid groups as examples of voluntary associations they are or have been involved with. None of the participants considered these types of associations to be the same as an HOA.

(4) Does the word "required" in the question help participants determine that the question is only asking about mandatory fees they are required to pay?

Participants understood that the question is only asking about mandatory fees they are required to pay.

- "The fee is 'required.' If you don't pay, it accrues for a certain amount of time, and then they bring legal into it. If you pay late, you also get a late payment."
- "I think it is required as they will charge us penalties if we do not pay."
- If the fee is not paid "they add interest to it and if you don't pay it for a while, they put a lien on your apartment."
- "They'd throw me out tomorrow if I didn't pay it."

(5) Do participants report the cost of the HOA fee in the correct fee schedule (monthly fee) or a cost from a different fee schedule?

Of the 13 participants whose housing is part of an HOA, eight said they pay a monthly fee, one pays a fee every three months, two pay yearly, and two do not know the fee schedule (one explained they are a renter and their landlord pays it). The participant who pays every 3 months and one of the participants who pays yearly correctly calculated and provided their monthly fee. Responses to probes make it unclear if the other participant who pays yearly correctly reported the monthly amount. The other participant who pays monthly initially reported $700 per month, but when asked to confirm that is a monthly fee, changed her answer to $200 per month. This participant explained that her mom pays the fee, and she sometimes hears her talk about it.

(6) The order of "homeowners association" and "condominium" in the question cause any order effects for certain participants?

The order of "homeowners association" and "condominium" in the question did not appear to cause any widespread order effects for participants. Most participants understood that condominium fees should be included when answering the question, including two participants who specifically mentioned that they are part of a condominium association. Three participants – none of whom lived in condominiums - said condominium fees should not be included, because "condominium fees are maintenance fees," "a condominium is just a type of dwelling," and "condominium fees are voluntary." None of these three participants lived in condominiums. Two participants were not sure if condominium fees should be included.

(7) Do participants living in a condominium see that condominium fees are included in the question?

Three participants indicated in the screener that they live in a condominium, and one additional participant indicated so during the interview. Of these four participants, three understood that condominium fees are included in the question and one did not know when probed on it. (This participant had previously indicated that she did not know how much the fee was.)

5.5.2 Spanish Interviews Findings

(1) Do participants know they live in a housing unit that is part of an HOA, and how do they make this determination? Do participants consider an HOA the same as a condominium?

Of the six homeowners, only one participant said "yes" and did so correctly. This participant lives in a condo and pays $236 monthly as a condo fee.

Two other participants were clear on the concept of a condo association.

- One participant said: "Para mí, una asociación es como si fuera una colonia privada… son parte de una asociación porque todos dan cierta cantidad para cortar el pasto,

para el mantenimiento del vecindario. De un condominio se refiere a un edificio con varios departamentos que varios a lo mejor son socios… pero aqui ni lo uno ni lo otro." [For me, an association is like a private neighborhood, everybody contributes money to mow the lawn, for the maintenance of the neighborhood. A condominium, refers to a building with several apartments and maybe some of them belong to the association, but here we do not have either of those.]

- Another explained, "Yo viví en un condominio y ahí sí vi quien era el presidente, quien era el secretario, que se encaraban de tomar las decisiones de ese condominio; y en este lugar no veo que pase lo mismo." [I have lived in a condo where I saw there was like a person who was president, one who was the secretary, and they took responsibility for making decisions about that condo, but here I have not seen that that happen]

The remaining renters and homeowners were not familiar with the concept of an HOA or condo association, they interpreted the question as asking something else. Some interpreted the question as asking if their apartment is part of a condominium. See research question 6 below.

The mention of an "association of homeowners" made some participants think of multiple owners of the unit they rent. These multiple owners would gather together in some sort of association:

- One participant said: "Puse que no porque es de solamente una persona y dice de propietarios, y no son varios, es nada mas una persona que yo sepa, que es el dueño de la casa." [I put no, because it's just one person, and it says there "proprietarios" [owners] and it's just one person that I know is the owner of the house.]
- Another participant said is does not belong to an owner association, but it belongs to a single person: "No son varios propietarios, el propietario solamente es una persona." [There are not many owners, it is only one single owner.]
- Several answered no, simply because of the mention of owners, and they are renters so it did not apply to them.
- Another participant answered: "Porque solo un dueño es el que viene a cobrar la renta." [Because only one owner comes to collect the rent.] When asked what he understood by "homeowners association or condominium" the respondent said that it would be when there is more than one owner of the property. In this case, if the sister, the brother, the father, or other relation of his landlord were also owners of the house where he lives.
- A participant said that she understands a homeowners association as a firm—conformed by several owners—that owns several properties.

Lack of familiarity with the concept led to other alternative interpretations.

- One participant confused the management company in their public housing building or complex with a homeowners association: "porque tiene un nombre, que es LLC. Se llama [name of the association] y al final tiene LLC… Si la compania que maneja el apartamento. Ellos van a arreglar [cosas] supuestamente, ellos van y supervisan, no hacen nada, ellos checan todo," [Because it has a name, which is LLC. It's called [name of the association], and at the end it has LLC. It's the company that manages the apartment. They supposedly fix things [giggling], they supervise, but they don't do anything. They check everything.]
- Another wondered if the question was about renters' security deposits: "No se da cuota, lo único que se hace es cuando, ¿cómo se llama eso? Que uno da un cierto dinero al principio, y ya después cuando uno se va a salir, dicen ¿quieres seguir viviendo de lo que habías dejado al principio, no sé cómo se llama pero nada más eso, pero cuotas que tengamos que dar como de mantenimiento, me imagino, eso

no." [We don't pay "cuotas" (fees). The only thing is, what do you call it? That one gives a certain amount of money at the beginning and then when one is leaving they ask if you want to keep living there with what you paid at the beginning, I don't know what it's called. But just that. But "cuotas" that we would have to pay for like maintenance, I imagine, no.]

(2) Do participants know to report only required/mandatory HOA fees and not voluntary/optional fees associated with being a homeowner?

The only participant who pays a condo fee said: "Yo la veo como obligatoria y voluntaria, de las dos maneras porque es algo que se establece por medio de la asociación. Creo que es algo que tenemos que pagar para poder vivir bien, cumplir con las cuotas de los gastos que uno va ocasionando." [I see it as obligatory and voluntary, both, because it's been established by the condo association. I think it's just something we have to pay to live well. And to pay for the costs and the debt that you incur.] When asked what happens if she does not pay, they said, "No, realmente no se, pero me imagino que debe haber alguna demanda o algo porque no puede vivir uno gratis sin pagar sus gastos." [I don't know, but I imagine that there must be some kind of demand because you can't just live for free without paying].

(3) Does the participant consider a voluntary association (e.g., neighborhood watch, social club, community council, etc.) the same as an HOA?)

Participants showed a vague understanding of the concept of a homeowners association, and most of them responded "no" to the question if they belonged to one. Only one respondent reported being part of a homeowners association and reported that the corresponding fees were paid monthly.
The question if the respondent belonged to any groups associated with being a homeowner was asked only to four of the six respondents. Only one of them expressed being part of a WhatsApp group with her neighbors mainly to stay informed of what is happening in the neighborhood. Respondent said there is no fee associated with this group.

(4) Does the word "required" in the question help participants determine that the question is only asking about mandatory fees they are required to pay?

Because only one Spanish participant indicated paying an HOA or condominium fee, the question that asks about "required" fees was only administered to this one participant and could not be tested more generally.

This participant said that she saw the fee as both mandatory and voluntary. She understood that it was mandatory because everyone has to pay or likely be subject of a legal proceeding, but she also felt it was voluntary because homeowners have agreed to pay it so they can live for the cost of living well.

(5) Do participants report the cost of the HOA fee in the correct fee schedule (monthly fee) or a cost from a different fee schedule?

The only participant who said "yes" to this question is one who pays a condominium fee. This person reported the amount of the monthly payment.

(6) Does the order of "homeowners association" and "condominium" in the question cause any order effects for certain participants?

The question worded in Spanish as "¿Es esta casa, apartamento o casa móvil parte de una asociación de propietarios o de un condominio?" can be interpreted (particularly for those unfamiliar with the concept of an HOA or a condo association) as asking if the unit belongs to *either* an owners association *or* to a condominium building. As a consequence, two participants answered the question following this interpretation.

- One participant said that the place is not a condominium. They did not know if there were many owners but said it was an LLC and added that they were always changing management. The question was repeated, and the participant answered "yes."
- Another participant said she thought it was a condominium. Because she sounded hesitant, the interviewer repeated the question. She answered "yes" and gave an amount in response to part b. Further probing showed that it was just the monthly rent.

(7) Do participants living in a condominium see that condominium fees are included in the question?

The only participant living in a condominium understood that the question included condominium fees and answered accordingly.

5.5.3 Other Findings by Mode

a. Paper Mode – English

Six of the 19 paper English participants said they live in a housing unit that is part of an HOA, and two were not sure but guessed they are not. One of these participants explained, "I've heard of homeowner associations. I know you have to pay a particular fee and I don't have to pay that fee, and I feel like the apartment complex would have talked with us about it, but they haven't. So, this question was a bit confusing."

Two renters assumed (possibly incorrectly) that their housing unit must not be part of an HOA because it is not included on their lease or their landlord does not charge them separately for the payments. However, not all renters had to make assumptions to answer the question. One renter explained, "There is a fee but the homeowner pays it, so I selected 'none' here. The owner of the apartment that I rent runs the HOA and pays fees outside the rent."

One participant who owns a condominium thought the question should only ask about condominium fees and not a homeowners association. The participant said they belong to an HOA but only pay condominium fees, not HOA fees.

Of the six participants whose housing is part of an HOA, five said they pay a fee; the other said their landlord pays the fee. Those paying a fee said it is a monthly fee. One participant initially reported a fee of $700 per month but changed her answer to $200 per month when asked to confirm the fee schedule. This participant explained that her mom pays the fee, and she sometimes hears her talk about it.

b. Paper Mode – Spanish

Among the eight participants interviewed in this mode, seven answered "no" to the initial question on paying an HOA or condominium fee. All but one participant were renters and appeared to answer correctly. The one participant living in an owned home interpreted the

question about asking if the dwelling was owned by multiple persons who are members of an association:

- "No son varios propietarios, el propietario solamente es una persona." [There are not many owners, it is only one single owner.]

The one participant who owned an apartment in a condominium building reported paying a condominium association fee every month.

When participants were asked about the differences between an obligatory and a voluntary fee, the examples they provided in a few cases suggested a better understanding of what condo or HOA fees are about.

- "Yo pienso que es cuando estás en una organización como dice de condominios, que hay alberca o mantenimiento. Alguien que paga por un mantenimiento donde vives. Y lo otro de voluntario, pues solamente el dueño, pues él es quien arregla las cosas donde vives tú, entonces tú no te preocupas por eso porque ya está incluido en el pago que estás dando." [I think that it's when you are in an association, like you said, of condominiums. Where there is a pool or there is maintenance that you pay for maintenance where you live. And voluntary, well, it's just the owner who fixes things where I live. And you don't worry about it because it is already included in the rent you are paying.]
- "Pienso yo que cuando es obligatorio es porque todos tal vez están en una misma propiedad y necesitan pagar mantenimiento o eso, pero cuando es voluntario es porque quieren hacer alguna mejora, una mejora tal vez al área." [I think that when it's obligatory it is because everyone is living at a property and they need it for maintenance or something.]

c. CAI Mode – English

The HOA question was straightforward for the CAI English participants. Seven of the 19 participants said they live in a housing unit that is part of an HOA. Three of these participants pay a monthly fee, two pay an annual fee, one pays a fee every three months, and one was not sure about the fee schedule. With the exception of the participant who was unsure of the fee schedule, all of the participants knew the amount of their monthly fee or were able to calculate it correctly based on their fee schedule.

d. CAI Mode – Spanish

Ten of the 12 participants appeared to answer this question accurately. All participants living in a dwelling owned by someone in their household answered "no," and did not appear confused by the mention of "homeowners."

- One participant who answered accurately and understood the concept well volunteered an alternative Spanish term for an HOA. She said, "Porque es un edificio solamente, es una multifamiliar pero no vivimos dos familias, no pagamos asociación de vecinos, no tenemos ningún servicio extra." [Because it's only one building, it's a multifamily building but we don't have two families living here, we don't pay for a neighborhood association, we don't have any extra services.]

In this mode there seemed to be a higher number of misinterpretations of the question, potentially associated with hearing the question rather than reading it. This applies to the two cases discussed under research question 6 of the ***General Findings*** above. The two answered the question in error with a false positive.

Others simply were not familiar with the concept of an HOA or condominium association. However, this did not seem to affect their response to the question.

- One participant said she understand that as a firm—confirmed by several owners—that owns several properties.

5.5.4 Recommendations

RTI/RSS does not recommend making any changes to this question; however, we do recommend doing additional testing with individuals who pay voluntary neighborhood fees and who live in condominiums. Although the current production version of this question, which has been used for many years, only asks about condominium fees, RTI/RSS recommends additional testing of this new version of the question among those who live in condominiums. The addition of the phrase, "homeowners association," can change respondent interpretation and understanding of the question and can also change respondent interaction with the question. For example, respondents who live in condominiums may read the question up until the phrase "homeowners association" and then stop reading under the belief that the question does not apply to them.

For Spanish, to avoid interpretations of the question as asking if the unit is in a condo building, RTI/RSS recommends a slight change to the question wording, as follows:
¿Es esta casa, apartamento o casa móvil parte de una asociación de condominio o de una asociación de propietarios? [Is this home, apartment, or mobile home part of a condominium association or of a homeowners association?]

6 Group 2 Findings

Group 2 participants were tested on three topics: educational attainment, health insurance coverage, and disabilities. The Educational Attainment questions were designed and tested to assess participant understanding of the category currently called "no schooling completed" as including only those who have not completed as much as a single grade of formal schooling.

The health insurance coverage question was tested to determine if changes to the question will improve measurement of public coverage and accuracy of direct purchase coverage as well as reduce overcount of single service insurance plans. Prior research has shown that Medicaid and other programs for low-income people tend to be underreported in the ACS and direct-purchase coverage is overreported.

Questions about disabilities were tested to determine if the proposed changes, consistent with the World Health Organization's ICF disability framework, perform well in the context of the ACS.

Respondents assigned to Group 2 completed the survey Cover Page, the entire Basic Person Section, and part of the Detailed Person Section and responded to detailed cognitive probes surrounding the selected test questions. RTI/RSS completed 44 Group 2 English interviews and 26 Group 2 Spanish interviews. ***Table 2.16*** shows the distribution of Group 2 interviews by language, mode, and version. The distribution of Group 2 interviews by recruitment criteria, mode, and version are shown below in ***Table 2.17*** (English) and ***Table 2.18*** (Spanish). This chapter presents findings for each of the Group 2 test topics.

Table 2.16: Group 2 Interviews by Language, Mode, and Version

Mode/ Language	English			Spanish			Totals		
	Paper	CAI w/ show cards	CAI w/o show cards	Paper	CAI w/ show cards	CAI w/o show cards	Paper	CAI w/ show cards	CAI w/o show cards
Version 1	11	6	4	4	5	4	15	11	8
Version 2	12	6	4	4	5	4	16	11	8
Total	**23**	**12**	**8**	**8**	**10**	**8**	**31**	**22**	**16**

Table 2.17: Group 2 English Interviews by Recruitment Criteria, Mode, and Version

Characteristic	Sub-characteristic	Paper Mode		CAI Mode		Total
		V1	V2	V1	V2	
Educational attainment	Less than HS and no GED/diploma	0	1	0	1	**2**
	Left college without completing academic year	2	3	3	3	**11**
	Parents of children enrolled in school	3	2	4	3	**12**
	Parents of children age 3 to 5	1	1	3	1	**6**
Health insurance coverage	Age 65+	2	2	4	3	**11**
	Enrolled in Medicaid	3	4	4	2	**13**
	Enrolled via state/federal marketplace	4	2	2	2	**10**
	Persons with dental, drug, or vision plans	7	10	8	5	**30**
	Persons with children in the household who have insurance different from their own	3	1	2	3	**9**
Disability	Parents of children with disabilities	2	1	1	2	**6**
	People with severe disabilities	2	3	3	3	**11**
	People with less severe disabilities	1	3	1	2	**7**
	People with cognitive disabilities	1	2	1	2	**6**
	Non-native English speakers[a]	1	1	3	3	**8**
	Age 50+	4	7	5	4	**20**

[a] Participants in Spanish language interviews were not counted as part of the total for non-native speakers in English language interviews.

Table 2.18: Group 2 Spanish Interviews by Recruitment Criteria, Mode, and Version

Characteristic	Sub-characteristic	Paper Mode		CAI Mode		Total
		V1	V2	V1	V2	
Educational Attainment	Less than HS and no GED/diploma	2	1	5	5	**13**
	Left college without completing academic year	1	0	1	1	**3**
Health Insurance Coverage	Age 65+	1	0	1	1	**3**
Disability	Persons with severe disabilities	1	1	1	1	**4**
	Persons with less severe disabilities	0	0	2	0	**2**
	Age 50+	2	2	4	6	**14**

*Note: Although these sub-characteristics were tracked during data collection, there were not target quotas for sub-characteristics for Spanish language interviews.

6.1 Educational Attainment

The first test topic for Group 2 participants was Educational Attainment. ***Tables 2.19*** and ***2.20*** below show the Version 1 and Version 2 test questions by mode and language. Version 1 was unchanged from Round 1 of cognitive testing, but several changes were made to Version 2 that distinguished it from both Version 2, Round 1 and Version 1, Round 2. For Round 2, Version 2 was modified to include an option for "no grade completed," and a single option was presented for "nursery school, preschool, and kindergarten." In addition, the Round 2 version used the term "grade" rather than "level" of school, and the headers were modified.

The key research goals of cognitive testing were to determine:

(1) Is the category "no grade completed" understood correctly by participants?
(2) Does the removal of the header "less than grade 1" and the clustering of two categories together improve participants' understanding that "no grade completed" is associated with no schooling, rather than the failure to complete a higher grade in which the person has been enrolled?
(3) Do participants understand the combined nursery school, preschool, and kindergarten category and use it as intended?
(4) Does adding "completed" to headers help participants understand that they are to mark the highest grade or degree that they have completed rather than the highest grade in which they have been enrolled (currently or in the past)?
(5) Do participants miss the first two categories when the subheadings are removed?
(6) Which version makes it clearer that people who are still enrolled or who left school in the middle of a grade should mark the previous grade completed?

Table 2.19: Educational Attainment Question by Version (Paper Mode)

Paper Mode

V1	V2
What is the highest grade of school or degree this person has COMPLETED? *If currently enrolled, select the previous grade or highest degree received. Mark (X) ONE box.* **LESS THAN GRADE 1** ☐ Less than grade 1 **GRADE 1 THROUGH GRADE 12** ☐ Grade 1 through 11 – *Specify grade 1 – 11* ☐ 12th grade – NO DIPLOMA **HIGH SCHOOL GRADUATE** ☐ Regular high school diploma ☐ GED or alternative credential **COLLEGE OR SOME COLLEGE** ☐ Some college credit, but less than 1 year of college credit ☐ 1 or more years of college credit, no degree ☐ Associate's degree *(for example: AA, AS)* ☐ Bachelor's degree *(for example: BA, BS)* **AFTER BACHELOR'S DEGREE** ☐ Master's degree *(for example: MA, MS, MEng, MEd, MSW, MBA)* ☐ Professional degree beyond a bachelor's degree *(for example: MD, DDS, DVM, LLB, JD)* ☐ Doctorate degree *(for example: PhD, EdD)*	**What is the highest grade of school or degree this person has COMPLETED?** *If currently enrolled, select the previous grade or highest degree received. Mark (X) ONE box.* ☐ No grade completed ☐ Nursery school, preschool, or kindergarten **GRADE 1 THROUGH GRADE 12 COMPLETED** ☐ Grade 1 through 11 – *Specify grade 1 – 11* ☐ 12th grade – NO DIPLOMA **HIGH SCHOOL GRADUATE** ☐ Regular high school diploma ☐ GED or alternative credential **COLLEGE OR SOME COLLEGE COMPLETED** ☐ Some college credit, but less than 1 year of college credit ☐ 1 or more years of college credit, no degree ☐ Associate's degree *(for example: AA, AS)* ☐ Bachelor's degree *(for example: BA, BS)* **AFTER BACHELOR'S DEGREE COMPLETED** ☐ Master's degree *(for example: MA, MS, MEng, MEd, MSW, MBA)* ☐ Professional degree beyond a bachelor's degree *(for example: MD, DDS, DVM, LLB, JD)* ☐ Doctorate degree *(for example: PhD, EdD)*

(continued)

Table 2.19: Educational Attainment Question by Version (Paper Mode) (continued)

Paper Mode

V1	V2
¿Cuál es el grado escolar o título más alto que esta persona ha COMPLETADO? *Marque (X) UNA casilla. Si está matriculada actualmente, marque el grado anterior que completó o el título más alto recibido.* **NO COMPLETÓ EL GRADO 1** ☐ Inferior a grado 1 **DEL GRADO 1 AL GRADO 12** ☐ Grado 1 al 11 – *Especifique grado 1-11* ☐ Grado 12, SIN DIPLOMA **SE GRADUÓ DE LA ESCUELA SECUNDARIA O PREPARATORIA** ☐ Diploma de escuela secundaria o preparatoria ☐ GED o examen equivalente **UNIVERSIDAD O ALGUNOS CRÉDITOS UNIVERSITARIOS** ☐ Algunos créditos universitarios, pero menos de 1 año de créditos universitarios ☐ 1 año o más de créditos universitarios, sin título ☐ Título asociado universitario *(por ejemplo: AA, AS)* ☐ Título de licenciatura universitaria *(por ejemplo: BA, BS)* **DESPUÉS DEL TÍTULO DE LICENCIATURA UNIVERSITARIA** ☐ Título de maestría *(por ejemplo: MA, MS, MEng, MEd, MSW, MBA)* ☐ Título profesional más allá de un título de licenciatura universitaria *(por ejemplo: MD, DDS, DVM, LLB, JD)* ☐ Título de doctorado *(por ejemplo: PhD, EdD)*	**¿Cuál es el grado escolar o título más alto que esta persona ha COMPLETADO?** *Marque (X) UNA casilla. Si está matriculada actualmente, marque el grado anterior que completó o el título más alto recibido.* ☐ No completó ningún grado ☐ Guardería, preescolar o kindergarten **COMPLETÓ GRADOS 1 A 12** ☐ Grado 1 al 11 – *Especifique grado 1-11* ☐ Grado 12, SIN DIPLOMA **SE GRADUÓ DE LA ESCUELA SECUNDARIA O PREPARATORIA** ☐ Diploma de escuela secundaria o preparatoria ☐ GED o examen equivalente **COMPLETÓ LA UNIVERSIDAD U OBTUVO ALGUNOS CRÉDITOS UNIVERSITARIOS** ☐ Algunos créditos universitarios, pero menos de 1 año de créditos universitarios ☐ 1 año o más de créditos universitarios, sin título ☐ Título asociado universitario *(por ejemplo: AA, AS)* ☐ Título de licenciatura universitaria *(por ejemplo: BA, BS)* **COMPLETÓ EL TÍTULO MÁS ALLÁ DE LICENCIATURA UNIVERSITARIA** ☐ Título de maestría *(por ejemplo: MA, MS, MEng, MEd, MSW, MBA)* ☐ Título profesional más allá de un título de licenciatura universitaria *(por ejemplo: MD, DDS, DVM, LLB, JD)* ☐ Título de doctorado *(por ejemplo: PhD, EdD)*

Table 2.20: Educational Attainment Question by Version (CAI Mode)

CAI Mode	
V1	V2
14. *Using this list,* what is the highest grade of school or degree <you have/NAME has> COMPLETED? If <you are/NAME is> currently enrolled, select the previous grade or highest degree received.	**14. *Using this list,* what is the highest grade of school or degree <you have/NAME has> COMPLETED? If <you are/NAME is> currently enrolled, select the previous grade or highest degree received.**
Less than grade 1 Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 6 Grade 7 Grade 8 Grade 9 Grade 10 Grade 11 Grade 12, no diploma Regular high school diploma GED or alternative credential Some college, no degree Associate's degree (for example: AA, AS) Bachelor's degree (for example: BA, BS) Master's degree (for example: MA, MS, MEng, MEd, MSW, MBA) Professional degree beyond a bachelor's degree (for example: MD, DDS, DVM, LLB, JD) Doctorate degree (for example: PhD, EdD)	No grade completed Nursery school, preschool, or kindergarten Grade 1 Grade 2 Grade 3 Grade 4 Grade 5 Grade 6 Grade 7 Grade 8 Grade 9 Grade 10 Grade 11 Grade 12, no diploma Regular high school diploma GED or alternative credential Some college, no degree Associate's degree (for example: AA, AS) Bachelor's degree (for example: BA, BS) Master's degree (for example: MA, MS, MEng, MEd, MSW, MBA) Professional degree beyond a bachelor's degree (for example: MD, DDS, DVM, LLB, JD) Doctorate degree (for example: PhD, EdD)
14. *Usando esta lista,* ¿cuál es el grado escolar o título más alto que <usted/NOMBRE> ha COMPLETADO? Si <está/NOMBRE está> matriculado(a) actualmente, seleccione el grado anterior que completó o el título más alto que recibió.	**14. *Usando esta lista*, ¿cuál es el grado escolar o título más alto que <usted/NOMBRE> ha COMPLETADO? Si <está/NOMBRE está> matriculado(a) actualmente, seleccione el grado anterior que completó o el título más alto que recibió.**
Inferior al grado 1 Grado 1 Grado 2 Grado 3 Grado 4 Grado 5 Grado 6 Grado 7 Grado 8 Grado 9 Grado 10 Grado 11 Grado 12, sin diploma Diploma de escuela secundaria o preparatoria (high school) GED o examen equivalente Algunos créditos universitarios, sin título Título asociado universitario (por ejemplo: AA, AS) Título de licenciatura universitaria (por ejemplo: BA, BS) Título de maestría (por ejemplo: MA, MS, MEng, MEd, MSW, MBA) Título profesional más allá de un título de licenciatura universitaria (por ejemplo: MD, DDS, DVM, LLB, JD) Título de doctorado (por ejemplo: PhD, EdD)	No ha completado ningún grado Guardería, o preescolar, o Kindergarten Grado 1 Grado 2 Grado 3 Grado 4 Grado 5 Grado 6 Grado 7 Grado 8 Grado 9 Grado 10 Grado 11 Grado 12, sin diploma Diploma de escuela secundaria o preparatoria GED o examen equivalente Algunos créditos universitarios, sin título Título asociado universitario (por ejemplo: AA, AS) Título de licenciatura universitaria (por ejemplo: BA, BS) Título de maestría (por ejemplo: MA, MS, MEng, MEd, MSW, MBA) Título profesional más allá de un título de licenciatura universitaria (por ejemplo: MD, DDS, DVM, LLB, JD) Título de doctorado (por ejemplo: PhD, EdD)

6.1.1 English Interviews Findings

(1) Is the category "No grade completed" understood correctly by participants?

Nine of the 22 English Version 2 participants felt that the "No grade completed" category was meant to capture people who had no schooling, including both adults and young children who had never attended school. One participant was unsure what was meant by "No grade completed" but thought it may be referring to having never attended school.

- "'No grade completed' would be for someone who had never completed formal school, but I don't know how that would be possible. My interpretation would be they never had any formal schooling at all."
- "I can't think of any. That's about it, young children. At least in the US. I don't know in other place."
- "Well, whenever they have no schooling ever, which is hard to imagine but I'm sure it happens."

The remaining 13 English Version 2 participants were either unsure of what was included in the category or thought it included people who dropped out of school, did not complete high school, were homeschooled, or went to school in a different country.

- "Someone living in more of a rural area and they may have been homeschooled and they never officially enrolled in school."
- "It would make sense for somebody who didn't go to school in the US. They went to school in a different country where the grading system was different and didn't make sense to measure their educational attainment using US metrics."
- "A newborn or someone who didn't get a high school diploma."

Conversely, English Version 1 participants felt "less than grade 1" encompassed people who had no schooling, were too young to begin schooling, or were in any level of schooling below grade 1; however, participants most commonly thought of children in this category rather than adults. One participant noted that "less than grade 1" referred to a person with no schooling but did not like the negative connotation of the phrase:

- "I guess they have no school experience at all. I don't like that term though. 'Less than' feels negative. If somebody didn't have a formal education that may make them feel some type of feelings. You don't want to offend somebody you want information from. You don't want them to feel like they need to lie because of the way the question feels. I'd rather say, 'no formal education' than 'less than grade 1'."

(2) Does the removal of the header "Less than Grade 1" and the clustering of two categories together improve participants' understanding that "No grade completed" is associated with no schooling, rather than the failure to complete a higher grade in which the person has been enrolled?

Relevant results noted under research question 1 apply to the findings for this research question. In addition, when paper and CAI (with flashcard) participants were asked how they would answer the educational attainment question about an adult who had never been to school, three English participants had difficulty deciding on their responses. Two participants felt that it was easier to answer Version 2 of this question for this scenario. Both participants selected "no grade completed" in Version 2 of the questionnaire but felt there were no appropriate response options in Version 1 of the questionnaire. Another participant had difficulty answering for both Version 1 and Version 2 and indicated they would leave both versions of the question blank if answering for an adult who had never been to school.

- "It does not fit into any of the [Version 1] options. [What response would you want to see here that would fit this situation?] Provide an option of 'Other situation'."
- "I don't see anything that would pertain to that person. I don't see anything that I would pick for a person who's never gone through school [in Version 1]."

(3) Do participants understand the combined nursery school, preschool, and kindergarten category and use it as intended?

Generally, English participants understood the difference between "no grade completed" and "nursery school, preschool, or kindergarten." Participants tended to describe "no grade completed" as including very young children (i.e., under the age of 3) who may be too young for school and those who have had no education. Participants understood the option of "nursery school, preschool, or kindergarten" encompassed enrollment in those levels of schooling, which came before "grades."

- "One [nursery school, preschool, or kindergarten] is someone being in school and the other one [no grade completed] is someone who has never been in school."
- "It's a little bit like 'no grade completed' is for babies or children before nursery school age."
- "For 'no grade complete' they hadn't even been to nursery school, preschool, or kindergarten. So, absolutely no school whatsoever."

However, parents of children age 3–5 had some difficulty interpreting these response options. Two participants who were parents of children age 3–5 received Version 2 of the questionnaire (one paper and one CAI). One of these parents selected "No grade completed" for their 5-year-old son who was beginning Kindergarten in August 2021 because he had not yet completed any grade. Though this child had completed nursery school and preschool, the participant decided "No grade completed" was the most accurate response. Additionally, this participant left the education question blank, rather than selecting "No grade completed" for their 3-year-old daughter who had not yet attended any school.

The other parent of a child age 3–5 selected "No grade completed" for their 4-year-old currently enrolled in nursery school. This participant indicated they selected this response because their daughter had not yet *completed* nursery school.

When asked how an individual should respond for a 4-year-old currently enrolled in preschool, four English participants selected an option other than "nursery school, preschool, or kindergarten" in Version 2 of the questionnaire. Three of these participants selected "no grade completed" and one of these participants indicated that they could answer either "no grade completed" or "nursery school, preschool, or kindergarten." One participant noted they would answer "no grade completed" because the 4-year-old had not yet *completed* preschool. On the other hand, all participants indicated they would select "Less than Grade 1" in Version 1 of the questionnaire.

Participants were also asked how they would answer the educational attainment question about a 2-year-old who has not attended school or daycare. When asked this, only one participant indicated they would select "nursery school, preschool, or kindergarten" in Version 2 of the questionnaire. Another participant stated they would not be able to answer this question for this scenario as they felt there was no appropriate response option in either Version 1 or Version 2 of the questionnaire. All other participants selected "no grade completed."

(4) Does adding "completed" to headers help participants understand that they are to mark the highest grade or degree that they have completed rather than the highest grade in which they have been enrolled (currently or in the past)?

Fifteen of the 22 English participants felt including "completed" in headings made the instructions clearer

- "Yes, it does [make the instructions clearer]. For the [previous probe], I would have answered Grade 8 for the first one [Version 1] and Grade 7 for the second one [Version 2]."
- "I think if there are some interviewees who fit in those categories, they will pay attention to the headings with 'completed' or not. If the majority of interviewees have a degree, they will just locate those in the subcategory options with those degree initials, so they wouldn't pay attention to the heading with 'completed' or not."
- "I think people would be more likely to put the correct answer if the question included 'completed'."
- "I like 'completed' better because you have kids that, and this is overall not just for me, you have kids that have not completed everything they need to and they're older. So, say I never go my high school diploma or GED. I completed at least 11 years, or I almost completed 12 years and I just didn't finish. So, to me, 'completed' makes it a lot easier to break it down."

Of the five Version 2 participants who were parents of children currently enrolled in school, two correctly answered the highest grade *completed* and three incorrectly answered the highest grade *enrolled*. The two participants who answered correctly for their children enrolled in school confirmed during probing that their response denoted the highest grade their child had completed and not the grade in which their child was currently enrolled. Two of the three participants who answered incorrectly were discussed under the previous research question as the parents of children age 3–5. The third participant who answered incorrectly for their child confirmed during probing that they answered for the grade in which their child was currently enrolled rather than the highest grade their child had completed.

Of the 15 English participants who felt including "completed" in the headings made the instructions clearer, 10 correctly indicated that an adult who attended 8th grade, did not complete 8th grade, and never returned to school should answer "Grade 7" for the educational attainment question. Others either answered, "Grade 8," felt there was no option that adequately fit that situation, answered "Grade 1 through 12," or were unsure how to answer.

- "None of the choices fit that situation. It's really Grade 1 through 7 and the only option is Grade 1 through 11."
- "I wouldn't know what to pick. It's just confusing. The whole question is confusing. It's just too much in one area."
- "That would be Grade 1 through 12…Same [in the second version.]"
- "Grade 1–11 and make a note that only 8th grade."

Three English participants felt including "completed" made the instructions clearer but with some caveats:

- "It makes sense for everything except for college. You need to specify 'some college.' Is some college when someone dropped out, or is it if you are still enrolled? Adding 'Completed' would not really make a difference."
- One participant felt "completed" was needed in the headings for the question to be clearer; however, this participant was also confused by the option "12th grade, no

diploma" and did not feel this fit with the heading of "Grade 1 through 12 completed." Despite this, the participant preferred the headings include the term "completed."
- "I guess it's clear, but I'm in school so I examine everything. But the average person wouldn't understand how to do this question. Because they're not really reviewing the instructions."
- "Yes, but it takes away the ability to fully answer the question accurately. The word is 'completed,' so it means they finished it but doesn't give the option to say that they completed up to a certain amount of school. It locks them into answering a certain way."

Five participants felt including "completed" in the headings did ***not*** make the instructions clearer. Some felt including this was unnecessary as it was already in the question text and others thought it made the instructions more confusing.
- "It's already in the title [of the flashcard] so there's no need to reference 'completed' again. If I only went to Grade 4, I haven't completed elementary school. Or, if I went to the 10th grade, I haven't completed high school, but I completed middle school."
- "No, it makes it more difficult for people who dropped out to answer, as opposed to options that don't have the word 'completed.'"
- "It makes it more confusing, especially if they just completed 8th grade. It's confusing putting the 'completed' there but also having the '12th grade, no diploma' option. Completed kind of makes it seem like you completed all these grades, especially for Grade 1 through 12. Completed makes it sound like you completed high school."
- "I think we should erase 'completed.' This word should not be there because 'Grade 1 through 12 completed' makes me think this person has completed Grade 12."

None of the five English participants who felt adding 'completed' to the headings did not make the instructions clearer correctly answered the vignette about a person currently attending 8th grade. That is, for the person who attended 8th grade, did not complete 8th grade, and never returned to school, none of these five participants indicated the answer should be "Grade 7" for the educational attainment question. These participants either answered "Grade 8" or the general "Grade 1 through 12" response category. However, one participant stated that they knew the correct answer was "Grade 7" but indicated they would not answer in this way:
- "7th grade, but nobody thinks like that. I would think 'I have an 8th grade education,' so I would put 8th."

There were no notable differences between Paper and CAI participants among those who felt adding "completed" did not make the instructions clearer.

(5) Do participants miss the first two categories when the subheadings are removed?

Five English participants (three CAI participants and two paper participants) did not notice, or pay attention to, the first two categories. Eight participants indicated they did notice the first two categories. One participant felt they may have missed the categories because there was no subheading. There was no pattern, in terms of educational attainment level of the participants, among those who noticed the first two categories and those who did not.

Two English participants of either children enrolled in school or children ages 3–5 were asked if they noticed the first two categories. One of these participants, who answered "no grade completed" for her son, did notice the categories when answering the question. The other participant, who answered "Grade 5" for their daughter, did not notice the categories.

One other participant, who answered for a 1-year-old child did notice the categories and selected "no grade completed" for this child.

(6) Which version makes it clearer that people who are still enrolled or who left school in the middle of a grade should mark the previous grade completed?

Of the 11 English participants who responded for themselves or a household member who was enrolled in school within the previous three months, seven correctly selected the response option for the previous grade completed rather than the grade in which they were currently enrolled. Four of these participants received Version 1 paper, one received Version 1 CAI, and two received Version 2 CAI. These participants felt the instructions for how to answer if currently enrolled in school were clear.

- "Say next week my daughter was completing 9th grade [instead of today], I would have put 8th grade because she wasn't done yet, but it being that today is the last day and we are having this interview, [I would say 9th grade is completed] and next week it would have been the same answer. It's very self-explanatory."

Of the four who answered incorrectly about an individual still enrolled in school, all four received Version 2 of the question (two CAI and two paper). One English participant incorrectly selected the response option for the degree program in which his mother was currently enrolled. The participant's mother was currently enrolled in a doctorate program, and though she had not yet completed her dissertation, the participant selected "Doctorate degree" for her highest degree completed because she had finished all the coursework. This participant felt the instructions were clear but unfair:

- "I think they are unfair…I went to college for 8 years but have no degree to show for it and I have to go all the way down to high school."

6.1.2 Spanish Interviews Findings

(1) Is the category "No grade completed" understood correctly by participants?

This option did not apply to any of the 26 Spanish participants who completed a Group 2 interview. However, probing included asking participants to explain what they understood this category referred to and provide examples of a situation in which someone would use this category. Participants did not seem to have any problems, and for the most part, "No grade completed" was understood as someone who had never attended school or has not completed the first grade, regardless of whether it was an adult or a child.

- "Cuando sea un bebé o un niño que todavía no puede ir a la escuela, o personas mayores que en algún momento no tuvieron oportunidad de ir a la escuela." [When we are talking about a baby or a child who cannot attend school yet, or elders who did not have a chance to go to school.]
- "Una persona que no ha ido a la escuela." [A person who has not attended school.]
- "No yéndome tan lejos, tengo yo un hermano ya también mayor y él por la experiencia que tuvo en el pasado de mala técnica… o mala decisión de los maestros de como enseñar a las personas, él odió la escuela y no quiso ya regresar a la escuela porque eran maltratos, era abuso… él no terminó ni el primer grado." [Not going so far away, I have a brother who is also older and because of the experience he had in the past of bad technique... or bad decisions of the teachers on how to teach people, he hated school and did not want to go back to school because he was mistreated, abused... he did not even finish first grade.]
- "Pues que no ha ido ni a la guardería, ni a la preescolar, ni al kindergarten, ni a la primaria, ni al 'high school'." [Well, that he hasn't gone to daycare, preschool,

kindergarten, elementary school or high school.] This participant said that both answer options meant the same thing to them.
- One participant used their mother as an example. This person's mother did not complete any grades and is illiterate. She did not even complete 1st grade.

Some participants were also asked "How do you think you should answer if you were answering about an adult who has never gone to school?" Of the 17 participants who were asked this question, all answered "No grade completed."

(2) Does the removal of the header "Less than Grade 1" and the clustering of two categories together improve participants' understanding that "No grade completed" is associated with no schooling, rather than the failure to complete a higher grade in which the person has been enrolled?

For Round 2, Version 2 was modified to include an option for "No grade completed," and a single option was presented for nursery school, preschool, and kindergarten. Also, the header "Less than Grade 1" was removed. To see if these changes improve participants' understanding that "No grade completed" is associated with no schooling, 17 of the 26 Group 2 participants were asked "How do you think you should answer if you were answering about an adult who has never gone to school?" All 17 participants answered, "No grade completed."

Additional information on this issue can be found in the responses to vignettes that are discussed under item (4) below.

(3) Do participants understand the combined nursery school, preschool, and kindergarten category and use it as intended?

Only three participants selected the "nursery school, preschool, and kindergarten" category as the highest grade completed for their children. Two had kids who had just graduated from kindergarten, and one had a child who was still attending preschool.

Twenty-four participants were asked "How do you think you should answer if you were answering about a 4-year-old child currently enrolled in preschool?" This is how these 24 participants answered:
- Eleven participants answered, "Nursey school, preschool, or kindergarten."
- Six participants answered, "No grade completed."
- Four participants were not able to provide an answer.
- One participant said they would leave it blank. They explained that "No grade completed" means not currently attending.
- Another participant said that they would answer "Graduado de un año de prescolar" [Graduated from 1 year of preschool] even though this was not a response option.
- One participant answered "Grado del 1 al 11" [Grade 1 through 11].

It is important to note that when participants were asked how they would answer this question, they were not asked the original question: "What is the highest grade of school or degree this person has completed?"

Twenty-five participants were also asked about the difference between "Nursery school, preschool, or kindergarten" and "No grade completed." Their answers were divided on whether there was a difference between these two categories or not. Fourteen participants thought they were different, and six participants did not think they were different.

- "La primera es que al niño nunca lo han llevado a ningún sitio de educación; y la segunda es que el niño ha estado interactuando escolarmente con más niños, en la guardería, en el prescolar…" [The first one is when the child has never been taken to any place to receive education; whereas in the second it means that the child has been interacting in a school setting with other children either in the nursery, preschool...]
- One participant said that someone who has attended a daycare, preschool, or kindergarten has completed some school. "Sí porque llegan a cierto nivel y ya lo sacan, de una edad ya tiene que ir para afuera, o sea que ya completó." [Yes, because they reach a certain level and they are taken out, at a certain age they have to leave, that is to say, they have already completed their grade.]
- One participant said that saying somebody has never attended school is not the same as saying that somebody has attended nursery, preschool, or kindergarten. In the latter case, attending nursery, preschool or kindergarten means attending school.
- One participant said that the difference is that the first one, "No ha completado ningún grado" means they have had no education, and the second one, "Guardería o preescolar o Kindergarten" means they have had some education.
- "No completó ningún grado es que nunca asististe ni por casualidad; guardería, prescolar, kindergarten es cuando menos para que socialicen los niños." ['No grade completed' applies to people have never attended school. Nursery, preschool or kindergarten is for the kids to at least get social skills.]
- One participant said that "No grade completed" meant that they did not go to school. "Nursery school, preschool, or kindergarten" meant lower education or no education. "No hay diferencia." [There is no difference.]

Three other participants were not able to provide an answer, and two participants provided unexpected responses.

- One said that in the case of preschool or kindergarten, children can already attend school, they are school age children whereas children who attend a nursery are not school age children; therefore, "nursery" is not formal education.
- One participant said that she understood that "nursery" was different than school. That young children (not school-aged children) go to a nursery because they are not yet ready to go to preschool or kindergarten. To this participant, attending preschool or kindergarten was considered going to school whereas going to a nursery was not.

(4) Does adding "Completed" to headers help participants understand that they are to mark the highest grade or degree that they have completed rather than the highest grade in which they have been enrolled (currently or in the past)?

Of the 18 CAI Group 2 participants, nine were assigned to receive flashcards. These participants were asked if adding the word "Completed" to headers helped them understand the instructions better. All nine participants said that having the word "completed" was helpful.

- "Es mejor cuando dicen 'completó' porque no genera la respuesta que yo di… si dice completó yo ya me voy directamente al grado anterior." [It is better when 'completed' is emphasized so participants do not answer like I did… if the question said 'completed' I immediately think of the previous grade.] This participant had marked the current grade her son was currently attending, and not the one he had completed.
- "Mucho mejor porque es más específico." [Much better because it is more specific.]
- "Yes, it makes the instructions clearer. It just means that they completed it."

Of the eight paper mode participants, only six were asked this question due to lack of time. Three participants said that having the word "completed" was helpful, two were not able to provide an answer, and one did not find it helpful.

- Participant said that having the word was useful. "Es muy diferente 'completó' a 'graduarse'." [Completed is very different than graduating.] When asked what the difference was the participant said, "A person has completed 7th grade but did not graduate yet."
- Participant said that the word "completed" gives the sense that the person has finished everything, graduated, and gotten a degree.

Sixteen of the 18 CAI participants were asked "How do you think you should answer if you were answering about an adult who attended 8th grade but did not complete that year, and never went back to school?" For Version 1, four participants answered, "From 1–11: 7th grade", eight participants answered, "From 1–11: 8th grade," and four participants did not know what to choose. For Version 2, four participants answered "From 1-11: 7th grade," four participants answered "From 1–11: 8th grade," four participant did not know what to answer, two participants only answered "From 1–11," and one participant answered "From 1–12" referring to the subheading. Only one participant answered, "No grade completed."

Of the eight paper mode participants, five were asked "How do you think you should answer if you were answering about an adult who attended 8th grade but did not complete that year, and never went back to school?" Three participants answered "From 1–12: 7th grade" for both versions and two participants answered "From 1–12: 8th grade" for both versions. None of the eight paper mode participants answered, "No grade completed."

(5) Do participants miss the first two categories when the subheadings are removed?

Of the 18 CAI participants, only five were assigned to Version 2 and to receive flashcards. Of these five, one was not probed on this issue for lack of time. Of the four who were asked about it, three noticed the first two categories and one did not:

- "I didn't notice it because I already knew where to go on the list."

The four Version 2 paper mode participants were not probed on this. The interviewer misunderstood to which version the probe applied.

(6) Which version makes it clearer that people who are still enrolled or who left school in the middle of a grade should mark the previous grade completed?

Spanish-language participants mostly answered about highest grade attended. Because the testing was done in the summer during school break, it is hard to know how participants would have answered while students were enrolled during the school year. Neither version worked clearly better in this regard. Even in vignettes, participants tended to answer about highest grade attended regardless of version.

6.1.3 Version 1 Findings by Mode

a. Paper Mode – English

Three of the 11 English Version 1 Paper participants had at least some difficulty selecting a response for themselves or other household members for the educational attainment question. One participant had trouble deciding between "Grade 11" and "GED or alternative credential" for their daughter. The participant explained that the daughter has a disability and has completed 11th grade learning at her level but does not have a high school diploma; however, the daughter has completed some continuing education courses for alternative learning. When the participant was asked how they would answer if they had to choose just one response, this person selected "Grade 11." The participant felt the disability questions asked later in the questionnaire would provide context about why the daughter was over the age of 18 but did not have a high school diploma. This person felt the instructions for how to answer the question if currently enrolled in school were clear, but redundant because the instructions were already contained in the bolded question text—"highest grade of school or degree this person has COMPLETED."

Another participant was unsure whether the option "1 or more years of college credit, no degree" applied to people currently enrolled in college or only applied to those who had dropped out of college. This participant had completed three years of his bachelor's degree program but interpreted "1 or more years of college credit, no degree" to pertain only to people who had dropped out of college. Thus, this participant decided to instead select "Regular high school diploma." This participant felt they would have had less difficulty selecting an answer if the instructions were modified to read "highest full degree received."

A third participant had difficulty understanding the post-graduate response options. This participant explained that their mother had at one time been enrolled in a PhD program, completed the coursework for the program, and began her dissertation; however, the mother never completed her dissertation and, thus, never completed a PhD. Because of this, the participant selected "professional degree beyond a bachelor's degree." The participant seemed to interpret these response options as steps, with "professional degree" being a middle ground between "master's degree" and "doctorate degree."

All other participants were able to find response options that fit their situation and answer the question accurately and without difficulty. Two participants were selected for the "left college without completing academic year" sub-characteristic. One of these participants had completed more than one year of college credits and, thus, selected "1 or more years of college credit, no degree," and the other had completed less than one year of college credit and selected "some college credit, but less than one year of college credit." Other than the difficulty one participant had with answering for her daughter's education as discussed previously, all parents of children enrolled in school found response options that fit their children's situation. Both parents selected "less than Grade 1" for their children who had not yet reached Grade 1 and one parent selected Grade 11 for their child currently enrolled in school.

Only one participant did not notice the headings in green font and felt this was likely because the green font blended into the green background. This participant noted they may notice the headings if they were a different color but would likely skim over them regardless of their color and go straight to the category that best described their educational attainment. All participants who did notice the headings felt they were helpful in answering the question because they reduced the amount of text they needed to read. Instead of

reading all response options, participants could find the sub-heading that best fit their situation and read only the response options within that sub-heading.

Most participants thought of children younger than Grade 1 when they read the response option "less than Grade 1." Only one participant interpreted "less than Grade 1" to include people who have not enrolled in school; however, this participant did not specify if they were thinking only of children who had not enrolled in school or also adults. Two participants answered "less than Grade 1" for other household members. Both participants indicated they would have answered "No grade completed" for these household members in Version 2 of the questionnaire as neither of the children had completed any schooling. One of these participants; however, expressed that the option "no grade completed" made him feel "bad" because he wants his son to be enrolled in school and to say he was not even enrolled in nursery school is "not good."

Two participants felt including "completed" in the headings did *not* make the instructions clearer. One of these participants felt adding the word "completed" made the headings read as if they were response options—for example, the participant expected to see a checkbox next to the heading "Grade 1 through Grade 12 completed" that somebody could select as their response. The other participant felt adding "completed" to the headings did not help clarify the "some college" response options. This participant felt he would still be confused by whether "some college" referred to somebody dropping out of college or somebody currently enrolled in college even if "completed" were added to the headings.

b. Paper Mode – Spanish

All four paper mode participants assigned to Version 1 seemed to have problems finding a category that would fit either their situation or the situation of someone in the household. One participant had trouble finding a category that fit her situation. This participant was initially confused by the question and by the response options. It took some time, but this participant was able to find an answer. Another participant said that she completed 6th grade in their hometown and marked in the questionnaire "less than Grade 1." When asked why, this participant said that they consider Grade 1 as middle school, which would involve three more years. Another participant said that they based their answer on the U.S. school system, because in their country primary is only six years of schooling. This participant completed primary (six grades) and answered with what they feel is the U.S. equivalent (8th grade or end of middle school).

Only one participant reported someone in the household was currently enrolled in school. This participant did not seem to read the instructions. Two participants did not understand this question and left it blank, and one did not report anyone currently enrolled in school.

Three participants were asked to provide examples of situations when someone would select "Less than grade 1," but only two were able to provide an answer:

- "Las personas que tienen niños pequeños que todavía no van a la escuela, recién nacidos, niños que están en maternal." [Parents of young children who do not attend school yet, new borns, or children attending nursery.]
- One participant could not think of any situation other than someone like her husband who never went to school.

Of the four paper mode participants only two reported paying attention to the sub-headings in green, and only one of these participants found them useful. One participant said that the color should be changed to red or black so the sub-headings would stand out. Another participant provided a different answer when asked if the sub-headings were useful:

- While reading "Se graduó de la escuela secundaria o preparatoria," participant said "Lo que pasa es que esas preguntas a veces me confunden" [What happens is that those questions sometimes confuse me.] When asked what was confusing about these response options, the participant said "Que ponen mucho la misma palabra. Por ejemplo, ponen grado 12 sin diploma, escuela secundaria o preparatoria, ponen..." [That they put the same word too many times…For example, they say grade 12 without diploma, secondary school or preparatoria…]

c. CAI Mode – English

Only one of the 11 English Version 1 CAI participants had difficulty selecting a response for themselves on the educational attainment question. This participant initially answered, "regular high school diploma" but was looking for an option for "Technical school," which they noted they typically see as an option on educational attainment questions.[4] The participant stated that they did not complete technical school and decided to change their answer from "regular high school diploma" to "some college, no degree" to be more accurate.

All other participants were able to find response options that fit their situation and answer the question accurately and without difficulty. Four participants were selected for the "left college without completing academic year" sub-characteristic. All these participants indicated that they had completed some college credit but had not received their degree, and all selected "some college, no degree" as their response. One of these participants stated "'some college' was perfect and it covered everything from a year or more." Parents of children enrolled in school found response options that fit their children's situation. Both parents selected "less than Grade 1" for their children who had not yet reached Grade 1 and one parent indicated their child was currently in Headstart/Pre-Kindergarten. Three participants answered the educational attainment question for household members who had been enrolled in school within the previous three months. All participants selected their answer for this household member based on the highest grade completed rather than the current grade in which they were enrolled. These participants found the instructions for answering about individuals currently enrolled in school to "make total sense".

All participants who were assigned to receive flashcards used them and found them helpful in selecting a response. One participant noted that the flashcards were helpful because they helped her to be "exact" in her response. This participant was selected for having less than a high school education. The participant had no difficulty answering this question for herself and other household members and reported "Grade 9" as the highest grade she had completed.

Most participants thought of children younger than Grade 1 when they read/heard the response option "less than Grade 1." Three participants thought "less than grade 1" referred to individuals with no formal schooling. One of these participants noted that they had a hard time imagining this occurring in the United States but that "less than grade 1" referred to "someone who has virtually no education." Another participant noted that she felt "less than Grade 1" had a negative connotation and may be offensive to people who fall into that category. The other participant noted that they did not consider preschool and kindergarten

[4] "Vocational and technical license" is an option that can be selected in CAI interviews; however, it is not an option that is read aloud by interviewers.

to be "grades." Thus, "less than Grade 1" referred to people who had not gone to school at all or who had not been born yet.

Only one participant interpreted "less than Grade 1" to include people who have not enrolled in school; however, this participant did not specify if they were thinking only of children who had not enrolled in school or also adults. Two participants answered "less than Grade 1" for other household members. One participant indicated they would have answered "no grade completed" for their 4-year-old sister had they answered Version 2 of the questionnaire; however, the other participant indicated that they preferred the "less than Grade 1" option and would have been unsure how to answer for their child in preschool if they had received Version 2 of the questionnaire.

Only one participant felt including "completed" in the headings would not be necessary to make the instructions clearer because there is already referenced to "Completed" in the title of the flashcard.

d. CAI Mode – Spanish

All nine participants in CAI mode assigned to Version 1 understood the question as intended, but only eight of them were able to answer it correctly for all members of the household. For the most part participants were able to find a category that would fit either their situation or the situation of someone in the household, but some participants who received flashcards were confused by the categories.

One participant said that when they answered about a son, they could not find an option to fully describe his situation because he is only 1 year old. When talking about their own situation, the participant gave an answer based on the system in their home country. This participant understood that it was not the right answer for the U.S. education system. She explained that the discrepancy might be because in her hometown middle school includes up to 9th grade whereas here in the United States, middle school includes up to 8th grade and 9th grade is considered part of high school.

One participant had a little difficulty finding an answer that applied to their son. This participant said a couple times that the son had not completed 11th grade, which is why they could not select (Grado 1 al). They thought that the first option read "Completó el Grado 1" (Completed Grade 1) and that Grade 1 was referring to completing (primaria) up to 8th grade. The participant was thinking in terms of grade levels (pre-kindergarten, elementary, and high school) and not individual grades. After looking at the flashcard during probing, the participant understood that they should have selected (Grado 1 al GradoGrado 11) because "…está ahí y todavía no termina porque todavía no tiene su diploma, pero si va ahí el ahorita." […he's here and he's not finished yet because he still doesn't have his diploma, but he's there right now.]

Six of the nine CAI mode Version 1 participants reported someone in the household was currently enrolled in school, and only one participant did not follow the instructions that read "If you are currently enrolled, select the previous grade or highest degree received" and selected the grade her child was currently attending. When asked if they thought the instructions were clear, all participants responded that they were.

- "Yo pienso que tienen sentido porque es la situación que yo le comento, a él le faltan 2 semanas para completar el grado, entonces es mejor decir el grado anterior." [I think this makes sense, it is the same situation that I just described you, P3 is two weeks away from completing the current grade. So, it is better to select the previous grade.]

- "Sí porque era el anterior al que ahorita está. Ahorita están de vacaciones, pero acaban de salir." [Yes, because it was the one before the one that is working on now. Right now, they are on vacation, but they just left.] The participant added that they answered associate's degree because they knew their daughter had already completed this degree.
- One participant said that they understood the instructions. When asked what grade they would have answered for the daughter if she was still attending school, the participant said that they would have answered 4th grade because the daughter was not done with 5th grade.

Of the five participants assigned to receive flashcards, only four confirmed they had used the card. One participant said that they only provided an answer based on the question asked and did not completely read the flashcard.

Four of the five participants noticed the bolded subheadings, and two of them reported finding them useful. One participant only paid attention to the subheadings and not the individual categories.

Using the Version 1 flashcard, 12 of the 18 CAI participants (assigned to either Version 1 or Version 2) were asked "How do you think you should answer if you were answering about a 2-year-old child who has not attended school or daycare?" Eight participants answered, "Less than Grade 1", and four participants were not able to provide an answer. Two of them said that the option "Less than grade 1" did not make sense to them.

6.1.4 Version 2 Findings by Mode

a. Paper Mode – English

Five of the 12 English Version 2 Paper participants had at least some difficulty selecting a response for themselves or other household members for the educational attainment question. One participant had some difficulty deciding on the appropriate response option for his mother, who was educated in another country. The participant decided that a high school diploma was the equivalent of the degree she earned there and selected "regular high school diploma." The participant had to think more about his response for his mother than for himself and his sister (both of whom were educated in the United States), but he found the green headings helped him navigate the response options.

Another participant had trouble when answering about his partner's education level. He explained that his partner has both a bachelor's degree and a nursing degree. The participant was unsure into which response category a nursing degree would fall but decided to select "professional degree." Furthermore, rather than selecting only one response for his partner, this participant decided to select both "bachelor's degree" and "professional degree." During probing the participant indicated that if he had to choose only one degree he would select "bachelor's degree" because nursing was not listed as an example under "professional degree."

A participant who selected "1 or more years of college credit, no degree" stated that they did not complete college while initially enrolled but have since gone back to school. This participant indicated that they felt the response options did not fit their situation and they would have preferred a more general question such as, "Have you attended some level of college?"

Another participant who selected "1 or more years of college credit, no degree" indicated that he was confused by the "large box" in the middle (i.e., the text box to specify Grade 1 through 11), but because it did not seem relevant to him, he moved on without worrying about it too much. This participant also noted that it could be beneficial to add a response option for "trade school;" however, adding this option would not have changed the participant's response.

Lastly, one participant who was a parent of young children decided to leave the question blank, rather than selecting "No grade completed," for their young daughter because she has not yet attended any school. This participant also noted that they selected "No grade completed" for their son enrolled in preschool because he has not yet completed preschool. This participant did not notice the instructions for how to answer for individuals currently enrolled in school. After reviewing the instructions during probing, the participant indicated they were helpful and should be kept "as is." During probing, this participant indicated they would have answered "Less than Grade 1" for both children had they received Version 1 of the questionnaire.

All other participants were able to find response options that fit their situation and answer the question accurately and without difficulty. Three participants were selected for the "left college without completing academic year" sub-characteristic. One of these participants had completed less than one year of college credits and, thus, selected "some college credit, but less than 1 year of college credit," and the other two participants had completed less than one year of college credit and selected "some college credit, but less than 1 year of college credit." One participant was selected for the "did not complete high school and no GED/diploma" sub-characteristic. This participant had no difficulty finding a response option that fit their situation and answered "Grade 10."

Three participants did not notice the headings in green font while answering the question. After reviewing the headings during probing, the participants felt the headings were helpful, but they likely did not notice them because of the amount of text on the page, because they did not need them, or because they blended into the green background of the questionnaire. Another participant who did notice the headings while answering the question also felt they too easily blended into the green background of the questionnaire and they could better stand out if the font were bigger or darker. All participants who did notice the headings while answering the question felt they were helpful. Two participants did not notice the first two categories when answering the question.

Only four participants thought the response option "No grade completed"' referred to somebody who had no formal schooling. All other participants thought the response option would include someone who had been homeschooled, had not finished a grade, had never finished high school, had not gone to school in the United States, or a newborn. One participant was unsure what was meant by the phrase "No grade completed," though they guessed this was referring to somebody who had never gone to school. Another participant also mentioned that including "completed" with this option was confusing.

One participant felt including "completed" in the headings did ***not*** make the instructions clearer and stated that they preferred the headings from Version 1 of the questionnaire. Other participants felt including "completed" did make the instructions clearer; however, one participant felt including "completed" would take away the respondents' ability to answer the question accurately because it "doesn't give the option to say that they competed up to a certain amount of school." In other words, if a person has partially completed a grade or degree, it would not be captured in their response to the question.

b. Paper Mode – Spanish

Among the four Spanish paper mode participants, only one seemed to have problems finding a category that would fit either their situation or the situation of someone in the household. They had selected AA for themself because they had completed three years of college in their country of origin but did not get a degree. This participant had also selected associates for both their daughters who have bachelors' degrees (which she called "bachillerato") but changed these responses during probing.

Three paper mode participants reported someone in the household was currently enrolled in school. When asked if they thought the instructions that read "If you are currently enrolled, select the previous grade or highest degree received" were clear, two participants said they were. The third participant did not provide an answer.

All four participants were asked to provide examples of situations when someone would select "Less than Grade 1." They answered as follows:

- "'Inferior al grado 1' sería alguien que nunca fue a la escuela." ['Less than grade 1' would be someone who never went to school."]
- "'Inferior al grado 1,' me imagino que debe de ser Kindergarten o prescolar." ['Less than grade 1,' I imagine it would be Kindergarten or preschool.]
- One participant provided the example of her own mother; she also thought about young people as well, who come from other Latin American countries and have not gone to school.
- "Una persona que no ha ido a la escuela ni siquiera una vez." [A person who has not gone to school not even once.]

All four participants reported paying attention to the sub-headings in green. All also indicated they found the sub-headings useful, for example:

- One participant said they found the sub-headings useful to understand better where to exactly place the person and felt that the green font makes them more noticeable.

c. CAI Mode – English

Only one of the 10 English Version 2 CAI participants had some difficulty selecting a response for household members on the educational attainment question. This participant was answering for a household member who received their education in another country. The participant was unsure if pupils in that country receive a high school diploma after completing Grade 12. The participant selected "12th grade, no diploma" for the educational attainment question. In the follow-up question (CAI Q16), the participant selected "alternative credential" for this household member in reference to the credential obtained in that country at the completion of Grade 12.

All other participants were able to find response options that fit their situation, and to answer the question accurately and without difficulty. Two participants were selected for the "left college without completing academic year" sub-characteristic. Both participants indicated that they had completed some college credit but had not received their degree and selected "Some college, no degree" as their response. Parents of children enrolled in school found response options that fit their children's situation. Two of the parents indicated the highest grade completed by their children rather than the grade in which they were currently enrolled. One of these participants stated that the instructions for reporting on people currently enrolled in school were clear and "absolutely" made sense. The other parent of a child enrolled in school selected "No grade completed" for his 4-year-old daughter who is enrolled in nursery school. This participant selected this option because his

daughter has not yet completed any schooling. When asked how he would answer the educational attainment question for his daughter using the Version 1 questionnaire, this participant stated he would select "less than Grade 1" and that he preferred this option to "no grade completed" as he felt it was "more appropriate."

Nearly all participants who were assigned to receive flashcards used them and found them helpful in selecting a response. Only one participant did not use the flashcards because he knew what his highest level of education was and did not feel he needed to use the flashcard. None of the participants who were assigned to receive flashcards noticed the first two categories when answering the question, and one participant thought this may have been because there was no heading for these categories.

Only three participants thought the response option "No grade completed" referred to somebody who had no formal schooling. All other participants thought the response option would include someone who had been homeschooled, had dropped out of school, had never finished high school, or had very young children.

Two participants felt including "completed" in the headings did not make the instructions clearer. One of these participants thought "completed" would make it more difficult for people who had dropped out of school to answer, and the other participant thought it was particularly confusing to include "completed" and have an option for "12th grade, no diploma." Two other participants thought including "completed" made the instructions clearer.

d. CAI Mode – Spanish

All nine participants in CAI mode assigned to Version 2 understood question as intended and all were able to answer correctly for all members of their households. For the most part, these participants were able to easily find a category that would fit either their situation or the situation of someone in the household. One participant expressed some concerns about not being able to understand one of the categories.

- "No entendí lo de secundaria o preparatoria; no había escuchado eso. High school se entendería major." [I did not understand "secundaria" nor "preparatoria"; I hadn't heard about that. High School would be better understood.] This participant had graduated from high school and was confused when they saw the subheading "SE GRADUÓ DE LA ESCUELA SECUNDARIA O PREPARATORIA." It took them a while to figure out that this would be the category to apply to their situation.

Four participants reported someone in the household was currently enrolled in school. Only one participant did not follow the instructions that read "If you are currently enrolled, select the previous grade or highest degree received."

- One participant's child is currently in preschool and was finally able to attend school in person in the past months, but classes had finished for him at the time of the interview. The participant explained that next year he will still be attending preschool because of his age. When answering this question for the son, they answered selected "Nursery school, preschool, or kindergarten."

When asked if they thought these instructions were clear, all four said they were. However, one participant explained that the instruction would not apply to their son because he is too young to be "matriculado" (enrolled). They added the word "matriculado(a)" is used only for higher education. Participant said the question itself should be split into two questions: (a) Is the person currently enrolled in school? and (b) Select the previous grade or highest degree received.

Of the five participants assigned to receive flashcards, all five confirmed they had used the card. However, they did not all find it useful.

- "La tarjeta tiene mucha información, y está un poco complicada." [The card has a lot of information and is a bit complicated.] The participant explained that the card was complicated because of the degree abbreviations.
- "Sí, la usé. [Yes, I used it]. The participant did not find the option applicable to them. This person had completed high school and answered correctly, although they did not think the category they had selected applied to them because they did not know what "secundaria" nor "preparatoria" were referring to.

Four of the five CAI participants assigned to Version 2 noticed the bolded subheadings, but two of them reported not finding them useful.

- One participant said that they were not useful because they "couldn't get to any of them." It appeared that the participant meant they did not get to complete the higher grades shown on the flashcard; therefore, it was not necessary to read them.
- One participant, who has a high school diploma, said that the categories were confusing because the bolded subheading that read "Grade 1 through Grade 12 completed" indicated that 12th grade was completed; however, it included categories "Grade 1 through Grade 11" and "12th Grade, no diploma," which meant that 12th grade was not completed. Also confusing to this participant was the next bolded subheading because it included the words "secundaria" and "preparatoria," and this participant was not familiar with these words. When the participant was asked how this could be improved, they said: "It would help adding 'high school' in English."

Using the Version 2 flashcard, 12 of the 18 CAI participants were asked "How do you think you should answer if you were answering about a 2-year-old child who has not attended school or daycare?" Ten participants answered, "No grade completed," one participant answered "Nursery," and one participant was not able to provide an answer.

6.1.5 Recommendations

RTI/RSS recommends proceeding with Version 1 of the educational attainment question for the following reasons:

(1) The understanding of who was included in "No grade completed" was highly variable across participants, and only nine participants thought this would include adults without formal education.

(2) Some participants had difficulty distinguishing between "No grade completed" and "Nursery school, preschool, or kindergarten" for young children enrolled in nursery school, preschool, or kindergarten. For these participants, it was unclear if the children needed to have completed nursery school, preschool, or kindergarten or only be enrolled. However, in Version 1, participants uniformly selected "Less than Grade 1" for young children currently enrolled in these levels of schooling.

Additionally, RTI/RSS recommends the following:

(3) Do not include "Completed" in headings. Though most participants indicated this made instructions clearer, the participants who had issue with including "Completed" raised important issues. Including the word "Completed" in the headings caused confusion with some participants as it made it seem that you would select an option in the sub-heading if you had completed all levels within that category. For example, "GRADE 1 THROUGH GRADE 12 COMPLETED" made

some participants think this was referring to having completed all of grade school rather than one or more grades within school.

(4) Continue using flashcards for CAI interviews. Participants shown flashcards found them helpful in both versions.

(5) Darken the color of the green headings in the paper questionnaire. This will make it easier for participants to participants to see the headings against the green background.

Spanish-language participants preferred Version 2 (No completó ningún grado) for the lowest level of education completed. However, both versions yielded similar levels of error in that participants did not answer the highest level completed for daycare through 12th grade. Instead, they answered the highest level attended for the most part.

The translation for high school, "diploma de escuela secundaria o preparatoria," should be revised. As it is, depending on national origin, some participants interpret "secundaria" as covering nine grades of schooling (Mexico) or 12 grades (most other national origins). "Preparatoria" is not a term that participants know, unless they are from Mexico. We recommend including the number of years of schooling completed for each term or including the English term "high school."

6.2 Health Insurance Coverage

The next Group 2 test topic was Health Insurance Coverage. Test versions are shown below in ***Tables 2.21*** and ***2.22*** by mode, version, and language. Two versions were tested in Round 2. Round 2 changes to the health insurance coverage question included a change in the description of marketplace coverage; reordering of the TRICARE and Veteran's health care options and a change in the phrasing of Veteran's health care; a change to "Select all that apply" format in Version 2; and addition of a "No health insurance coverage or health coverage plan" response option to Version 2. Targeted recruitment characteristics included individuals who were enrolled in Medicaid; individuals who enrolled via the state or federal marketplace; individuals with dental, drug, or vision plans; and individuals with children in the household who had different insurance coverage than their own. ***Table 2.17*** provides the number of participants recruited for each characteristic. Participants recruited for these characteristics answered the health insurance question and probes in line with their recruitment criteria—that is, those selected for certain types of insurance coverage reported and/or described this coverage during interviews.

The key research goals of cognitive testing were to determine the following:

(1) What types of coverage do people have when they respond "Yes" to "insurance purchased directly from an insurance company, a broker, or through a State or Federal Marketplace, such as HealthCare.gov"?

(2) Do all 65+ participants select Medicare? What other types of coverage, if any, do these participants have?

(3) What types of coverage or health insurance plans do people have when they report purchasing coverage through the Marketplace?

(4) How do parents of children with coverage through the state Children's Health Insurance Program (CHIP) classify this coverage?

(5) For participants who check more than one option, are they double reporting one health insurance plan or do they have more than one type? Specifically, for people who report Medicare and another plan - what types of other plans do they have and how do they obtain them?

(6) Does including additional instructions ("Do NOT include plans that cover only one type of insurance, such as dental, drug, or vision plans") reduce reporting of single-service health insurance plans?
(7) Does the inclusion of a "NO, No Coverage or Uninsured option" in Version 2 result in participants skipping over answer choices to indicate no insurance? Does the inclusion of a "NO, No Coverage or Uninsured option" in Version 2 result in more erroneous reports of having no insurance?
(8) Do the type of people who report being uninsured in Version 1 (no to all options) appear to have different interpretations about how to respond than those who report being uninsured in Version 2 (selecting the no option)?
(9) Do participants notice the instruction to mark all that apply in Version 2?
(10) Does the check all that apply format (Version 2) result in fewer erroneous reports of multiple coverages?
(11) Does including the flashcard in CAI aid participants in correctly selecting their answer choices?

Table 2.21: Health Insurance Questions by Version (Paper Mode)

Paper Mode

V1

Is this person CURRENTLY covered by any of the following types of health insurance or health coverage plans?

Do NOT include plans that cover only one type of service, such as dental, drug, or vision plans.

Mark "Yes" or "No" for EACH type of coverage in items a – h.

	Yes	No
a. Insurance through a current or former employer, union, or professional association (of this person or another family member)	☐	☐
b. Medicare, for people 65 and older, or people with certain disabilities	☐	☐
c. Medicaid, Children's Health Insurance Program (CHIP), or any kind of government-assistance plan for those with low incomes or a disability	☐	☐
d. Insurance purchased directly from an insurance company; a broker; or a State or Federal Marketplace, such as Healthcare.gov	☐	☐
e. Veteran's health care (enrolled for VA)	☐	☐
f. TRICARE or other military health care	☐	☐
g. Indian Health Service	☐	☐
h. Any other type of health insurance or health coverage plan – *Specify*	☐	☐

V2

Is this person CURRENTLY covered by any of the following types of health insurance or health coverage plans? *Do NOT include plans that cover only one type of service, such as dental, drug, or vision plans.*

YES, INSURED

Mark (X) for all that apply.

- ☐ Insurance through a current or former employer, union, or professional association (of this person or another family member)
- ☐ Medicare, for people 65 and older, or people with certain disabilities
- ☐ Medicaid, Children's Health Insurance Program (CHIP), or any kind of government-assistance plan for those with low incomes or a disability
- ☐ Insurance purchased directly from an insurance company; a broker; or a State or Federal Marketplace, such as Healthcare.gov
- ☐ Veteran's health care (enrolled for VA)
- ☐ TRICARE or other military health care
- ☐ Indian Health Service
- ☐ Any other type of health insurance or health coverage plan – *Specify*

NO, UNINSURED

- ☐ No health insurance or health coverage plan

V1

¿Tiene esta persona cobertura ACTUALMENTE de alguno de los siguientes tipos de seguros de salud o planes de cobertura de seguro de salud?

NO incluya planes que cubren solo un tipo de servicio, tales como planes dentales, de medicamentos o de la visión.

Marque "Sí" o "No" para CADA tipo de cobertura en las respuestas a–h.

	Sí	No
a. Seguro a través de un empleador actual o previo, un sindicato (*union*) o una asociación profesional (de esta persona o de otro miembro de la familia)	☐	☐
b. Medicare, para personas que tienen 65 años o más, o personas con ciertas incapacidades	☐	☐
c. Medicaid, el Programa de Seguro Médico para Niños (CHIP) u otra asistencia gubernamental para personas con un ingreso bajo o incapacidad	☐	☐
d. Seguro adquirido directamente de una compañía de seguros, un corredor o a través de un Mercado Estatal o Federal tal como HealthCare.gov	☐	☐
e. Cuidado de salud para veteranos (persona inscrita en la VA)	☐	☐
f. TRICARE u otro seguro de salud militar	☐	☐
g. Servicio de Salud para Indígenas Estadounidenses	☐	☐
h. Cualquier otro tipo de seguro de salud o plan de cobertura de seguro de salud – *Especifique*	☐	☐

V2

¿Tiene esta persona cobertura ACTUALMENTE de alguno de los siguientes tipos de seguros de salud o planes de cobertura de seguro de salud? *NO incluya planes que cubren solo un tipo de servicio, tales como planes dentales, de medicamentos o de la visión.*

SÍ, TIENE SEGURO MÉDICO

Marque (X) todas las opciones que correspondan.

- ☐ Seguro a través de un empleador actual o previo, un sindicato (*union*) o una asociación profesional (de esta persona o de otro miembro de la familia)
- ☐ Medicare, para personas que tienen 65 años o más, o personas con ciertas incapacidades
- ☐ Medicaid, el Programa de Seguro Médico para Niños (CHIP) u otra asistencia gubernamental para personas con un ingreso bajo o incapacidad
- ☐ Seguro adquirido directamente de una compañía de seguros, un corredor o a través de un Mercado Estatal o Federal tal como HealthCare.gov
- ☐ Cuidado de salud para veteranos (persona inscrita en la VA)
- ☐ TRICARE u otro seguro de salud militar
- ☐ Servicio de Salud para Indígenas Estadounidenses
- ☐ Cualquier otro tipo de seguro de salud o plan de cobertura de seguro de salud – *Especifique*

NO, NO TIENE SEGURO

- ☐ No tiene seguro de salud ni plan de cobertura de seguro de salud

Table 2.22: Health Insurance Questions by Version (CAI Mode)

CAI Mode	
V1	V2
I am now going to ask you some questions about <your/NAME's> health insurance and health coverage. Do NOT include plans that cover only one type of service, such as dental, drug or vision plans. 23a. <Are you/Is NAME> currently covered by health insurance through a current or former employer, union, or professional association of <yours/his/hers> or another family member? 23b. <Are you/Is NAME> currently covered by Medicare, for people age 65 or older or people with certain disabilities? 23c. <Are you/Is NAME> currently covered by Medicaid, the Children's Health Insurance Program (CHIP) or any kind of government-assistance plan for those with low incomes or a disability? 23d. <Are you/Is NAME> currently covered by health insurance purchased directly from an insurance company; a broker; or a State or Federal Marketplace, such as HealthCare.gov? 23e. <Are you/Is NAME> currently covered through Veteran's health care (enrolled for VA)? 23f. <Are you/Is NAME> currently covered by TRICARE or other military health care? 23g. <Are you/Is NAME> currently covered through the Indian Health Service? 23h. <Are you/Is NAME> currently covered by any other health insurance or health coverage plan?	I am now going to ask you some questions about <your/NAME's> health insurance and health coverage. Do NOT include plans that cover only one type of service, such as dental, drug or vision plans. <Are you/Is NAME> currently covered by any of the following types of coverage… Insurance through a current or former employer, union, or professional association (of this person or another family member)? Medicare, for people 65 and older, or people with certain disabilities? Medicaid, Children's Health Insurance Program (CHIP), or any kind of government-assistance plan for those with low incomes or a disability? Insurance purchased directly from an insurance company; a broker; or a State or Federal Marketplace, such as HealthCare.gov? Veteran's health care (enrolled for VA)? TRICARE or other military health care? Indian Health Service? Some other type of health insurance or health coverage plan? No health insurance or health coverage plans?

(continued)

Table 2.22: Health Insurance Questions by Version (CAI Mode) (continued)

CAI Mode	
V1	V2
Ahora le voy a hacer preguntas acerca <de su seguro y cobertura de salud/del seguro y cobertura de salud de NOMBRE>. NO incluya planes que cubren solo un tipo de servicio, tales como planes dentales, de medicamentos o de la visión. 23a. ¿Tiene <usted/NOMBRE> cobertura actualmente de un plan de seguro de salud a través de un empleador actual o previo, un sindicato (*union*) o una asociación profesional <suyo o de otro miembro de la familia de <él/ella> o de otro miembro de la familia>? 23b. ¿Tiene <usted/NOMBRE> cobertura actualmente de Medicare, para personas que tienen 65 años o más, o personas con ciertas incapacidades? 23c. ¿Tiene <usted/NOMBRE> cobertura actualmente de Medicaid, el Programa de Seguro Médico para Niños (CHIP) u otra asistencia gubernamental para esas personas con un ingreso bajo o incapacidad? 23d. ¿Tiene <usted/NOMBRE> cobertura actualmente de un seguro de salud adquirido directamente de una compañía de seguros, un corredor o a través de un Mercado Estatal o Federal tal como HealthCare.gov? 23e. ¿Tiene <usted/NOMBRE> cobertura actualmente a través de la VA o se ha inscrito alguna vez para cuidado de salud en la VA? 23f. ¿Tiene <usted/NOMBRE> cobertura actualmente de TRICARE u otro seguro de salud militar? 23g. ¿Tiene <usted/NOMBRE> cobertura actualmente a través del Servicio de Salud para Indígenas Estadounidenses? 23h. ¿Tiene <usted/NOMBRE> cobertura actualmente por cualquier otro tipo de seguro de salud o plan de cobertura de seguro de salud?	Ahora le voy a hacer preguntas acerca <de su seguro y cobertura de salud/del seguro y cobertura de salud de NOMBRE>. NO incluya planes que cubren solo un tipo de servicio, tales como planes dentales, de medicamentos o de la visión. ¿Tiene <usted/NOMBRE> cobertura actualmente de cualquiera de los siguientes tipos de cobertura… Seguro a través de un empleador actual o previo, un sindicato (*union*) o una asociación profesional (de esta persona o de otro miembro de la familia)? Medicare, para personas que tienen 65 años o más, o personas con ciertas incapacidades? Medicaid, el Programa de Seguro Médico para Niños (CHIP) u otra asistencia gubernamental para esas personas con un ingreso bajo o incapacidad? Seguro adquirido directamente de una compañía de seguros, un corredor o a través de un Mercado Estatal o Federal tal como HealthCare.gov? Cuidado de salud para veteranos (inscrita en la VA)? TRICARE u otro seguro de salud militar? Servicio de Salud para Indígenas Estadounidenses? Cualquier otro tipo de seguro de salud o plan de cobertura de seguro de salud? No tiene seguro de salud ni planes de cobertura de seguro de salud?

6.2.1 English Interviews Findings

(1) What types of coverage do people have when they respond "Yes" to "insurance purchased directly from an insurance company, a broker, or through a State or Federal Marketplace, such as HealthCare.gov"?

All 10 participants who answered "yes" to "insurance purchased directly from an insurance company, a broker, or through a state or federal marketplace, such as HealthCare.gov" reported signing up for their coverage either directly through the insurance agency or through the state or federal marketplace.

- "At the beginning of the pandemic, I didn't have health care, so I went on the state website because I saw on Twitter that we had an extended time to sign up for coverage online."
- "Prior to Obamacare/Healthcare.gov I dealt directly with the [provider]. Then [the] government stepped in and I had to start buying my own insurance through healthcare.gov."
- "I signed up on the website. The healthcare.gov website."
- "I spoke to an insurance representative who basically did the whole application…they completed the application for me for healthcare.gov marketplace insurance and sent me an email that said I was approved for marketplace insurance and 30 days later I got my card."

Seven participants provided the name of their insurance provider (e.g., Kaiser, Blue Cross Blue Shield). None of the participants who reported "insurance purchased directly from an insurance company, a broker, or through a State or Federal Marketplace, such as HealthCare.gov" described an insurance plan that would indicate they were reporting Medicaid coverage.

Three participants were able to identify the type of insurance plan they had, such as PPO or HMO.

- "The plan is a PPO through [insurance company] and [she] pays a subsidy of $20 per month." (Note: This response indicates that the participant may not have known the difference between an insurance premium and a subsidy.)
- One participant indicated that her parents signed up for a PPO plan with [insurance company] directly through the company's website.
- Another participant explained that they had HMO coverage with all care being provided within a network of pharmacies, clinics, hospitals, and more.

One participant was unsure of the type of plan she had. This participant was new to this coverage and was unfamiliar with the terminology on her insurance card.

- "It's not an HMO. I'm not used to this because I'm used to having [insurance] through my employer. The language I'm used to seeing I'm not seeing on here. It says, "[plan name]." It doesn't say HMO, PPO, or anything like that."

Four participants indicated they would visit a private doctor's office or their primary care provider; two for health care; two indicated they would visit an in-network clinic for health care, and one participant indicated they could visit any in-network location for health care.

(2) Do all 65+ participants select Medicare? What other types of coverage, if any, do these participants have?

All 10 of the 65+ English participants indicated that they had health insurance coverage through Medicare. Six of these participants had coverage ***only*** through Medicare.

One English participant incorrectly selected "Medicare" and "Insurance purchased directly through an insurance company; a broker; or a State or Federal marketplace, such as Healthcare.gov." During probing this participant explained that he recently enrolled in Medicare Part B, which he purchased through an insurance broker.

- "I have Medicare Part A and just began receiving a supplement – Medicare Part B. I just got this plan. It is a plan through an insurance broker and covers doctors' visits and prescription drugs."

Two English participants indicated that they had health insurance coverage through both Medicare and Medicaid.

- "I actually would not have signed up [for Medicare] when I did, but I was applying for SSI because of my disability and although I was under 65, they signed me up for it…one is the primary and one is the secondary. I think Medicare is considered the primary and whatever Medicare doesn't cover, Medicaid gets bill through my state."
- "It had to do with disability. I qualified for Medicare and Medicaid at the same time. I have Medicare parts A, B, and D, which covers doctor's visits, surgery, in-patient care, and prescriptions. I have vision and dental through Medicaid and it is supplemental to Medicare – what Medicare doesn't cover, Medicaid does."

One participant selected both "Medicare" and "Insurance through a current or former employer, union, or professional association." This participant is employed by a state university and has health insurance coverage through the employer plan, for which they pay a premium. The participant is also covered under Medicare Part A, which covers hospitalizations.

Three participants indicated that they did have Medicare Advantage plans. All three of these participants classified these plans under the "Medicare" response option. One of these participants noted that they did not know the difference between Medicare and Medicare Advantage despite having coverage under both.

(3) What types of coverage or health insurance plans do people have when they report purchasing coverage through the Marketplace?

Three of the English participants who reported purchasing coverage through the Marketplace were able to specify the type of coverage they have. Some plans covered only general health care and others were inclusive of supplementary plans, such as dental and vision.

- "It covers hospitalizations, doctor visits, emergency care. Does not cover vision or dental."
- "We're on [insurance plan] so we get vision, dental, regular healthcare, and physical therapy."
- "It just covers health care. It covers medication but not vision or anything like that."

Two of the English participants who reported purchasing coverage through the Marketplace were unsure of the types of healthcare covered on their insurance plan.

- "I don't have complete control over what is covered… All of us have good health insurance. Every year things change. All my gynecology needs are covered with no copay(?). I have very good insurance and some of my copays are very reasonable. And other ones are high. They change all the time."
- "[On the card] it has me, the subscriber, [then it] has [insurance company]. It tells me the date of coverage started April 1st. It gives me how much I have to pay for copays, for specialists. Then on the back of the card, it gives me the member

services number, a nurse line, and it gives me the medical claims address. Services covered are not on the card itself. I try to find an in-network doctor that is closest to me."

None of the participants who reported purchasing coverage through the Marketplace were reporting a Medicaid plan.

(4) How do parents of children with coverage through the state Children's Health Insurance Program (CHIP) classify this coverage?

Five English participants reported having children covered through the state Children's Health Insurance Program (CHIP). All five of these participants reported this coverage by selecting response option (c), "Medicaid, Children's Health Insurance Program (CHIP), or any kind of government assistance plan for those with low incomes or a disability."

- Four participants reported having coverage for themselves and their children through state family Medicaid plans. One of these participants enrolled in coverage at her local social services office; another participant signed up through the local Department of Human Services; and a third participant signed up by sending papers "to the state." The children of all four participants have their own insurance cards that have the same policy information as the participants' insurance cards.
- One participant was somewhat unsure of whether their children's coverage would fall under Medicaid: "I believe it's like the health coverage they give to children 1 to 18 here in [State]. I believe he was signed up when he was born. I think it's Medicaid, CHIP."

(5) For participants who check more than one option, are they double reporting one health insurance plan or do they have more than one type? Specifically, for people who report Medicare and another plan, what types of other plans do they have and how do they obtain them?

Eight English participants (four Version 1 paper participants and four Version 1 CAI participants) selected more than one option for at least one household member on the health insurance coverage question. Of these eight participants, six accurately reported more than one type of coverage.

- "I only selected Medicare even though she's on Medicare and Medicaid. She's on disability…I thought I could only select one option. And, I didn't see Medicaid on there or I would have selected that too." (Note: This participant changed their answer during probing to select "Yes" for both Medicare and Medicaid for this household member.)
- "When my mother retired, she got Medicare. Then, she purchased a supplemental plan [through an insurance company] to cover the 20% of expenses that Medicare doesn't cover."

Two English participants (Version 1 CAI) incorrectly selected more than one option for at least one household member on the health insurance coverage question.

- "I have Medicare Part A and just began receiving a supplement – Medicare Part B. I just got this plan. It is a plan through an insurance broker and covers doctor's visits

and prescription drugs…I heard "broker" and was thinking of the Medicare Part B plan that I purchased through an insurance broker."[5]
- One participant selected "insurance through a current or former employer, union, or professional association" and "insurance purchased directly from an insurance company; a broker; or a State or Federal marketplace" for one household member. During probing, this participant only reported coverage through a current or former employer.

Among the six English participants who accurately reported more than one type of insurance coverage, all six were covered by Medicare and some other plan. Three participants reported coverage by both Medicare and Medicaid. One participant reported coverage by Medicare and a current employer. Two participants reported coverage by Medicare and directly through an insurance company, broker, or a State or Federal marketplace. One of these participants indicated that they were covered by Medicaid as well as their husband's insurance which was purchased through a state or federal marketplace. The other participant explained that they had Medicare Part A coverage and purchased Part B coverage through their broker. "I actually would not have signed up [for Medicare] when I did, but I was applying for SSI because of my disability and although I was under 65, they signed me up for it…one is the primary and one is the secondary. I think Medicare is considered the primary and whatever Medicare doesn't cover, Medicaid gets bill through my state."
- "When my mother retired, she got Medicare. Then, she purchased a supplemental plan [through an insurance company] to cover the 20% of expenses that Medicare doesn't cover."
- One participant was employed by a state university and had health insurance coverage through the employer plan, for which they paid a premium, and also through Part A, which covered hospitalizations.

(6) Does including additional instructions ("Do NOT include plans that cover only one type of insurance, such as dental, drug, or vision plans") reduce reporting of single-service health insurance plans?

Four English participants included single-service health insurance plans in their responses; however, for all four participants, the single-service health insurance plans were provided by their employer, who also provided their general health insurance. Thus, their response would not have changed if they had not included these plans.
- One participant included dental insurance provided by his employer. This dental insurance is a coverage option for which he pays an additional monthly premium.
- Another participant indicated they did include single-service plans because these are all part of his employer plan, just with different "sub-names."
- Another participant reported having vision and dental coverage through his employer, who also provides his general health insurance. This participant was

[5] It is worth noting that it is unclear if this response was incorrect. Census Bureau SMEs have indicated that reporting supplemental insurance purchased through a broker may be the correct way to answer the health insurance question, but there is some uncertainty surrounding this scenario.

confused by the instructions because he did not think of these single-service benefits as separate from his general health insurance.
- One participant thought of her medical, dental, and vision plans while answering this question but noted that her response would be the same for all types of coverage (all were provided by her employer).

Those who excluded any single-service health insurance plans did so because they did not have these types of coverage, because they were included with their general health insurance, or because the instructions told them to do so.
- "I buy my own dental insurance. Totally separate through AARP, private, government not involved in that…I did see [the instructions] and [they] were helpful. I didn't mention the AARP."
- "No, the instructions said not to."
- "I do not have dental or prescription. I pay out of pocket when I need these services."

(7) Does the inclusion of a "NO, No Coverage or Uninsured option" in Version 2 result in participants skipping over answer choices to indicate no insurance? Does the inclusion of a "NO, No Coverage or Uninsured option" in Version 2 result in more erroneous reports of having no insurance?

Of the 21 English participants assigned to Version 2, five participants selected the "NO, No Coverage or Uninsured" option for at least one household member. All five of these participants accurately reported having no insurance. There is no indication that participants skipped over answer choices to select the no insurance option.
- "I don't have any health insurance/coverage…It's been a long time, maybe 10 years ago. Through a former employer is what I would have selected [when I was last insured]."
- "My daughter never had health insurance, but I am looking into getting it for her. If I take my daughter to the doctor, I pay myself."
- One participant explained that he and his family had been covered under his employer's health insurance plan, but for the past six to eight months they have been "between coverage" and have had no health insurance.

One participant left the health insurance question blank for his two roommates because he did not know what kind (if any) of health insurance they had. This participant felt it was better to leave the question blank than to guess because he felt any answer he gave would have been speculation and, thus, not credible.

(8) Do the type of people who report being uninsured in Version 1 (no to all options) appear to have different interpretations about how to respond than those who report being uninsured in Version 2 (selecting the no option)?

Of the 23 English participants assigned to Version 1, only one reported having no health insurance coverage for at least one household member. This participant confirmed that he and his family did not have health insurance, had never had health insurance, and pay for any healthcare they receive in cash. This participant had no difficulty determining how to respond to this question and selected "No" for each type of insurance listed in the response options. There is no indication that this participant had a different interpretation of how to respond then Version 2 participants with no insurance.

(9) Do participants notice the instruction to mark all that apply in Version 2?

Six of the 12 English participants assigned to a Version 2 Paper mode interview noticed the "Mark all that apply" instructions. Of these six participants, three noted that these instructions did not apply to them.

- "Yes, but I just have Medicaid. It wasn't relevant for me."
- "Sure [I noticed]. For instance, elderly folks I know might have more than one type of insurance."

Four of the remaining participants did not notice the "Mark all that apply" instructions but indicated that these instructions would not have changed their response to the question. The remaining two participants were not probed on these instructions.

(10) Does the check all that apply format (Version 2) result in fewer erroneous reports of multiple coverages?

None of the 12 English Version 2 paper participants or the 10 Version 2 CAI participants reported having multiple sources of health insurance coverage. Four of the 11 English Version 1 paper participants reported having multiple sources of insurance coverage. Of those four participants, all correctly reported multiple coverages. However, it is worth noting that one of these four participants only changed their response to include multiple coverages during probing when it became clear that they could select more than one option. Thus, for this participant, the health insurance question would have resulted in underreporting rather than overreporting.

- "I only selected Medicare even though she's on Medicare and Medicaid. She's on disability…I thought I could only select one option. And, I didn't see Medicaid on there or I would have selected that too."

(11) Does including the flashcard in CAI aid participants in correctly selecting their answer choices?

All English CAI participants who were assigned to receive flashcards found it to be helpful in selecting their answer.

- "Yes, it was very helpful."
- One participant found the flashcards to be helpful in determining the difference between Medicare and Medicaid.
- Another participant found the flashcard to be helpful, felt most people would recognize the different types of health insurance included on the card, and could not think of any types of health insurance that were missing from the card.

Of the four CAI Version 2 participants who did *not* receive flashcards, none expressed any annoyance at listening to the interviewer read the list of response options; however, one participant did seem to provide their response before the interviewer finished reading all response options. This participant initially answered, "None of the above…pay out of pocket." After some additional probing and re-reading of response options by the interviewer, this participant selected "No health insurance or health coverage plans." Though no participants expressed annoyance at listening to the long list of response options, it is worth noting that those participating in these interviews were being paid for their participation and were only receiving a subset of questions. Thus, it is possible that respondents of the full questionnaire may be more annoyed by the long list of response options than these cognitive interviewing participants.

6.2.2 Spanish Interviews Findings

(1) What types of coverage do people have when they respond "yes" to "insurance purchased directly from an insurance company, a broker, or through a State or Federal Marketplace, such as HealthCare.gov"?

Across all 26 Group 2 Spanish-language cases, none of the paper mode cases reported any coverage of this type. For the CAI mode, only three participants reported this kind of coverage for a total of five individuals. In two of these three cases, this answer was chosen correctly, as the health insurance plans described were privately acquired insurance.

- A participant said an acquaintance suggested that she navigate the insurance market. In doing so, she found options for health care providers and premium amounts.
- The participant answered: "It's an insurance purchased from an insurance broker. It's called [insurance plan]. We do have an insurance card. It's a private insurance. We use a private doctor's office."

The third participant was a false positive. They had selected both the Medicaid and private insurance options for themselves and a son.

- This participant explained in probing the source of their confusion. They actually have Medicaid, but they added that when they need information, they visit HealthCare.gov and this website also appears in the documentation needed to reapply for insurance coverage. The mention of Healthcare.gov in the question made this participant think to select that response option as well.

(2) Do all 65+ participants select Medicare? What other types of coverage, if any, do these participants have?

Three participants ages 65+ responded to the health insurance question. While two reported having Medicare coverage, the third one did not.

- This participant explicitly said in probing that she does **not** have Medicare. She explained that she is covered under [insurance plan], with a plan they purchased through a broker.

(3) What types of coverage or health insurance plans do people have when they report purchasing coverage through the Marketplace?

The two participants who reported this coverage described plans that cover their medical needs.

- One participant reported their insurance covers primary health care services and specialists. This participant did not include dental insurance. They are covered under "[Insurance Company, State, Name of Plan]" and go for care to a private doctor's office.
- The other participant mentioned their plan is provided by [insurance company] and they have an insurance card. This is a private insurance plan. They receive care at a private doctor's office. The plan does not include dental or vision care, but they feel it is very good coverage for their needs.

(4) How do parents of children with coverage through the state Children's Health Insurance Program (CHIP) classify this coverage?

This research question is a difficult question to answer because the response option lists both Medicaid and CHIP. Any time a participant responded "yes" to the third response

option, the interviewer did not know if they were selecting it because they consider the child's coverage as Medicaid or as the CHIP.

Seven of the 26 participants chose the Medicaid/CHIP option to reflect the coverage of a child in the household. There was no probing on whether specifically parents considered CHIP to be Medicaid, but none of the Spanish participants mentioned CHIP by the program name. Several did explain this is government coverage for children born in the United States.

(5) For participants who check more than one option, are they double reporting one health insurance plan or do they have more than one type? Specifically, for people who report Medicare and another plan - what types of other plans do they have and how do they obtain them?

In paper mode, no participants double-reported health insurance coverage. Of the 12 CAI participants, several selected more than one coverage erroneously, as evidenced in probing results:

- One participant said "yes" to both Medicaid coverage and to marketplace-acquired coverage for themselves and a child. This person later explained that their own plan was purchased directly from an insurance company, but the child's Medicaid coverage was applied for by the school social worker.
- Another participant said "yes" to both Medicaid and Indian Health Service coverage for their children. They did not know why they answered "yes" to IHS coverage because their children only have Medicaid. "Yo creo que me equivoqué." [I think I made a mistake.]
- As discussed earlier, one participant who double-reported coverage only has Medicaid. This person is the one who often checks information on Healthcare.gov and selected response option d (insurance purchased directly from an insurance company and in addition to option c (Medicaid).

A few participants reported double coverage of Medicare and Medicaid. Medicare recipients with low-income qualification reported being enrolled in Medicaid at the same time as they start receiving Medicare, whether the Medicare is received due to reaching age 65 or because of a disability.

- An age 65+ participant explained they went to an office where different kinds of insurance coverage options were presented to them and they were helped in selecting an option. This person previously had no coverage. They have an insurance card that lists various types of coverage: dental, medical, and transportation. It does not cover hospitalization, but the participant said Medicaid covers that. The name of the insurance plan is [insurance plan]. This participant goes to a doctor's office for care. They were offered Medicaid coverage through the same office where they obtained Medicare. They mentioned being eligible due to low income. It covers hospital, mammograms, and such. The name of the plan is Medicaid. This person normally goes to the hospital to get care, as needed, like exams that cannot be done at a doctor's office. Medicare covers things like physical exams and flu.
- Another participant reported Medicare and Medicaid coverage for a household member. This person receives Medicare because of a disability and also Medicaid because of low income.
- A third participant explained they obtained coverage through Social Security. They were sent the forms and filled them out. This participant has an insurance card and has coverage for hospital, dentist, and a vision exam once every two years. The plan name is Medicare. They get care at a clinic. Then, they explained, they also went to the Medicaid office. The Medicare office gave them coverage that covers hospitals

and specialists. This participant did know the difference between the coverage they receive under Medicare and under Medicaid.

(6) Does including additional instructions ("Do NOT include plans that cover only one type of insurance, such as dental, drug, or vision plans") reduce reporting of single-service health insurance plans?

Of eight paper mode participants, only one person mentioned having a separate dental and vision plan that they did not include because they have not used the plan and are not sure how it works. This person had not noticed the instruction. None of the other seven reported single-service insurance coverage. Two participants volunteered that they had not noticed the instruction.

The 18 CAI participants were read the instruction during administration. One did not recall the instruction and another one said they did not understand it.

(7) Does the inclusion of a "NO, No Coverage or Uninsured option" in Version 2 result in participants skipping over answer choices to indicate no insurance? Does the inclusion of a "NO, No Coverage or Uninsured option" in Version 2 result in more erroneous reports of having no insurance?

Spanish interviews provided no evidence that the inclusion of this option in Version 2 caused any participants to skip over answer choices erroneously. When participants chose the no-coverage option, their explanations were consistent with this choice.

- Two participants who selected the "No Coverage" option explained that they pay for any health care in cash.
- Two participants who selected "no coverage" explained they have financial assistance for their medical costs. This is a program through a local university hospital) that is based on income. Participants pay $10 for each doctor visit. One of them explicitly said it has nothing to do with Medicaid or any other health insurance coverage.
- Another participant selected this option and confirmed none of the household members has ever had health insurance.

(8) Do the type of people who report being uninsured in Version 1 ("no" to all options) appear to have different interpretations about how to respond than those who report being uninsured in Version 2 (selecting the "no" option)?

In either Version 1 or 2, interviewers did not detect false negatives in the health insurance question. That is, no participants reported having no insurance coverage in Version 2 or saying "no" to all coverage options in Version 1 and then mentioned in response to probes that they did have some type of health insurance coverage.

The explanations given by Version 1 participants about household members they said did not have any of the types of coverage asked about were very similar to those given by Version 2 participants (previously noted under research goal 7).

- One participant said the household member for whom they selected none of the types of coverage receives care at an income-based clinic and pays 30 dollars each time to see the doctor. This plan covers just basic check-ups, so if the person needs further care they have to pay more.
- Two participants explained they never had health insurance. They get care at clinics where they offer income-based programs and charge per visit.
- Another participant said they simply pay out of pocket for health services.

- The fourth person who did not report any coverage in Version 1 described getting care under the same program described previously by a Version 2 participant under research goal 7.

(9) Do participants notice the instruction to mark all that apply in Version 2?

Four participants answered Version 2 in paper mode. Two said they had not noticed the instruction, one said they had noticed the instruction, but it had no impact on their response, and the fourth person skipped this probe due to time constraints.

(10) Does the check all that apply format (Version 2) result in fewer erroneous reports of multiple coverages?

There were not a sufficient number of Spanish interviews in this version and mode to confidently answer this question.

(11) Does including the flashcard in CAI aid participants in correctly selecting their answer choices?

Five participants reported finding the flashcard helpful. All eight CAI Version 2 participants said it was easy to find a response and reported having no difficulties. Interviewers did not detect differences in selection of the correct response between cases with and without the flashcard.

6.2.3 Version 1 Findings by Mode

a. Paper Mode – English

Nine of the 11 Version 1 paper participants had no difficulty answering this question and answered accurately for their individual situations. One participant reported no health insurance for all members of their household (i.e., answered "No" for all kinds of health insurance listed). During probing, this participant confirmed that he and his other family members did not have health insurance coverage, indicated that they have never had health insurance, and that they pay for healthcare in cash when they receive it. Four participants reported multiple coverages for at least one member of their household and were correct in doing so. One of these participants, however, only changed their response to include multiple coverages during probing when it became clear that they could select more than one option. Thus, for this participant, the health insurance question would have resulted in underreporting rather than overreporting.

Both 65+ participants selected "Medicare" as one source of health insurance coverage. Both participants also selected a second source of coverage—Medicaid—for which the participant was eligible due to their disability and insurance purchased by the participant's spouse through a State or Federal marketplace. Those participants who indicated they were enrolled in Medicaid all described their state's Medicaid program for which they signed up through their school, a hospital social worker, or their local Department of Human Services. Three participants indicated they had health insurance coverage through a State or Federal marketplace and signed up either through the online Healthcare.gov portal or at their local hospital. Descriptions of these insurance plans indicated that these were truly direct purchase plans and not Medicaid plans, which may also be accessed through the marketplace portal. Six of the 11 participants indicated that they were enrolled in dental, drug, or vision plans; however, none of these participants included these single-service

plans in their responses. Parents of children with different insurance coverage than their own did not have trouble selecting the appropriate response option for their children.

Two of the 11 Version 1 paper participants indicated that they had at least some difficulty in answering the health insurance coverage question. One of these participants had difficulty selecting a response for themself because she overlooked the state or federal marketplace option. This participant originally selected "other" and wrote in the name of her insurer. During probing, the participant changed her response to the state or federal marketplace option. The participant felt that more spacing between the response options, particularly for items a through d, would have made it easier for her to select her response, stating:

- "If you look at it at first, it all looks jumbled up, especially a through d. The rest are pretty self-explanatory but a through d there's a lot going on there as far as what you have to look at and answer yes or no."

The other participant who had some difficulty selecting a response for this question felt there was not a response option that fit their mother's insurance situation. The participant explained that their mother had enrolled in Medicare when she retired and purchased supplemental insurance through an insurance company to cover costs not covered by Medicaid. To indicate this, the participant selected "Medicare" and "Purchased directly from an insurance company" when answering about his mother; however, they did not feel that "Purchased directly from an insurance company was a completely accurate representation of his mother's coverage. Instead, this participant hoped to see an option for "Supplemental insurance."

Another participant did not have difficulty finding the insurance option that best fit their situation but did express confusion over whether they were supposed to select "No" for each insurance coverage that did not apply to them, or only select "Yes" for the coverage that did apply to them.

Another participant noted that they did not "see the Affordable Care Act [on the list], and I think that might be different." This participant was enrolled in insurance through the State or Federal marketplace, selected this option in their response, and indicated that they did not have any difficulty answering the health insurance question; however, when asked if they would have selected the Affordable Care Act if it were an option, the participant stated, "I think [my insurance] falls under the ACA, so yes, I'd choose that. I think Healthcare.gov is similar to the ACA, but it's not the same thing." Another participant suggested adding "life insurance" or "long-term care insurance" to the list of response options.

Only one participant selected "other" and wrote in "county insurance." This participant described their coverage as insurance provided through their county. The participant did not have an insurance card for this plan's coverage as, "You just scan your palm and it's like a fingerprint. Used to have cards, but everyone kept losing them and there was fraud." This coverage included doctor's visits and hospitalizations, provided limited dental and vision coverage, and did not cover long-term care.

b. Paper Mode – Spanish

The four participants answering Version 1 understood the question as intended for each paper mode interview. However, they did not always interpret correctly some response categories or simply did not know enough about a given person's coverage to match it to the correct response option.

Of these four participants, only one answered correctly without any hesitation or misinterpretation. This was a participant who indicated having Medicare coverage. They explained that they signed up to receive this from the Social Security Administration and that their card says "Medicare, Part A and Part B."

The other three participants had a different interpretation or had confusion around these issues:

- One participant who has a mother with Medicare coverage, said during probing that they were not sure if their mother has Medicaid or Medicare coverage. This person described the coverage as part of a city program that offers public insurance for low-income persons age 65 or older. (This insurance coverage is likely a state plan which covers non-citizens age 65 and older who do not meet immigration status required for Medicaid.)
- Another participant indicated during probing that they used to have [insurance company] coverage through a prior job, but this did not affect their response. The interviewer asked whether this person would have indicated that coverage in this question. The participant said they would not have picked the first option because their coverage was not through a union.
- The third participant was answering about an adult son and was confused by the term *empleador* [employer]. They asked if that meant through a job, using the word *empleo.*

No particular characteristics distinguished the three participants who had issues with the question from the one who had none. None of the four had a college degree. The one participant without issues was over age 65 whereas the others were younger. Two had Mexico, one Central America, and one Caribbean Island as their national origin.

c. CAI Mode – English

Eight of the 11 Version 1 CAI participants had no difficulty answering this question and answered accurately for their individual situations. Four participants reported multiple coverages for at least one member of their household, and three of these participants were correct in doing so. One of these participants, however, reported coverage through Medicare and insurance purchased directly through a broker. This participant had Medicare Part A and had just recently enrolled in Medicare Part B. The participant purchased Part B coverage through a broker, so when they heard "broker" in Q23d, they answered "Yes" even though she was thinking of her Medicare Part B plan. It is unclear if this response was an accurate or inaccurate report of double coverage. During probing, this participant noted that they would change their response to select "Yes" for Medicare only.

Another participant who answered this question incorrectly selected "Other" as their response and specified "Medicaid" rather than selecting the "Medicaid" response option. This participant also selected "Other" for the other household member on which they reported and wrote in "County health insurance for low-income residents." The participant did not provide many details about the country health insurance program, but it is possible that this program is a Medicaid program, and this is what caused the error in reporting.

The final participant that had at least some difficulty in deciding on response selected "Insurance through a state or federal marketplace" for themselves however, when the interviewer asked if she was covered by Medicaid (Q23d), the participant hesitated before eventually deciding on "no." During probing, the participant explained this hesitation:

- "Because I got [my insurance] through the marketplace, and I don't know if because you're not getting it through an employer, if there are subsidies associated with that

or if that automatically makes it a government plan. I was like, 'Well is it Medicaid?' I wasn't sure if it was Medicaid or not. I know it's not CHIP because I don't have a kid…I think ["government assistance plan"] is the part that's really throwing me off. In my mind, "government assistance" is welfare and other programs. I wasn't sure if getting it from the Marketplace was government assistance as well."

All three 65+ participants selected "Medicare" as one source of health insurance coverage. Two of these participants also selected a second source of coverage—Medicaid—for which the participant was eligible due to their disability, and insurance through their current employer. With the exception of one participant who miscategorized their Medicaid coverage in the "Other" response option, all participants enrolled in Medicaid described their state's Medicaid program for which they signed up as individuals or with their other family members. Two participants indicated they had health insurance coverage through a State or Federal marketplace, both of whom signed up through the online Healthcare.gov portal. Seven of the 11 participants indicated that they were enrolled in dental, drug, or vision plans. Only one of these participants indicated they were thinking of their single-service dental/drug/vision plans when answering the health insurance coverage question; however, this participant noted that excluding these plans would not have changed their answer because these plans and their general health insurance plan were provided by their employer.

When asked if they were familiar with any other types of health insurance coverage or plans, one participant distinguished between Part A and Part B coverage under Medicare, and another participant noted that AARP provides health insurance.

d. CAI Mode – Spanish

The nine Spanish CAI mode participants understood the question in Version 1 as intended in every case and often selected the correct answer. However, they did not always interpret some response categories correctly or simply did not know enough about a person's coverage to match it to the correct response option.

Some examples of correct responses include the following:

- One participant selected employer-provided plan for a daughter. "Solamente tiene uno, el del empleador, o sea que trabaja y ahí le dan seguro de salud, pero claro que le tienen que descontar." [He only has one, the employer's, meaning that she works and they give her health insurance, but of course they have to deduct for it.] This participant explained that the daughter does not have to pay out of pocket for a doctor's visit. They did not know the name of the plan but knew that they receive healthcare services at the clinic in their university. The participant also added that the daughter enrolled through an employer.
- Another participant selected the same response and explained that the person works for a firm and receives medical insurance as part of the benefits package. This person answered that two other household members also receive medical insurance through the first person's employer.
- A third participant chose the same response and explained, "Pues la aseguranza que tiene uno es por parte del empleador. El empleador es el negocia con las aseguranzas, en las cuales te disminuyen a lo mejor el costo porque ellos pagan una parte y tú pagas otra sobre tu cheque. Es un plan de seguro mediante el empleador." [Well, the insurance I have is on behalf of my employer. The employer is the one who negotiates with the insurance companies, in which they lower the cost because they pay a part and you pay another part with your paycheck. It is an insurance plan through the employer.] They added that the plan covered doctor visits and

medication but they have to pay a deductible. They have a PPO plan and receive medical services at a clinic.

A participant correctly selected the Medicaid/CHIP option for a daughter. They applied for Medicaid and got it for this child. For themselves, she answered no coverage. They explained they have never had health insurance and go for care to a clinic for low income people. They only visit when sick and only pay a small amount for the visit.

Another participant correctly answered not having any health insurance coverage. Instead, they indicated participating in a program offered by their county hospital that provides assistance to low-income persons.

Three participants answered in error:

- One participant said she is covered by Medicaid in error. This person purchased insurance via the Marketplace. The mention of government assistance in that response option made this person think of a subsidy they have for the marketplace plan.
- Another participant simply chose a response in error, for no apparent reason. This person said their children are covered under the Indian Health Service, but they only have Medicaid coverage. "Yo creo que me equivoqué." [I think I made a mistake.]
- When hearing option 23a, one participant said, "
- Este seguro es por la edad mía." [This insurance is because of my age.] The interviewer reread 23a, and the participant answered, "Eso es lo que no entiendo, porque dice de un empleador actual… No puede ser de un empleador actual porque no trabajo." [That's what I don't understand, because it says from a current employer… It cannot be from a current employer, because and I don't work." After further probing, this person answered "no" and later endorsed both Medicare and Medicaid correctly.

Two participants could not place their coverage under any of the options offered in 23a through 23g and selected instead response option 23h (other type of coverage). One of these participants said they qualified for low-income coverage from their city and this insurance covers all medical expenses for them and their children, including dental care and very small pharmacy co-payments. It was not clear whether this plan is actually funded under Medicaid, but the participant did not think it was.

The second person who reported "other type of coverage" was referring to health insurance for students provided by a daughter's college.

6.2.4 Version 2 Findings by Mode

a. Paper Mode – English

Ten of the 12 Version 2 Paper participants had no difficulty answering this question and answered accurately for their individual situations. Two participants reported no health insurance for themselves or other members of their household. Both of these participants selected the "no health insurance or health coverage plan" response option for the appropriate household member. Both participants confirmed during probing that they did not currently have health insurance and that they pay out of pocket for healthcare when they receive it.

Both participants aged 65+selected "Medicare" as their sole source of health insurance coverage (i.e., did not also select "Medicaid" as a source of insurance coverage). Those

participants who indicated they were enrolled in Medicaid all described their state's Medicaid program for which they signed up through their county or state social services office. One of these participants indicated that they and their other family members were enrolled in a family plan through their state's Medicaid program. One participant reported having insurance through the State or Federal marketplace. This participant indicated that prior to the Affordable Care Act, they purchased insurance directly from an insurance company. Now, they purchase their coverage from this company through the Healthcare.gov website. Ten of the 12 participants indicated that they were enrolled in dental, drug, or vision plans. One of these participants indicated they were thinking of their single-service dental/drug/vision plans when answering the health insurance coverage question; however, this participant noted that excluding these plans would not have changed their answer as these plans and their general health insurance plan were all provided by their employer. Another of these participants reported including their Medicare Advantage plan, which includes dental, drug, and vision coverage in their response. The other participants enrolled in dental, drug, or vision plans did not include them in their response. Parents of children with different insurance coverage than their own did not have trouble selecting the appropriate response option for their children.

Two of the 12 Version 2 paper participants indicated that they had at least some difficulty in answering the health insurance coverage question. One of these participants was enrolled in both Medicare and Medicare Advantage plans but was unable to distinguish between these two plans, and thus, struggled with how to report the Advantage plan. Another participant had difficulty answering the health insurance coverage question for his roommates because he did not know what type of coverage they had. This participant decided to leave the question blank for his two roommates because "any answer I gave would have only been speculation and would not have been credible."
No participants were familiar with any other types of health insurance coverage or plans.

b. Paper Mode – Spanish

The four Spanish paper mode Version 2 participants understood the question as intended in every case. However, they did not always interpret all response categories correctly or did not know enough about a given person's coverage to match it to the correct response option.

- One participant explained that after enrolling their children in Medicaid, through the clinic where they got care, the clinic completed the paperwork. Eventually they received a letter informing them that the participant also qualified for Medicaid and began receiving this coverage as well. This appears to be due to Medicaid expansion in the state. This person's insurance plan card says "County Care" and they receive care at a clinic. The plan covers dental care but they do not know about whether this covers vision. This person correctly chose the response option for Medicaid.

Two of the four paper mode participants answered in error:

- One participant thought they were answering for a son, when they were completing the Person page with their own name. This person responded for themselves about the coverage for the son (Medicaid/CHIP). This participant said during probing that they called to apply when the son was born because, as a child born in the United States, he qualified to get health insurance.
- Another participant stopped reading the first option without completing it, because they were answering about their grandchildren and assumed that option could not be for them because the children do not work. These children are covered under their mother's employer-provided plan. The participant continued through the full list, selected some other type, and said to write in "mother's employer." During probing,

this person realized they should have chosen the first option (insurance through a current or former employer, union, or professional association).
- One participant raised a question on how to report one plan for their husband. The husband has double coverage under employer-provided plans. One is from his own employer and one as a dependent under the participants' employer-provided plan. The second coverage should be reported under "other." This participant thought there should be some option to indicate that a person has more than one insurance plan in the same response category. The interviewer probed to see if they might have chosen response option h (any other type of health insurance or health coverage plan. Interestingly, this participant thought that this option was meant for government plans or Obamacare. They later reread all options and realized Obamacare should go under the response option for Marketplace.

c. CAI Mode – English

Nine of the 10 Version 2 CAI participants had no difficulty answering this question and answered accurately for their individual situations. One participant had difficulty answering for their mother because they were unsure the type of health coverage she had. The participant felt it was likely that their mother was either covered through Medicare because she was over the age of 65 or that she was covered through Veteran's health care because their father is a veteran. The participant indicated that if they had to select a response, they would select "Veteran's health care" because they felt it would provide better coverage, although they had never heard of a veteran's spouse visiting the VA for healthcare.

All three 65+ participants selected "Medicare" as their sole source of health insurance coverage (i.e., did not also select "Medicaid" as a source of insurance coverage). One participant indicated that they were previously enrolled in health insurance through the state marketplace but has since switched to coverage through their employer; however, this participant's mother is enrolled through the state marketplace. The participant signs their mother up for this coverage each year, and the mother pays a $20 subsidy each month for the coverage. Another participant reported that their parents purchased insurance directly from the insurance company. The participant's parents signed up for this coverage directly through the company and it provides general health coverage. Parents of children with different health insurance coverage than their own were, generally, able to easily select their child's coverage from the list of response options. One of these participants, however, had a small amount of uncertainty in selecting "Medicaid" for their child's coverage. This participant did not have coverage of their own but described their child's coverage as, "I believe it's like the health coverage they give to children 1 to 18 here in [state]. I believe he was signed up when he was born. I think it's Medicaid, CHIP."

Three participants reported have no health insurance for themselves or other members of their household. One participant initially responded to the health insurance question by saying, "None of the above. I pay out of pocket." After the interviewer did some probing with the participant, they selected the "no health insurance or health coverage plan" option. This participant explained that their family had been "between coverage" for the past six to eight months. Another participant reported no health insurance coverage for themselves and their daughter. This participant confirmed they had not had health insurance coverage any time recently and their daughter had never had coverage. When needed, the participant pays for healthcare out of pocket. This participant selected the "No health insurance or health coverage" response option. The final participant to report having no health insurance coverage indicated that they (and their spouse) did not have coverage and that they had not had health insurance coverage since they were a child. When needed, this participant

pays for medical expenses out of pocket.

Four of the 11 participants indicated that they were enrolled in dental, drug, or vision plans. None of these participants included single-service plans, though three of these participants indicated their dental, drug, and vision coverage was included on their general health insurance plan. One of these participants, however, was confused by the instructions to not include single-service plans because they did not think of these types of plans as separate from their general medical coverage.

All participants who received the flashcard for this question, used it and found it helpful in selecting their response. No participants were familiar with any other types of health insurance coverage or plans.

d. CAI Mode – Spanish

The nine CAI mode Spanish Version 2 participants all understood the question as intended. However, a few participants did not interpret some response categories correctly or did not know enough about a person's coverage to match it to the correct response option.

Among participants who answered correctly, there were people covered by employer-provided plans, Medicare recipients based on age or disability, double-insured persons under Medicare and Medicaid, persons covered by insurance purchased directly through a broker, and persons confirmed as uninsured.

One unusual situation for a participant was a mother with no coverage whose children are covered by Tricare, because a godfather in the military is adopting them and obtained this coverage for them.

In one case, response error was detected in probing:

- One participant answered "yes" to the Medicaid/CHIP question and to insurance purchased directly from a company. During probing, this person realized they had made a mistake. The participant has health insurance purchased from the marketplace but does not have Medicaid. They had answered "yes" to the response option because they seek information on HealthCare.gov and this website is mentioned in the documentation for reapplying for insurance coverage. The mention of the website made this person initially made them think this was the correct response option.

6.2.5 Recommendations

Both versions of the health insurance question performed well during Round 2. Results from this round suggest a slight advantage to proceeding with Version 2 of the question because there were no erroneous reports of multiple coverage among participants who received this version of the question (though this is not necessarily due to the structure of the question), and one participant who had legitimate multiple coverage to report was unaware they could select more than one option in Version 1 of the question. This advantage for Version 2 is slight, and RTI/RSS recommends additional testing with individuals who have more than one type of health insurance coverage.

Additionally, RTI/RSS recommends the following:

(1) Proceed with providing flashcards in CAI mode because this helped participants correctly identify their type of health insurance coverage.

(2) Add more space between the first four response options in the paper version of the questionnaire.
(3) Continue to include instructions to not include single-coverage health plans.

The response choice for insurance through an employer caused confusion for some Spanish cases as noted above. RTI/RSS recommends reevaluating the wordiness of that option, particularly in translation.

6.3 Disability

The final Group 2 test topic was Disability. Two versions were tested, but the versions differed only in the wording of question 19c. The test questions are displayed in ***Tables 2.23*** and ***2.24*** by mode, version, and language. Reasons for testing on disability questions was to examine potential changes that may help to ensure accurate measurement of disability consistent with the World Health Organization's International Classification of Functioning, Disability, and Health disability framework and to test the inclusion of a question on communication aimed to capture difficulties related to psychosocial and cognitive disability in addition to problems with speech.

The key research goals of cognitive testing were to determine the following:

(1) If participants reported any difficulty, how did they choose their specific response category? Why did they not choose a different response category?
(2) What types of disabilities/conditions are being identified for children when the response indicates difficulty with communication?
(3) Do bilingual participants understand we are not referring to mastering English as a second language? Which types of participants are more likely to misunderstand?
(4) Do participants clearly and consistently understand the text "washing all over" as a more broad/inclusive description of bathing?
(5) Do people react to the text "washing all over" as sensitive, awkward, or embarrassing?
(6) Does emphasizing the words "self-care" to the question change how participants interpret or respond to the question?
(7) Do participants answer this question based on "self-care" tasks outside of washing and dressing (and if so, which ones)? Does this vary based on which version of the question they receive (i.e., "self-care, such as" vs. "SELF-CARE, for example")?
(8) For those who reported anything other than "no difficulty" to 19a, what are the actions or circumstances that caused them to answer as they did?
(9) For those who reported "no difficulty," what do participants think "difficulty walking or climbing steps" entails?
(10) What are the characteristics of participants who interpret "climbing steps" as something uniquely different from stairs?
(11) Do the participants read/hear and understand the question preamble in responding to difficulty with "doing errands alone such as visiting a doctor's office or shopping" (Q20)? In other words, do participants report difficulty with errands for reasons other than health or disability?
(12) Do participants associate particular conditions with difficulty concentrating or remembering (Q19b)?

Table 2.23: Disability Questions by Version (Paper Mode)

Paper Mode	
V1	V2
a. Does this person have difficulty seeing, even if wearing glasses? ☐ No difficulty ☐ Some difficulty ☐ A lot of difficulty ☐ Cannot do at all **b. Does this person have difficulty hearing, even if using a hearing aid?** ☐ No difficulty ☐ Some difficulty ☐ A lot of difficulty ☐ Cannot do at all	**a. Does this person have difficulty seeing, even if wearing glasses?** ☐ No difficulty ☐ Some difficulty ☐ A lot of difficulty ☐ Cannot do at all **b. Does this person have difficulty hearing, even if using a hearing aid?** ☐ No difficulty ☐ Some difficulty ☐ A lot of difficulty ☐ Cannot do at all

(continued)

Table 2.23: Disability Questions by Version (Paper Mode) (continued)

Paper Mode	
V1	V2
Answer questions 19a – d if this person is 5 years old or over. Otherwise, SKIP to the questions for Person 2 on page 19.	*Answer questions 19a – d if this person is 5 years old or over. Otherwise, SKIP to the questions for Person 2 on page 19.*
a. Does this person have difficulty walking or climbing steps? No difficulty Some difficulty A lot of difficulty Cannot do at all	**a. Does this person have difficulty walking or climbing steps?** No difficulty Some difficulty A lot of difficulty Cannot do at all
b. Does this person have difficulty remembering or concentrating? No difficulty Some difficulty A lot of difficulty Cannot do at all	**b. Does this person have difficulty remembering or concentrating?** No difficulty Some difficulty A lot of difficulty Cannot do at all
c. Does this person have difficulty with SELF-CARE, for example washing all over or dressing? No difficulty Some difficulty A lot of difficulty Cannot do at all	**c. Does this person have difficulty with self-care, such as washing all over or dressing?** No difficulty Some difficulty A lot of difficulty Cannot do at all
d. Using his or her usual language, does this person have difficulty communicating, for example understanding or being understood? No difficulty Some difficulty A lot of difficulty Cannot do at all	**d. Using his or her usual language, does this person have difficulty communicating, for example understanding or being understood?** No difficulty Some difficulty A lot of difficulty Cannot do at all
Answer question 20 if this person is 15 years old or over. Otherwise, SKIP to the questions for Person 2 on page 19.	*Answer question 20 if this person is 15 years old or over. Otherwise, SKIP to the questions for Person 2 on page 19.*
Because of a physical, mental, or emotional condition, does this person have difficulty doing errands alone, such as visiting a doctor's office or shopping? No difficulty Some difficulty A lot of difficulty Cannot do at all	**Because of a physical, mental, or emotional condition, does this person have difficulty doing errands alone, such as visiting a doctor's office or shopping?** No difficulty Some difficulty A lot of difficulty Cannot do at all

(continued)

Table 2.23: Disability Questions by Version (Paper Mode) (continued)

Paper Mode	
V1	V2
a. ¿Tiene esta persona dificultad para ver, aunque lleve puestos espejuelos o lentes? ☐ No tiene dificultad ☐ Un poco de dificultad ☐ Mucha dificultad ☐ No puede hacerlo **b. ¿Tiene esta persona dificultad para oír, incluso si usa un audífono?** ☐ No tiene dificultad ☐ Un poco de dificultad ☐ Mucha dificultad ☐ No puede hacerlo	**a. ¿Tiene esta persona dificultad para ver, aunque lleve puestos espejuelos o lentes?** ☐ No tiene dificultad ☐ Un poco de dificultad ☐ Mucha dificultad ☐ No puede hacerlo **b. ¿Tiene esta persona dificultad para oír, incluso si usa un audífono?** ☐ No tiene dificultad ☐ Un poco de dificultad ☐ Mucha dificultad ☐ No puede hacerlo

Table 2.24: Disability Questions by Version (CAI Mode)

CAI Mode	
V1	V2
The next questions ask about difficulties <you/NAME> may have doing certain activities.	**The next questions ask about difficulties <you/NAME> may have doing certain activities.**
25a. <Do you/Does NAME> have difficulty seeing, even if wearing glasses?	25a. <Do you/Does NAME> have difficulty seeing, even if wearing glasses?
No difficulty Some difficulty A lot of difficulty Cannot do at all	No difficulty Some difficulty A lot of difficulty Cannot do at all
25b. <Do you/Does NAME> have difficulty hearing, even if using a hearing aid?	25b. <Do you/Does NAME> have difficulty hearing, even if using a hearing aid?
No difficulty Some difficulty A lot of difficulty Cannot do at all	No difficulty Some difficulty A lot of difficulty Cannot do at all
26a. <Do you/Does NAME> have difficulty walking or climbing steps?	26a. <Do you/Does NAME> have difficulty walking or climbing steps?
No difficulty Some difficulty A lot of difficulty Cannot do at all	No difficulty Some difficulty A lot of difficulty Cannot do at all
26b. <Do you/Does NAME> have difficulty remembering or concentrating?	26b. <Do you/Does NAME> have difficulty remembering or concentrating?
No difficulty Some difficulty A lot of difficulty Cannot do at all	No difficulty Some difficulty A lot of difficulty Cannot do at all
26c. <Do you/Does NAME> have difficulty with SELF-CARE, for example washing all over or dressing?	26c. <Do you/Does NAME> have difficulty with self-care, such as washing all over or dressing?
No difficulty Some difficulty A lot of difficulty Cannot do at all	No difficulty Some difficulty A lot of difficulty Cannot do at all
26d. Using <your/his/her> usual language, <do you/does NAME> have difficulty communicating, for example understanding or being understood?	26d. Using <your/his/her> usual language, <do you/does NAME> have difficulty communicating, for example understanding or being understood?
No difficulty Some difficulty A lot of difficulty Cannot do at all	No difficulty Some difficulty A lot of difficulty Cannot do at all
27. Because of a physical, mental, or emotional conditions, <do you/does NAME> have difficulty doing errands alone such as visiting a doctor's office or shopping?	27. Because of a physical, mental, or emotional conditions, <do you/does NAME> have difficulty doing errands alone such as visiting a doctor's office or shopping?
No difficulty Some difficulty A lot of difficulty Cannot do at all	No difficulty Some difficulty A lot of difficulty Cannot do at all

(continued)

Table 2.24: Disability Questions by Version (CAI Mode) *(continued)*

CAI Mode	
V1	V2
Las siguientes preguntas son sobre las dificultades que <usted/NOMBRE> pueda tener al hacer ciertas actividades.	**Las siguientes preguntas son sobre las dificultades que <usted/NOMBRE> pueda tener al hacer ciertas actividades.**
25a. ¿Tiene <usted/NOMBRE> dificultad para ver, aunque lleve puestos espejuelos o lentes? No tiene dificultad Un poco de dificultad Mucha dificultad No puede hacerlo	25a. ¿Tiene <usted/NOMBRE> dificultad para ver, aunque lleve puestos espejuelos o lentes? No tiene dificultad Un poco de dificultad Mucha dificultad No puede hacerlo
25b. ¿Tiene <usted/NOMBRE> dificultad para oír, incluso si usa un audífono? No tiene dificultad Un poco de dificultad Mucha dificultad No puede hacerlo	25b. ¿Tiene <usted/NOMBRE> dificultad para oír, incluso si usa un audífono? No tiene dificultad Un poco de dificultad Mucha dificultad No puede hacerlo
26a. ¿Tiene <usted/NOMBRE> dificultad para caminar o subir escalones? No tiene dificultad Un poco de dificultad Mucha dificultad No puede hacerlo	26a. ¿Tiene <usted/NOMBRE> dificultad para caminar o subir escalones? No tiene dificultad Un poco de dificultad Mucha dificultad No puede hacerlo
26b. ¿Tiene <usted/NOMBRE> dificultad para recordar o concentrarse? No tiene dificultad Un poco de dificultad Mucha dificultad No puede hacerlo	26b. ¿Tiene <usted/NOMBRE> dificultad para recordar o concentrarse? No tiene dificultad Un poco de dificultad Mucha dificultad No puede hacerlo
26c. ¿Tiene <usted/NOMBRE> dificultad con su CUIDADO PERSONAL? Por ejemplo, lavarse el cuerpo o vestirse. No tiene dificultad Un poco de dificultad Mucha dificultad No puede hacerlo	26c. ¿Tiene <usted/NOMBRE> dificultad con su cuidado personal, tal como lavarse el cuerpo o vestirse? No tiene dificultad Un poco de dificultad Mucha dificultad No puede hacerlo
26d. Usando el idioma que habla mejor, ¿tiene <usted/NOMBRE> dificultad para comunicarse, por ejemplo, entender o ser entendido(a)? No tiene dificultad Un poco de dificultad Mucha dificultad No puede hacerlo	26d. Usando el idioma que habla mejor, ¿tiene <usted/NOMBRE> dificultad para comunicarse, por ejemplo, entender o ser entendido(a)? No tiene dificultad Un poco de dificultad Mucha dificultad No puede hacerlo
27. Debido a una condición física, mental o emocional, ¿tiene <usted/NOMBRE> dificultad para hacer diligencias o mandados solo(a), tal como ir al consultorio de un médico o ir de compras? No tiene dificultad Un poco de dificultad Mucha dificultad No puede hacerlo	27. Debido a una condición física, mental o emocional, ¿tiene <usted/NOMBRE> dificultad para hacer diligencias o mandados solo(a), tal como ir al consultorio de un médico o ir de compras? No tiene dificultad Un poco de dificultad Mucha dificultad No puede hacerlo

6.3.1 English Interviews Findings

(1) If participants reported any difficulty, how did they choose their specific response category? Why did they not choose a different response category?

Generally, participants, used one (or more) of three approaches to determine their specific response category when reporting difficulty on the disability questions, all of which are in scope:

1. Assess whether the difficulty one may be experiencing is ***permanent or temporary***. Long-term or difficult tend to be assigned a higher level of difficulty than those that are temporary.
    - One participant selected "some difficulty" for Q19a because of a recent foot surgery. Although this person currently has difficulty climbing steps, they were anticipating a full recovery without further issues.

2. Assess ***how often*** the cause of the difficulty is an issue. Are there good days and bad days, or is every day a bad day? How often do bad days occur? If the cause of a difficulty occurred often, participants were more likely to assign the task higher level of difficulty.
    - "My [household member] has some difficulty with self-care. At his age, he should be able to do some things by himself…sometimes he finds it very difficult. Not all the time, just sometimes."
    - "Because of my depression I sometimes let my hygiene go and don't shower or dress, which is why I said, 'some difficulty'."

3. Assess the ***severity of the condition***.
    - "I have so little energy. I have such reduced stamina that just something like bathing takes all of my energy after I take a shower or bath...It's very hard for me to get in and out of the tub now. I had a total hip replacement and I have to be extremely careful in the way I move because I have dislocated it twice. So, getting into a tub is no problem and it feels wonderful, but how to climb out of the tub safely takes a lot of mental energy. That's difficult. And I get dressed more slowly. So that's how I arrived at "some." [In what circumstances would someone answer 'A lot of difficulty'?] If they're a paraplegic that would apply. [How would that be different from 'Cannot do at all'?] I don't know because I haven't had to adapt to that condition. It's very subjective and I'm not sure."
    - "I have issues with my eyes where in the morning my eyes are somewhat bloody but that's not very severe, so it wasn't hard choosing the answer (some difficulty)."

(2) What types of disabilities/conditions are being identified for children when the response indicates difficulty with communication?

Only two of the 43 English participants indicated difficulty with communication for a child five or older. One of these participants reported that their daughter had limited language ability because of brain damage that had occurred. The daughter's speech abilities were limited to that of a child under five, so most people do not understand her. The other participant indicated that his daughter had "some difficulty" communicating because she is "a slow learner and mixes up words." No participants indicated any difficulty selecting an answer to this question for children.

Two other participants incorrectly answered this question about children younger than the age of five.

(3) Do bilingual participants understand we are not referring to mastering English as a second language? Which types of participants are more likely to misunderstand? Which types of participants are more likely to misunderstand?

Overall, the 14 bilingual participants (out of the 43 total participants) did ***not*** misunderstand this question to be asking about mastering English as a second language. Participants expressed that they thought of the language(s) they speak in their daily lives when answering this question (***note***: for many participants, this included English). Several explicitly noted that they knew the question was not asking about language capability but about communicating and being understood when speaking a language that you know how to speak.

- "The language that is your native language. Usual language is the language spoken in your daily life at the current time."
- "Usual language is basically talking about the language people are comfortable with, familiar with, or can be interpreted as their native language. This question is asking about communication difficulty not because of the language ability."
- "I was thinking about being mute or having difficulty talking, like a lisp or something like that."

One participant felt the question was clear but also noted that some bilingual respondents may have difficulty answering this question and thinking about or identifying their "usual language."

(4) Do participants clearly and consistently understand the text "washing all over" as a more broad/inclusive description of bathing?

When asked what they thought "washing all over" meant, most participants had a broad/inclusive understanding of "washing all over," to include showering or bathing to wash one's full body. This could also include combing hair, brushing teeth, and getting dressed.

- "Bathing, showering, or even personal hygiene basically."
- "That means taking a bath or shower and making sure you wash every part of your body."
- "To me that's a sponge bath. Or it could be a shower or a tub bath as well. To me it indicates something more than washing your face, for example."
- "Washing your hair, body, face, brushing your teeth, taking a shower."

Three of the 33 participants asked about their understanding of "washing all over" understood this to include housework, such as sweeping, mopping, doing laundry, and tidying up.

- "Giving yourself a bath or keeping the house clean."
- "Washing clothes or normal housekeeping."
- "I think 'washing all over' means getting to clean up every mess in your surrounding area, cleaning your house, and cleaning yourself."

Of these three participants, two reported "No difficulty" with washing all over for themselves and other household members. One of the participants reported "Some difficulty" with washing all over for themselves because of a physical disability that has worsened with age and limited their mobility and "makes basic things like taking a shower or personal grooming difficulty." This participant also answered "Some difficulty" for the other household member on which they reported. They selected this response for the other household member because "she has been having issues with self-care, lately she has been

very lazy, she hasn't been taking good care of herself, not that she has an physical issue, but she is having an issue with lack of interest in taking good care of herself."
One participant found the phrase "washing all over" to be strange and confusing. When the question was repeated with the phrase in context (rather than as a standalone phrase in the probe), the participant felt that it was somewhat clearer. This participant did, however, understand the phrase "self-care."

- "Not being able to care for yourself, like personal stuff…self-care like the name implies."

(5) Do people react to the text "washing all over" as sensitive, awkward, or embarrassing?

No participants expressed any signs of sensitivity, awkwardness, or embarrassment at the phrase "washing all over." In fact, one participant was happy this question was asked because she knew a lot of people have difficulty with this task.

- "It means a lot. I have neighbors I've helped out for years. I know that they're disabled and have difficulty…It's helpful because these are necessities. Disabled folks and elderly people can't do that. I'm glad it's included here. Elderly people aren't disabled, they're elderly. It can be hard to do day-to-day functions."

(6) Does emphasizing the words "self-care" in the question change how participants interpret or respond to the question?

There were no significant differences in the way participants interpreted "self-care" across versions. Participants tended to think of activities related to personal hygiene, such as bathing, brushing teeth, getting dressed, using the bathroom, or others. However, 13 of the 43 (seven version 1 and six version 2) participants thought of things outside of this realm, such as doing laundry, preparing meals, running errands, exercising, and going to work.

- "Getting up and getting dressed. Getting off to work, or where we need to go. Feeding or bathing."
- "Cooking, cleaning, taking care of yourself like bathing or running errands, exercising. Having difficulty would mean having a caretaker or needing assistance from another person in general."
- "This could mean a lot of different things and is very loaded. Getting in and out of the shower, laundry, meals."

All but one of these 13 participants answered "No difficulty" for themselves and household members. One of the participants who answered, "No difficulty" did note that they did not have any difficulty caring for himself or caring for his home and this is why he selected "No difficulty." The one participant who selected an option other than "No difficulty" for her daughter was thinking of "everything." This participant's daughter had a disability that required care and assistance for all tasks, and thus, this participant's response was not limited to only personal hygiene.

(7) Do participants answer this question based on "self-care" tasks outside of washing and dressing (and if so, which ones)? Does this vary based on which version of the question they receive (i.e., "self-care, such as" vs. "SELF-CARE, for example")?

The 13 participants (out of the 43 total Group 2 participants) mentioned under research question 6 answered this question based on tasks outside of washing and dressing. These tasks included things like running errands, housekeeping, exercising, preparing meals, and other activities that "make us feel good." Only one of these participants disagreed with the definition of "self-care" as including bathing and dressing.

- "Washing all over and dressing I don't consider to be self-care. Self-care are the more auxiliary things we do for our health. Like, meditating, or taking a nice bath, cleaning your nails. Doing things that make you feel good. Self-care is more emotional and mental than physical. Washing all over is hygiene and I wouldn't consider hygiene self-care."
- "Washing clothes or normal housekeeping."
- "Washing your face, tying shoelaces, or turning on the television without assistance."
- "Needing help getting up and down the stairs."

There was no indication that "such as" vs. "for example" had an effect on participant interpretation of "self-care."

(8) For those who reported anything other than "no difficulty" to question 19a, what are the actions or circumstances that caused them to answer as they did?

Eight out of the 43 Group 2 participants indicated that they (or a household member) had "some difficulty" walking or climbing steps. The reasons for these participants' answers include the following:

- Shortness of breath from walking or climbing because of weight.
- Knee with gout that, when inflamed, causes pain.
- Nerve problems in foot that make it difficult to walk for a long time.
- Household member who cannot walk for long periods of time or climb steps easily.
- Back problems because of arthritis that, when inflamed, make it difficult to walk and climb stairs.
- Occasional difficulty walking or climbing stairs due to the "strain of it."
- Recent foot surgery causing momentary difficulty with stairs.
- Foot injury that causes some pain but is debilitating.

Three of the 43 Group 2 participants answered that they (or a household member) had "a lot of difficulty" walking or climbing steps. The reasons for these participants' answers include the following:

- Disability from a past accident and arthritis causes knee and hip pain.
- Disability since birth that has affected household member's ankle and affects their ability to walk and climb steps.
- Household member that must use walking stick and is not allowed to climb stairs.

All of these participants employed methods cited under research question 1 to determine whether they should select "Some difficulty" or "A lot of difficulty." For example, the participant with knee problems only selected "Some difficulty" because their knee is not always inflamed, and thus, they do not always have difficulty climbing steps. Those who selected "A lot of difficulty" primarily focused on their personal assessments of the severity of their condition.

(9) For those who reported "no difficulty" to 19a, what do they think "difficulty walking or climbing steps" entails?

Thirty-two out of the 43 Group 2 participants reported having "no difficulty" walking or climbing steps. These participants tended to discuss what "difficulty walking or climbing steps entails" either in terms of the physical conditions or ailments that may cause a person difficulty or in terms of the type of assistance one may need to climb steps.

- "Ambulatory issues. If someone is not full bodied or their body doesn't work."
- "You have to use a cane or some sort of wheelchair."

- "I associate this with older folks. People with arthritis or those who need walks or have other health or weight issues."
- "If you are in pain or you need assistance such as using a cane or walker; if you struggle at all."
- "I took that to mean do you have any type of arthritis or some type of disability that prevents you from walking, bending your needs, things in that nature."
- "I think it means mobility issues, like you have to use a walker, you have to use a cane, you have to take an elevator."
- "I would imagine it would mean having a great deal of pain or problems with balance. If you had pain putting weight on your limbs to climb stairs or [if you had] a disability."

One participant stated that they felt question 19a was "very clearly intended for older people who may have pain when walking." This participant found the question inappropriate and worried it could be used to discriminate against someone based on their age.

(10) What are the characteristics of participants who interpret "climbing steps" as something uniquely different from stairs?

Ten out of the 43 Group 2 participants interpreted "climbing steps" as something uniquely different from "climbing stairs." Five of these participants felt that "stairs" and "steps" differ in terms of their intensity—"steps" refers to just a few steps, such as steps onto the porch of a house, whereas "stairs" refers to a full flight of stairs that moves you between floors in a building.

- "Stairs is a bit more intense than steps. A full flight of stairs is one thing – longer and requires more duration. Steps is vaguer – just a few steps."
- "When I think about stairs, I think about going upstairs in the house, and that's like 12 steps. When I read "steps" I thought of going down the front steps of the house, which is only 3 steps."

Of these five participants, three were male and two were female. Their ages ranged from 21 to 65 years old, and they had between a high school diploma and a master's degree. A demographic pattern among those who interpreted "stairs" and "steps" differently did not emerge. One of these participants answered "Some difficulty" for their household member who has trouble climbing steps because of arthritis. This participant did not mention the number of stairs in describing how they decided to select their response, however, because the determining factor of difficulty was back pain rather than the intensity of the stairs. The other four participants answered "No difficulty."

The other five participants interpreted "steps" to refer to what you do when you walk—that is, taking a step to move forward—and "stairs" to refer to moving up an incline by climbing a series of steps.

- "Stairs and steps are different. Stairs are mainly up and down, like a flight of stairs, and steps are when you are walking horizontally – taking steps."
- "Steps are different than stairs. Steps are what you take every time you walk, while stairs are what you go up or down."

Of these five participants, three were female and two were male. Their ages ranged from 26 to 65 years old, and they had between some college and a bachelor's degree. No demographic pattern among those who interpreted "stairs" and "steps" differently emerged.

Three other participants felt that the operative word in the question was not "stairs" or "steps" but instead "climbing."

- "I think the word climbing is the word that sets it off…Climbing steps is still walking up stairs. but climbing stairs, I think of a longer haul. Steps doesn't sound as bad, but it depends on the word you put it with. Climbing steps or climbing stairs, you're climbing. You're not just walking up them. You're grasping onto the guardrail because you're using it to pull yourself up. Climbing like you're climbing a tree. Climbing is a strong word."
- "There's a difference between walking and climbing stairs. Climbing stairs takes more effort than walking. Walking is taking steps."
- "Stair and steps mean the same thing, but I could see other people misinterpreting it as just taking steps vs. actually climbing steps, but since you put it with climbing, I associate it with stairs."

(11) Do the participants read/hear and understand the question preamble in responding to difficulty with "doing errands alone such as visiting a doctor's office or shopping" (Q20/Q27)? In other words, do participants report difficulty with errands for reasons other than health or disability?

Two out of the 43 Group 2 participants answered this question with something other than "no difficulty." One of these participants reported "some difficulty" because of physical conditions—difficulty they have moving on their own without being fatigued—and the other participant reported "cannot do at all" for their daughter for whom the participant must provide all her needs. Thus, this participant was reporting on both mental, emotional, and physical conditions.

When asked, the other participants described the preamble to be instructing respondents to include difficulties one may have because of a physical disability, such as mobility or respiratory issues, a mental disability, such as dementia or down syndrome, or an emotional disability, such as depression or anxiety.

- "I look at that like PTSD. Can't be out by themselves. Maybe they have emotional conditions, [and they're] scared to be out."
- "If you required help for everyday errands or transportation or if you have limited mobility. Issues with transportation could be because you're disabled, a senior, have mobility issues, blind, or can't drive. Mental health could be a psychotic condition, or if you're unable to fill out forms or sign for yourself."
- "We talked about physical, so maybe you're someone who is newly disabled or newly handicapped. You've been injured. Or someone on the mental/emotional side, like people who have support animals. I was thinking along those lines."

Thought most participants indicated their answer would not have changed if the preamble had been removed from the question, most participants noted that the preamble caused them to carefully consider their response and think about each type of disability listed in the question.

- "I would have responded the same way but I would not have been thinking about all of the things I mentioned earlier [anxiety, communication issues, physical mobility]. The phrase made me consider all of those things, otherwise, I wouldn't have thought much about it."
- "Yes, it would have made me think of the question differently. My answer would still remain the same but I would have otherwise just thought of physical ability and not the emotional/mental component."
- "I don't think it would make much difference to me. Whether it's because of physical pain or emotional distress or mental confusion, it all comes down to 'Are you able to function' and the answer is yes or no or to some degree. I do think it's a good phrase to put in there. I think that by putting the phrase in there, it allows the person to

figure out if I have any of these categories does that impact my answer whereas if you didn't have that phrase in there, they might say 'I can't do it at all because I don't have transportation.' Or I don't have money, I don't have bus fare. So yes, you need that phrase."

(12) Do participants associate particular conditions with difficulty concentrating or remembering (Q19b/Q26b)?

Twenty out of the 43 Group 2 participants indicated that they associated Alzheimer's and dementia with difficulty remembering or concentrating. Below are the other conditions mentioned by participants, with the number of participants who mentioned each item in parentheses:

- Adolescent Epilepsy (1)
- Age-related issues (i.e., old age) (6)
- Attention Deficit Disorder (ADD)/Attention Deficit/Hyperactivity Disorder (ADHD) (6)
- Depression/anxiety (5)
- Brain injury/trauma (2)
- Mental health issues (not depression or anxiety) (1)

One participant answered, "no difficulty" for themselves despite having an attentive deficit disorder because they felt the question wanted to assess if respondents had "Alzheimer's or something more formidable in terms of remembering and concentrating." This participant felt that their attentive deficit diagnosis was not applicable here because they had medication they could take and tools they could use to help herself stay concentrate and stay focused. They felt this differed from a disease such as Alzheimer's for which the person is unable to combat the effects of the condition.

6.3.2 Spanish Interviews Findings

(1) If participants reported any difficulty, how did they choose their specific response category? Why did they not choose a different response category?

Most of the 26 Spanish participants administered these questions did not explain why they chose one response option over another. Those who did provide an explanation seemed to be thinking of situations that would constitute more difficulty or more frequent difficulty than they experience. For example, if they chose "some difficulty," they explained a worse situation, or a more disabling or more frequent difficulty would warrant answering "a lot of difficulty".

- One participant said that their mother had difficulty seeing even while wearing glasses, because diabetes has changed her vision. The participant's mother was trying to find a new prescription that would work better. The participant said she chose "some difficulty" over "a lot of difficulty," because the mother only wears glasses to read.
- Another participant said they chose "some difficulty" because sometimes their knees hurt but not all of the time.

(2) What types of disabilities/conditions are being identified for children when the response indicates difficulty with communication?

Only one of the 26 Spanish participants reported having a child who had difficulty communicating in his usual language, because he has Down syndrome:

- This participant told the interviewer that the son has ”a lot of difficulty” communicating. This person explained that the son is a first grader with Down syndrome and speaks using only a few scattered words.

(3) Do bilingual participants understand we are not referring to mastering English as a second language?

Almost all the 26 Spanish-speaking participants understood that the question about communication using the language they ”speak best” was not asking about difficulties in English but rather about difficulty communicating in what participants called their ”native language” or ”mother tongue,” in this case, typically Spanish:

- One participant explained their understanding of what language they ”speak best” referred to by saying “El que domina usted, el que más domina.” [The one you master, the one you are most proficient in.]
- Another participant said it means the language they use to communicate and that it means having issues communicating in their own language.

Two of the 26 Spanish participants, however, did understand the question as asking about the ability of individuals in their household to communicate in English, even when that person’s primary language was Spanish.

- One participant seemed to understand the question as being dependent on where you live and thought that English was the language to which the question referred for those living in the United Statues. This person said, “If you speak the language where you are, English. It means if I can communicate, express myself, and if I can understand what the other person is expressing in the language.”
- Another participant said during probing that they initially understood the question as asking about the ability to communicate in English, and that they would have answered the question incorrectly.

One Spanish participant also had an issue where they apparently chose Spanish as the ”speaks best” language for the whole household because it was what this person spoke. They answered that others in the household had difficulty speaking Spanish because they were English dominant.

- This participant said they were thinking about Spanish when answering for the other members of the household, as that is the language that this person speaks. The participant indicated their husband had ”some difficulty” communicating because he grew up in the United States and sometimes does not know the meaning of specific words in Spanish.

Because only two of the 26 participants misunderstood the intent of the question on difficulties communicating, the analysis cannot assess patterns of misinterpretation by type of participants.

(4) Do participants clearly and consistently understand the text “washing all over” as a more broad/inclusive description of bathing?

When asked about their understanding of “washing all over,” all 26 participants included bathing as part of their understanding of the term.

- One participant said, “Cuando se baña uno.” [When you take a bath.]
- Another said that it included taking your time in the bathtub or shower, cleaning all your parts, and simply getting clean.

Three of them had a slightly broader understanding, which included other personal hygiene and cleaning, most commonly brushing one's teeth.

- One participant said "…pues todo yo creo, ¿no? La cabeza, todo el cuerpo, la boca, todo el cuerpo." ("...well, I think everything, right? The head, the whole body, the mouth, the whole body.)
- Another said it meant "bathing, washing my hair, my feet, my nails"
- Another said, "el aseo, el bañarse, lavarse los dientes, tener cuidado, higiene [cleaning up, bathing, brushing your teeth, personal care, hygiene].

(5) Do people react to the text "washing all over" as sensitive, awkward, or embarrassing?

No discomfort was observed by interviewers during any of these interviews, and no one commented on the phrasing as being awkward or embarrassing.

- The interviewer for one case noted that the "Participant did not seem uncomfortable answering these questions."
- Again, the interviewer for another case noted "Participant did not feel uncomfortable about answering these questions for himself nor for the other household members"
- The interviewer of a third case also noted "No noticeable discomfort at all."

In Spanish paper mode cases, the interviewer often could not observe facial expressions because the video image of the participant could not be observed while screen sharing on Teams. Some of the CAI interviews also had technical issues that prevented the interviewer from seeing the participant's face while they responded. However, interviewers also paid attention to verbal cues that could have suggested discomfort.

(6) Does emphasizing the words "self-care" to the question change how participants interpret or respond to the question?

In the paper mode, the four participants who were asked the question with the words "cuidado personal" in all caps (CUIDADO PERSONAL) and the four who received the version of the question with the words in sentence case (cuidado personal) provided similar responses to the question and similar interpretations during probing.

- When asked about what they understood by "cuidado personal" (self-care), one participant who received Version 2 (without the emphasis), explained that it refers to people who cannot bathe themselves or cannot get into the shower. "This could be due to depression. Or it could be a combination of both, emotional and physical difficulties."
- Similarly, another participant who received Version 1, with the emphasis on "CUIDADO PERSONAL" said they understood the terms as referring to people who cannot perform basic functions or who have limited mobility because of depression or other diseases.

(7) Do participants answer this question based on "self-care" tasks outside of washing and dressing (and if so, which ones)? Does this vary based on which version of the question they receive (i.e., "self-care, such as" vs. "SELF-CARE, for example")?

When asked about examples of activities they considered in relation to difficulty with "cuidado personal" (self-care), most participants used examples that fell under washing or dressing themselves.

- One of the four participants who received Version 2 said, "If I have difficulty bathing myself, washing myself, getting inside the bathtub."
- One of the four participants who received Version 1 said, "Pues lavarse, bañarse, cepillarse, todo lo que requiere limpieza personal." [Well, washing, bathing, brushing, everything that is required for personal cleanliness.]

Some participants, however, included things like hair brushing, doing one's own make-up or nails, and washing your clothes as being part of "cuidado personal" (self-care).

- One participant who received Version 1 said, "Sí, los zapatos, cuando uno se peina, cuando me pongo las pestañas o el maquillaje, las calcetas, todo eso." [Yes, put on my shoes, when I do my hair, when I put on eyelashes or makeup, socks, all that.]
- Another participant who received Version 1 said, "Bañarme, vestirme, arreglar mi pelo, mis uñas" [Having a shower, get dressed, do my hair, do my nails].
- Anotherwho received Version 1 also included having clean clothes as part of 'cuidado personal' (self-care), "Pues no bañarse, no vestirse, no cambiarse, no lavarse su ropa, no asearse." [Not bathing, not getting dressed, not changing your clothes, not washing your clothes, not cleaning up.]
- One participant who received Version 2 even went as far as including things like cleaning and organizing the home as part of "cuidado personal" (self-care), saying, "One's cleanliness, our room's cleanliness, our bathroom's cleanliness, how we have organize each one of our things; this is personal cleanliness."

(8) For those who reported anything other than "no difficulty" to 19a, what are the actions or circumstances that caused them to answer as they did?

Participants reported "some difficulty" for a household member in eight of the 28 Group 2 Spanish interviews.

- One participant said recent eye surgery is the cause of having some difficulty.
- Inadequate prescription glasses was another reason, "Because my glasses are no longer good."
- A participant reported difficulties for unknown reasons: "Sometimes I sit down to read, and I can't see so I have to put on my glasses. When I wear glasses, I can see a bit better."
- In one household three household members were reported to have "some difficulty" seeing even when wearing glasses, but for different reasons. One person suffers from an eye disease that has worsened with age. This person has difficulty reading. This person wears glasses, but because he is not used to wearing glasses all the time, he still has difficulties. Another person has difficulties because of aging. This person wears reading glasses, but even with those she has some difficulties when reading for a long time, as her eyes feel tired. The third person has a problem focusing and can only do so by tilting his head.
- Another participant reported some difficulty because of diabetes. They are waiting to see if insurance will cover new glasses.
- Another case of diabetes was reported where the person is still adjusting the lens prescription.

- In another case, a person who is shortsighted but does not wear glasses was reported as having some difficulty.

There was one case of response error:

- One participant said they have some difficulty reading small letters or price tags. This person thought the question was asking about seeing without wearing glasses. During probing, they said that when wearing glasses, they have no difficulty.

No one answered that someone had a lot of difficulty or that they were completely unable to see.

(9) For those who reported "no difficulty," what do participants think "difficulty walking or climbing steps" entails?

The definition of difficulty walking or climbing steps focused on a person's ability to go up or down stairs, but also on difficulties walking or moving around. The causes listed varied from physical to emotional ailments, but generally focused on pain while doing the activity.

Some definitions focused on defining the difficulty itself:

- A participant answered, "Que una persona tenga dificultad para la movilidad" [That a person has trouble moving around], and added, "subir escalones es como tener dificultad en el desplazamiento" [climbing steps is like having mobility difficulties].
- To another participant, the phrase means that someone can have difficulties to walking up steps because of issues with the knees or hips.
- One participant defined it as someone who really has real trouble walking, that cannot even take 10 steps.
- Another participant simply said it is having physical difficulty.

Other definitions focused on the need for walking aids or being assisted.

- A participant answered: "Cuando a uno le duele no, los huesos o el músculo. O cuando usa también alguna ayuda como una andadera o algo así, muletas o un bastón." [When your bones or muscles hurt. Or when you use some help like a walker or something like that, crutches or a cane.]
- Another participant said that is when somebody has to use a cane or a handrail.
- Another participant defined it as, "Que tenga algún problema para que tu puedas ejercer esos movimientos, pero mientras no los hay, no necesitas un bastón, no necesitas nada y puedes hacerlo bien." [Having some problem so that you can execute those movements, but as long as there aren't any, you don't need a cane, you don't need anything and you can do it just fine.]
- Another participant answered, "Que no pueda, que le duelan las rodillas o que necesite usar muletas, que tenga que tener una silla de ruedas." [That the person just can't do it. That the person suffers from knee pain, or uses crutches, or a wheelchair.]
- Another participant said, "Cuando hay dificultad es porque en realidad necesitas ayuda para subir o bajar." [When there is difficulty, it is because you actually need help going up or down.]

Finally, others referred to the reason for the difficulty.

- One participant felt this applied to people who get short of breath when climbing up steps because of a medical condition.
- Another one said there are people who are on wheelchairs or have other health conditions and cannot climb up stairs.

- Another participant thought of a person who had surgery or someone who has a knee that is not working well, or they have body pains.
- And another one said that they do or do not have pain.

(10) What are the characteristics of participants who interpret "climbing steps" as something uniquely different from stairs?

Although just over half (14 out of 26) of the Spanish speakers understood "subir escalones" as synonymous of "subir escaleras," some Spanish speakers understood *escaleras* as ladders but not as stairs.

Central American participants were more highly represented among those who thought the two terms mean the same.

- Among the 14 participants who said *escalones* and *escaleras* mean the same, six were of Mexican origin, one of South American origin, four of Caribbean origin, and three of Central American origin.

There were 12 participants who made a distinction between *escalones* and *escaleras*. Nine of them defined *escalones* as stairs and *escaleras* as ladders, and all but one were of Mexican origin. These were their definitions:

- "Para mí escalones es como los que tenemos en el hogar, en apartamentos normales, y escalera es cuando tú tienes que subir, por ejemplo, cuando los bomberos están usando una escalera para apagar el incendio, o una escalera para reparar algo, que ahí no puedes usar los escalones." [For me *escalones* (steps) are like the ones we have at home, in normal apartments, and *escaleras* (ladder) is when you have to climb for example, when the firemen are using a ladder to put out the fire, or a ladder to repair something, when you can't use the steps.]
- One participantparticipant said they are different, because steps can be indoors or at the entrance whereas *escaleras* could be the ones used to reach to the roof.
- One participant thought *escalones* is a better option for the question, because *escalera* could also be interpreted as a ladder.
- One participant said *escaleras* are the ones used by contractors to fix roofs.
- Another participant said the terms are different because *escalones* are stationary, and *escaleras* can be something mobile.
- Similarly, one participantsaid, "Escalones son para subir a una casa o departamento o algo que este fijo, y una escalera es algo que se puede mover para alcanzar algo." [Steps are used to climb up in a house, an apartment or something that is fixed whereas "escalera" is something that can be moved and is used to reach something.]
- Another participant explained that *escaleras* tend to be more inclined, and escalones have more space to place the foot.
- Another participant said that *escaleras* do not have a handrail you can hold on to, you put them against the wall to work on something, whereas with *escalones* you can hold on to the handrail.
- The participant from a Central American country explained, "Escalones son los que están hechos para los edificios y las escaleras son las que se usan en algún trabajo específico como en construcción. Por ejemplo, si necesitan construir techo o poner ventanas, usan esas escaleras." [Steps are the ones made for buildings and stairs are the ones they use in some specific occupation like in construction. For example, if they need to build a roof or install windows.]

The remaining three participants shared a few other interpretations.

- A Caribbean participant said that she does not use the word *escalones*, but she understands it. For this respondent, it is *escaleras* that one climbs to go into a home or store.
- A participant from South America answered that the terms are different and that *escalones* means three or four stairs, whereas *escaleras* is higher than *escalones* and has more steps.
- A Mexican participant preferred *escalones*, which to them meant a few steps, whereas *escaleras* are flights of stairs like the ones in a building without an elevator.

(11) Do the participants read/hear and understand the question preamble in responding to difficulty with "doing errands alone such as visiting a doctor's office or shopping" (Q20)? In other words, do participants report difficulty with errands for reasons other than health or disability?

Most participants read or heard and understood the question preamble and took it into account in their response. This was evidenced in examples they provided and in their responses to probes. Two participants reported someone with difficulties because of physical, mental, or emotional reasons.

- A participant reported some difficulty for a household member, "porque tiene que ir con una persona para que la ayude… a entrar al carro, salir del carro… Eso es debido a su discapacidad." [because she has to go with a person who can help her… to get in the car, to get out of the car… This is due to her disability.]
- Another participant reported some difficulty and explained that they have a condition and, as a result, sometimes has trouble getting oriented. This participant said in those situations they turn on the GPS and try to remain calm.

Two Spanish participants answered in error. They gave false positives ("some difficulty") because they did not take the preamble into account.

- The first participant said for themself that they do not drive a car and sometimes riding the bus is complicated. During probing, they reread the question and said they would change their answer to "no difficulty."
- The second participant realized during probing that he had misreported about a household member. He has no difficulty doing activities on his own such as going shopping, running errands, or going to a doctor's office. The participant originally thought the question was about medical or emotional conditions that created difficulties for him, in general, which does apply to him because he suffers from serious, chronic depression.

There was one participant whose response is hard to classify. This person reported some difficulty saying that they have a hard time going to the doctor. Sometimes a sister gives the participant a ride, but sometimes she cannot. The issue that causes difficulty is that the participant does not understand directions and does not know how to write. When the sister cannot help, this creates difficulty. It appeared that this participant has a literacy issue that creates this difficulty.

Two of the cases described above (the person for whom riding the bus is complicated and the person who does not understand directions and cannot write), could be reflecting cognitive disabilities. However, their difficulties are also common in monolinguals who do not speak any English and have very low levels of education. There is not enough information to assess whether these were cognitive difficulties.

(12) Do participants associate particular conditions with difficulty concentrating or remembering (Q19b)?

Spanish participants cited a number of conditions as potentially creating difficulty concentrating or remembering. Nine participants mentioned Alzheimer's and three mentioned dementia.

For concentration in particular, three participants mentioned attention deficit disorder.

Additionally, two participants mentioned old age.

There were also single mentions of the following:

- Being too busy, without an underlying medical condition
- Lack of sleep
- Lack of discipline (no focus)
- Stress and anxiety
- Drug and alcohol use
- Epilepsy
- Coronavirus effects
- Mild cognitive impairment
- Effects of bacterial meningitis
- Asperger's syndrome

6.3.3 Version 1 Findings by Mode[6]

a. Paper Mode – English

Four of the 23 paper participants indicated they had "some difficulty" either seeing or hearing. One of these participants, who indicated they had some difficulty hearing, noted that the phrase "even when wearing a hearing aid" was important for their response. When not wearing a hearing aid, this participant has a lot of difficulty hearing but only some difficulty when wearing a hearing aid. Another participant indicated they had some difficulty seeing. Because of their astigmatism, they have difficulty seeing even when wearing glasses. All other participants selected "no difficulty" with seeing or hearing.

One participant selected "cannot do at all" for question 18a and explained that they were born with a condition affecting their retinas, so they could not see at all if not wearing glasses. This participant also selected "some difficulty" for hearing even when wearing a hearing aid. The participant did wear a hearing aid but noted that there were certain situations, such as when traveling or walking on foot, when their hearing aids would react to loud noises and disturb their orientation, making it difficult to navigate basic situations. This participant selected "some difficulty" rather than "a lot of difficulty" because their hearing aids were very beneficial in most situations. The other participant indicated that their mother had "some difficulty" and, at times, the participant would have to shout for her to hear them, even when wearing a hearing aid.

[6] Note that results for all disability items that did not differ between versions are discussed here (18a, 18b, 19a, 19b, 19d, 20). Version 2 findings focus specifically on results from item 19c.

Seven of the 23 paper participants noted that they or another household member had at least some difficulty walking or climbing steps. These participants cited arthritis, knee and hip pain, lifelong disabilities, and general strain of climbing steps as reasons for indicating they selected at least "some difficulty." One participant incorrectly answered questions 19a–19d for his 2-year-old daughter. This participant answered, "some difficulty" for their daughter because "she is still really young, so she needs help." Two of these participants answered "Some difficulty" because of recent foot injuries that are limiting their ability to walk or climb steps. These participants selected "some difficulty" because they anticipated a full recovery with no future issues. The other participant answered "A lot of difficulty" for their mother because she uses a walking stick to move around is not allowed to climb steps on her own.

Six of the 23 paper participants felt there was some difference between "stairs" and "steps." Two of these participants felt there was a difference in intensity between the two with "stairs" referring to a full flight of steps between floors of a building and "steps" referring to just a few steps. The other four participants felt "steps" referred to taking steps when moving around (i.e., not going up a flight of stairs), whereas "stairs" referred to a series of steps between floors of a building. Another participant felt "stairs" and "steps" were the same but that "stairs" was more commonly used.

When participants were asked to name health conditions that make it difficult to remember or concentrate, the most common responses were Alzheimer's and dementia. Other responses included old age, ADHD, Parkinson's, autism, brain injuries, and intellectual disabilities.

Three participants indicated that they or another household member had at least some difficulty with self-care. One of these participants responded that they had "some difficulty" because their disability has reduced their stamina to such a degree that bathing uses up all of their energy, regardless of how they bath (i.e., sponge bath, shower, or tub). Another participant answered "A lot of difficulty" for their child with disabilities because their daughter requires a caregiver to help her with personal hygiene and taking care of herself. The other participant answered "some difficulty" about his relative who has been disabled since birth and at times has trouble with self-care tasks. This participant indicated the household member can do some things on his own, and some days are better than others, but he does have at least some difficulty with self-care and typically requires some assistance. Nearly all participants understood "washing all over" to generally refer to bathing; however, one participant felt this phrase also included doing laundry and cleaning one's house.

All participants understood "usual language" to refer to the language one uses in their day-to-day life. Participants also referred to this as their "primary language" or "native language." Participants felt this question was asking about disabilities, whether they be physical or mental, that may interfere with a person's ability to communicate with others and was not asking about bilingual speakers mastering English as a second language. One participant reported that their daughter had "some difficulty" communicating "because she is a slow learner and mixes up her words." No other participants indicated they or another household member had difficulty with communication.

Finally, all participants answered the question about difficulty they or household members have doing errands alone. Participants understood the preamble to this question to include all physical, mental, or emotional conditions that may make it difficult for a person to go out alone. One participant noted that they did not know the difference between "mental" and "emotional" conditions. This participant had a difficult time providing distinct examples of

those types of conditions. Despite this, the participant was able to easily for themselves because physical conditions are what limit their ability to do errands alone and not emotional or mental conditions. Another participant answered, "no difficulty" for their husband but noted that the question uses the term "visiting" and not "driving." According to the participant, their husband does not have difficulty visiting a doctor's office but does have difficulty driving. Had the question included the term "driving," they would have answered "some difficulty."

Most participants indicated that their answer would not change if the preamble to the question were removed; however, one participant felt it was a good phrase to include to ensure respondents think about each of these types of conditions when formulating their response. Another participant indicated that the preamble would make them think carefully about their response to include conditions that fit into any of those categories. Two participants incorrectly answered this question about children in their household under the age of 15.

One participant, who was a parent of a child with a disability, commented that this section could be improved by asking a single question—"Is this person disabled?"—rather than a series of questions about the ways in which their child is disabled. This participant answered at least "some difficulty" for all questions about her daughter. Answering several survey questions and probes about her daughter's disabilities may have triggered a sensitivity issue for this participant.

- "My daughter has [condition]. Between the disability and the medications they have her on, there's a lot of things she struggles with. So, I think that this question should be, 'Is this person disabled?' That would wipe out all these extra questions."

b. Paper Mode – Spanish

For question 18a, of the eight Spanish participants interviewed in paper mode, one responded in error about a person in their household. This participant responded "some difficulty," which was incorrect. During probing, this participant said that the person has no difficulties when they wear their glasses.

For question 18b, none of the eight participants reported anyone in the household with difficulties hearing.

Participants answered questions 19a, 19b, 19c, and 19d without apparent errors. Their explanations of why someone has difficulties with one of the activities in the questions were reasonable and supported their survey responses. A few examples illustrate this.

- The only participant reporting some difficulties explained that they had a fall a month before and would experience great pain when going up or down the steps. So, for now they only reported some difficulties, because the pain has mostly subsided.
- In question 19b, two participants reported some difficulties remembering or concentrating. One of them said a son, who has a congenital condition affecting his brain, has difficulty both concentrating and remembering. He gets very frustrated and needs to be calmed down so he can control himself and concentrate.
- The other report was from a participant who explained that their fibromyalgia affects the peripheral brain system, and this has an effect on recent memory. This person sometimes remembers things from the past but has trouble with more recent memories. "Me afecta la cantidad de memoria a corto plazo. A veces no recuerdo lo que hice ayer." [It affects me in how much short-term memory I have.]
- For question 19b, a participant reported a lot of difficulty. This person explained that they suffer from lingering effects of a bacterial infection contracted in 2010. As a

result, they have a lot of difficulties concentrating, remembering things, and orienting herself. This person added, "A veces ni siquiera se dónde estoy." [Sometimes I don't even know where I am.] This same participant reported a lot of difficulty concentrating for her son, who has an autism spectrum disorder and attention deficit disorder.

- In question 19c, only one Version 1 participant mentioned difficulties with personal care. The participant whose son has an autism spectrum disorder reported he has a lot of difficulty with his personal care. She explained that he sometimes has difficulty even with cleaning himself after using the bathroom. His hands are stiff, which makes it difficult sometimes to wash himself in the shower.
- For question 19d, a lot of difficulty communicating was reported for the son with the autism spectrum disorder who has trouble expressing emotions or feelings and for the son with the congenital brain condition.
- The participant in that same case reported some difficulty for themselves because they sometime do not know how to express themself and find it difficult to speak to others.

For question 20, three participants reported some level of difficulty doing activities by oneself because of physical, mental, or emotional reasons. One of these participants reported correctly and two reported incorrectly. These three cases are discussed above in the General Findings.

c. CAI Mode – English

Seven of the 21 CAI participants indicated they or another household member had "some difficulty" seeing. One of these participants noted that they responded in this way for themself and their son because their current glasses prescriptions need to be updated. Thus, even when wearing their glasses, they have some difficulty seeing. Another participant had a little bit of trouble deciding how to answer this question because they wore contacts instead of glasses. This participant eventually decided that "glasses" and "contacts" were interchangeable for the purposes of this question. The participant indicated that, for the most part, they did not have trouble seeing when they were wearing their contacts, but sometimes they did have difficulty seeing things that were far away. This participant felt the question was trying to assess if they were visually impaired in any way. Therefore, because they wears contacts to see, and their vision is not perfect when wearing their contacts, they answered, "some difficulty." Another participant explained that they have an issue in which their eyes are "bloody" in the morning. This participant indicated they had "some difficulty" seeing because their condition was not very severe.

Four of the 21 CAI participants noted that they had some difficulty walking or climbing steps. One indicated this difficulty was because they were overweight and walking and climbing steps makes them short of breath. Another participant answered "some difficulty" because she had gout in her knee that sometimes caused her pain when going up and down stairs. Another participant indicated he had nerve problems in his foot that made it difficult to walk for long periods. The other participant indicated that his month had some difficulty because she is getting older and can no longer walk for long periods or easily climb steps.

Six participants felt there was a difference between "stairs" and "steps," though their interpretation of the difference between them did not align. Three of these participants felt "stairs" referred to a flight of stairs to move between floors of a building whereas "steps" referred to a small number (i.e., three) of steps used to enter or exit a building. Two participants felt "steps" referred to taking steps to move forward whereas "stairs" referred to moving up an incline. Another participant felt there was a difference between the terms

but did not explain what he felt that difference was and indicated that his answer would not have changed if the terminology had changed. One participant felt this question was "inappropriate" as it was "very clearly intended for older people who may have pain when walking." This participant felt the question would be used to discriminate against someone based on their age.

When participants were asked to name health conditions that make it difficult to remember or concentrate, the most common responses were Alzheimer's and dementia. Other responses included old age, ADHD, brain injury, trauma, severe depression, anxiety, schizophrenia, and bipolar disorder. One participant answered, "no difficulty" for themselves despite having ADHD because they felt the question wanted to assess if respondents had "Alzheimer's or something more formidable in terms of remembering and concentrating." This participant felt that their attentive deficit diagnosis was not applicable here because they had medication they could take and tools they could use to help herself stay concentrate and stay focused. They felt this differed from a disease such as Alzheimer's for which the person is unable to combat the effects of the condition.

One participant answered that they had "Some difficulty" with self-care because their depression sometimes made her "let her hygiene go such as no showering or dressing or taking care of herself hygienically." All participants understood "washing all over" to generally refer to bathing and dressing; however, three participants thought of activities beyond personal hygiene when they heard the phrase "self-care." These participants included activities such as housekeeping, running errands, and preparing meals. One participant stated that they did not consider washing all over and dressing to be self-care. Instead, self-care included the "more auxiliary things we do for our health. Like, meditating, or taking a nice bath, cleaning your nails. Doing things that make you feel good…more emotion and mental than physical." This was the only participant who disagreed with the definition of "self-care" as including bathing and dressing. This participant answered "No difficulty" for herself and the other member of her household. Note that this probe was asked before the following probe, which asked participants to describe their interpretation of "washing all over."

All participants understood "usual language" to refer to the language one uses in their day-to-day life. Participants also referred to this as their "family language," "everyday language," or "native language." Participants felt this question was asking about disabilities, whether they be physical or mental, that may interfere with a person's ability to communicate with others and was not asking about bilingual speakers mastering English as a second language. One participant noted that they recognized the intention of this question and answered according to that intention; however, the phrase "usual language" made them think of their style of communication. The participant felt this question sounded emotional compared to other questions in this series. This participant lived with their mother and thought about the trouble she and her mother often have communicating because of their different styles of communication and not because of a disability that may limit her ability to communicate.

Finally, participants answered the question about difficulty they or household members have doing errands alone. Participants understood the preamble to this question to include all physical, mental, or emotional conditions that may make it difficult for a person to go out alone. These conditions included chronic pain, broken limbs, anxiety, depression, panic disorders, or mental illness. All participants indicated that their answer would not change if the preamble to the question were removed; however, one participant indicated they would have thought only of their physical ability when answering and not her emotion or mental

abilities. Another participant felt the preamble "really spell[ed] it out for you to address all those areas."

d. CAI Mode – Spanish

For question 25a, participants who reported some difficulty in seeing provided explanations that adequately justified their responses.

- One participant mentioned a person in their household has an eye disease that has worsened with age. He uses glasses, but because he is not used to wearing the glasses all the time, he still has difficulties with the glasses on. The participant also reported some difficulty for themself. This person wears reading glasses, but even with those has some difficulties when reading for a long time because their eyes feel tired and need to rest. For the same household, another person with "some difficulty" is someone who must tilt his head to be able to focus.
- Another participant attributed the difficulty to having had eye surgery recently.
- A third participant has difficulty because the glasses no longer work well for them.
- A fourth participant reported some difficulty saying, "Sometimes I sit down to read, and I can't see so I have to put on my glasses. When I wear glasses, I can see a bit better."

Only one participant reported some difficulty in error. This person said they have some difficulty reading small letters or price tags. After further probing, this participant indicated that when wearing glasses, they have no difficulty.

For question 25b about difficulty hearing, only one participant reported some difficulty:

- This participant explained that a few years ago they went to the doctor because they were having a lot headaches and hearing some weird sounds inside one ear. They drained the ear and ever since this person has had ear infections many times and still hears noises in the ear. Sometimes different noises such as dripping water bother them and sometimes they just cannot hear. This participant said they chose "some difficulty" instead of "a lot of difficulty" because sometimes they can hear well.

For question 26a, seven participants reported some level of difficulty for household members walking or climbing stairs. Five of them were probed and found to be consistent with the answer the participant had picked: "some difficulty." Two participants were not probed.

- The participant uses a cane when walking because of health issues. She has had surgeries on her back and spine.
- The participant can walk and go up the stairs but needs to lean on the side. This person said they do not feel safe because of their age and feels unsafe going up and down.
- Another participant explained that because of a disability, they sometimes get tired when walking.
- Two other participants mentioned knee pain as causing their difficulty, one of them attributing it to arthritis.

For question 26b on difficulty remembering and concentrating, five participants reported some level of difficulty and provided consistent reasoning.

Five participants reported "some difficulty." Some were not very specific.

- "Because I forget things and I don't remember things."

- "Well, I forget things… I immediately do not remember where I left something, but then I remember it later. It doesn't happen very often."
- "Like I memorize something, and it goes away."
- "Sometimes she forgets thing and doesn't remember where she put things."

The fifth participant reported some difficulty for themself. This person said sometimes when they are doing something and thinking about something else, they are not focused. The participant said they sometimes forget where they put things.

The same participant reported a lot of difficulty for her son who has Down syndrome. This person said they have to be very consistent with him because sometimes he does not do what he is instructed to do because he does not want to, and other times because he genuinely forgets.

For question 26c, the child with Down syndrome was reported to have a lot of difficulty with personal care. The mother explained that he can shower by himself, but he does not do it correctly, so she has to assist him. This participant added that he also needs help dressing.

For question 26d, most participants did not report anyone in their household with communication difficulties. They considered that the question referred to the language in which the person speaks better.

In one case it was difficult to be sure which language the person speaks better:

- A participant reported a lot of difficulty communicating for a disabled 6-year-old child who does not speak fluently and only says loose words. Although the child does not have a language in which he "speaks better," his mother was thinking about Spanish, which is the language of the home. However, in school they speak to the child in English.

Two other cases reported in error.

- One participant said that their husband has some difficulty communicating. This person said that he grew up in the US, so sometimes he does not know the meaning of certain words in Spanish, although he speaks both English and Spanish very well. When probed about which is the husband's dominant language, the participant had difficulty judging his English because they are not bilingual. However, they decided his dominant language must be English because he does his job in English.
- A participant who reported some difficulty did not interpret the question as intended. In responding, they were thinking of her strongest language, Spanish. However, they were thinking about difficulties understanding other people from different Spanish-speaking countries. The participant has a lot of friends from Central and South America, and sometimes it is hard to understand what they are saying because they use different vocabulary.

6.3.4 Version 2 Findings by Mode

a. Paper Mode – English

One participant indicated that two household members had at least some difficulty with self-care. The participant answered "some difficulty" for their 6-year-old daughter simply because she is young and needs some assistance with self-care. The participant also answered "a lot of difficulty" for his mother because she has difficulty washing her clothes and the participant's wife does this task for her. This participant included laundry in their

interpretation of "washing all over," but other participants understood "washing all over" to generally refer to bathing and dressing.

b. Paper Mode – Spanish

Two participants receiving Version 2 of the personal care question (19c) reported some difficulties and did so correctly.

- The participant whose son has a congenital brain condition reported that he can wash his hands but cannot shower or change his clothes by himself.
- The participant with fibromyalgia reported some difficulties with personal care because some days they need help brushing their hair, because they also suffer from carpal tunnel syndrome. They cannot wash their feet standing up in the shower.

c. CAI Mode – English

One participant answered that their daughter had "some difficulty" with self-care because she was a young child and not because of a disability. Another participant indicated that another household member had "some difficulty" with self-care because their mental health had been declining, and she was not interested in "taking good care of herself." Most participants understood "washing all over" to generally refer to bathing and dressing; however, a couple of participants expanded this to cleaning house and preparing meals. These participants included activities such as housekeeping, running errands, and preparing meals.

d. CAI Mode – Spanish

No CAI mode participants receiving Version 2 of the personal care question reported any difficulties.

6.3.5 Recommendations

RTI/RSS recommends the following to each of the disability questions:

(1) Difficulty seeing/hearing (18a/18b): No changes as these questions were understood well by participants.

(2) Difficulty walking or climbing steps (19a): Replace "steps" with "stairs." Participants who felt these words had different meanings interpreted "steps" to either be a small (three- to four-step) staircase or the steps one takes to move forward (i.e., walk). Because these interpretations divert from the intended meaning of the question, RTI/RSS recommends using the term "stairs." This recommendation is based on participant interpretation and understanding of the terms "steps" and "stairs" as these seemed to be the primary source of comprehension among participants rather than the verbs "walking" and "climbing."

(3) Difficulty remembering or concentrating (19b): No changes because this question was understood well by participants.

(4) Difficulty with self-care (19c): Rephrase question to read, "Does this person have difficulty with personal care, such as bathing or dressing?" as this terminology better aligns with the terminology used by participants and the Census Bureau's question intent. This narrows the scope of what participants may include in their response. With the current phrasing, some Round 2 participants included housekeeping tasks, exercising, running errands, and preparing meals.

(5) Difficulty communicating (19d): No changes. This question was understood well by participants as written.

(6) Difficulty doing errands alone (20): No changes. This question was understood well by participants as written.

Additionally, RTI/RSS recommends bolding the skip instructions in the paper mode of the questionnaire to help capture the attention of participants in navigating the disability question series.

Based on the findings about varying interpretations of the term *escaleras,* for Spanish versions RTI/RSS recommends keeping the word *escalones* in the question about difficulties walking or climbing steps. This recommendation is not in disagreement with the recommendation to use "stairs" in the English question. Our findings indicate that *escalones* has both the meaning of individual steps and of flights of stairs, depending on context. We have shown that for about half of the participants, *subir escalones* means the same as *subir escaleras.* For the other half, *subir escalones* means to climb stairs (whereas *subir escaleras* does not). Hence, if the question asks *subir escalones* in Spanish, pragmatically it is asking about climbing stairs for all participants.

RTI/RSS recommends keeping the introductory phrase in the questions on difficulties running errands because it potentially affects response.

7 Group 3 Findings

Forty participants completed interviews in Group 3, which focused on four main topics—electric vehicles, solar panels, commuting mode, and income and weeks worked.

Questions about electric vehicles are proposed to estimate the prevalence of electric vehicle ownership in the United States and to help with determining future energy needs. A single version of these questions was evaluated for terminology used for both fully electric and any other type of vehicles used that uses electricity.

The question on solar panels was designed to obtain data on operational solar panels at the housing unit level across the country. Currently, the only way to track use of solar panels for energy is to track unit sales. A single question was tested in Round 2 to determine if it could produce accurate responses on the presence of solar panels for each participant's housing unit.

The question about travel mode used most for commuting to and from work has been revised to incorporate the growing use of ride-hailing or ride-sharing. A single version of this response category was evaluated for terminology and to see how this new mode of transportation relates to the current "Taxicab" category.

Income and weeks worked questions were revised to reduce underreporting and bring them into alignment with other reference periods in administrative data. Multiple versions of these questions were evaluated for respondent comprehension and usability.

The distribution of Group 3 participants, broken out by language, mode, version, and recruitment criteria, is shown in ***Tables 2.25, 2.26*** (English), and ***2.27*** (Spanish).

Table 2.25: Group 3 Interviews by Language, Mode, and Version

Mode/ Language	English			Spanish			Total		
	Paper	CAI w/ show cards	CAI w/o show cards	Paper	CAI w/ showc ards	CAI w/o show cards	Paper	CAI w/ show cards	CAI w/o show cards
Version 1	10	4	6	4	5	4	14	9	10
Version 2	10	6	4	4	5	4	14	11	8
Total	**20**	**10**	**10**	**8**	**10**	**8**	**28**	**20**	**18**

Table 2.26: Group 3 English Interviews by Recruitment Criteria, Mode, and Version

Characteristic	Sub-characteristic	Paper Mode		CAI Mode		Total
		V1	V2	V1	V2	
Solar power	Residents of single-family housing units	9	7	5	6	**27**
	Residents of housing units with solar panels	3	2	3	4	**12**
	Residents of multi-unit buildings	2	3	4	5	**14**
Electric vehicles	Purchased a vehicle in the past 10 years	8	7	8	8	**31**
	Own/lease plug-in electric vehicle	4	3	3	3	**13**
	Own/lease non–plug-in or hybrid electric vehicle	2	2	2	2	**8**
Commuting mode	Use ride-share to get to work	2	2	2	5	**11**
	Alternate multi-passenger transportation	2	2	1	5	**10**
Income/weeks worked	Worked regular job/ schedule in prior year	1	2	3	3	**9**
	Adults with high school education or less	1	2	1	2	**6**
	Irregular workers in prior year	6	5	5	6	**22**
	Did not work in the prior year	4	3	2	2	**11**
	Earned self-employment income in prior year	2	4	2	3	**11**
	Earned net rental income in prior year	1	1	1	1	**4**
	Earned retirement income in prior year	2	4	2	1	**9**
	People who received unemployment benefits	1	4	1	1	**7**
	People who did work paid for in cash, including side jobs paid for in cash	4	4	5	6	**19**
	Received TANF or other financial assistance (other than SNAP) in prior year	1	2	3	3	**9**
	Received SNAP or public assistance benefits in prior year	2	4	3	4	**13**

Table 2.27: Group 3 Spanish Interviews by Recruitment Criteria, Mode, and Version

Characteristic	Sub-characteristic	Paper Mode		CAI Mode		Total
		V1	V2	V1	V2	
Solar power	Residents of housing units with solar panels	0	0	1	0	**1**
Commuting mode	Use ride-share to get to work	0	0	1	0	**1**
	Alternate multi-passenger transportation	0	0	1	0	**1**
Income/weeks worked	Worked regular job/ schedule in prior year	0	0	0	1	**1**
	Adults with high school education or less	3	4	6	7	**20**
	Irregular workers in prior year	3	3	5	4	**15**
	Did not work in the prior year	1	1	5	4	**11**
	Earned self-employment income in prior year	1	1	2	2	**6**
	Earned net rental income in prior year	1	0	0	0	**1**
	Earned retirement income in prior year	0	2	3	2	**7**
	People who received unemployment benefits	1	0	1	0	**2**
	People who did work paid for in cash, including side jobs paid for in cash	0	0	1	0	**1**
	Received TANF or other financial assistance (other than SNAP) in prior year	2	2	3	6	**13**
	Received SNAP or public assistance benefits in prior year	2	2	3	6	**13**

7.1 Electric Vehicles

In Round 2, a single version of the electric vehicle questions was tested—Version 2 from Round 1. This version is more specific than alternate questions considered, directing the participant to think about vehicles that were owned and leased. ***Table 28*** shows the two parts of this question. The Round 2 question asked specifically about hybrid electric vehicles only in the second part of the question (part b). Out of the 40 English participants who received these questions, eight endorsed ownership of any type of plug-in electric vehicle and six owned or leased a hybrid electric vehicle. Two participants reported owning both a plug-in and a hybrid electric vehicle, responding "Yes" to both questions. This produced a total of 16 participants who owned or leased at least one electric or hybrid vehicle. Most participants interpreted the electric vehicle questions as intended; only one participant answered the second question incorrectly, responding "No" when she did in fact own a hybrid electric vehicle.

The key research goals of cognitive testing were to determine the following:

(1) Are participants reporting hybrid vehicles that do not require connecting to an electrical source for charging?
(2) Are participants going to consider every household member that might own an eligible vehicle?
(3) Are participants accurately reporting vehicles that they have access to (i.e., someone in the household owns or leases)?
(4) What makes and models of vehicles are reported?

Table 2.28: Electric Vehicle Questions by Mode

Paper Mode	CAI Mode
At this house, apartment, or mobile home, do you or any member of this household own or lease any of the following types of electric vehicles? **a. A plug-in electric vehicle?** ☐ Yes ☐ No **b. A hybrid electric vehicle?** ☐ Yes ☐ No	**21. Are any of the following types of electric vehicles kept at home for use by members of this household?** A plug-in electric vehicle? A hybrid electric vehicle?
¿Se encuentra alguno de los siguientes tipos de vehículos eléctricos en la casa para que lo usen los miembros del hogar? **a. ¿Un vehículo eléctrico que se enchufa?** ☐ Sí ☐ No **b. ¿Un vehículo eléctrico híbrido?** ☐ Sí ☐ No	**21. ¿Se encuentra alguno de los siguientes tipos de vehículos eléctricos en la casa para que lo usen los miembros del hogar?** ¿Un vehículo eléctrico que se enchufa? ¿Un vehículo eléctrico híbrido?

7.1.1 English Interviews Findings

(1) Are participants reporting hybrid vehicles that do not require connecting to an electrical source for charging?

Eight Group 3 participants reported owning or leasing hybrid electric vehicles in Round 2. Of these eight, seven participants responded "Yes" correctly to part b, and one participant answered "No" in error.

- One participant who completed the survey in CAI mode answered "No" to both question parts but does in fact own a hybrid electric vehicle. This participant explained that she thinks of her hybrid vehicle as "energy efficient" but not an "electric vehicle": "I think the question is a little confusing because it starts with 'which of the following electric vehicles do you have' and when you hear 'electric' you usually think of a plug-in vehicle not a hybrid vehicle. It would have been clearer to me if the question asked, 'which of the following energy efficient vehicles do you have'".
- Two participants who completed the paper mode reported both a plug-in and an electric vehicle.

Overall, participants who reported owning or leasing a plug-in electric or hybrid vehicle were clear on the distinction between the two and responded correctly without difficulty. Only one out of the sixteen participants who reported owning or leasing any type of electric vehicle answered in error. When questioned as to how they selected a response, those reporting electric vehicles offered clear explanations:

- "Our type of vehicle is not a hybrid. It's a full EV – or electric vehicle – that plugs in. It's the only type of car we've had for over a year now."
- "Hybrid would mean that it has a gas engine as well, and it doesn't. It's all electric."
- "I know we don't have one (plug-in electric vehicle) because we put gas in the car and it says hybrid on the back."
- "It's a car that I need to plug in and it's not a hybrid because it doesn't use gas. Didn't have to think much about that one."

(2) Are participants going to consider every household member that might own an eligible vehicle?

Participants were asked follow-up probes to determine whether they were including all household members' vehicles when answering these questions and whether they thought the questions referred to vehicles that were either leased or owned. All Group 3 participants who were asked the question understood that the question was asking about vehicles used by any household member and that vehicles should be reported whether owned or leased.

- One participant commented, "It doesn't specifically say that it's owned or leased. It clearly says, "any of these types of vehicles kept at home for use." I would assume that meant leased or owned. I think it's very clear."
- Another participant stated that although they own their vehicle "If I had leased a vehicle, I would have still counted it. I keep it at home for use, so I would count any vehicle."
- One participant said he considered but did not include his roommate's work vehicle, which he sometimes drives home, because the vehicle does not belong to his roommate.

(3) Are participants accurately reporting vehicles that they have access to (i.e., someone in the household owns or leases)?

Twenty-four of the 40 Group 3 participants reported no electric vehicle of any type. Four reported having no vehicle at all kept at home for use. Twenty participants responded, "No" to both parts correctly and offered clear explanations of how they chose to respond such as:

- "I don't believe any members of my household use those types of vehicles, just gas powered."
- "Because my car only runs on gasoline."
- "Because I have never owned or currently own any electric vehicles."
- "To determine that answer I just know that we don't have an electrical vehicle."

(4) What makes and models of vehicles are reported?

Participants who reported electric vehicles did not have difficulty reporting make and model.

- Fifteen out of the 16 participants reporting a plug-in or hybrid electric vehicle cited make and model readily when probed.
- Plug-in electric vehicle types reported by participants included Tesla Model X, BMW13, Chevy Bolt, Tesla X & Tesla Y, Nissan Leaf, 2018 Tesla Model 3, 2013 Fiat 500, Ford Mustang Mach E, and Tesla Model S.
- Hybrid models reported included Honda Insight, 2017 Chrysler Pacifica, Hyundai Sonata, Toyota Prius, and 2006 Honda Civic Hybrid.
- Only one participant who reported a plug-in electric vehicle was unable to name the vehicle make and model. This participant explained that the vehicle is leased and used by her husband and she would not know without asking him.

7.1.2 Spanish Interviews Findings

(1) Are participants reporting hybrid vehicles that do not require connecting to an electrical source for charging?

None of the 26 Spanish interview participants reported owning or leasing plug-in electric or hybrid vehicles. When asked how they determined their answer to this question these are some of the answers they provided:

- One participant explained they have friends who own electric or hybrid cars, and they understood how these vehicles work. They answered "no" because they did not own any of those cars.
- "Porque a los vehículos que yo utilizo para el trabajo y para moverme se les pone gasolina." [Because the vehicles that I use to go to work or get around use gas.]
- "Porque el automóvil que tenemos es el automóvil usual, el que no es eléctrico. Es el que funciona con gasolina." [Because the car we have is the regular one; it's not electric. It works with gasoline.]
- "No tenemos carro eléctrico, es de gasolina." [We do not have an electric vehicle; it works with gas.]
- "Porque esos son los que van conectados, no son de gas." [Because those are plug-in those do not use gas.] This participant confirmed that their car works with gasoline.

(2) Are participants going to consider every household member that might own an eligible vehicle?

When answering these questions, four of the 26 participants confirmed that they thought about all the vehicles used by any member of your household.

- "Pensé en todos nuestros carros." [I thought about all our cars.]
- One participant thought about all household members.
- "El carro que tiene ahí mi tío no tiene que enchufarse ni nada." [The car my uncle has there does not need to be plugged in or nothing.] The participant confirmed that the only car in the household uses gasoline.

Ten participants answered that there was only one car in the household for use by members of the household, two participants reported not having any vehicles in the household, and 10 other participants were not asked this follow-up question.

(3) Are participants accurately reporting electric vehicles that they have access to (i.e., someone in the household owns or leases)?

Although only intended for participants answering "yes" to having an electric vehicle in the home, six of the 26 participants were asked whether they thought the questions referred to vehicles that were either leased or owned. Three participants said that they understood the question to be only asking about vehicles that were owned. And three participants said that they understood the question to be asking about vehicles that were either owned or leased.

(4) What makes and models of vehicles are reported?

None of the 26 participants reported owning or leasing plug-in electric or hybrid vehicles. This follow-up question was not asked to any of the participants.

7.1.3 Other Findings by Mode

a. Paper Mode – English

Of the 20 participants who completed in paper mode, five answered "Yes" to 14a, reporting plug-in electric vehicles, three reported a hybrid electric vehicle ("Yes" to 14b), and two reported both a plug-in and a hybrid vehicle ("Yes" to 14a *and* 14b). Nineteen of the 20 participants understood the question as intended and answered with certainty. One participant who reported a plug-in electric vehicle explained that the car is leased by her husband, and she did not know details such as make, model, or charging method without asking him. Two participants reported no vehicles kept for use at Question 13, so did not respond to the electric vehicle questions.

One electric vehicle owner referenced his Tesla Model S and suggested that an option for "completely electric" would be better because some hybrids can be plugged in. Other electric vehicle owners readily offered the make and model of their vehicles. Two participants reported owning two electric vehicles each. The one participant reporting a hybrid knew the vehicle was a 2006 Honda Civic Hybrid and that the vehicle has a "hybrid battery" and does not plug in.

None of the six participants who answered "No" to both 14a and 14b and were questioned about their response had any difficulty selecting or providing reasoning for their response.

One participant reported owning both a plug-in and a hybrid vehicle, one for his use and one driven by his wife. Another reported both a hybrid and a plug-in electric vehicle and clearly explained that the plug-in vehicle charges by a 110 volt charger at home while the hybrid does not plug in but "charges itself" when braking or slowing down.

One participant reported two hybrid vehicles, one this person uses one that a husband uses When probed as to why they responded "Yes" to 14b, this participant explained. "Well, I know we have two cars and both of them are hybrids, so, none of them are plug-ins so that's why I said the household has no plug-in vehicle and at least one hybrid." This participant also clearly explained the charging process for her vehicles: "A hybrid uses a fuel to produce some electricity which is then kept in a special battery and that's how electricity is generated by the actual vehicle. That's why it's a hybrid."

Another participant who claimed to be an "electric vehicle fanatic" reported two plug-ins. This participant noted also having an internal combustion engine vehicle because there are no electric/hybrid convertibles. She thought the electric vehicle question would be more complete if asked about internal combustion engine vehicles as well.

b. Paper Mode – Spanish

All eight paper mode participants seemed to understand the questions as intended and provided explanations that supported their response. One participant indicated they were not familiar with electric or hybrid vehicles. They explained they have never paid attention to cars and said they only know the common brands such as Toyota.

c. CAI Mode – English

Of the 20 participants who completed CAI mode, three reported plug-in electric vehicles ("Yes" to 21a) and two reported hybrid electric vehicles ("Yes" to 21b).

Participants who reported hybrid vehicles were certain when selecting their response and knew their vehicle make and model, one explained that they had researched before purchasing the vehicle and knew that it was a hybrid that does not charge and runs on gasoline. Another participant reported three vehicles in his household where he lives with roommates. He was clear in selecting his response at 21b and knows that his Honda Insight is a hybrid but was unsure about reporting the two SUVs used by his roommates as he thought these vehicles were not "of one-ton capacity or less."

Participants reporting plug-in electric vehicles were clear in their decision process and knew make, model and charging method of their vehicle. One reported leasing a BMW 13 and stated, "We have one vehicle and it is a plug-in electric. It is not considered a hybrid because it does not use gasoline at all." The other reported that he owns a 2018 Tesla Model 3 and while certain of his response, commented on the question thinking that his Tesla weighed more than one ton.

Nine participants responded "no" to both 21a and 21b, eight correctly and one in error. One participant who reported no electric vehicles ("no" at 21a and 21b) explained at probing that they do in fact own a Toyota Prius: "Well I do drive a hybrid vehicle, but it's not electric to my understanding so I just said no because I don't think my vehicle qualifies for either of those two options." When asked how her hybrid vehicle is charged, this participant responded, "I don't charge it, so I don't know how to answer that question". The one participant who reported a plug-in vehicle was very certain of his response of "yes" to 21a: "When I bought the car, I knew what it was. We bought a plug-in electric Tesla Model X…I plug it in to the wall to charge it." The remaining eight participants who reported no electric vehicles were all clear in how they determined their answers.

d. CAI Mode – Spanish

All 18 CAI participants seemed to understand the questions as intended and gave explanations during probing that supported their response to the survey questions. However, it was clear in probing that not all participants knew what a plug-in electric or hybrid vehicle was.

- "Por enchufar… pues dije que no." [Because of the plug-in… I said no.] When probed about the hybrid, they answered, "Se me hace la misma pregunta porque el que se enchufa es eléctrico… y los híbridos se enchufan…" [I think it is the same question because the plug-in is electric and hybrids are plug-in…]
- One participant thought about an electric car when answering the question and mentioned this was the first time they had ever heard about hybrid cars.
- "Because there isn't one." When asked what they understood by an electric vehicle they answered "Como una motora, una patineta, o algo así que se usa con electricidad. Pero no tenemos." [A motorcycle, a skateboard, or something like that that might need electricity. But we don't have one.] When asked what they understood by a hybrid vehicle, they answered, "Los carros nuevos esos que vienen ahora. Que en vez de echarle gasolina se van a coger carga a algún sitio." [Those new cars that are coming out now, that instead of gasoline they need to be charged somewhere.]

Another participant also said that they did not know what a hybrid vehicle was, but they knew their car was gasoline powered.

7.1.4 Recommendations

Overall, the electric vehicle questions tested in Round 2 performed well and appeared to be understood by participants as intended. RTI/RSS does not recommend any changes to this question for English or Spanish.

7.2 Solar Panels

The next Group 3 test topic was solar panels. ***Table 2.29*** displays this question by interview mode and language. Among the 40 Group 3 English participants who received the question, 11 reported having solar panels, 27 answered "No," and three participants said they did not know or were unsure which response to select.

The key research goals of cognitive testing were to determine the following:

(1) How do participants understand the term "solar panels"?
(2) Do participants inaccurately include garden lights as sources of solar power?
(3) What do participants in multi-unit housing units know about their building's solar use? Do participants in multi-unit housing units include solar power just for their unit, for the building as a whole, or both?

Table 2.29: Solar Panels Question by Mode

Paper Mode	CAI Mode
Does this house, apartment, or mobile home use solar panels that generate electricity? ☐ Yes ☐ No	**23. Does this <mobile home/house/apartment/unit> use solar panels that generate electricity?** Yes No
¿Usa esta casa, apartamento o casa móvil paneles solares que generan electricidad? ☐ Sí ☐ No	**23. ¿Usa <esta casa móvil/esta casa/este apartmento/esta vivenda> paneles solares que generan electricidad?** Sí No

7.2.1 English Interviews Findings

(1) How do participants understand the term "solar panels"?

Thirty-two of the 40 Group 3 participants were asked whether they had heard the term "solar panels" and how they would describe what solar panels are. All 32 had heard the term and all provided generally accurate descriptions but with varying levels of detail and complexity.

Participants who responded "Yes" to the solar panels question offered their descriptions readily:

- "They are flat, reflective surfaces that absorb energy and convert that into power."
- "Flat, glass looking panels that you put on your roof, and they reduce your energy bill."
- "They trap energy from the sun and then harness it into electricity for use."
- One participant who explained that he had solar panels installed on his home very recently provided this description: "They are a glass like panel in which are wires and they're supposed to captures the suns ray and somehow transform it into electricity. I'm not really sure how it works. There's an inverter, so it inverts something that's captures and makes it into electricity used in the house."
- One participant who reported solar panels used only for water heating described the solar panels as a "black piece of cardboard that attracts sunlight and converts it to electricity."

Participants who did not report solar panels were generally familiar and able to describe solar panels in their own words demonstrating an understanding:

- "Photoelectric panels that collect solar energy, solar light and converts it to electricity that can be used in your home."
- "Panels that you can install on your roof or on your property that harvest energy from the sun to be redistributed for things like electricity and heat."
- "It's a flat panel probably an inch or two thick that has chips in it, computer chips and has to be in a position where the sun is shining on it and it absorbs ultraviolet rays and converts it into electricity"
- "Arrangement of photovoltaic cells which convert energy from the sun."
- "a panel made with some sort of glass that absorb the sun's energy and converts it into electricity to be used in the home."

- "…panels that are on top of the roof that are solar powered from the sun."
- One participant with low education (less than high school) thought about the question and considered how her apartment gets hot because of sun shining through the windows. This participant responded "No" explaining that if there were solar panels on the roof, she would be able to see them on the roof. She described solar panels as being designed "to trap sunlight to energize your house"
- "Well, it's some kind of panels that are used so they direct the sun to the home to save electricity and you don't have to use electricity or that type of power. It saves you on electricity."

(2) Do participants inaccurately include garden lights as sources of solar power?

Of the 40 Group 3 participants, 31 were asked whether they should include small solar powered lights at the solar panels question. The majority (26 out of 31) said they did not think garden lights should be included as sources of solar power. Participants offered reasoning related to size and amount of energy generated and were generally very certain that the question was not intended to include small, solar powered lights.

- "When you ask me about solar panels, that is something bigger that is going to have an inverter and a system around it as opposed to an LED and a small sunlight gathering device to gather enough power to light a LED light.'
- "I would say in general no. Technically by wording they would be included, but I wouldn't have thought of them. It's not the intent of this question. I could see someone saying yes because of that. I would say no though."
- One participant was certain in responding "No" to the solar panel question although he does have outdoor lights that are solar powered. The participant explained, "I feel like the term 'solar panel' implies that it has to be large enough to not indicate the type of small panels you would see on the outside lights we have…Solar panels is a widely used term in reference to a big enough panel. And the fact that it says 'generate electricity,' leads you to believe it has to be something that would add electricity to your home not enough to just power a small set of lights outside."

Only five participants indicated that they thought small solar-powered garden lights should or maybe should be included.

- One participant thought maybe depending on how much energy is contributed; another answered yes but thought this would be "atypical."
- One participant considered the probe and then responded, "…now that you mention it, actually yes I would because it's part of a household."
- Only one participant seemed certain that garden lights should be included, explaining that it does not matter if the lights are small, it matters whether they generate electricity.

(3) What do participants in multi-unit housing units know about their building's solar use? Do participants in multi-unit housing units include solar power just for their unit, for the building as a whole, or both?

Five participants who reported solar panels met the characteristic for also residing in a multi-unit building. These participants were asked additional questions about their building's use of solar power.

- One participant said that solar panels cover about one-quarter of the roof on his large apartment building, which are easily visible and convert solar energy to electricity for the building complex.
- Another participant explained that the solar panels are on one side of the roof, he described "two sheets of solar panels that are connected to the water heater." When

probed, this participant confirmed that one solar-powered water heater serves both apartments in the building.
- Another participant who reported living in a building with 10–19 apartments explained that he has small solar panels that he placed on the roof of his building for use by his apartment only.

7.2.2 Spanish Interviews Findings

(1) How do participants understand the term "solar panels"?

Of the 26 participants, only one reported their house or building used solar panels. When asked how they had determined their answer, this person said the following:
- "Pues porque yo compre un sistema solar el año pasado. Tengo los paneles instalados en mi techo. Y yo estoy generando electricidad solar para ayudar al medio ambiente también con energía solar." [Because I bought a solar system last year. I have the solar panels installed on my roof and I'm generating solar electricity to help the environment as well, with solar energy.]

Most participants knew how solar panels looked and had seen them before, and some of them reported having an idea how they worked. When asked how they would describe what a solar panel was, they answered as follows:
- One participant said they work in construction and know that those were cells that store solar energy to generate electricity. This participant said at work there are workshops that train employers to install solar panels. When asked what the panels look like, this participant said they are black and square.
- "Es un panel, y tienen una pantalla y las radiaciones del sol calientan esa pantalla para calentar el hogar." [It is a panel, with a screen, and sun radiation heats up that screen so it can heat up the house.] This participant explained they used to have one in their house back in their hometown. They said it was very big. They could not give the dimension in feet, but said it was as big as a dinner table. The panel used to have a glass pipe and a tank filled with water. Sun radiation heated up the glass pipes and thus it heated up water.
- "Sí, yo sé que la NASA lo puso en los satélites hace, no sé, 50 o 100 años. No sé cuánto tiempo tienen. Los paneles que tienen en sus sistemas que usan allá arriba en el espacio. Experimentan con… Pues es una buena fuente de energía para evitar un poca la contaminación Sí los recomendaría. De hecho, los recomiendo a todo el mundo que me pregunta." [Yes, I know that NASA put them in satellites, I think 50 or 100 years ago. They use them on their space systems. It's a good energy source to avoid pollution. I would recommend it. In fact, I recommend it to everyone.]
- "Bueno es un panel un cuadrado o rectángulo que tiene como cuadritos y por ahí absorbe la luz del sol y obviamente se instalan en los techos de los edificios, de las casas." [Well, it's a square or rectangle panel that has small squares that absorb sunlight and obviously they are installed on the roofs of buildings, of houses.]
- "Sí, lo he escuchado y los he visto también… Son unos cuadros grandes como con… Es como si fueran unas ventanas muy grandes que se ponen arriba del techo de las casas o afuera en los patios para cargar la energía del sol." [Yes, I have heard it and I've also seen them… They are big squares that look like windows on the roof, charge with energy from the sun.]
- One participant said they had received multiple calls from companies offering solar panels. They explained them as "Paneles largos que los ponen en el techo de la casa… cuadrados" [Those are large panels installed on the roof of the houses… square shaped.]

(2) Do participants inaccurately include garden lights as sources of solar power?

Twenty participants were asked if garden lights should be included in this question, and they were divided on whether they should be included or not. Eleven participants said that they should be included, six said that they should not, and three were not sure.

- "Sí, porque el panel solar no importa el tamaño. Un panel solar es un panel solar." [Yes, because the solar panel doesn't matter the size. A solar panel is a solar panel.]
- "Claro porque esas tienen un pequeño panel solar." [Of course. They have small solar panels.]
- "Sí, porque usan energía solar." ["Yes, because they use solar energy."]
- One participant said that if they had those kinds of garden lights, they would include them.
- "Es que yo creo que esas lucecitas no generan energía. Creo que deberían responder No. Creo yo que los paneles solares absorben energía y se le da la energía al edificio, a la casa, porque creo que van supongo que con un cableado algo así. Pero esas lucecitas hasta donde yo conozco…yo creo que ellas no son tan sofisticadas como un panel solar. Son solo decorativas." [I don't think those little lights generate energy. I think they should answer No. I think the solar panels absorb energy and the energy is given to the building, to the house, because I think they go I guess with a wiring something like that. But those little lights as far as I know...I think they're not as sophisticated as a solar panel. They are just decorative.]
- One participant said that they didn't think they counted as solar panels.
- "No, porque esos no son paneles." [No because those are not panels.]

(3) What do participants in multi-unit housing units know about their building's solar use? Do participants in multi-unit housing units include solar power just for their unit, for the building as a whole, or both?

Of the 26 participants, 12 reported living in a building with three apartments or more. Participants had already indicated they had no solar panels that generated electricity, so this probe was not asked.

7.2.3 Other Findings by Mode

a. Paper Mode – English

Of the 20 participants completing the survey in paper mode, five responded "yes" to the solar panel question, 14 responded "no," and one participant was unsure how to respond. The participant who was uncertain explained: "I had to think about this because I live in an apartment complex that has lots of buildings. Mine has 8 apartments. My physical building within the complex doesn't have solar panels, but some buildings do. I don't know if I can count that. I don't know if people in those buildings get energy credit, I don't even know if we do. I think the landlord gets all of it. I think if I lived in one of those buildings, I would count it". Another participant who did not report solar panels was certain of her response, but when asked if anything was unclear, wondered whether the question was asking about solar energy that might be supplied by the city.

Participants who were questioned about the solar panel questions had a clear understanding and offered descriptions of solar panels without issue. One participant reported solar panels and explained that he installed the panels on the roof of his multi-unit building for use by his apartment only.

b. Paper Mode – Spanish

Of the eight paper mode participants none of them reported their house or building used solar panels. Only six of these participants were asked the follow-up questions, and they all seemed to understand the question as intended. When asked how they determined their answer to this question these are some of the answers they provided:

- Two participants both said they had seen solar panels before, and they had not seen those in their building.
- "Estamos con una persona que nos ha ofrecido los paneles, y me esposo está trabajando con esta persona, pero todavía no hay un contrato, todavía no hay un sí. Nomás vinieron a checar, pero no hay contrato. Pero si estamos interesados en los paneles solares." [We have a person who has offered us the panels, and my husband is working with this person, but there is still no contract, there is still not a "yes." They just came to check, but there is no contract. But we are interested in the solar panels.]

c. CAI Mode – English

Among the 20 participants tested in CAI mode, three participants reported solar panels and seventeen responded "no." Participants generally said they found the question to be clear, were familiar with the term "solar panels," and provided an accurate description. All 20 CAI participants said they found the question to be clear, but two expressed some uncertainty when selecting their response.

One participant who did not report solar panels commented that this question may be easier for a homeowner to answer than a renter. The participant explained that while they did not believe the apartment building had solar panels, they could not say for certain. Another participant said they did not know how to answer the solar panel question without asking the landlord. Residents did not have access to the roof, so they could not go up there to see if there were solar panels. One participant, who responded "no" to the solar power question, commented that some people may get confused when answering if they have solar panels for a hot water heater but not to provide electricity for the housing unit.

Another participant noted that the question might not be clear if there were communal solar panels serving multiple homes. This participant said this is something they know is a rare situation, but in this situation the solar panels are not "physically attached to their home"."

d. CAI Mode – Spanish

Of the 18 CAI participants only one reported that their house or building used solar panels. All 18 participants seemed to understand the question as intended, although there were two participants who reported not knowing much about how solar panels worked or how they look.

- "La verdad nunca he usado ese servicio." "Yo pienso que son objetos que se colocan en, no sé si en las ventanas." [I've never used that service. I think they are objects that are placed on Windows.] This participant said that even though they did not know much about solar panels, they did not think the question was confusing.
- One participant said that they did not understand much about "these things," so for them the question was a little confusing. When asked if they could describe what a solar panel was, this participant said that it was something new coming out now to save energy. They said that they had no idea how they worked, and because of that the question was a little confusing.

When asked how they determined their answer to this question these are some of the answers they provided:

- "Porque no los he visto y se miran normalmente que hay paneles." [Because I haven't seen them and normally you can see when there are panels.]
- "Porque no los hay y sería bueno que los tuvieran para poder ahorrar electricidad. [Because there aren't any and it would be good if they had them that way, we could save electricity.]
- "Porque si fuese cierto, yo pudiera ver los paneles solares en mi edificio, o sea en el techo o donde van, y no los hay." [Because if it were true, I would be able to see the solar panels on my building, that is on the roof or wherever they go, and there aren't any.]
- "Porque está conectado a la electricidad y llega un recibo de luz cada mes oficial de la empresa de energía eléctrica." [Because it's connected to electricity. I get an official bill from the electric company."

7.2.4 Recommendations

Round 2 participants interpreted the solar panels question as intended across versions and mode. Overall, participants understood the question clearly and were able to answer the question accurately. Although the English interviews suggest no changes are needed to this question, the Spanish findings suggest that a specific instruction to exclude garden lights will reduce the potential for false positives.

7.3 Means of Transportation to Work

A question about means of transportation to work was also tested in Group 3. A single version of this question was tested in Round 2; using the same wording as the Version 1 question that was tested in Round 1. ***Table 2.30*** displays this question by interview mode and language.

The key research goals of cognitive testing were to determine the following:

(1) For all participants, is the meaning of the taxi or ride-hailing services category clear? If not, what descriptive words would have made the meaning clearer? Are there descriptive words missing?
(2) Among those who chose ride-hailing as their primary means of transportation to work, what is their second most common mode of work travel?
(3) Among those who did not choose ride-hailing as their primary means of transportation to work, do they ever use ride-hailing services to travel to or from work? How often? In what context?
(4) Are there any travel modes you have used to get to work that are not represented in the ACS travel mode question? What are they?
(5) Do participants view "ride-hailing" and "carpooling" as the same thing? If not, how do these types of travel differ?

Table 2.30: Means of Transportation to Work Question by Mode

Paper Mode	CAI Mode
How did this person usually get to work LAST WEEK? *Mark (X) ONE box for the method of transportation used for most of the distance.* ☐ Car, truck, or van ☐ Bus ☐ Subway or elevated rail ☐ Long-distance train or commuter rail ☐ Light rail, streetcar, or trolley ☐ Ferryboat ☐ Taxi or ride-hailing services ☐ Motorcycle ☐ Bicycle ☐ Walked ☐ Worked from home → *SKIP to question 40* ☐ Other method	**26. *Using this list,* LAST WEEK, how did <you/NAME> USUALLY get to work?** Car, truck, or van Bus Subway or elevated rail Long-distance train or commuter rail Light rail, streetcar, or trolley Ferryboat Taxi or ride-hailing services Motorcycle Bicycle Walked Worked from home Other Method
¿Cómo llegó usualmente esta persona al trabajo LA SEMANA PASADA? *Marque (X) UNA casilla para el medio de transporte que utilizó por más distancia.* ☐ Automóvil, camión o *van* ☐ Autobús ☐ Tren subterráneo o elevado ☐ Tren de viajes largos o de cercanías ☐ Tren ligero, tranvía o tranvía eléctrico ☐ Lancha (ferry) ☐ Taxi o servicios de viajes a pedido ☐ Motocicleta ☐ Bicicleta ☐ Caminó ☐ Trabajó en el hogar → *PASE a la pregunta 40* ☐ Otro método	**26. *Usando esta lista*, ¿cómo llegó <usted/NOMBRE> USUALMENTE al trabajo LA SEMANA PASADA?** Automóvil, camión o van Autobús Tren subterráneo o elevado Tren de viajes largos o de cercanías Tren ligero, tranvía o tranvía eléctrico Lancha (ferry) Taxi o servicios de viajes a pedido Motocicleta Bicicleta Caminó Trabajó en el hogar Otro método

7.3.1 English Interviews Findings

(1) For all participants, is the meaning of the taxi or ride-hailing services category clear? If not, what descriptive words would have made the meaning clearer? Are there descriptive words missing?)

The "taxi or ride-hailing" category was well understood by most participants. Thirty-four Group 3 participants were questioned about their understanding of this category. Six indicated they were not sure what was meant by "ride-hailing services." The remaining 28 understood clearly, and, of these, 26 specifically named "Uber or Lyft" when describing interpretation of this category suggesting these common services are generally understood and could be parenthetically included in the option as descriptive terms. Several participants also noted that "ride-sharing" might be a more accurate descriptor for Uber or Lyft than "ride-hailing."

- One participant who did not know of the term "ride-hailing" decided it would be calling a taxi or some other service. They did not think the average person would know what this is although they did deduce correctly.
- Several others noted that "ride-hailing" is not an accurate descriptor for Uber or Lyft. One explained their interpretation of the category, "Like a taxi. Uber is not same as ride-hailing because you have to call those people. It isn't the same as 'hailing'."
- Another noted they were not "100% sure" what "ride-hailing" meant but said this would not be carpooling, he thought of a taxi service but did not think this would include Uber or Lyft and then said this is an option that is missing from the list

(Uber/Lyft). When probed again about meaning of "ride-hailing services" this participant thought of a ride that you "flag". Two other participants also pointed out that you don't "hail" an Uber but rather order or prearrange it.

Although the term "ride-sharing" was mentioned by some respondents as a more common or accurate term than "ride-hailing," some conflated the concept of "ride-sharing" with carpooling.

- When thinking of "ride-sharing," one participant explained, "I know what that means. I guess I was thinking of carpooling. A carpool service is something different. Ride hailing might be Lyft or Uber. Some areas have carpool lines. My neighbors stand on a corner and use carpool sharing to get into the city."
- Another participant when reviewing the "Taxi or ride-hailing services" option, said they thought of "Uber, Lyft... I think ride-hailing is a better descriptor than ride-share. Ride-share would start to encompass carpooling whereas ride-hailing (and lumping it in with taxi) gets to that granularity that it's a service you're paying for."
- Another thought of Uber but also mentioned that ride-share can be an organized carpool with vans provided by a company. This participant thought "Rideshare program" could be its own category added to the list.

(2) Among those who chose ride-hailing as their primary means of transportation to work, what is their second most common mode of work travel?

Three Group 3 participants selected, "Taxi or ride-hailing services" as primary means of transportation to work, two of whom specified "Taxi". One participant was certain of taxi as primary mode of commuting and explained "I usually use a taxi when going to work every day" but said he considered selecting the "car" option: "…someone may say that they use a car to get to work because a taxi is a car. At first, I was going to say car because I use a car to get to work, but it's a taxi." The other participant selected the option for a roommate who usually takes a taxi or Uber to work although he himself had not worked the prior week. When probed further about his roommate, the participant explained that occasionally their roommate will get picked up and driven to work by a coworker, but taxi and Uber are the primary mode of commute to work for this household member. The third participant specified Uber or Lyft as their usual mode of transportation. This participant noted that when they do not take an Uber or Lyft to commute to work, they take the bus.

Three additional participants indicated they use rideshare to get to work in their screener responses; however, each of these three participants (correctly) skipped the transportation to work question during the interview because they indicated they did not work the previous week. RTI/RSS does not interpret this misalignment in data to indicate that the participants inaccurately reported information on the screener but instead is likely due to differences in work schedules between the time they completed the screener and the time they completed the interview. In other words, they may have worked the week before completing the screener but not worked the week before completing the interview. Alternatively, participants may have simply answered the screener question based on the last time they worked rather than the previous week. Probes were skipped due to time for the transportation to work questions for one additional participant who indicated they used ride-hailing services to get to work.

Other participants who used alternative modes of transportation to get to work named bus, metro/subway/light rail, car, and bicycle as backup modes of transportation.

(3) Among those who did not choose ride-hailing as their primary means of transportation to work, do they ever use ride-hailing services to travel to or from work? How often? In what context?

Participants who reported having worked the prior week and did not report ride-hailing services as their primary means of transportation to work were asked if they ever use ride-hailing services to commute. Ten participants responded that they may sometimes use ride-hailing services, and all described doing so under rare or occasional circumstances.

- One participant reported using ride-hailing services only very rarely if both household cars were not available for some reason but would more likely to get a ride from a coworker
- Another participant said they used ride-hailing services, "…when the car needed maintenance. Maybe once or twice last year."
- Others explained, "Yes I have. If I am coming from a location that is not my home or if I am running late and need to get to somewhere more quickly than I could using public transportation." "Yes, if the train was delayed or something."
- "Maybe once or twice, in an event of an emergency. If my car was broken down or there was a [subway] strike. Extreme circumstances. My husband never would though. He always drives himself."
- "Yes, I've taken an Uber in the past when I haven't had my car with me, or someone else has taken my car for the day. It was pretty rare. Maybe every 3 to 4 months."
- "On very rare occasions because a one-car household. If we had to, it would be a combination of ride-hailing and subway or elevated rail to get to [city center]."
- One participant said she will take an Uber or Lyft when she has money but otherwise travels to work by bus.

(4) Are there any travel modes you have used to get to work that are not represented in the ACS travel mode question? What are they?)

None of the participants who received the transportation to work question reported an additional travel mode not represented in the response options. However, when asked, "Can you think of any ways people travel to work that are not already listed in this question, even if you do not use them?" Twenty-four participants offered suggestions.

- One mentioned private plane or helicopter and also small rowboat or kayak or swim to a remote island for work. Six others mentioned private planes or helicopters as modes not listed.
- Another thought about airplanes but said that would go under "other."
- Several mentioned motorized scooters. One participant mentioned mopeds but thought that could fall between motorcycle or bicycle; he also mentioned skateboarding.
- One participant said "Other method" could include scooters or motorized bicycles and also noted that there is no "Ride-share" option. This participant was thinking of "Uber" or "Lyft" as "ride-share" and did not initially think of these as "ride-hailing services."
- Another commented, "I guess the only thing that I would say is that for the 'subway or elevated rail' and 'long-distance train or commuter rail' options, people don't usually refer to travelling on a train as a 'rail' so that could be confusing for some folks, they could be looking for the word 'train' which is only in one of those two options."
- One spoke about a location-specific method of transportation: "In [city] there's a system for using the HOV lanes called 'slugging.' There's a commuter parking lot. People go there and stand in line and people who want to use the high occupancy vehicle lanes drive through there and pick up strangers so they can get into

[city]really fast. But that's so rare and it's pretty unique to [city]. Other than that, it's comprehensive."
- One suggested that Ferry boats should include all boats because there are other types of boats/watercrafts that people could take to work.
- Carpooling could be listed specifically.
- Another gave examples of people who walk or ride a bike if close enough. He also mentioned carpool. Other participants also noted that there was not option for "carpooling." One participant explained in detail, "If you wanted to split hairs, I think 'carpooling' is not listed. You could say that person is still getting to work via car, truck, or van, but it sort of loses the fact that you have multiple households combining into one car, truck, or van. It kind of makes it sound like you are using a taxi or ride-hailing service if carpooling, but you're typically not exchanging money for that."
- Two participants mentioned "Uber" as a missing category. "Uber has become a large company so people just say Ubering or taking Uber.

(5) Do participants view "ride-hailing" and "carpooling" as the same thing? If not, how do these types of travel differ?)

Twenty-nine participants were asked whether they viewed "ride-hailing" and "carpooling" as the same or different. Twenty-two participants described the two modes as different. Twelve mentioned cost or payment, making a distinction as ride-hailing being a paid service while carpooling typically is not. Several also made a distinction in that a ride-share driver is a stranger, whereas a carpool driver would be someone known.

- "Different. Carpooling is in a car, you're not asking for a ride randomly, it's already scheduled and it's with someone you know. Raid hailing is usually someone you don't know and you get a ride via an app."
- "Different. Carpooling is something that you arrange with someone in your personal life, you are not necessarily paying someone to do that or getting them to come over using an app so it's like one is a fee-for service and one is a personal arrangement."
- "…carpooling you don't have to pay, you just switch who drives."
- "When I think of ride-hailing, I think of a service being exchanged for payment, but for carpooling you don't receive payment, it's just out of the kindness of your heart or maybe saving the environment."
- "Carpooling is usually a free service, like generosity to a friend, ride-hailing is a transaction."

Four participants said they thought of "ride-hailing" and "carpooling" as the same, and three were unsure whether the two terms meant the same or different.

- "It's the same if you are sharing a ride with someone else. It's the same as carpooling."
- "I never considered them to be the same but I can see how they would be."
- "I thought they were the same, but they could be different. I don't know. With Ride-hailing you definitely have to pay. So, you might want to add a different option for Ride sharing."

No Group 3 participants reported carpooling to or from work, but two reported traveling by car with another household member. Twenty-six participants were asked which response category they would select for carpooling. Fifteen thought "car, truck or van," three chose "other method," four thought "ride-hailing," and two participants thought more than one category might apply. Two participants were unsure where carpooling might fit.

- "If you're carpooling you're riding in someone else's car truck or van, but my inclination would be to check other method. It's not your car truck or van. If you're carpooling you're still in a car or a truck."
- One participant reasoned, "Carpooling is ride sharing, so if ride sharing is the same as ride hailing, then 'Ride hailing'. If not, then 'Other method'."
- Another thought carpooling should go under "Ride hailing services, if more than one person. Also, car, truck or van would fit, since it's using a car."

7.3.2 Spanish Interviews Findings

(1) For all participants, is the meaning of the taxi or ride-hailing services category clear? If not, what descriptive words would have made the meaning clearer? Are there descriptive words missing?

Among the 26 interviews conducted in Spanish, 19 participants reported at least one household member who worked the previous week. Sixteen of these 19 commuted to work using a car, truck, or van. The other three used subway or elevated rail, walked, and took the bus. None of these participants reported "ride-hailing services" as their usual means of transportation.

Ride-hailing services were, in most cases (18 participants), understood as intended, and in their answers, participants mentioned Uber or Lyft. Two participants mentioned only taxis.

- "Yo creo que esos son como las aplicaciones como Uber, Lyft. Que se llama la aplicación y se pide un transporte. Es una persona particular que maneja un carro." [I think those are apps like Uber, Lyft. You call them through the app, and you ask for transportation. It's a regular person who drives a car.]
- "Cuando uno habla para que vengan por ti, los servicios que hay ahora de Uber o Lyft." [It is when you call somebody to pick you up, those services available now, Uber or Lyft.]
- "Taxi, los taxis amarillos." [Taxi, the yellow cabs.]
- "Que tenemos que hablarle a una persona para que vengan a levantarnos. Puede ser un taxi. Muchas veces uno busca a una persona conocida, que te puede dar un ride, me puede llevar para acá, me puede llevar para allá. Yo vivo en un pueblo chiquito donde no hay servicio de taxis, pero se les puede llamar a los otros pueblos donde hay." [It means when we have to call someone to pick us up. It can be a taxi. Many times, we call someone we know to take us here and there. I live in a very small town and there are no taxis, but we can call the next town and they can come.]

Seven of the 26 participants were either not familiar with the concept or had a misconception of "ride-hailing services." Of the seven, three had different interpretations. In two of these cases the word "pedido" in the Spanish translation "servicio de viajes a pedido" elicited responses related to food delivery services. In a third case the Spanish word "viajes" elicited a response related to travel agencies.

- "Si pido una pizza tienen que viajar para traerme la pizza." [If I order a pizza somebody has to travel to deliver my pizza.]
- One participant said that the delivery person would have to use their cars or the companies' car to deliver the order.
- Participant said it sounds to them like a request to travel long distance. They mentioned travel agencies.

The remaining four participants did not know or were not probed.

(2) Among those who chose ride-hailing as their primary means of transportation to work, what is their second most common mode of work travel?

None of the Spanish-speaking participants chose ride-hailing services as their primary means of transportation to work.

(3) Among those who did not choose ride-hailing as their primary means of transportation to work, do they ever use ride-hailing services to travel to or from work? How often? In what context?

Some participants have used these services under specific circumstances and all of them indicated it did not happen very often.

- One participant said, "Sí, cuando está lloviendo o se me hace tarde" [Yes, when it is raining, or when I am late). When probed how often, they said, "Como 3 veces al año." [About 3 times a year.]
- The other one said they took a taxi twice to go to work last year, when their car was not working.

(4) Are there any travel modes you have used to get to work that are not represented in the ACS travel mode question? What are they?

Most participants considered the list provided in the questionnaire to be exhaustive. In some cases, participants mentioned an option already included in the list but after reading the list again more carefully they realized they did not have anything to add. A few participants mentioned scooters and rollerboards/skateboards.

(5) Do participants view "ride-hailing" and "carpooling" as the same thing? If not, how do these types of travel differ?

Twelve of the 18 participants who responded to this probe considered carpooling and 'ride-hailing services' to be separate concepts. Among the main rationales were cost, the need to call to be picked-up, and passengers not going to the same location. Some examples include the following:

- One participant said that it was different because for "servicio de viajes a pedido" you have to pay, and to ride with someone else such as a friend you do not have to pay
- "Es diferente porque asi se ahorra gasoline." [It is different because that way you save gasoline.]
- Another participant said that it was different because when you share an Uber or Lyft you are not necessarily going to the same location as the other person. Whereas people who share a vehicle to go to work are usually going to the same location.
- A participant said, "Sería diferente, aquí se le conoce como raitera, que a veces hay una cuota, por decir, te cobre 5 dolares de ida y 5 dólares de venida." [It is different, here it is known as 'raitera' and sometimes there is a fee, such as if I charge you 5 dollars one way and 5 dollars to bring you back.] The term "raitera" is a derivate of "raite," a Spanish borrowing from the English word "ride."

Among those participants who considered carpooling the same as "ride-hailing services" their thinking revolved around saving money. Other participants just mentioned that both concepts were the same but did not elaborate further.

- A participant said it is the same. When asked why, they said that it is shared, because Uber is also shared. This participant said everybody wants to save money.

7.3.3 Other Findings by Mode

a. Paper Mode – English

Group 3 participants tested in paper mode generally responded to the commuting mode question without difficulty. Four participants reported no one in the household having worked the prior week and were not asked. The remaining 16 had no difficulty selecting a response and explaining their reasoning. Ten participants selected "worked from home" for themselves or a household member and were able to articulate whether this was due to the pandemic and, if so, which mode they or their household member would otherwise use. One participant questioned the term "usually": "'Usually' doesn't really make sense to me. Usually means usually, but if you drove a car half the time, and took the bus the other half of the time, how would you answer? What if you took the bus and a train every day? I drove last week every day, so answer for me is car, truck, or van." One participant noted they were unsure of the difference between light rail and commuter rail and another commented on this option as well: "…to me, subway or elevated rail and light rail are the same thing. It's all a train, it's above ground or underground, it's all a train. This is a little confusing, the long-distance train or commuter rail as opposed to light rail. They're all trains! I would lump all those together." All other English participants tested in paper mode said they found all response options to be clear.

b. Paper Mode – Spanish

Among the eight Spanish participants who answered the paper mode version of the instrument, six participants reported at least one household member who worked last week or did any work for pay, even for as little as one hour. All six participants commute, three of them reported getting to work by car, and the three remaining use either the subway or elevated train, walk, or ride the bus. None of them reported using "ride-hailing" services as their usual means of transportation to get to work either for themselves or for any other household member.

Most, but not all, participants considered the list was exhaustive and could not provide any additional examples of means of transportation to get to work. Two of the eight participants mentioned an additional option. They both thought of ride-hailing services and had apparently not noticed them on the list or were not familiar with the term "servicios de viajes a pedido" (the translation for ride-hailing). One of them described this additional means of transportation as when someone picks you up and called it "servicios de viajes" [trip services] and the other just mentioned Uber or Lyft as the additional transportation means. Later, when probed specifically about "servicios de viajes a pedido" they both mentioned Uber or Lyft.

The concept "servicios de viajes a pedido" (ride-hailing services) was understood as intended, as is presented in detail under item 1 in General Findings. In item 5 of General Findings, the detailed discussion is presented on participants' interpretation of the difference between carpooling and ride-hailing services.

c. CAI Mode – English

Two participants tested in CAI mode reported not having worked the prior week. The remaining 18 responded to the commuting mode question without difficulty. Six participants reported that they or a household member had worked from home and explained whether this was due to the pandemic. One participant who selected "worked from home" explained, "…Prior to Covid, 80% of my time is my husband taking me to the airport in the car. I spend

most of the time traveling for business." One participant tested in CAI mode recalled having selected "worked from home" for himself although he had not noticed this option and chose "Other method" for himself. Upon probing, this participant acknowledged they should have chosen "worked from home" rather than "Other method."

d. CAI Mode - Spanish

Among the 18 participants who answered the CAI mode questionnaire, 13 participants reported at least one household member who worked last week or did any work for pay, even for as little as one hour. Two of these participants reported working from home. Ten participants who commute reported getting to work by car and one rides the bus. One of these participants reported a second household member who walks to work. None of them reported using "ride-hailing" services as their usual means of transportation to get to work either for themselves or for any other household member.

The concept "servicios de viajes a pedido" (rail-hailing services) in most cases was understood as intended, and this is presented in item 1 of General Findings.

Only two participants reported having taken Uber services to get to work, not as their main or usual means of transportation though and only under specific circumstances.

- One participant said they use Uber services maybe once or twice a week.
- Another participant said they use Uber services twice last year when their car broke.
- Another participant was not sure if one person in the household used Uber services in the past when they did not have a car. The participant explained that the household member paid somebody for a ride to work, but it was only a temporary arrangement.

Most participants considered the list to be exhaustive and could not provide any additional examples of means of transportation to get to work. Five participants mentioned scooter or "monopatín" and skateboards: "They are like small motorcycles with two small tires. They're electric".

The comparison between carpooling and "ride-hailing" was divided. Four participants considered carpooling was the same as "ride-hailing services." Among them, one participant said that with Uber the car is also shared and expressed that everybody wants to save money. It was not clear by their comment if the participant was thinking about "Uberpool" or a regular Uber ride.

Within the group who considered carpooling and "ride-hailing services" to be different, participants expressed two different ideas: cost and destination. Examples are presented in item 5 of General Findings.

7.3.4 Recommendations

Although participants generally understand the "Taxi or Ride-hailing services" response option as intended, it might be helpful to explicitly specify "Uber/Lyft" because these are commonly understood and associated with "ride-hailing services" and may help in comprehension.

If including brand names such as "Uber/Lyft" in question text is not preferred, another, more accurate description of these services to use for future testing is "app-based ride services," which has been used in airport signage to direct travelers to the appropriate pick up area. Alternatively, these brand names can be provided in the question help text.

RTI/RSS has no further recommendations specifically for the Spanish version of this question.

7.4 Income & Weeks Worked

The income and weeks worked questions were tested across Versions 1 and 2 and paper and CAI modes to evaluate the following updates (see ***Tables 2.31*** and ***2.32***):

- Work in prior year – use of phrase "work for pay"
- Instructions about what should be included as "work," how these instructions were displayed, and where these instructions were displayed
- Number of weeks worked – addition of "for at least one day"
- Number of weeks/hours worked – order of questions
- Net rental income – separated from interest, dividend, royalty and trust income questions
- Self-employment income – addition of "including work paid for in cash"
- Total Income amount – addition of "include all sources"
- Public Assistance income – new wording and instructions
- Retirement income – moving instructions "Do NOT include Social Security"

The key research goals of cognitive testing were to determine:

(1) Do the changes to the WEEKS WORKED series (in addition to the year change) obtain the appropriate information for that year?
(2) Do participants have difficulty navigating through the series of questions?
(3) Do questions 39/40 set up the universe for the WEEKS WORKED questions properly? In the last round some people answered 39a when they should have skipped to 39b from Instruction L. Does re-numbering this question help prevent this from happening (39a and 39a vs. 39 and 40)?
(4) For paper: Does one version seem easier to navigate or cause less confusion?
(5) Adding "for at least one day" to 41b is supposed to let the participant know that we consider a week being worked even if they just worked one day in that week. Does the participant seem to understand this concept?
(6) Do participants think paid leave should be counted as WORK? Paper questionnaire: Does one version perform better than another at conveying this message? Does the new note help? Is it being read?
(7) Do workers with irregular schedules struggle with the HOURS worked each week question? Do the new instructions and the new question placement make it easier for irregular workers to report usual hours worked each week?
(8) Do the participants report income for the appropriate reference period (prior year)?
(9) Do participants report "all sources" of income or do they leave some out?
(10) Do participants report all self-employment income (including side jobs that they may not report as income for tax purposes)?
(11) Does splitting the net rental income category into its own question make it easier for participants to recall the amounts and report accurately?
(12) Does having net rental income as its own category make participants who are reading quickly misreport their monthly rent to a landlord (instead of rental income)?
(13) Which version of instructions on losses and break-events are most helpful (or noticed)?

(14) Do the new instructions on the public assistance income question help the participant report the intended amounts? Specifically, do they understand that SNAP and unemployment should not be included?
(15) Which version of the public assistance income question helps participants understand that noncash benefits should not be included in this question?
(16) Does moving up the instructions, "Do NOT include Social Security" on the retirement income question help avoid Social Security being included in retirement income? Do participants notice the instruction?

Table 2.31: Income and Weeks Worked Questions by Version (Paper Mode)

Paper Mode

V1

When did this person last work for pay, even for a few days?

- ☐ Within the past 12 months
- ☐ 1 to 5 years ago
- ☐ Over 5 years ago or never worked ➔ *SKIP to question 44*

In 2020, did this person work for pay, even for a few days?

- ☐ Yes
- ☐ No ➔ *SKIP to question 44*

NOTE: For question 41, include as WORK:

- ✓ all jobs for pay
- ✓ paid vacation
- ✓ paid sick leave
- ✓ military service

a. In 2020 (52 weeks), did this person work EVERY week? *Remember to include paid vacation and paid sick leave as work.*

- ☐ Yes ➔ *SKIP to question 42*
- ☐ No

b. In 2020 (52 weeks), how many WEEKS did this person work for at least one day? *Include weeks when this person only worked for a few hours.*

Weeks

In 2020, for the weeks worked, how many HOURS did this person usually work each WEEK? *Include all jobs for pay and military service.*

Usual hours worked each WEEK

INCOME IN 2020

Report all types of income received, taxable and non-taxable, from January 1, 2020 to December 31, 2020.

Mark (X) the "Yes" box for each type of income this person received, and give your best estimate of the TOTAL AMOUNT.

Mark (X) the "No" box for each type of income NOT received.

BREAK-EVEN NET INCOME: For break-evens, mark (X) the "Yes" box and write in $0 for the TOTAL AMOUNT.

INCOME RECEIVED JOINTLY: Report the appropriate share for each person – or, if that's not possible, report the whole amount for only one person and mark the "No" box for the other person.

a. Wages, salary, commissions, bonuses, or tips from all jobs. *Report amount before deductions for taxes, bonds, dues, or other items.*

☐ Yes ➔ $ .00 ☐ No — TOTAL AMOUNT for 2020

b. Self-employment income, including work paid for in cash. Report income from own businesses (farm or non-farm), including proprietorships and partnerships. *Report NET income after business expenses. If net income was a loss, mark (X) the "Loss" box next to the dollar amount.*

☐ Yes ➔ $ .00 ☐ No — TOTAL AMOUNT for 2020 — ☐ Loss

c. Interest, dividends, royalty income, or income from estates and trusts. *Report even small amounts credited to an account.*

☐ Yes ➔ $ .00 ☐ No — TOTAL AMOUNT for 2020

d. Rental income. *Report NET income after expenses. If net rental income was a loss, mark (X) the "Loss" box next to the dollar amount.*

☐ Yes ➔ $ .00 ☐ No — TOTAL AMOUNT for 2020 — ☐ Loss

e. Social Security or Railroad Retirement.

☐ Yes ➔ $ .00 ☐ No — TOTAL AMOUNT for 2020

f. Supplemental Security Income (SSI).

☐ Yes ➔ $ .00 ☐ No — TOTAL AMOUNT for 2020

g. Any financial assistance from the state or local welfare office. *Do NOT include SNAP (Food Stamps); unemployment compensation; or non-cash benefits, such as energy or housing assistance.*

☐ Yes ➔ $ .00 ☐ No — TOTAL AMOUNT for 2020

h. Retirement income, pensions, survivor or disability income. *Do NOT include Social Security. INCLUDE income from a previous employer or union and any regular withdrawals or distributions from IRA, Roth IRA, 401(k), 403(b), or other accounts specifically designed for retirement.*

☐ Yes ➔ $ .00 ☐ No — TOTAL AMOUNT for 2020

i. Any other sources of income received regularly such as Veterans' (VA) payments, unemployment compensation, child support or alimony. *Do NOT include lump sum payments such as money from an inheritance or the sale of a home.*

☐ Yes ➔ $ .00 ☐ No — TOTAL AMOUNT for 2020

45 Including all types of income, what was this person's total income in 2020? *Add entries in questions 44a to 44i; subtract any losses. If net income was a loss, enter the amount and mark (X) the "Loss" box next to the dollar amount.*

☐ OR $ .00 ☐ Loss
None — TOTAL AMOUNT for 2020

V2

When did this person last work for pay, even for a few days?

- ☐ Within the past 12 months
- ☐ 1 to 5 years ago
- ☐ Over 5 years ago or never worked ➔ *SKIP to question 44*

In 2020, did this person work for pay, even for a few days?

- ☐ Yes
- ☐ No ➔ *SKIP to question 44*

a. In 2020 (52 weeks), did this person work EVERY week? *Count paid vacation, paid sick leave, and military service as work. Include all jobs for pay.*

- ☐ Yes ➔ *SKIP to question 42*
- ☐ No

b. In 2020 (52 weeks), how many WEEKS did this person work for at least one day? *Include weeks when this person only worked for a few hours. Include all jobs for pay. Count paid vacation, paid sick leave, and military service as work.*

Weeks

In 2020, for the weeks worked, how many HOURS did this person usually work each WEEK? *Include all jobs for pay and military service.*

Usual hours worked each WEEK

INCOME IN 2020

Report all types of income received, taxable and non-taxable, from January 1, 2020 to December 31, 2020.

Mark (X) the "Yes" box for each type of income this person received, and give your best estimate of the TOTAL AMOUNT.

Mark (X) the "No" box for each type of income NOT received.

LOSSES AND BREAK-EVENS: For losses, mark (X) the "Loss" box next to the dollar amount. For break-evens, mark (X) the "Yes" box and write in $0 for the TOTAL AMOUNT.

INCOME RECEIVED JOINTLY: Report the appropriate share for each person – or, if that's not possible, report the whole amount for only one person and mark the "No" box for the other person.

a. Wages, salary, commissions, bonuses, or tips from all jobs. *Report amount before deductions for taxes, bonds, dues, or other items.*

☐ Yes ➔ $ .00 ☐ No — TOTAL AMOUNT for 2020

b. Self-employment income, including work paid for in cash. Report income from own businesses (farm or non-farm), including proprietorships and partnerships. *Report NET income after business expenses.*

☐ Yes ➔ $ .00 ☐ No — TOTAL AMOUNT for 2020 — ☐ Loss

c. Interest, dividends, royalty income, or income from estates and trusts. *Report even small amounts credited to an account.*

☐ Yes ➔ $ .00 ☐ No — TOTAL AMOUNT for 2020

d. Rental income. *Report NET income after expenses*

☐ Yes ➔ $ .00 ☐ No — TOTAL AMOUNT for 2020 — ☐ Loss

e. Social Security or Railroad Retirement.

☐ Yes ➔ $ .00 ☐ No — TOTAL AMOUNT for 2020

f. Supplemental Security Income (SSI).

☐ Yes ➔ $ .00 ☐ No — TOTAL AMOUNT for 2020

g. Any financial assistance or payments from the state or local welfare office. *Do NOT include SNA (Food Stamps); unemployment compensation; or non-cash benefits, such as energy or housing assistance.*

☐ Yes ➔ $ .00 ☐ No — TOTAL AMOUNT for 2020

h. Retirement income, pensions, survivor or disability income. *Do NOT include Social Security. INCLUDE income from a previous employer or union and any regular withdrawals or distributions from IRA, Roth IRA, 401(k), 403(b), or other accounts specifically designed for retirement.*

☐ Yes ➔ $ .00 ☐ No — TOTAL AMOUNT for 2020

i. Any other sources of income received regularly such as Veterans' (VA) payments, unemployment compensation, child support or alimony. *Do NOT include lump sum payments such as money from an inheritance or the sale of a home.*

☐ Yes ➔ $ .00 ☐ No — TOTAL AMOUNT for 2020

45 Including all types of income, what was this person's total income in 2020? *Add entries in questions 44a to 44i; subtract any losses.*

☐ OR $ .00 ☐ Loss
None — TOTAL AMOUNT for 2020

(continued)

Table 2.31: Income and Weeks Worked Questions by Version (Paper Mode) (continued)

Paper Mode

V1

¿Cuándo trabajó esta persona por paga por última vez, aunque fuera por unos pocos días?

- ☐ En los últimos 12 meses
- ☐ Hace 1 a 5 años
- ☐ Hace más de 5 años o nunca trabajó → *PASE a la pregunta 44*

En el 2020, ¿trabajó esta persona por paga, aunque fuera por unos pocos días?

- ☐ Sí
- ☐ No → *PASE a la pregunta 44*

NOTA: Para la pregunta 41, incluya como TRABAJO:
- ✓ todos los trabajos por paga
- ✓ vacaciones pagadas
- ✓ licencia por enfermedad pagada
- ✓ servicio en las Fuerzas Armadas

a. Durante el 2020 (52 semanas), ¿trabajó esta persona TODAS las semanas? *Recuerde incluir las vacaciones pagadas y la licencia por enfermedad pagada como trabajo.*

- ☐ Sí → *PASE a la pregunta 42*
- ☐ No

b. Durante el 2020 (52 semanas), ¿cuántas SEMANAS trabajó esta persona por lo menos un día? *Incluya semanas en las que la persona trabajó solo unas pocas horas.*

Semanas

☐

Durante el 2020, en las semanas trabajadas, ¿cuántas HORAS trabajó usualmente esta persona cada SEMANA? *Incluya todos los trabajos por paga y el servicio en las Fuerzas Armadas.*

Horas usualmente trabajadas cada SEMANA

☐

V2

¿Cuándo trabajó esta persona por paga por última vez, aunque fuera por unos pocos días?

- ☐ En los últimos 12 meses
- ☐ Hace 1 a 5 años
- ☐ Hace más de 5 años o nunca trabajó → *PASE a la pregunta 44*

En el 2020, ¿trabajó esta persona por paga, aunque fuera por unos pocos días?

- ☐ Sí
- ☐ No → *PASE a la pregunta 44*

a. Durante el 2020 (52 semanas), ¿trabajó esta persona TODAS las semanas? *Cuente vacaciones pagadas, la licencia por enfermedad pagada y el servicio en las Fuerzas Armadas como trabajo. Incluya todos los trabajos por paga.*

- ☐ Sí → *PASE a la pregunta 42*
- ☐ No

b. Durante el 2020 (52 semanas), ¿cuántas SEMANAS trabajó esta persona por lo menos un día? *Incluya semanas en las que la persona trabajó solo unas pocas horas. Incluya todos los trabajos por paga. Cuente vacaciones pagadas, la licencia por enfermedad pagada y el servicio en las Fuerzas Armadas como trabajo.*

Semanas

☐

Durante el 2020, en las semanas trabajadas, ¿cuántas HORAS trabajó usualmente esta persona cada SEMANA? *Incluya todos los trabajos por paga y el servicio en las Fuerzas Armadas.*

Horas usualmente trabajadas cada SEMANA

☐

(continued)

Table 2.31: Income and Weeks Worked Questions by Version (Paper Mode) (continued)

Paper Mode

V1

INGRESOS EN EL AÑO 2020

Informe todos los tipos de ingresos recibidos, sujetos a impuestos o no, desde el 1 de enero del 2020 hasta el 31 de diciembre del 2020.

Marque (X) la casilla "Sí" por cada tipo de ingreso que recibió esta persona y anote el mejor estimado de la CANTIDAD TOTAL.

Marque (X) la casilla "No" por cada tipo de ingreso NO recibido.

INGRESOS NETOS IGUALES A CERO: En casos de ganancias y pérdidas iguales a cero, marque (X) la casilla "Sí" y escriba $0 como CANTIDAD TOTAL.

INGRESOS RECIBIDOS EN CONJUNTO: Informe la parte que le corresponde a cada persona— o, si eso no es posible, informe la cantidad total para una sola persona y marque la casilla "No" para la otra persona.

a. Jornales, sueldos o salarios, comisiones, bonificaciones o propinas de todos los empleos. *Informe la cantidad antes de aplicarse las deducciones por impuestos, bonos, cuotas y otras cosas.*

Sí → $ .00
No
CANTIDAD TOTAL para el 2020

b. Ingreso de empleo por cuenta propia, incluyendo el trabajo pagado en efectivo. Informe el ingreso del negocio propio (agrícola o no), ya sea como propietario único o en sociedad. *Informe el ingreso NETO después de descontar los gastos del negocio. Si el ingreso neto fue una pérdida, marque (X) la casilla "Pérdida" al lado de la cantidad de dólares.*

Sí → $ .00
No
CANTIDAD TOTAL para el 2020
Pérdida

c. Intereses, dividendos, ingreso por derechos de autor o ingreso por herencias y fideicomisos. *Informe aun cantidades pequeñas acreditadas a una cuenta.*

Sí → $ .00
No
CANTIDAD TOTAL para el 2020

d. Ingreso por alquileres o rentas. *Informe el ingreso NETO después de descontar los gastos. Si el ingreso neto fue una pérdida, marque (X) la casilla "Pérdida" al lado de la cantidad de dólares.*

Sí → $ .00
No
CANTIDAD TOTAL para el 2020
Pérdida

e. Seguro Social o jubilación para personal de los ferrocarriles.

Sí → $ .00
No
CANTIDAD TOTAL para el 2020

f. Seguridad de Ingreso Suplementario (SSI).

Sí → $ .00
No
CANTIDAD TOTAL para el 2020

g. Cualquier asistencia financiera de la oficina de bienestar *(welfare)* estatal o local. *NO incluya SNAP (Cupones de Alimentos), compensación por desempleo o beneficios que no sean en efectivo, tales como asistencia para la energía o la vivienda.*

Sí → $ .00
No
CANTIDAD TOTAL para el 2020

h. Ingreso por jubilación, pensiones, ingreso por discapacidad o de sobreviviente. *NO incluya el Seguro Social. INCLUYA ingresos de un empleador o sindicato previo y cualquier retiro o distribución regular de una cuenta individual de jubilación (IRA, por sus siglas en inglés), una IRA no deducible (ROTH IRA), un plan 401(k), 403(b) u otras cuentas diseñadas específicamente para la jubilación.*

Sí → $ .00
No
CANTIDAD TOTAL para el 2020

i. Alguna otra fuente de ingreso recibido regularmente, tal como pagos de la Administración de Veteranos (VA), compensación por desempleo, pensión para hijos menores, pensión alimenticia o pensión de su ex pareja. *NO incluya pagos de mayor cantidad recibidos una sola vez, tal como dinero de una herencia o venta de una casa.*

Sí → $ .00
No
CANTIDAD TOTAL para el 2020

45 **Incluyendo todos los tipos de ingresos, ¿cuál fue el ingreso total de esta persona en el 2020?** *Sume las cantidades anotadas en las preguntas 44a – 44i; reste cualquier pérdida. Si el ingreso neto fue una pérdida, anote la cantidad y marque (X) la casilla "Pérdida" al lado de la cantidad de dólares.*

Ó $ .00
Ninguno
CANTIDAD TOTAL para el 2020
Pérdida

Continúe contestando las preguntas para la siguiente persona si el entrevistador se lo indica. De lo contrario, usted ya ha terminado.

V2

INGRESOS EN EL AÑO 2020

Informe todos los tipos de ingresos recibidos, sujetos a impuestos o no, desde el 1 de enero del 2020 hasta el 31 de diciembre del 2020.

Marque (X) la casilla "Sí" por cada tipo de ingreso que recibió esta persona y anote el mejor estimado de la CANTIDAD TOTAL.

Marque (X) la casilla "No" por cada tipo de ingreso NO recibido.

PÉRDIDAS E INGRESOS NETOS IGUALES A CERO: En casos de pérdidas, marque (X) la casilla "Pérdida" al lado de la cantidad de dólares. En casos de ganancias y pérdidas iguales a cero, marque (X) la casilla "Sí" y escriba $0 como CANTIDAD TOTAL.

INGRESOS RECIBIDOS EN CONJUNTO: Informe la parte que le corresponde a cada persona— o, si eso no es posible, informe la cantidad total para una sola persona y marque la casilla "No" para la otra persona.

a. Jornales, sueldos o salarios, comisiones, bonificaciones o propinas de todos los empleos. *Informe la cantidad antes de aplicarse las deducciones por impuestos, bonos, cuotas y otras cosas.*

Sí → $ .00
No
CANTIDAD TOTAL para el 2020

b. Ingreso de empleo por cuenta propia, incluyendo el trabajo pagado en efectivo. Informe el ingreso del negocio propio (agrícola o no), ya sea como propietario único o en sociedad. *Informe el ingreso NETO después de descontar los gastos del negocio.*

Sí → $ .00
No
CANTIDAD TOTAL para el 2020
Pérdida

c. Intereses, dividendos, ingreso por derechos de autor o ingreso por herencias y fideicomisos. *Informe aun cantidades pequeñas acreditadas a una cuenta.*

Sí → $ .00
No
CANTIDAD TOTAL para el 2020

d. Ingreso por alquileres o rentas. *Informe el ingre NETO después de descontar los gastos.*

Sí → $ .00
No
CANTIDAD TOTAL para el 2020
Pérdida

e. Seguro Social o jubilación para personal de los ferrocarriles.

Sí → $ .00
No
CANTIDAD TOTAL para el 2020

f. Seguridad de Ingreso Suplementario (SSI).

Sí → $ .00
No
CANTIDAD TOTAL para el 2020

g. Cualquier asistencia financiera o pagos de la oficina de bienestar *(welfare)* estatal o local. *NO incluya SNAP (Cupones de Alimentos), compensación por desempleo o beneficios que no sean en efectivo, tales como asistencia para la energía o la vivienda.*

Sí → $ .00
No
CANTIDAD TOTAL para el 2020

h. Ingreso por jubilación, pensiones, ingreso por discapacidad o de sobreviviente. *NO incluya el Seguro Social. INCLUYA ingresos de un empleador o sindicato previo y cualquier retiro o distribución regular de una cuenta individual de jubilación (IRA, por sus siglas en inglés), una IRA no deducible (RO IRA), un plan 401(k), 403(b) u otras cuentas diseñad especificamente para la jubilación.*

Sí → $ .00
No
CANTIDAD TOTAL para el 2020

i. Alguna otra fuente de ingreso recibido regularmente, tal como pagos de la Administración de Veteranos (VA), compensación por desempleo, pensión para hijos menores, pensión alimenticia o pensión de su ex pareja. *NO incluya pagos de mayor cantidad recibidos una sola vez, tal como dinero de una herencia o venta de una casa.*

Sí → $ .00
No
CANTIDAD TOTAL para el 2020

45 **Incluyendo todos los tipos de ingresos, ¿cuál fue el ingreso total de esta persona en el 2020?** *Sum las cantidades anotadas en las preguntas 44a a 44i; re cualquier pérdida.*

Ó $ .00
Ninguno
CANTIDAD TOTAL para el 2020
Pérdida

Continúe contestando las preguntas para la siguiente persona si el entrevistador se lo indica. De lo contrario, usted ya ha terminado.

Table 2.32: Income and Weeks Worked Questions by Version (CAI Mode)

CAI Mode	
V1	V2
33a. When did <you/NAME> last work for pay, even for a few days? Within the past 12 months Between 1 to 5 years ago Over 5 years ago or never worked 33b. In 2020, did this person work for pay, even for a few days? Yes No 34a. During the 52 weeks in 2020, did <you/NAME> work EVERY week? Count paid vacation, paid sick leave, and military service as work. Include all jobs for pay. 34b. During the 52 weeks in 2020, how many WEEKS did this person work for at least one day? Include weeks when this person only worked a few hours. Include all jobs for pay. Count paid vacation, paid sick leave, and military service as work. 34c. In 2020, for the weeks worked, how many HOURS did this person usually work each WEEK? Include all jobs for pay and military service. **The next few questions are about all types of income, taxable and non-taxable, received in 2020 (from January 1, 2020 to December 31, 2020).** For income received jointly, report the appropriate share for each person – or, if that's not possible, report the whole amount for only one person and do not report the income for the other person. 36a. Did <you/NAME> receive any wages or salary in 2020? If yes: How much did <you/NAME> receive in wages and salary from all jobs before deductions for taxes, bonds, dues or other items? 36b. Did <you/NAME> receive any commissions, bonuses, or tips in 2020? If yes: How much did <you/NAME> receive in tips, bonuses, or commissions from all jobs before deductions for taxes, bonds, dues, or other items? 36c. Did <you/NAME> regularly receive any self-employment income in 2020, including work paid for in cash? (Report income from own businesses (farm or non-farm) including proprietorships and partnerships.) If yes: What was the amount? Report NET income after business expenses. 36d. Did <you/NAME> receive any interest or dividends in 2020? Report even small amounts credited to an account. If yes: What was the amount?	33a. When did <you/NAME> last work for pay, even for a few days? Within the past 12 months Between 1 to 5 years ago Over 5 years ago or never worked 33b. In 2020, did this person work for pay, even for a few days? Yes No 34a. During the 52 weeks in 2020, did <you/NAME> work EVERY week? Count paid vacation, paid sick leave, and military service as work. Include all jobs for pay. 34b. During the 52 weeks in 2020, how many WEEKS did this person work for at least one day? Include weeks when this person only worked a few hours. Include all jobs for pay. Count paid vacation, paid sick leave, and military service as work. 34c. In 2020, for the weeks worked, how many HOURS did this person usually work each WEEK? Include all jobs for pay and military service. **The next few questions are about all types of income, taxable and non-taxable, received in 2020 (from January 1, 2020 to December 31, 2020).** For income received jointly, report the appropriate share for each person – or, if that's not possible, report the whole amount for only one person and do not report the income for the other person. 36a. Did <you/NAME> receive any wages or salary in 2020? If yes: How much did <you/NAME> receive in wages and salary from all jobs before deductions for taxes, bonds, dues or other items? 36b. Did <you/NAME> receive any commissions, bonuses, or tips in 2020? If yes: How much did <you/NAME> receive in tips, bonuses, or commissions from all jobs before deductions for taxes, bonds, dues or other items? 36c. Did <you/NAME> regularly receive any self-employment income in 2020, including work paid for in cash? (Report income from own businesses (farm or non-farm) including proprietorships and partnerships.) If yes: What was the amount? Report NET income after business expenses

(continued)

Table 2.32: Income and Weeks Worked Questions by Version (CAI Mode) (continued)

CAI Mode	
V1	V2
36e. Did <you/NAME> receive any royalty income or income from estates and trusts in 2020? If yes: What was the amount? 36f. Did <you/NAME> receive any rental income in 2020? If yes: What was the amount? Report NET income after expenses. 36g. Did <you/NAME> receive any Social Security or Railroad Retirement benefits in 2020? If yes: What was the amount? 36h. Did <you/NAME> receive any Supplemental Security Income (SSI) payments in 2020? If yes: What was the amount? 36i. Did <you/NAME> receive any financial assistance from the state or local welfare office in 2020? If yes: What was the amount? Do NOT include SNAP (Food Stamps), unemployment compensation, or non-cash benefits, such as energy or housing assistance. 36j. Did <you/NAME> receive any survivor or disability income in 2020? If yes: What was the amount? Do not include Social Security. 36k. Did <you/NAME> receive a pension or any retirement income from a previous employer or union OR any regular withdrawals or distributions from retirement accounts such as 401(k), 403(b), IRA, Roth IRA, or other accounts designed specifically for retirement in 2020? If yes: What was the amount? Do not include Social Security. 36L. Did <you/NAME> receive income on a REGULAR basis from any other sources such as Department of Veterans Affairs (VA) payments, unemployment compensation, child support, or alimony in 2020? If yes: What was the amount from all sources? (Do not include lump sum payments such as money from an inheritance or sale of a home.) 36m. What is your best estimate of the TOTAL income <you/NAME> received from all sources in 2020?	36d. Did <you/NAME> receive any interest or dividends in 2020? Report even small amounts credited to an account. If yes: What was the amount? 36e. Did <you/NAME> receive any royalty income or income from estates and trusts in 2020? If yes: What was the amount? 36f. Did <you/NAME> receive any rental income in 2020? If yes: What was the amount? Report net income after expenses. 36g. Did <you/NAME> receive any Social Security or Railroad Retirement benefits in 2020? If yes: What was the amount? 36h. Did <you/NAME> receive any Supplemental Security Income (SSI) payments in 2020? If yes: What was the amount? 36i. Did <you/NAME> receive any financial assistance or payments from the state or local welfare office in 2020? If yes: What was the amount? Do NOT include SNAP (Food Stamps), unemployment compensation, or non-cash benefits, such as energy or housing assistance. 36j. Did <you/NAME> receive any survivor or disability income in 2020? If yes: What was the amount? Do not include Social Security. 36k. Did <you/NAME> receive a pension or any retirement income from a previous employer or union OR any regular withdrawals or distributions from retirement accounts such as 401(k), 403(b), IRA, Roth IRA, or other accounts designed specifically for retirement in 2020? If yes: What was the amount? Do not include Social Security. 36L. Did <you/NAME> receive income on a REGULAR basis from any other sources such as Department of Veterans Affairs (VA) payments, unemployment compensation, child support, or alimony in 2020? If yes: What was the amount from all sources? (Do not include lump sum payments such as money from an inheritance or sale of a home.) 36m. What is your best estimate of the TOTAL income <you/NAME> received from all sources in 2020? 33a. ¿Cuándo trabajó <usted/NOMBRE> por última vez por paga, aunque fuera por unos pocos días? En los últimos 12 meses Hace entre 1 y 5 años Hace más de 5 años o nunca trabajó 33b. En el 2020, ¿trabajó esta persona por paga, aunque fuera por unos pocos días? Sí No

(continued)

Table 2.32: Income and Weeks Worked Questions by Version (CAI Mode) (continued)

CAI Mode

V1	V2
33a. ¿Cuándo trabajó <usted/NOMBRE> por última vez por paga, aunque fuera por unos pocos días? En los últimos 12 meses Hace entre 1 y 5 años Hace más de 5 años o nunca trabajó 33b. En el 2020, ¿trabajó esta persona por paga, aunque fuera por unos pocos días? Sí No 34a. Durante las 52 semanas del 2020, ¿trabajó <usted/NOMBRE> TODAS las semanas? Cuente vacaciones pagadas, licencia por enfermedad pagada y el servicio en las Fuerzas Armadas como trabajo. Incluya todos los trabajos por paga. 34b. Durante las 52 semanas del 2020, ¿cuántas SEMANAS trabajó esta persona por lo menos un día? Incluya semanas en las que la persona trabajó solo unas pocas horas. Incluya todos los trabajos por paga. Cuente vacaciones pagadas, licencia por enfermedad pagada y el servicio en las Fuerzas Armadas como trabajo. 34c. Durante el 2020, en las semanas trabajadas, ¿cuántas HORAS trabajó usualmente esta persona cada SEMANA? Incluya todos los trabajos por paga y el servicio en las Fuerzas Armadas. **Las siguientes preguntas son sobre todos los tipos de ingreso, sujetos a impuestos o no, recibidos en el 2020 (desde el 1 de enero de 2020 hasta el 31 de diciembre de 2020).** Para el ingreso recibido en conjunto, informe la parte que le corresponde a cada persona, o, si eso no es posible, informe la cantidad total para una sola persona y no informe el ingreso para la otra persona. 36a. ¿Recibió <usted/NOMBRE> jornales, sueldos o salarios en el 2020? 36e. ¿Recibió <usted/NOMBRE> algún ingreso por derecho de autor o ingreso por herencias y fondos de fideicomisos en el 2020? If Sí: ¿Cuánto fue la cantidad? 36f. ¿Recibió <usted/NOMBRE> algún ingreso por alquileres o rentas en el 2020? If Sí: ¿Cuál fue la cantidad? Informe el ingreso NETO después de descontar los gastos. 36g. ¿Recibió <usted/NOMBRE> pagos por beneficio del Seguro Social o pagos de retiro para personal de los ferrocarriles en el 2020? If Sí: ¿Cuál fue la cantidad?	34a. Durante las 52 semanas del 2020, ¿trabajó <usted/NOMBRE> TODAS las semanas? Cuente vacaciones pagadas, licencia por enfermedad pagada y el servicio en las Fuerzas Armadas como trabajo. Incluya todos los trabajos por paga. 34b. Durante las 52 semanas del 2020, ¿cuántas SEMANAS trabajó esta persona por lo menos un día? Incluya semanas en las que la persona trabajó solo unas pocas horas. Incluya todos los trabajos por paga. Cuente vacaciones pagadas, licencia por enfermedad pagada y el servicio en las Fuerzas Armadas como trabajo. 34c. Durante el 2020, en las semanas trabajadas, ¿cuántas HORAS trabajó usualmente esta persona cada SEMANA? Incluya todos los trabajos por paga y el servicio en las Fuerzas Armadas. Las siguientes preguntas son sobre todos los tipos de ingreso, sujetos a impuestos o no, recibidos en el 2020 (desde el 1 de enero de 2020 hasta el 31 de diciembre de 2020). Para el ingreso recibido en conjunto, informe la parte que le corresponde a cada persona, o, si eso no es posible, informe la cantidad total para una sola persona y no informe el ingreso para la otra persona. 36a. ¿Recibió <usted/NOMBRE> jornales, sueldos o salarios en el 2020? If Sí: ¿Cuánto recibió de sueldo o salario de todos los empleos antes de aplicarse deducciones por impuestos, bonos, cuotas y otras cosas? 36b. ¿Recibió <usted/NOMBRE> alguna comisión, bonificación o propina en el 2020? If Sí: ¿Cuánto recibió <usted/NOMBRE> de todas las propinas, bonificaciones o comisiones de todos los empleos antes de aplicarse deducciones por impuestos, bonos, cuotas y otras cosas? 36c. ¿Recibió <usted/NOMBRE> algún ingreso de empleo por cuenta propia regularmente en el 2020, incluyendo el trabajo pagado en efectivo? (Informe ingresos de sus propios negocios (agrícolas o no agrícolas), ya sea como propietario único o en sociedad.) If Sí: ¿Cuál fue la cantidad? Informe el ingreso NETO después de incurrir los gastos del negocio. 36d. ¿Recibió <usted/NOMBRE> algún interés o algunos dividendos en el 2020? Informe cantidades, aunque sean pequeñas, acreditadas a una cuenta. If Sí: ¿Cuánto fue la cantidad? 36e. ¿Recibió <usted/NOMBRE> algún ingreso por derecho de autor o ingreso por herencias y fondos de fideicomisos en el 2020? If Sí: ¿Cuál fue la cantidad? 36f. ¿Recibió <usted/NOMBRE> algún ingreso por alquileres o rentas en el 2020? If Sí: ¿Cuál fue la cantidad? Informe el ingreso NETO después de descontar los gastos.

(continued)

Table 2.33: Income and Weeks Worked Questions by Version (CAI Mode) (continued)

CAI Mode	
V1	V2
36h. ¿Recibió <usted/NOMBRE> algún pago de Seguridad de Ingreso Suplementario (SSI) en el 2020? If Sí: ¿Cuál fue la cantidad? 36i. ¿Recibió <usted/NOMBRE> asistencia financiera de la oficina de bienestar (*welfare*) estatal o local en el 2020? If Sí: ¿Cuál fue la cantidad? NO incluya SNAP (Cupones de Alimentos), compensación por desempleo o beneficios que no sean en efectivo, tales como asistencia para la energía o la vivienda. 36j. ¿Recibió <usted/NOMBRE> algún ingreso por sobreviviente o discapacidad en el 2020? If Sí: ¿Cuál fue la cantidad? No incluya Seguro Social. 36k. ¿Recibió <usted/NOMBRE> una pensión o algún ingreso de jubilación de un empleador o sindicato (*unión*) previo, o alguna cantidad retirada o distribuida regularmente de cuentas de jubilación tales como 401(k), 403(b), IRA, una IRA no deducible (ROTH IRA) o de otras cuentas diseñadas específicamente para la jubilación en el 2020? If Sí: ¿Cuál fue la cantidad? No incluya Seguro Social. 36L. ¿Recibió <usted/NOMBRE> ingreso en forma REGULAR de alguna otra fuente, tal como pagos de la Administración de Veteranos (VA), compensación por desempleo, pensión para hijos menores, pensión alimenticia, o pensión de su ex pareja en el 2020? If Sí: ¿Cuál fue la cantidad total de todas las fuentes? (No incluya pagos de mayor cantidad recibidos una sola vez, tales como dinero de una herencia o la venta de una casa.) 36m.¿Cuál es su mejor estimado del ingreso TOTAL que <usted/NOMBRE> recibió de todas las fuentes en el 2020?	36g. ¿Recibió <usted/NOMBRE> pagos por beneficio del Seguro Social o pagos de retiro para personal de los ferrocarriles en el 2020? If Sí: ¿Cuál fue la cantidad? 36h. ¿Recibió <usted/NOMBRE> algún pago de Seguridad de Ingreso Suplementario (SSI) en el 2020? If Sí: ¿Cuál fue la cantidad? 36i. ¿Recibió <usted/NOMBRE> asistencia financiera o pagos de la oficina de bienestar (welfare) estatal o local en el 2020? If Sí: ¿Cuál fue la cantidad? NO incluya SNAP (Cupones de Alimentos), compensación por desempleo o beneficios que no sean en efectivo, tales como asistencia para la energía o la vivienda. 36j. ¿Recibió <usted/NOMBRE> algún ingreso por sobreviviente o discapacidad en el 2020? If Sí: ¿Cuál fue la cantidad? No incluya Seguro Social. 36k. ¿Recibió <usted/NOMBRE> una pensión o algún ingreso de jubilación de un empleador o sindicato (unión) previo, o alguna cantidad retirada o distribuida regularmente de cuentas de jubilación tales como 401(k), 403(b), IRA, una IRA no deducible (ROTH IRA) o de otras cuentas diseñadas específicamente para la jubilación en 2020? If Sí: ¿Cuál fue la cantidad? No incluya Seguro Social. 36L. ¿Recibió <usted/NOMBRE> ingreso en forma REGULAR de alguna otra fuente, tal como pagos de la Administración de Veteranos (VA), compensación por desempleo, pensión para hijos menores, pensión alimenticia, o pensión de su ex pareja en el 2020? If Sí: ¿Cuál fue la cantidad total de todas las fuentes? (No incluya pagos de mayor cantidad recibidos una sola vez, tales como dinero de una herencia o la venta de una casa.) 36m. ¿Cuál es su mejor estimado del ingreso TOTAL que <usted/NOMBRE> recibió de todas las fuentes en el 2020?

7.4.1 English Interviews Findings

(1) Do participants have difficulty navigating through the series of weeks worked questions? Does re-numbering questions help prevent people from incorrectly answering/skipping questions? Does one version (for paper mode) seem easier to navigate or cause less confusion?

Overall, English participants had a difficult time navigating through the series of weeks worked questions. Nine of the 10 Version 1 paper participants and seven of the 10 Version 2 paper participants made at least one error in following the skip patterns. Most commonly, participants answered question 41b when they should have skipped it after selecting "Yes" in question 41a. Twelve out of the 20 English paper participants made this mistake. Ten of the 12 participants who made this mistake answered "52 weeks" for question 41b. The other two participants answered, "48 weeks" and "12 weeks." The participant who answered 48 weeks (version 1 participant) indicated that they omitted weeks for which they were on paid vacation or sick leave in their response to question 41b because they interpreted the instructions to only apply to question 41a. The other participant answered 12 weeks for her husband who worked only some weeks in 2020 before going back to work full-time in 2021. Thus, during probing, it was discovered that this participant incorrectly answered question 41a – she should have answered 41a with "No" instead of "Yes."

Other navigation errors included selecting "No" for question 41a (In 2020, did this person work EVERY week?) and then skipping question 41b; answering all questions after selecting "No" in question 40 (In 2020, did this person work for pay, even for a few days?); answering all questions in the series after selecting "Over 5 years ago or never worked" in question 39 (When did this person last work for pay, even for a few days?); and answering question 39 (When did this person last work for pay, even for a few days?) when the person worked the previous week and after answering at least some of questions 36-38.

There was no evidence that one version seemed easier to navigate or caused less confusion for participants.

(2) Adding "for at least one day" to 41b is supposed to let the participant know that we consider a week being worked even if they just worked one day in that week. Do participants seem to understand that concept?

Participants displayed a strong understanding of the concept that a week is considered worked even if they just worked one day in that week. Only five participants indicated that they would not count a week as worked if they had worked only one day in that week. Three of these participants (two irregular workers and one regular worker) did not specify why they would not count those weeks as worked. The other two (both regular workers) indicated that they (correctly) did not count weeks that they were on vacation or sick leave because they were not paid for time out of the office.

- "Yes, I would have taken a vacation and only worked on a Friday or Monday, but I would have included them."
- "Yes, it is atypical, but I would count it even if I worked one day a week."
- "Yes, because I went to [another country] back in December and stayed through New Years, so I was on vacation. Then when I left, they paid out what was left [of my vacation time] and severance pay."

When asked how a person should answer if they worked every Thursday but did not work any other day of the week, all but one participant answered "52 weeks." The one participant who answered incorrectly did some math for which the logic was unclear and answered, "4

weeks." Another participant noted that "52 weeks" was the technical answer but felt that response was misleading and would skew data and statistics.

- "Have to do the math. 4X12=12/48= 4 weeks."
- "If they worked every Thursday, they could say the 52 weeks, but really they only worked 52 days."

When asked how a person should answer if they worked only one day all year, nearly all participants answered, "1 week." Five participants felt that, at this point, it made more sense to answer, "1 day;" however, one of these participants phrased this response as, "1/7th of the week for the whole year." Another participant indicated they would consider an individual in this scenario to be unemployed.

- "Then just say one day."
- "If someone worked only one day it would be better to ask how many days they had worked rather than weeks worked."
- "That would be unemployed."

Finally, when asked how a person should answer if they work 4 hours per week or 60 hours per week, nearly all English participants answered, "52 weeks." One participant answered, "0 weeks" because "the question asks about 'at least one day' and 4 hours isn't a full workday." Another participant answered "2 weeks" for a person who worked only 4 hours per day because this is half of working 1 day per week. This participant did not know how to answer for 60 hours per week. Lastly, one participant did not answer in terms of number of weeks worked, but instead answered, "employed part-time."

(3) Do participants think paid leave should be counted as work? Does one version of the paper questionnaire perform better at conveying this message? Does the new note help? Is it being read?

As noted previously, all but three English participants indicated that they would count paid leave as work. Three additional participants excluded time they were out of work sick or on vacation because these were not paid leaves for these participants.

- "I was including the single job that I was employed at over the course of 2020. I thought of if I was including vacation and sick time than I was working every week out of the year."

Two of the 20 English paper participants did not read the instructions or did not notice the instructions. Both participants received Version 2 of the questionnaire. An additional Version 2 paper participant indicated that they did not read the instructions carefully because they do not receive paid leave. The seven remaining Version 2 participants and all 10 Version 1 participants indicated that they noticed and read the instructions.

- "Yes, I did read it, and did include my job and paid vacation. The note assured me as to what I included in 41a."
- "I did notice the instructions. I have paid leave that covers both vacation and sick leave. I included time I took leave because I was still employed full time."

One Version 1 English participant noted that they included weeks on paid leave in their response to question 41a but did not include weeks on paid leave in their response to question 41b. This participant interpreted the instruction to be stating that paid leave should only be included in question 41a. Another participant indicated that they did read the instructions but felt these questions required a large amount of calculations and they would be unlikely to answer them if they were completing the survey on their own.

(4) Do workers with irregular schedules struggle with the hours worked each week question? Do the new instructions and the new question placement make it easier for irregular workers to report usual hours worked each week?

The most common strategy for reporting the number of hours worked each week was to report the average number of hours, particularly when hours tended to vary from week to week. Both regular and irregular workers used this approach, as regular workers occasionally worked more or less than 40 hours in a week. One participant, who gets paid weekly, used a different approach and reported the number of hours on his most recent paycheck. Another participant, who was a regular worker, recommended irregular workers report the highest number of hours they may work in a week.

- "I went based on our averages. Both of our jobs we have days where it's kind of slow and may work less than 8 hours. We also have days and weeks that are very busy and I've had weeks where I work 55 hours. Both of our companies advise that if we work more than 40 hours in a week to take some slack the week after when you have the ability. Our companies have clearly expressed that they expect to get, on average, 40 hours of work from us per week throughout the year."
- "I would say try to average it out, so if they work between 20 and 40 hours a week maybe pick 30 because that's a middle ground in the range."

Of the 17 irregular workers who were asked how they came up with their answer for the number of hours worked each week, 13 indicated that they reported the average number of hours they worked. One of these irregular workers indicated they only included their current full-time job, which they started halfway through 2020, in their response and excluded the part-time jobs they worked in the first half of 2020. Another irregular worker explained that they only reported the hours they work for their steady, 8-hours-a-day job and did not include hours for other side jobs as these were inconsistent source of work.

No participants expressed any challenges with reporting the usual number of hours worked each week. One participant only reported the hours for one of their jobs—the primary job for which they work eight hours per day—and did not include hours worked on the occasional odd job. Another participant started a full-time job 6 months into 2020. This participant answered the weeks worked questions based on that job and not the part-time they were working in the first half of 2020.

(5) Do participants report income for the appropriate reference period (prior year)?

Five of the 40 Group 3 English participants indicated that they reported their income using a reference period other than 2020. Two of these participants received the paper mode of the questionnaire and three participants received the CAI mode of the questionnaire. The two paper participants did not notice that the question instructions included the 2020 reference period when answering the question but did notice this during probing.

- "Oh, I just realized I was in school for half that time period! I didn't look at the dates carefully enough. January-March was pre-pandemic, but I was paid by my old school through July. I was thinking about this calendar year, not 2020. Maybe if I was doing this at home, I would review it more carefully."
- "I don't know. I didn't see the 2020 at first. But I see it now. I was focused on the questions; I didn't realize they wanted to know all income from 2020."

One of the CAI participants thought only of the six-month window during which they received food stamps because this was their only source of income during 2020. It was unclear if this six-month window was limited to 2020. Another of the CAI participants thought of the last time they and the other household member worked, which for the

participant was three years ago. The third CAI participant thought of March 2020–March 2021 because of the potential effects of the Coronavirus pandemic on income.

- "I was thinking about the time that I get food stamps, six months."
- "I was thinking as recent as last year for Person 3 and for me the last time that I worked, which was about 3 years ago."
- "I used March 2020 to March 2021 because this past year was weird because of the pandemic. I wasn't sure if 2020 meant January to December given the pandemic, but I reported based on March to March."

All other participants reported based on January 2020 through December 2020, and several participants discussed referencing their tax documents or bank statements from 2020 to identify the amount they received for each type of income.

- "I just filed my 2020 taxes, so I knew [the amounts]."
- "I don't know what my wages were in 2020. I would have to look at my tax form. I did my taxes, but I don't remember. I didn't pay attention to how much wages here. All income was through wages and salary, no other income."

(6) When reporting total income amount, do participants report "all sources" or do they leave some out?

Five participants excluded some sources of income from their total income amount. The types and reasons for excluding sources of income varied among these five participants:

- One participant excluded babysitting money they earned during 2020 because they were only including taxable income. This participant also excluded SNAP benefits and scholarship money because they did not consider these to be source of income.
- Another participant (inadvertently excluded unemployment income because they did not see that listed in question 44i. Had this participant noticed this, they would have included this income.
- One participant reported receiving income from interests and dividends in 44c but did not include this income in their total income amount because it was a very small amount that they passively earned. The participant did not think of this as income.
- Another participant did not include money withdrawn from his wife's 401k account. When asked during probing where he would have reported this income if he had included it in his response, he indicated that he would not have included the 401k withdrawal on any of the items on 44a–44i. Instead, the participant would have just added this amount to the total in question 45. Note, however, that the participant did not edit his response to question 45 to include this income.
- The final participant to exclude sources of income did not include income from royalties, inheritances, and interest but did not explain why.

Two participants were unsure of whether they should include some sources of income in their total income amount.

- One participant was unsure of whether he should include his wife's bonuses in the total income amount because these were not guaranteed each year (i.e., the participant was unsure if he should provide a figure of his wife's guaranteed income each year or a figure that may not be consistent from year-to-year).
- The other participant was unsure if he should include the transport allowance his wife receives from work. This participant felt none of the categories in question 44 covered this type of income.

Of the seven participants who excluded sources of income from their total income amount, or who were unsure about whether to include some sources of income, five were paper participants. This may be an indication that participants are fully absorbing the income

questions instructions when read aloud by an interviewer rather than when read by the participant who may skim or not read question instructions.

(7) Do participants report all self-employment income (including side jobs that they may not report as income for tax purposes)?

Five participants did not report all self-employment income from 2020 or incorrectly reported self-employment income under a different income category. Two of the participants who did not report self-employment income did so because they did not think of their income would be classified as self-employment income.

- One of these participants reported income for himself and his wife, both of whom are freelance/gig workers, under wages and salary rather than self-employment. The participant did this because he thought of self-employment income as income earned from owning a company or being an entrepreneur, and he did not consider himself to fall into either of these categories.
- Another participant whose side gig entails selling their own stickers, shirts, and home décor products, did not report self-employment income because "self-employment is if you are the owner of a business. Being your sole boss."

Another participant who did not report self-employment income excluded money she made from babysitting because she is paid in cash, she does not earn much money through that side gig, and she does not receive a W2 for that pay.

- "Yes, I have a side gig. I babysit. I didn't report it as income because it's paid in cash and it's not very much. So, I don't have to report it because I don't get a W2"

Two participants incorrectly classified self-employment income:

- One participant indicated he had a side job doing day-trading, and this income was reported as part of his total wages/salary under part a. During probing, the interviewer asked why the participant had answered "No" to self-employment income, and the participant realized he had made a mistake. The participant indicated he should have answered "Yes" to both wages/salary and self-employment income and reported the incomes separately.
- The other participant was unsure how to report his wife's self-employment income. The participant's spouse owned her own business and paid her own salary, so the participant was unsure if this income should be reported under "salary and wages" or "self-employment" income. The participant eventually decided to include his wife's income in both categories, creating an issue when answering the total income question as the total of all income categories would be an overestimate.

(8) Does creating a separate category for net rental income (for paper mode) make it easier for participants to recall the amounts and report accurately?

Two paper participants reported receiving net rental income in 2020. Both participants correctly reported this as income earned from owning a rental property rather than rent paid to a landlord. No participants indicated that they owned rental property for which they did not report rental income.

One of the participants who reported net rental income initially skipped over the instructions. During probing, this participant read the instructions and modified their answer to remove all expenses from the total income amount. The other participant who reported a net rental income noted that the instructions said, "after expenses" and indicated they would report the total income minus total expenses. This participant was noted it would have been easier to answer if they had already completed their 2020 taxes.

When asked how they would enter a loss in rental income, the participant who received Version 1 of the paper questionnaire said they would enter the loss amount and check the "Loss" box. The participant who received Version 2 of the questionnaire did not notice the loss box.

(9) Does having net rental income as its own category (for paper mode) make participants who are reading quickly misinterpret and misreport their monthly rent to a landlord (instead of rental income)?

No participants incorrectly reported rent they paid to a landlord as rental income.

Though they did not report rent paid to a landlord, one Version 2 CAI participant had some difficulty reporting their 2020 rental income. This participant reported earning rental income in 2020; however, during probing, it became clear that the participant was thinking of the rental assistance they received during 2020. During this conversation, the participant realized they should have answered "No" to the rental income question and changed their response.

(10) Which version of instructions on losses and break-evens (for paper mode) are most helpful (or even noticed)?

Of the two paper participants who reported earning a net rental income in 2020, the participant who received Version 1 of the questionnaire noticed the loss instructions and was able to accurately indicate how they would report a loss for this type of income. The participant who received Version 2 of the net rental income question did not notice the "Loss" box and only commented that the amount reported should be less expenses. This implies Version 1 of the loss instructions may be more helpful. It may be more effective to include loss instructions in the question text (as in Version 1) than in the large chunk of text at the beginning of the income section (as in Version 2).

(11) Do the new instructions for public assistance income help participants to report the intended amounts? Specifically, do they understand that SNAP and unemployment should not be included?

Six participants (three Version 1 participants and three Version 2 participants) thought of SNAP (food stamps), unemployment, or housing assistance when answering this question. One of these participants initially included SNAP in their response, then changed their answer to "No" for public assistance income after re-reading the instruction during probing.

One Version 2 CAI participant indicated they included food stamps in their response. Three Version 1 CAI participants noted that they excluded SNAP, unemployment compensation, or non-cash benefits from their response because of the instructions.

Three participants (one Version 2 participant and two Version 1 participants) noted that they initially thought of SNAP, unemployment compensation, or other non-cash benefits when first reading the question. When these participants noticed that the instructions said to exclude these types of income, they were unable to provide further examples of public assistance that would be included in this question. Note that these participants did not have any income to report for these categories. This feedback was received in response to the probes.

- "When I read 'any financial assistance,' my first thought is unemployment, but it says to not include unemployment, so not really sure what other [financial assistance] they would be referencing."
- "The first thing I thought about financial assistance is in the DO NOT include category, so I don't know what other financial assistance to include. I was thinking about food stamps and unemployment."

Seven participants (five Version 1 participants and two Version 2 participants) noted that SNAP, unemployment, and non-cash benefits should not be included or that they excluded the SNAP, unemployment, and non-cash benefits they received in 2020 from their response. Two participants, both Version 1 participants, were unable to provide any examples of financial assistance that should be included in this question. Neither of these participants reported having received financial assistance in 2020.

Other examples of financial assistance provided by participants included the following:
- Medicaid or CHIP
- COVID-19 stimulus payments
- State or local assistance
- Welfare
- Disability

(12) Does moving up the instructions, "Do NOT include Social Security" (for paper mode) help avoid Social Security being included in retirement income? Do participants notice the instruction?

Two paper participants (one Version 1 participant and one Version 2 participant) reported receiving retirement income in 2020 and neither participant included Social Security in their retirement income. Both participants noticed and read the instructions, "Do NOT include Social Security" but had varying opinions on whether the instructions were helpful. One participant did not find the instructions helpful, but rather, confusing. This participant misread the instructions as, "Do NOT include income from a previous employer or union," and because he received Social Security Disability Insurance (SSDI) from a previous employer, he was unsure where to report this income. The other participant confirmed her retirement income was not connected to Social Security income and noted the instructions told her to exclude Social Security income. This participant found this question easy to answer because she receives a consistent amount of retirement income every year.

One participant was confused about whether to report their social security income under the retirement income category. This participant noticed that the instructions said to not include social security, but the instructions also said to include disability, which is what they received—their disability is social security. This participant eventually decided to include social security under the "Social Security or Railroad Retirement" category.

Four other participants reported receiving retirement income in 2020; however, for these participants the probes on retirement income were skipped due to time.

7.4.2 Spanish Interviews Findings

(1) Do participants have difficulty navigating through the series of weeks worked questions? Does re-numbering questions help prevent people from incorrectly answering/skipping questions? Does one version (for paper mode) seem easier to navigate or cause less confusion?

The answer is mixed, because half of the participants had navigation issues. Renumbering the questions did not alleviate incorrect skips. In the paper instruments, four of the eight Spanish-speaking participants had navigation issues in this series of questions:

- One participant erroneously answered Q36 because the person actually worked the previous week and Q36 is intended for persons who did NOT work last week.
- Another participant missed all the skips. They did not read instruction L. For questions that did not apply to this person, they answered None or 0. They started properly following the order of the questions, but after Q31 they no longer followed the skips.
- Another participant did not read instructions K and L, answering questions they should have skipped. As this person continued answering, they ignored the skip instructions and only skipped questions they thought did not seem to apply. The participant recommended to have the skips in a different color so people would not miss them.
- The fourth participant did read instructions K and L but did not follow them, as though they did not process the instructions. Thus, they answered questions they should have skipped and continued ignoring the skips through this section. The participant noticed that questions 37–39 did not apply to them and asked to go back and see what they had missed. This person finally read instruction L again and was able to skip to question 40.

(2) Adding "for at least one day" to 41b is supposed to let the participant know that we consider a week being worked even if they just worked one day in that week. Do participants seem to understand that concept?

In general, this addition did not cause issues. However, one paper mode participant was confused by this phrase. They thought they were being asked if the household member worked only one day in 2020. A CAI mode participant did not understand the questions and answered, "June or July." A second CAI mode participant was confused and did not answer for themselves.

In probing, another participant indicated they did not believe one should include weeks when they worked only one day.

Other participants appeared to understand the concept as it applied to their own situations or to someone in their household, even if they could not figure how to answer the vignettes. They found the vignettes confusing and some felt they would need to do complex calculations to answer. However, when it came to reporting the work hours and the number of weeks they or someone in their household had worked, they seemed to have fewer issues. This was evident in participants reporting someone working part time, over just one or two days a week; these participants reported weeks when they worked those limited hours in their total number of weeks worked.

- A participant reported working an uneven number of hours per week, ranging from 10 to 15 or 20.
- Another person reported they only worked four hours on Fridays and six hours on Saturdays, for a total of 10 hours a week.
- Another participant confirmed there were weeks when they worked only one day a week and that they did include those weeks in the counting.
- A participant confirmed that they work two days a week and that they did count all weeks when they worked those two days a week.

In probing, a few persons confirmed that, had they worked only one day in a certain week, they would have counted the week in the number of total weeks worked.

(3) Do participants think paid leave should be counted as work? Does one version of the paper questionnaire perform better at conveying this message? Does the new note help? Is it being read?

Among limited English proficient Spanish speakers, it is common to find large numbers of workers without paid leave. This sample was no exception.

We found that several participants understood the instructions to count paid leave as work but dismissed them as not applying to them. A few did have paid leave and counted the time off as working. Some examples include the following:

- Three participants said they took paid leave in 2020 and did include the time on leave as weeks worked.
- A third participant was paid for sick days when they got COVID-19, and they included that time in their count of weeks worked.

Also evidencing correct interpretation of the instructions, others mentioned not counting in their weeks worked the unpaid leave they took in 2020. For example, one person was off work for eight weeks in a row without pay as a result of an accident and did not include them as worked weeks.

Only four cases received Version 1 in paper mode, which has the note instructing participants about the types of paid leave to be included in the weeks worked. Of these four participants, three got to the note. One said they had not read it, one said they read it but nothing in the note applied to them, and the third one said they had read the note and answered accordingly. These are too few cases to know how well this version performed in comparison with Version 2.

(4) Do workers with irregular schedules struggle with the hours worked each week question? Do the new instructions and the new question placement make it easier for irregular workers to report usual hours worked each week?

Of the eight paper cases interviewed, three reported irregular hours. One said they work 12 to 15 hours a week and answered 15. Another one reported working 15 hours a week, and explained they work two night shifts per week, each lasting seven and a half hours.

In the third case, a participant reported about a household member who has no fixed schedule at work. This person works at a recording studio where there are no fixed hours. There are slots for recording that bands can select any time of day, and the session length depends on how fast it goes. This person has to be at work whenever there is recording work, up to seven days a week, and with some degree of unpredictability. The household member would not venture a response to the hours worked each week in 2020.

These participants appeared to navigate the questions without difficulty. There was not enough evidence to determine if the new placement made it easier for irregular workers to report their usual hours worked per week.

(5) Do participants report income for the appropriate reference period (prior year)

Participants reported income for 2020 and some specifically said that they referred to all 12 months of the year. There was one exception in a participant who said they were thinking about current income.

(6) When reporting total income amount, do participants report "all sources" or do they leave some out?

Participants who read the instructions appeared to understand them and follow them well.

- One participant explained it: "Ahí te tan preguntando el dinero que la persona ha ganado así tengas… ahí te lo especifican, tanto en la pregunta 44a como en la 44e (44a a 44e). Tienes que sumar todo, aunque hayas tenido pérdida, y ahí lo dice: pérdida o no." [Here they are asking you the money that the person has earned even if... they specify it there, both in question 44a and 44e (44a to 44e). You have to add it all up, even if you had a loss, and it says it there: loss or not.]

Nonetheless, not all participants followed the instructions, whether they read them or not, as in the following cases:

- A paper mode participant said they forgot to include the SNAP benefits (which they had reported in error in the welfare assistance question) in their total income.
- Another participant said they gave a rough estimate without making any calculation. They said they included their work income, what they made from September to December. The amount they gave was a quick estimate based on the annual income they would have received if they had worked the full year.
- Another participant said that they included only their unemployment compensation and did not include their work income or tips. They said they did not know the amount received from work, which is why they did not include it.
- Another person included their Social Security income but forgot to add the stimulus money they had reported in 36b.

(7) Do participants report all self-employment income (including side jobs that they may not report as income for tax purposes)?

None of the paper mode participants reported any self-employment income for themselves or the selected household members, but four of the CAI mode participants did.

The four persons who answered "yes" in this question included one who most likely is paid in cash: a participant reported on earnings from shoveling snow. The other three did not provide sufficient detail to know for certain.

Among those who did not report self-employment income, there were two who had such income but decided they would not report it:

- One person mentioned having done a few jobs in 2020 for which they were paid cash. They decided not to include them in question 44b because those were very small jobs for people who wanted to help him earn some money during the pandemic.
- The other participant mentioned they do occasional jobs, for instance, when a friend invites them to work cleaning houses. This person said they did not report the income because it is very occasional and very little money. They understood, however, that if you made more money from this occasional job, they should report it under self-employment income.

Most participants gave the socially acceptable response to the probe on whether all income should be reported, even if not included in the tax return. Except for a few who said they did not know, most said "yes," all income should be reported in your tax return and in the survey.

(8) Does creating a separate category for net rental income (for paper mode) make it easier for participants to recall the amounts and report accurately?

Only one Spanish participant reported rental income. This was a Version 1 participant. They did not notice the instructions on losses or break-evens. There were no false positives in any of the other seven paper cases.

(9) Does having net rental income as its own category (for paper mode) make participants who are reading quickly misinterpret and misreport their monthly rent to a landlord (instead of rental income)?

Only one Spanish participant reported rental income.

(10) Which version of instructions on losses and break-evens (for paper mode) are most helpful (or even noticed)?

This issue was not relevant for the Spanish participants.

(11) Do the new instructions for public assistance income help participants to report the intended amounts? Specifically, do they understand that SNAP and unemployment should not be included?

Because of low acculturation, limited English proficient participants are typically confused about public assistance, because they themselves do not qualify for many government benefits. This makes it harder to process instructions correctly in item g. Only one paper mode participant answered "yes" to this question and did so in error, because they included SNAP. When directed to read the instruction which they had skipped, they realized they should not have answered "yes." Two participants correctly excluded SNAP benefits in their response because of the instruction.
In probing about what sources of income should be included, participants were able to repeat which sources of income the instructions said NOT to include, but they could not come up with ideas of what should be included.

- A participant that was asked if they could think of any financial help received from the Welfare Office mentioned "Social Security."
- Another participant thought the question wanted to know if the person receives welfare income, like Food Stamps: "Si tiene ingresos del welfare, como las estampillas." This person felt the stem of the question asked for something that was then excluded in the instructions: "lo que te preguntan arriba, te lo cambian abajo." [They ask for something up top, but they change it below.] The interviewer asked if the participant knew of any type of welfare program different than the ones listed in the instructions. They answered SNAP and food stamps.
- Another participant explained, "Pues las personas a quien les dan ayuda como para la comida, tarjeta médica, bueno no tarjeta médica… beneficios. Y nosotros no tenemos nada de eso." [Well, the people who receive benefits like for food, medical card, well not the medical card... benefits. And we don't have any of that.]

None of the 26 participants in Group 3 misreported unemployment compensation under Public Assistance Income. Nonetheless, there were two participants (one in each mode) who gave unemployment compensation as an example of what the question is asking people to report.

(12) Does moving up the instructions, "Do NOT include Social Security" (for paper mode) help avoid Social Security being included in retirement income? Do participants notice the instruction?

No paper mode participants had retirement income other than Social Security. The instruction appeared to have a negative effect for a participant who receives SSDI. This person interpreted the instruction as telling them not to include their SSDI under item h, and to only include it under item e.

7.4.3 Version 1 Findings by Mode

a. Paper Mode – English

Weeks Worked

Nine of the 10 Version 1 paper participants had difficulty navigating the weeks worked questions series, incorrectly answering or incorrectly skipping at least one question in the series. The most common mistake among participants was to answer question 41b (In 2020, how many WEEKS did this person work for at least one day?) after answering "Yes" to question 41a ("In 2020, did this person work EVERY week?). Five of the Version 1 paper participants made this mistake. Other navigation errors included selecting "No" for question 41a (In 2020, did this person work EVERY week?) and then skipping question 41b; answering all questions after selecting "No" in question 40 (In 2020, did this person work for pay, even for a few days?); answering all questions in the series after selecting "Over 5 years ago or never worked" in question 39 (When did this person last work for pay, even for a few days?); and answering question 39 (When did this person last work for pay, even for a few days?) when the person worked the previous week.

One participant experienced some difficulty in answering questions 39 and 40. This participant indicated that he was trying to remember when he was laid off from work versus when his disability started. The participant did not feel that the question could be worded any clearer, he just had a complicated situation. This participant also started answering this series of questions about 2019, realized his mistake, and then returned to the beginning of the series to answer about 2020. It was in 2020 that the participant began receiving disability, and this made it a bit more difficult for him to answer.

None of the participants had trouble understanding the phrase "work for pay even for a few days." Participants interpreted this to be referencing any work that an individual performed and was paid for, regardless of how long the work lasted. One participant did not understand why "even for a few days" was included in the phrase as "you either worked or you didn't."

All participants understood that the difference between questions 39 and 40, pointing out that the two questions are capturing different time periods:

- "Within the past 12 months includes July. You could be asking were they working any time within the past 12 months…it's getting that extra, at this point, 6 months that would have otherwise been lost if you didn't ask about 2020."

All participants indicated that they read the note before question 41, even when none of the situations applied to them. Four participants indicated that the note helped them answer the question by clarifying what should be included in the response. One of these participants stated that the note helped her determine if she should include her father's unpaid leave from work in her response.

One participant indicated that he would not have counted weeks when not at work because of vacation or sick leave but did not specify why he would exclude these weeks. All other participants indicated that they would include weeks when not at work because of vacation or sick leave in their response.

In responding to the various vignettes, participants continued to demonstrate their strong understanding of the weeks worked questions instructions. All participants correctly answered the vignette questions—52 weeks for someone who worked every Thursday; one week for someone who worked on one day all year; 52 weeks for someone who worked four hours per week and someone who worked 60 hours per week.

Three participants did not read the instructions on question 42 because they were not applicable to these participants. All other participants read the instructions. All but one participant recommended irregular works report their usual hours worked per week by calculating their average hours. The one participant who recommended a different approach felt irregular workers should report the maximum number of hours they may work in a week.

Income

Four of the 10 Version 1 paper participants had at least some difficulty reporting their 2020 income. One participant was confused about whether to report their social security income under the retirement income category. This participant noticed that the instructions said to not include social security, but the instructions also said to include disability, which is what they received—their disability was social security. This participant eventually decided to include social security under the "Social Security or Railroad Retirement" category. Another participant was unsure if he should include joint accounts, royalties, and rental income when reporting his wife's 2020 income. This participant decided not to include these joint accounts on his wife's income but was unsure of this decision.

One participant initially answered all work and income questions for 2019. When this participant realized their mistake, they adjusted all answers for 2020. This participant also had difficulty deciding where to report SSDI. The participant felt SSDI could either be reported under "Social Security or Railroad Retirement" or under "Retirement income, pensions, survivor, or disability income." This participant misread the retirement income instructions to say, "Do NOT include income from a previous employer or union," and because he received SSDI from a previous employer, he was unsure where to report this income. Eventually, the participant decided to report SSDI under retirement income. Lastly, one participant was unsure how to classify his wife's self-employment income. This participant's wife owned her own business and paid her own salary. Thus, the participant was unsure if he should report her income under "Wages, salary, commissions, bonuses or tips," or "Self-employment income." This participant eventually decided to report the income in both categories; however, the participant realized this created an issue when answering question 45 as the total of 44a–44i would now be an incorrect number. This participant did not know how to proceed from this point. All 10 participants were thinking of 2020 as the reference period for questions 44 and 45.

One participant reported receiving net rental income in 2020. This participant initially skipped over the instructions to report the net income rather than the total income. During probing, the participant's attention was drawn to these instructions and he adjusted his initial response. When asked how he would have reported a loss on net rental income, this participant indicated he would have entered the amount and checked the "Loss" box. To

report breaking even on rental income, the participant would have entered $0 as the income amount. None of the other nine participants reported renting their home or owning rental property.

Two participants thought the financial assistance question (question 44g) was asking them to report income from SNAP (food stamps) or unemployment. Neither of these participants reported received income from financial assistance in 2020. Food stamps and unemployment immediately came to mind for two other participants when they read the question; however, these participants then noticed that the instructions said to exclude these sources of income. These participants were unable to think of examples of financial assistance that did not include food stamps or unemployment. Two participants noted that the instructions said to exclude food stamps, unemployment, and non-cash benefits. One of these participants had received these types of benefits in 2020 and, thus, did not include them in their response. The other participant had never received any financial assistance and thus had a hard time providing examples of other types of financial assistance. One participant felt COVID-19 stimulus payments should be included in this question, and one participant felt this question generally included "any financial assistance, state or local."

Six participants indicated that income not reported for tax purposes should be included in this question; however, one of these participants felt it would be difficult to "get people to comp to [non-tax income]…because something always comes along that you need it for before the taxes are due." This participant felt tips were the only non-tax income that would be reported for this question. Two of these participants felt this income should be recorded in "Self-employment income" (question 44b) because this included reference to income paid in cash. Three participants felt this income should be reported under wages and salary. One participant was unsure where this type of income should be recorded. Two participants felt non-tax income should not be reported because they were unable to think of any income that would not be taxed. Another participant felt most non-tax income would likely be "more incidental…30, 40 dollars" and would not include this small amount of income.

Three participants reported somebody in the household having a side job or gig and recorded this income under the self-employment income category (question 44b). One of these participants indicated they would have reported a loss on self-employment income by recording a negative number. Four other participants stated they would enter the loss amount and then check the "Loss" box. Four participants (indicated they would record a break-even in self-employment income by entering $0; however, one participant indicated they would either enter $0 or select "No."

In reporting total 2020 income, one participant excluded income from interest, dividends, and royalties (question 44c) because they did not "think of that as income. It's very passive income. And it was so little." Two participants reported excluding some income from the total income for themselves or another household member. One of these participants excluded joint income from his wife's total income to not overreport the total household income. The other participant did not include money withdrawn from a 401k account. When asked where this participant would include this money in question 44, the participant indicated they would not include it in question 44 but would just "tack it on to question 45."

b. Paper Mode – Spanish

Weeks Worked

Without a doubt, the year 2020 was unusual for many families in the United States, and these participants were no exception. The COVID-19 pandemic disrupted employment for many in the country and affected both recollection and saliency of this information for our participants.

Of the four Spanish speaking participants who answered the Version 1 paper mode instrument, the concept of "work for pay" was probed just with one participant. Based on their response, the concept was understood as intended.

- "Pues obviamente si estás trabajando, te tienen que pagar, ¿no? esos días que estás trabajando, aunque hayan sido poquitos días, pero te tiene que pagar." [Well, obviously if you are working, you have to be paid, right, those days that you are working, even if they were just a few days, but you have to be paid.]

The difference between question 39 and question 40 could only be probed with one participant. The question was understood as intended.

- "Esta (question 39) está preguntando si la persona trabajó por paga la última vez. Y la (question 40) dice que trabajo esta persona por paga, aunque fuera por unos pocos días. O sea que no importa cuántos días hayas trabajado." [This (question 39) is asking if the person worked for pay the last time. And (question 40) asks if this person worked for pay, even if it was for a few days. So, it doesn't matter how many days you worked.]

Question 41a included a note that instructs participants to include paid vacation and paid sick leave as work. Three participants who worked in 2020 read the note responses were varied:

- One participant mentioned that they did not understand what it meant: "Todos los trabajos por paga" (all paid jobs). They explained that they understood that they had to 'count' even their part time job, since it says to include all jobs.
- A second participant said they did not read it but still included the paid time off.
- The third participant read the note but said they would not consider the 12 weeks they did not work as vacation because the reason they did not work was the pandemic.

Of the four Spanish participants who responded to this version, three participants did not read instructions labeled K and L in the paper questionnaire. One of them suggested a different contrasting color for the skip instruction boxes.

The special situation probes were not used consistently with all participants mainly because of lack of time.

Question 41b, regarding a person who worked only one day in the year elicited two different responses.

- One participant expressed hesitancy about how to report only one day of labor a year. The participant said that they were not sure if a one-day work would be important to include, or if it that information would be even considered
- Another participant answered "yes" without hesitation explaining that the note instructed to include even a job taken for only one day: "Sí, porque aquí dice, aunque sea un día." [Yes, because it says even if it is just for one day.]

Question 42 was understood as intended. In the cases when the probe could be asked, participants explained their current working situation and if their working hours have changed mainly due to pandemic situation.

Income

Four Spanish-speaking participants completed the survey in Version 1 of the paper mode. They reported income in question 44 from just two sources: a. Salaries or wages (two participants), d. Rental income (one participant). All other sources were answered "No" by all eight participants.

The two participants reporting salaries or wages had no issues interpreting the item and responding. However, one of them reported their own income instead of the person they were supposed to report about (their spouse).

The participant that reported rental income explained that they own a building with three apartments and rent these out. This person reported the annual income obtained from the rentals.

For Total Income in question 45, one participant who had not reported any income in question 44a–h consistently answered $0 (None). A second participant had also not reported any income in 44a–h. In observing their navigation, the interviewer noted that the participant had started the page at 44d, omitting the left side column of the page. As the person proceeded down the page, they noticed the left side column and the instructions preceding 44a. The participant realized they had missed their one source of income, salary or wages. They did not correct their entries but when reaching question 45, they did report their 2020 salary under Total Income.

The other two participants' and answers to Total Income matched the sum of the partial amounts reported in question 44. The former did mention in probing that they included only the money received from their work, which is the income they reported in their taxes. It was not clear if this was meant as their wanting to be consistent or if it meant that they knew the total amount because they remembered their tax return.

c. CAI Mode – English

Weeks Worked

None of the 10 Version 1 CAI participants had difficulty answering questions 39 and 40. Participants felt the question was clear and easy to understand and had a strong grasp on their work history and typical hours. Participants also had no trouble understanding the phrase "work for pay even for a few days." Participants interpreted this to be referencing any work that an individual performed and was paid for, regardless of how long the work lasted. One participant, however, indicated that they would not include "odd jobs," such as house sitting. This participant felt the question was asking about jobs that had been worked for longer than one day, even if only for a few days.

One participant indicated that he would not have counted weeks when not at work because of vacation or sick leave because he would not have received pay for that time away from work. All other participants indicated that they would include weeks when not at work because of vacation or sick leave in their response.

Four participants were asked the weeks worked vignette questions. All but one of these participants correctly answered the vignette questions—52 weeks for someone who worked every Thursday; one week for someone who worked on one day all year; 52 weeks for someone who worked four hours per week and someone who worked 60 hours per week. One participant had trouble answering these vignettes and performed a lot of math to arrive at their answers. This participant answered four weeks for a person who worked every Thursday; 1/7th of the week for someone who only worked one day all year; and two weeks for someone who worked four hours per week.

Only one participant was asked how they thought irregular workers should report their usual hours worked each week. This participant suggested they "give an average."

Overall, only one participant of the 10 Version 1 CAI participants had difficulty with the weeks worked questions. This participant was unable to answer the vignettes without performing difficult (and hard to understand) calculations and had difficulty answering about his own work experience. This participant stated that these questions were very difficult because he had to calculate how many hours he usually worked each week. In this process he forgot about certain jobs that he had over the course of the 2020. The participant started a full-time job at the end of 2020 and found it difficult to keep track of the part-time jobs he had before that transition.

Income

Four of the 10 Version 1 CAI participants had at least some difficulty reporting their 2020 income. Each of these participants reported more than one type of income in a single income category. One participant reported the total income from wages/salary and self-employment in both the wages and salary category and the self-employment category. When asked which was more applicable to his income situation, the participant said that self-employment income was more accurate and if he had been "given the list" (i.e., had been looking at the list of all income questions rather than the interviewer reading questions one by one) he would have selected only self-employment income. Another participant reported unemployment in both the wages/salary category and the "other" income category. This participant felt unemployment should be included in the wages total because he thought of unemployment as a replacement for wages or income he would otherwise be earning. This participant also used March 2020–March 2021 as his reference period for the income questions "because this past year was weird because of the pandemic." The participant was unsure if 2020 referred to January through December given the pandemic, so he reported based on March 2020–March 2021. All other participants were thinking of January 2020–December 2020.

Two participants included income from all sources in the wages/salary category then provided the amount for each sub-category in the subsequent questions. One of these participants also reported the COVID-19 stimulus payments under the royalty income category.

No participants reported receiving net rental income in 2020, nor did any participants report renting out their home or owning rental property. One participant did indicate that the other household member on whom they were reporting (the owner of the participant's home) receives rent from the participant and other roommates each month.

One participant included food stamps in his response to the financial assistance question. During probing, the instructions were read to this participant again, and he changed his answer to not include food stamps (i.e., changed answer from "Yes" to "No"). This

participant also received unemployment and housing assistance during 2020 but did not include these in their response. No other participants mentioned SNAP, unemployment, or other non-cash benefits as being included in the financial assistance question; however, one participant indicated that they had "no idea" what types of financial assistance should be included.

Three participants indicated that income not reported for tax purposes should be included in this question. Three participants felt non-tax income should not be reported. Two of these participants felt this should not be included because it is not included on taxes. The other participant simply because they "wouldn't want to include it."

Four participants reported somebody in the household having a side job or gig and three of these participants recorded this income under the self-employment income category. One of these participants did not include his gig income under the self-employment income category because he thought of self-employment as owning a company or being an entrepreneur, and he was neither of those things. Instead, this participant reported his gig income under his annual wages.

In reporting total 2020 income, one participant recorded the total ***household*** income when answering for each individual household member rather than the *individual's* total annual income. This participant also entered the monthly amount for each income source rather than the annual total. Another participant was unsure if he should include the transport allowance his wife receives from her employer. This participant felt none of the categories covered this type of income.

d. CAI Mode – Spanish

Weeks Worked

The concept of "work for pay" was probed with the nine Spanish-speaking participants who answered the CAI Version 1 questionnaire. Based on their responses, the concept was understood as intended.

- "Trabajo para que me paguen, uno no va a trabajar nomás por irse a diverter." [I work to get paid… you don't go to work just to have fun.]
- One participant sounded slightly confused by the question and said that all work is considered a for-payment job, otherwise it becomes a voluntary activity.

The difference between Q33a and Q33b could be probed with eight of the nine participants. Responses were varied.

- One participant said Q33a is asking for some type of date, whereas Q33b is a Yes/No question.
- One participant said that Q33a was asking when the last time they worked was and Q33b was asking if that person worked at all.
- One participant said that Q33a does not specify the year, whereas Q33b asks specifically about 2020.

For question 34a, the probe regarding the weeks when the person worked at least one day was asked in all 9 cases and understood as intended. Participants included weeks when their job schedule varied if that was the case:

- One participant said that another household member did not have weeks in which they worked only one day a week. Had they had that type of week the participant would have included them in the response.

- Another participant confirmed there were weeks when they worked only one day a week, and those weeks were included in the counting.

For question 34b, the probe regarding the weeks when the person was not at work because of sickness, vacation, or military service elicited varied responses.

- One participant mentioned they do not have vacation in their current job.
- Another participant said they included those weeks when they were sick with COVID-19 and they were paid the sick leave.
- Another participant did not count the weeks they did not worked because of an accident. They said they were not paid for those days.

Probes regarding specific hypothetical situations were not asked consistently across all participants for two reasons: participants had exhibited difficulty with hypothetical probes earlier in the interview or lack of time.

For question 34b, regarding a person who works only on Thursdays, the probe was administered to five participants. Three of them did not understand the probe as intended and said they would include those weeks in the counting.

The probe for question 34b, regarding a person who works 4 hours per week and another who works 60 hours a week, was confusing to participants. The probe elicited various responses.

- Three participants become stressed by the calculations they had to make.
- Two participants answered, "one week."
- Two participants just said they would include those weeks in the counting.
- One participant got the appeared to get the correct estimate after the interviewer read the question a second time.

Income

Nine Spanish-speaking participants completed the survey in Version 1 of the CAI mode. They reported income in question 36 from several sources: a. wages, salaries (eight participants); b. commissions, bonuses or tips (two participants); c. self-employment income (four participants); g. Social Security (two participants); i. welfare assistance (two participants); j. disability payments (one participant); and l. other regular income, e.g. from the VA (one participant). Items d. interests/dividends; e. royalties, estates, or trusts; f. rental income; h. SSI; and k. pension or retirement, were answered "no" by all nine participants.

Of the eight participants reporting salaries or wages (36a), none had issues interpreting the item and responding, other than not always knowing the earnings of another household member. One of them did mention not being familiar with the term *jornales* [wages]. This participant tried figuring the meaning of the term and, based on the cognate *jornada,* they guessed it must mean total daily wages.

Two participants reported tips, commissions, or bonuses (36b.) They both indicated these were bonuses. Also, one of them became uncomfortable at this point about reporting income for the householder and indicated they would not answer any further questions about that person.

For self-employment income (36c), of the four persons who answered "yes."

- One participant reported on earnings from shoveling snow, which this person does in addition to their regular job.

- Another participant reported on a household member's earnings as a massage therapist with their own studio.
- A third person reported working for themselves, being their own boss.
- The fourth participant was thinking of the odd jobs or gigs they do for pay. They said they like doing a variety of jobs.

Two participants reported income from Social Security (36g).

- One of them explained that they receive a check every month for Social Security. This participant was at first confused when hearing 'Railroad Retirement Benefits' saying that they do not get that. The interviewer repeated the question with more emphasis on the "or" [*o,* in Spanish] and the participant answered "yes."
- The other participant answered without apparent difficulty. However, later when asking about disability payments (question 36j), the participant raised a concern. They said they were confused because the interviewer was asking them the same thing again. They felt that they had already said "yes" to receiving Social Security due to their disability. They kept their answer to the first item and said "no" to disability payments.

Although they answered "no," three participants had issues with the SSI item (36h). Two of them were not familiar with *Seguridad de Ingreso Suplementarion (SSI)* and asked the interviewer what this was. The third one asked if the question referred to the pandemic stimulus check.

Two participants answered "yes" to the welfare assistance item (36i). One of them first answered "yes," thinking the question was referring to house financing from a bank. When the question was reread, this person changed the answer to "no." The other participant asked, "Is that food stamps?" The interviewer reread the instruction and the participant answered "no."

For the item on disability payments (36j), the person with confusion with Social Security reported they received disability payments from Social Security but because they had already mentioned it under Social Security, they were not including that here. They changed their initial "yes" answer to "no."

Finally, the participant answering "yes" to other regular income (36l) was reporting unemployment compensation.

For total income in item 36m, seven of the nine participants provided an amount. The two who said Don't Know to total income had given some dollar amounts in their answers in 36a–l. One participant was not familiar with the term *estimado* [estimate] and asked whether the interviewer meant "estimado o estímulo" [estimate or stimulus].

7.4.4 Version 2 Findings by Mode

a. Paper Mode – English

Weeks Worked

Seven of the 10 Version 2 paper participants had difficulty navigating the weeks worked questions series, incorrectly answering or incorrectly skipping at least one question in the series. The most common mistake among participants was to answer question 41b (In 2020, how many WEEKS did this person work for at least one day?) after answering "Yes" to question 41a ("In 2020, did this person work EVERY week?). Seven of the Version 2 paper

participants made this mistake. Other navigation errors included answering all questions after selecting "No" in question 40 (In 2020, did this person work for pay, even for a few days?); and answering question 39 (When did this person last work for pay, even for a few days?) when the person worked the previous week.

None of the participants had trouble answering questions 39 and 40. Participants felt the question was clear and easy to understand. One participant added that the phrase "even for a few days" made the questions even easier to answer. Participants also had no trouble understanding the phrase "work for pay even for a few days." Participants interpreted this to be referencing any work that an individual performed and was paid for, regardless of how long the work lasted.

Two participants were at least somewhat confused by the difference between question 39 and 40. One of these participants felt that question 39 was slightly confusing because it seemed repetitive; however, this participant felt it would make more sense if answering about a more "typical" work situation than theirs. Another participant knew the questions were not asking the same thing but was confused by them. This participant thought it would be easier if question 40 were asked first. The remaining eight participants understood that the difference between questions 39 and 40, pointing out that the two questions are capturing different time periods.

Two participants did not read the instructions or did not notice the instructions on question 41a. An additional participant indicated that they did not read the instructions carefully because they do not receive paid leave. The seven remaining participants indicated that they noticed and read the instructions.

One participant indicated that he would not have counted weeks when not at work because of vacation or sick leave but did not specify why he would exclude these weeks. All other participants indicated that they would include weeks when not at work because of vacation or sick leave in their response.

In responding to the various vignettes, participants continued to demonstrate their strong understanding of the weeks worked questions instructions. All but one participant correctly answered the vignette questions—52 weeks for someone who worked every Thursday; one week for someone who worked on one day all year; 52 weeks for someone who worked four hours per week and someone who worked 60 hours per week. One participant indicated that they would answer "0 weeks" for an individual who only worked four hours per week "because the question asks about "at least one day" and "four hours isn't a full workday."

Two participants did not read the instructions on question 42 or did not read them carefully. These participants skipped over these instructions because they were not applicable to their situations. All other participants read the instructions. Only one participant was asked how they thought irregular workers should report their usual hours worked each week. This participant suggested they "average them as best they can." Four other participants indicated that they reported the average number of hours they worked each week.

Income

Two of the 10 Version 2 paper participants had at least some difficulty reporting their 2020 income. One participant was unsure if she should be reporting income for herself only or for her entire household. This participant asked the interviewer to scroll down in the questionnaire so she could see if she would be answering the same questions for her husband. When she realized this was the case, she answered based on her individual

income. This participant left the wages/salary income question blank and only entered a response to the self-employment income. The participant was confused by the difference between wages/salary and self-employment income, though she noted she was self-employed in 2020. The other participant indicated they had received SSI and financial assistance in 2020. This participant was confused by the financial assistance question because their SSI and financial assistance payments are directly deposited as a single amount into their bank account each month. The participant was unsure if they should add the two amounts and report the total or report them separately. This participant left the total income question blank because he was unsure how to report his sources of income.

Two participants indicated they were thinking of the past 12 months rather than 2020. One of these participants felt they may have more carefully reviewed the instructions if they were completing the survey on their own. Another participant indicated that they did not see the 2020 reference period in the instructions at first but did see this during probing. This participant indicated that they were "focused on the questions" and did not realize they should be reporting all income from 2020. It was unclear what reference period this participant was using if not 2020. The remaining seven participants reported income based on January 2020–December 2020.

One participant reported receiving net rental income in 2020 on a house they own and rent to others. This participant noticed that the instructions stated the amount should be less expenses but did not notice the "Loss" box and did not indicate how they would answer if their net rental income had been a loss. No other participants reported renting out part of their home or owning rental properly.

None of the participants named SNAP, unemployment, or other non-cash benefits as types of income that should be reported in the financial assistance question. Three participants explicitly stated that these items should not be included because of the instruction text. Participants named welfare, disability, COVID-19 stimulus checks, and general federal assistance as examples of financial assistance that should be included in this question. One participant noted that they read the instructions and found them helpful in deciding on their response to this question; however, another participant stated that they felt the financial assistance question needed more detail and specific examples to reduce confusion. One participant indicated that they receive a public welfare check each month and this is what they were including in their response to this question.

Two participants felt that income not reported for tax purposes should be included in this question; however, one of these participants stated that people may be hesitant to include income from "something off the books." This participant felt the Census Bureau would want this income included but thought people may not include it especially because there was no text stating that the Census Bureau is a separate entity from the IRS. One participant was unable to think of any income that would not be reported on one's taxes. This participant indicated that they reported all income on their taxes. Another participant was unsure if non-tax income should be included and guess "whatever you put on your tax form should be there." One other participant was unsure if it should be included and felt it depended on how the Census Bureau would use the information. Two participants commented on the reluctance people may have to report non-tax income. One of these participants took particular exception to this question stating, "This is not a proper question to ask because someone could get into legal trouble for unreported income." The participant felt asking this probe violated the 5th amendment.

One participant reported having a babysitting side gig but did not report this as a source of income or as part of their total 2020 income because "it's paid in cash and it's not very

much…I don't get a W-2." During probing, this participant recognized that babysitting could be classified as a "side gig" and reported under self-employment income. This participant suggested placing "work paid for in cash" at the beginning of the self-employment income question to help people recognize they should include side gigs in that category. Another participant indicated they had side gigs paid in cash that they did not report. This participant indicated they would not report this under the self-employment income category because they did not have their own business, but they did not indicate where they would report it. Another participant was unsure if they should include royalty income from a book they wrote and self-published under self-employment income. This participant initially included this under income from interests and dividends, but during discussed that it could potentially be considered self-employment.

In reporting total 2020 income, one participant excluded unemployment income because they did not notice this listed in the "other sources of income" question (question 44i). However, this participant indicated that if they had entered this income in question 44i, they would have entered the monthly amount they received from unemployment rather than the total annual amount.

b. Paper Mode – Spanish

Weeks Worked

Of the four Spanish-speaking participants who answered Version 2 of the paper questionnaire the concept of "work for pay" was understood as intended.

- "Que el desempeñe un trabajo laboral y que le paguen… una persona si va y limpia su yarda." [That he does a job and get paid for that… like a person that cleans up the backyard.]

In this same probe one participant suggested substituting the Spanish word "trabajar" used in the narrative of the question for its synonym "laborar." The participant said that in their opinion, "trabajar" sounds like slavery. They explained that in their country they use "nosotros vamos a laborar."

The difference between question 39 and question 40 could only be probed with one participant. At a first glance, the participant said that they could see no difference between the questions. After a second reading, the participant realized that question 40 specified the year 2020 whereas question 39 left the question open.

Question 41a, regarding the weeks where the participant was out of work because of]vacation, sickness, or Military Service elicited varied answers.

- One participant did not include the weeks they were out sick with COVID-19. This participant sounded confused by the question and clarified that they only work two days a week
- The other participant explained that because of the type of job they have, they cannot miss one day of work even if they are sick. This person works in a recording studio so their schedule depends on the music bands that will be recording on a specific date. The participant clarified that the household member worked Monday through Sunday.

Question 41b, regarding a person who worked only one day in the year, was probed only with two participants and based on their answer, the situational probe was not understood as intended.

- One participant was confused with the calculations and could not get seem to be able to get the correct answer.
- The other participant wanted to answer it as a Yes/No question even when the question was asking for a specific number of weeks. Then, after reading the question for the second time, they answered "no" because they said the question was asking for weeks instead of days.

Question 41b, regarding a person who worked four or 60 hours per week, was probed only with one participant. Based on their response, the situational probe was not understood as intended.

- The participant said that since the question says "at least one day," the person who works four hours in a week does not work one WHOLE day in the week, so they should not count those weeks as worked. Regarding the 60-hour a week person, the participant said "Ahí está trabajando de más, porque lo normal es 40 hours a la semana." [There that person is working extra time because the regular schedule is 40 hours a week.] The participant asked if they could put a week and a half as a response.

Question 42 was understood as intended and in the cases when the probe could be asked participants explained their working situation and if their working hours have changed mainly due to the pandemic situation.

Income

Four Spanish-speaking participants completed the survey in Version 2 of the paper mode. They reported income in question 44 from a few sources only: a. Salaries or wages (two participants), e. Social Security (two participants), g. Public assistance (one participant), and h. Retirement, pensions, disability (one participant). All other sources were answered No by all four participants.

One participant expressed confusion at seeing so many questions by type of income on the page, and said they only had income from this person's work. The interviewer probed to see how they understood the other items, and they did have a good general understanding. They were able to provide examples for self-employment

- "Por ejemplo, ir a limpiar una casa hoy que descanso, y me pagan por ir a limpiar una casa" [For instance, cleaning a house during my days off, and I get paid for cleaning the house]
- for item c. "De una herencia, o de finanzas, yo lo entiendo que cuando inviertes algo en bolsa de valores cuanto es el ingreso" [It is about an inheritance, or finance… I understand that it is when you invest in the stock market, what you get in return"]
- Rental income ("Si tu eres propietario de una casa y estas rentando a otra persona" [If you own a house and you rent it to somebody], Social Security ("Lo que te ayuda el Seguro Social o cuando ya está jubilada y le dan su pago mensualmente." [What you get from Social security, or when somebody is retired and receives the monthly payment.]
- For item f this person was not sure if [a state benefitbenefit card] could fit in there. For item g they said "Ayuda pública, económica, y ahí no aplica lo que es el SNAP que es la [state benefit]" [That is public assistance, economic benefits, different than SNAP/state benefit].

The two participants reporting salaries or wages \had no issues interpreting the item and responding.

The two participants who answered "yes" to item e had response error. The first one receives disability payments from the Social Security Administration and answered "yes" to this item because the check comes from "Social Security." They reported the same income in item h and confirmed in probing that they had double reported. The second one correctly answered Yes in this question but reported the monthly amount instead of annual amount.

For item g, the participant who answered "yes," said in probing that they and another household member receive SNAP. The interviewer asked if the question is asking that SNAP be included. The participant read the question again and realized they were not supposed to include it. They answered g in error.

For item h, the only response was from the participant described above as double reporting retirement and disability payments from Social Security. They correctly reported that income in this item. However, in probing, when the participant was asked if they noticed the instructions in 44h, they read the instructions not to include Social Security. They felt they should have answered "no" to item h. and should have reported the disability payments only under 44e. This would be a misclassification of the income.

For Total Income in question 45, all four participants reported correctly the sum of their answers to 44a–h. This included the participant who had incorrectly given the monthly amount of Social Security. This person noted that question 45 asked for the total amount for 2020 and multiplied their monthly benefit times 12.

A special case was one of the four participants who made a comment upon reading the instructions to question 44 and glancing at the questions. The participant volunteered that in their household (of four adults and three children), income during 2020 was about $5000 total. They explained that everyone was locked down starting in February. Their household survived the whole year with food sent by the school district and small donations collected and brought by the teachers, and thanks to a rent assistance program. The participant could not break down the income into any of the categories in question 44, nor could they attribute the money to any person in the household.

c. CAI Mode – English

Weeks Worked

None of the 10 Version 2 CAI participants had difficulty answering questions 39 and 40. Participants felt the question was clear and easy to understand and had a strong grasp on their work history and typical hours. Participants also had no trouble understanding the phrase "work for pay even for a few days." Participants interpreted this to be referencing any work that an individual performed and was paid for, regardless of how long the work lasted.

One participant indicated that he would not have counted weeks when he only worked one day because any time he did not work during the year would not be paid. This participant indicated that, during 2020, there were several weeks during which he only worked one or two days because of COVID-19, and he did not include these weeks in the number of total weeks worked all year. Three participants did not include weeks when they did not work because on vacation or sick leave. Two of these participants did not include these weeks because they were not paid for that time away from work. The other participant did not indicate why they did not include those weeks.

All participants correctly answered "52 weeks" for the first vignette question about a person who worked every Thursday. Four participants felt that it would make more sense to report number of days worked in the second vignette in which a person only worked one day per year. These participants felt it would be more accurate and meaningful to say the person only worked one day. Another participant felt this would be classified as "unemployed." Four other participants answered, "1 week." All but one participant answered "52 weeks" or "every week" for the third vignette abut an individual who worked four hours per week. The one participant to answer differently felt the appropriate response was "employed part-time."

Four participants reported that individuals with irregular hours should provide the average number of hours they work each week when answering question 42. One participant did not know how irregular workers should report their hours, and another participant felt they should just answer "Part time."

Income

Two of the 10 Version 2 CAI participants had at least some difficulty reporting their 2020 income. One of these participants reported earning rental income in 2020; however, during probing, it became clear that the participant was thinking of the rental assistance they received during 2020. During this conversation, the participant realized they should have answered "No" to the rental income question. Another participant reported income from their salary only but noted that they did receive commissions during 2020; however, these commissions were included in what they reported for their annual wages and salary. The participant indicated they understood the commissions, bonuses, and tips income question to be for people who "make more in tips than they do in their basic salary or who primarily earn commission," and this did not apply to the participant. The participant was thinking of the commission they included as more of a year-end bonus.

Three participants were thinking of time periods other than 2020. One participant who only reported income from food stamps in 2020, was thinking of the previous six months as this was the time period during which they had been receiving food stamps. Another participant indicated that they were thinking of the last time each household member worked, which for the participant, was about three years ago. The third participant indicated that they were thinking about a "certain month," though they did not provide further detail about what month they were thinking of or why they were thinking of this month.

One participant reported receiving net rental income in 2020 for a bedroom in their home that they rent to tenants. No other participants reported renting part of their home or owning a rental property.

One participant included food stamps in their response to the financial assistance question. This participant felt any income could be included in this question, including unemployment, alimony, and child support. One participant was confused by the instruction to not include housing assistance as they had received rental assistance in 2020 and thought it should be reported for this question. Another participant indicated that food stamps and unemployment were the first things they thought of but noticed that these were listed in the instructions as sources of incomes to exclude. One participant, who had never received financial assistance, was unsure if unemployment should be included in this question and noted that providing examples of financial assistance is more difficult for people who have never received it.

Three participants indicated that income not reported for tax purposes should be included in this question. Five participants commented on the likely reluctance of individuals to report income that is not reported on taxes. One participant asked, "Why would I incriminate myself?" by reporting non-tax income. Another participant indicated that people would not be trusting or honest enough to report non-tax income. Two participants were unable to think of the type of income that would not be reported for tax purposes as they thought all income was supposed to be reported to the IRS.

Four participants reported somebody in the household having a side job or gig and one of these participants recorded this income under the self-employment income category. One of these participants did not include this income in the self-employment category because they "did not make any income on that small business in 2020." Another of these participants reported their side gig income in their wages and salary. During probing, the interviewer asked why the participant did not include this as self-employment income. The participant realized that they should have done so and indicated they would change their response to "Yes" for wages/salary and self-employment income and report the separated income for each type. Finally, one of these participants did not report income from their side gig as self-employment income because "self-employment is if you are the owner of a business, being your sole business." This participant reported the income from this side gig under commissions, bonuses, or tips.

In reporting total 2020 income, none of the participants excluded any income or were unsure whether to include any type of income.

d. CAI Mode – Spanish

Weeks Worked

The concept "work for pay" was probed with seven of nine Spanish-speaking participants who answered the CAI Version 2 questionnaire. Based on their responses, the concept was understood as intended.

- "Que cuando tu trabajas, por ejemplo, que me digan que me van a pagar 50 pesos, y trabajo y me pagan." [That when I work, for example, they tell me that they are going to pay me 50 pesos, and I work and they pay me.]
- One participant said, "it is when someone has assignments to do, even if it just for a few hours, and will receive a payment for that."

The difference between questions 33a and 33b was probed with six of the nine participants. Responses were varied.

- Two participants said the difference would be the type of answer elicited. While the first question asks for a specific date, the second question requires a "yes" or "no" answer.
- Two participants said that there was no difference between them.
- Two participants did not understand the probe and could not give an answer.

The probe for Question 34a regarding the weeks when the person worked at least one day, was asked in five of the nine cases and understood as intended.

- Three participants said that they did not have weeks like in which they worked only 1 day a week.
- Two participants confirmed there were weeks when they worked only 1 day a week, and those weeks were included in the counting.

The probe for question 34b regarding the weeks when the person was not at work because of sickness, vacation, or military service elicited varied responses:

- One participant mentioned they did include those weeks because they did not have any kind of paid leave.
- Another participant, previously in the interview, mentioned they took paid vacation time.
- Another participant did not count the weeks they did not work due to being sick. They said they were not paid for those days.

The vignette probes about specific work situations were not asked consistently across all participants due to participants' exhibited difficulties with hypothetical probes and due to lack of time.

The probe for question 34b, regarding a person who works only on Thursdays, was administered to eight participants, four of them could not give an answer to the probe.

- One participant said they would need a calendar to count the weeks.
- Only two participants could get the correct answer to the probe.

The probe for question 34b regarding a person who works only 1 day a year was used with six participants.

- Two participants could not give an answer to the probe.
- One participant was unsure if 1 day should be included.
- Another participant showed some confusion with the response: 8 hours per year, zero weeks.

The probe for question 34b regarding a person who works four hours per week and another who works 60 hours a week, was administered to six of the nine participants. The probe elicited various responses.

- One participant answered "one week."
- A second participant said that the person in the probe worked a lot and everything should be included.
- Another participant got confused about the probe.
- Two participants gave the correct answer.

Income

Nine Spanish-speaking participants completed the survey in Version 2 in the CAI mode. They reported income in question 36 from several sources: a. wages, salaries (eight participants); b. commissions, bonuses or tips (three participants); c. self-employment income (three participants); d. interests/dividends (one participant); g. Social Security (one participant); and l. other regular income, e.g. from the VA (one participant). Items e. royalties, estates, or trusts; f. rental income; h. SSI; i. welfare assistance; j. disability payments; and k. pension or retirement, were answered "No" by all nine participants.

Of the eight participants reporting salaries or wages (36a), none had issues interpreting the item and responding, other than not always knowing the earnings of another household member. The ninth participant wanted to report their Social Security there but heard the question again and answered "no."

Of the three participants reporting tips, commissions, or bonuses (36b), one was referring to the stimulus check, which this person called "the money from Trump." The interviewer probed to see if the participant considered it a tip, bonus, or commission. The participant

answered, "Más o menos, las tres cosas por ahí, un regalo." [More or less, all three things, a gift.] The other two reported a holiday bonus and tips from their job respectively.

For self-employment income (36c), one of the three persons who answered "yes" reported the same income twice, both here and in 36a.They explained that, even though a company pays for their work, this person still considers being self-employed because they are their own boss and they work whenever they want. They provided as examples of their situation people who work for Uber, Lyft, and Instacart. The other two had no issues:

- One participant reported on earnings from their online sales business.
- Another participant receives earnings from cleaning houses.

Only one participant reported income from interest/dividends. No comments were elicited about this.

One person reported receiving Social Security benefits. However, this person said "no" to item g. The interviewer believed that the participant was confused by the mention of railroad benefits. As the interviewer was reading the question, the participant interrupted and answered "Yes, my social security" before the interviewer had read the full question. The interviewer then continued reading and asked "Railroad Retirement benefits?" The participant said "no." During probing this person mentioned their Social Security income but added that it has nothing to do with the railroads. When asked again the question in full, the participant said no. When they answered the total income question, however, they reported that as their main income.

In item 36i, one participant asked if "welfare" was food stamps. The interviewer reread the instruction and the person answered "no." They explained during probing that they would have answered "yes," were it not for the instruction. One other participant also said they did not know what *welfare* referred to.

Finally, two participants answering "yes" to other regular income (36l.) were reporting unemployment compensation.

For total income in item 36m, all nine participants provided an amount without issues.

7.4.5 Recommendations

Weeks Worked

RTI/RSS recommends proceeding with Version 1 of the Weeks Worked questions. Participants in both Version 1 and Version 2 demonstrated a strong understanding of the weeks worked questions and answered in line with the Census Bureau's intentions. RTI/RSS recommends proceeding with Version 1 of the weeks worked questions because instructions for question 41 are more prominently displayed in the "Note" in Version 1 (paper) and more participants read the instructions in Version 1.

Additionally, RTI/RSS recommends the Census Bureau modify the text of the note before question 41 to read, "For questions 41a and 41b, include as WORK:" This will clarify the instruction that participants should include listed items as work for both parts of question 41.

Lastly, RTI/RSS recommends the Census Bureau bold all skip instructions in the weeks worked question series (paper mode). Nearly all paper participants had difficulty navigating the skip patterns, seemingly overlooking instructions to skip questions. An alternative to

bolding skip instructions is to denote instructions with a symbol that catches the attention of respondents (e.g., eye, pointing finger).

RTI/RSS does not have any specific recommendations for the Spanish versions of these questions, given that most of the issues observed in cognitive testing with monolingual Spanish speakers involved literacy issues.

Income

RTI/RSS recommends proceeding with Version 1 of the income questions as participants were more likely to notice and were able to better understand how to report losses on self-employment income, rental income, and total income in this version. It seems participants are more likely to read instructions for reporting losses when they are included in the question text rather than in the large block of text providing instructions for all income questions (as in Version 2).

Additionally, RTI/RSS recommends the following:

- Capitalize "all" in the total income question (paper) to emphasize that all sources of income should be included.
- Bold the first part of the income questions instructions to draw participants' attention to the fact that they should report taxable and non-taxable income.
- Consider providing examples of what SHOULD be included in the financial assistance question. This item still caused participants a lot of confusion, and many were unable to identify types of income that should be included in that question.
- Consider testing a rewording of the self-employment income question such that "work paid for in cash" is presented first (i.e., "Work paid for in cash, including self-employment income and income from own businesses (farm or non-farm)." This wording may make it clearer to participants that they should report the work they do for cash in this income category.

RTI/RSS does not have any specific recommendations for the Spanish versions of these questions, given that most of the issues observed in cognitive testing with monolingual Spanish speakers involved literacy issues.

8 Brief Summary of Round 2 Results

RTI/RSS conducted 121 English interviews and 72 Spanish interviews during Round 2 of data collection. Round 2 interviews tested revisions made to the test topics based on the results of Round 1 and new questions on the topic of homeowners association and condominium fees.

Overall, Round 2 results suggest changes made to test topics improved participant comprehension and question performance. Questions for several topics performed very well during testing, and as a result, RTI/RSS made no recommended changes. These topics include septic systems, electric vehicles, and solar panels. Other topics could benefit from some additional testing with individuals with specific characteristics of interest. These include individuals who use more than one type of fuel to heat their home for the home heating fuel topic, individuals who pay voluntary neighborhood fees or live in a condominium for the homeowners association fee topic, and individuals who live in impermanent living arrangements for the household roster topic.

Additionally, RTI/RSS recommended minor changes to the household roster topic to improve understanding of the amount of time an individual needs to live in a household to be included in the roster and slightly modified terminology to establish a more uniform understanding of terms such as "short visit." Minor changes were also recommended for the transportation to work topic to clarify the category in which ride-sharing services, such as Uber and Lyft, should be included. More substantial changes were recommended for the educational attainment, health insurance coverage, disability, and income and weeks worked questions. For each of these topics, RTI/RSS tested two versions of the questions and was able to identify the version that would be most likely to capture accurate data in line with the Census Bureau's goals.

Appendix 1A: Example Round 1 Recruitment Advertisements

Example advertisement posted on September 14, 2020

Get paid for one hour of telling us your opinions

Note: Given the volume of participation, we expect to reach out to those invited to schedule an interview within 2 to 3 weeks. We appreciate your patience.

RTI International, a not-for-profit research organization working with the U.S. Census Bureau, is looking for adults (ages 18 and over) to give their reactions and opinions about questions in a national survey. We are recruiting participants who meet one or more of the following criteria:

- Lives with multiple families in one home address,
- Lives with people not related to them,
- Has a child(ren) ages 0 to 5,
- Has a child(ren) in custody arrangements,
- Is a foster parent,
- Usually lives or stays with someone currently deployed in the United States Armed Forces,
- Has a child(ren) who live(s) away at college,
- Uses a septic system for their owned/rented home,
- Primarily heats the home using alternative fuel sources (not natural gas or butane/propane gas),
- Has solar panels for their owned/rented home,
- Is a parent or guardian of a homeschooled child(ren),
- Did not finish high school or get a GED,
- Is aged 65 or older,
- Is enrolled in Medicaid,
- Has health insurance for own child(ren) through a state Children's Health Insurance program (CHIP),
- Has health insurance through a marketplace, also called Obamacare (e.g., healthcare.gov),
- Is a parent of a child(ren) with a disabilit(ies),
- Is an individual with disabilities, especially learning disabilities,
- Is a non-native English speaker,
- Is aged 50 or older,
- Has purchased a vehicle in the last 10 years,
- Owns or leases a plug-in electric or hybrid vehicle,
- Uses a ride-hailing service app (e.g. Uber, Lyft,) to get to work,
- Uses a carpool, vanpool, or slug line to get to work,
- Primarily earned money through gig work (e.g., Lyft/Uber, Upwork) last year,
- Worked at least 35 hours per week last year,
- Did not work for pay in the last year,
- Was self-employed last year,
- Received rental income last year,
- Received commission, bonus, or tips last year,
- Received retirement income last year,
- Received food stamps/SNAP benefits last year,
- Received cash public assistance last year, or
- Is paid in cash for work.

The interview will be conducted either online using a secure video conferencing app. The interview will take about 60 minutes. We will provide $40 to each eligible person who participates in the 60-minute interview.

- **Example advertisement posted on November 9, 2020**

Get paid for one hour of telling us your opinions

Note: Given the volume of participation, we expect to reach out to those invited to schedule an interview within 2 to 3 weeks. We appreciate your patience.

RTI International, a not-for-profit research organization working with the U.S. Census Bureau, is looking for adults (ages 18 and over) to give their reactions and opinions about questions in a national survey. We are recruiting participants who meet one or more of the following criteria:

- Has solar panels for their owned/rented home,
- Owns or leases a plug-in electric or hybrid vehicle,
- Uses a ride-hailing service app (e.g. Uber, Lyft,) to get to work,
- Uses a carpool, vanpool, or slug line to get to work,
- Is a non-native English speaker,
- Is a foster parent,
- Is a parent or guardian of a homeschooled child(ren),
- Did not finish high school or get a GED,
- Is aged 65 or older,
- Has health insurance for own child(ren) through a state Children's Health Insurance program (CHIP),
- Has health insurance through a marketplace, also called Obamacare (e.g., healthcare.gov),
- Primarily earned money through gig work (e.g., Lyft/Uber, Upwork) last year,

The interview will be conducted either online using a secure video conferencing app. The interview will take about 60 minutes. We will provide $40 to each eligible person who participates in the 60-minute interview.

Appendix 1B: Round 1 Guidelines for Technical Problems During Interviews

1. If VDI drops the interviewer, the interviewer will continue with the interview using a phone connection. If Skype for Business drops the interviewer or the participant, the interviewer will call the participant immediately on the phone number they have provided to re-establish an audio connection.

   **Note: to avoid losing audio connection with the respondent, interviewers should connect to SfB audio via their phones.

2. The interviewer will then inform the participant they are experiencing technical difficulties and will need to do some troubleshooting. Interviewers will consult the *Troubleshooting Skype for Business* document provided by the Census Bureau to find a quick resolution and inform the participant how they will proceed. (Interviewers are being encouraged to review this document now, so they have some sense of where to look to address specific technical problems.)

3. If the interviewer is not able to resolve the technical problem within a few minutes (within a limit of 5 minutes) and has an audio connection with the participant, the interviewer will continue to complete the interview by phone. This time limit is recommended to avoid losing the participant or significantly increasing the length of the interview. For interviews involving show cards or PAPI forms, the interviewer will ask the respondent to confirm an email address and send the necessary materials to the participant to use for the remainder of the interview.

   a) Should an interview converted to telephone require the respondent to complete the paper questionnaire, the interviewer will prompt the respondent to indicate which question they are answering as they move through the instrument. Interviewers will also remind respondents (as needed) that they do not need to read the questions aloud as this would add significant time to the length of interview.

   b) Should recording via Skype for Business or SnagIt no longer be possible, the interviewer will use an external recorder to record the remainder of the interview.

4. In the event the interviewer is not able to resolve the technical problem within 5 minutes and there is no audio or phone connection with the participant, the interviewer will email the participant, apologize for the technical difficulties, and ask the participant when they will be available to resume the interview. The interviewer will attempt to reschedule the interview as soon as possible, but also allow further time to fix and test the technical problem they encountered.

5. Interviewers will briefly document the technical problem they encountered during the interview in the "General Observations" section of the Interview Summary Template, note how/whether the technical problem was resolved, and indicate whether the interview was (1) completed by Skype for Business, (2) completed by phone, or (3) not completed at that time and rescheduled.

6. If the interview cannot be continued via the Skype for Business line and is converted to telephone, observation will no longer be possible. The interviewer will attempt to email observers to let notify them of this; however, the priority will be for the interviewer to re-establish contact with the respondent. If the Skype for Business line is disconnected, and observers do not hear from the interviewer within 5 minutes, they can assume the interview has been converted to telephone and continued observation will not be possible.

7. If the interview is rescheduled for a later time or day, the interviewer will update the original calendar invitation, so the respondent and observers receive a notification of the new interview time.

Appendix 1C: Round 1 English and Spanish Informed Consent Forms

American Community Survey

Adult Cognitive Interview Participant Informed Consent Form

What is the purpose of this interview?
The U.S. Census Bureau is conducting cognitive interviews to help with the design and content of the American Community Survey. The American Community Survey helps local officials, community leaders, and businesses understand the changes taking place in their communities. It is an important source of detailed population and housing information about our nation. It's important that the questions make sense, are easy to answer, and that everyone understands the questions in the same way. You are one of about 335 people who are being asked to participate in the cognitive interviews.

What will happen if I take part in this interview?
You will be asked to complete and discuss the American Community Survey during a confidential interview. The survey includes questions about your household, including yourself and other people in the household. The interview will be conducted by a staff member from RTI International or Research Support Services, who are doing this study for the U.S. Census Bureau. Findings from the discussion will be used to clarify survey questions and instructions.

We would like to audio and video record the interview. Only the people who work on this study will view the recording. It will help us make sure we have understood your answers. If you don't want to be recorded, that's okay. Participating in the interview implies consent for the purposes stated.

How much time is required to participate?
The interview will last approximately 1 hour.

Do I have to take part in this interview?
No, participation in this interview is voluntary. You can stop the interview at any time, and you don't have to answer a question if you don't want to. You will not lose any rights you would normally have if you choose not to join this interview.

What are the possible risks and benefits from participating in this interview?
There are no direct benefits to you from doing this interview. Your involvement in this study will help us improve the questions for the American Community Survey. There is no more than minimal risk in participating. You can skip any question that you are not comfortable answering.

How will my privacy be protected?
This interview is being conducted under the authority of 13 U.S.C. Sections 6 (c), 141, and 193. Federal law requires that your answers are kept confidential (13 U.S.C. Section 9) and protects your privacy under the Privacy Act (5 U.S.C. Section 552a). Only research staff from the U.S. Census Bureau and its survey vendors, RTI International and Research Support Services will know your answers and/or comments from the interview. The Census Bureau can use your responses only to produce statistics and is not permitted to publicly

release your responses in a way that could identify you, your business, organization, or institution.

Additionally, per the Federal Cybersecurity Enhancement Act of 2015, your data are protected from cybersecurity risks through screening of the systems that transmit your data. Your information is secured by strictly adhering to the provisions of the Privacy Act, and other regulations and policies to protect the privacy and confidentiality of the information.

This collection has been approved by the Office of Management and Budget (OMB). This eight-digit OMB approval number, 0607-0725, confirms this approval and expires on 12/31/2022. Without this approval, we could not conduct this study.

How will I be compensated?
You will receive $40.

What if I have questions about the interview?
If you have concerns or questions about the interview, you may contact RTI's project director, Doug Currivan, at 919-316-3334 or dcurrivan@rti.org.

- -

Participant's Agreement:
I have read the information provided above. I voluntarily agree to participate in this interview.

☐ I agree for this interview to be audio and video recorded.

☐ I do not agree for this interview to be audio and video recorded.

_____ _____
Signature of Research Participant Date

_____
Printed Name of Research Participant

_____ _____
Signature of Person Obtaining Consent Date

_____
Printed Name of Person Obtaining Consent

Encuesta sobre la Comunidad Estadounidense
Formulario de consentimiento informado para adultos que participan en entrevistas cognitivas

¿Cuál es el propósito de esta entrevista?
La Oficina del Censo de los Estados Unidos está realizando entrevistas cognitivas para ayudar con el diseño y el contenido de la Encuesta sobre la Comunidad Estadounidense. La Encuesta sobre la Comunidad Estadounidense ayuda a las autoridades locales, a los líderes comunitarios y a las empresas a entender los cambios que ocurren en sus comunidades. Es una fuente importante de información detallada sobre la población y la vivienda en nuestra nación. Es importante que las preguntas tengan sentido, sean fáciles de responder y que todos entiendan las preguntas de la misma manera. Usted es una de aproximadamente 335 personas a quienes se les pide que participen en las entrevistas cognitivas.

¿Qué sucederá si tomo parte en esta entrevista?
Se le pedirá que complete la Encuesta sobre la Comunidad Estadounidense y converse sobre ella durante una entrevista confidencial. La encuesta incluye preguntas sobre su hogar, incluido(a) usted y otras personas en el hogar. La entrevista la realizará un miembro del personal de RTI International o de Research Support Services, quienes están haciendo este estudio para la Oficina del Censo de los Estados Unidos. Los resultados que se obtengan de la entrevista se usarán para aclarar preguntas e instrucciones de la encuesta.

Nos gustaría grabar la entrevista en audio y video. Sólo las personas que trabajan en este estudio verán la grabación. Esto nos ayudará a asegurarnos que hemos entendido sus respuestas. Si no desea ser grabado(a), no hay ningún problema. Participar en la entrevista indica que usted ha dado consentimiento para los propósitos mencionados.

¿Cuánto tiempo se requiere para participar?
La entrevista durará aproximadamente 1 hora.

¿Tengo que tomar parte en esta entrevista?
No, la participación en esta entrevista es voluntaria. Usted puede parar la entrevista en cualquier momento y no tiene que responder a ninguna pregunta que prefiera no contestar. No perderá ningún derecho que normalmente tendría, si decide no tomar parte en la entrevista.

¿Cuáles son los posibles riesgos y beneficios por participar en esta entrevista?
No hay beneficios directos para usted si participa en esta entrevista. Su participación en este estudio nos ayudará a mejorar las preguntas para la Encuesta sobre la Comunidad Estadounidense. No hay más que un riesgo mínimo por participar. Puede dejar sin contestar cualquier pregunta que lo/la haga sentirse incómodo(a).

¿Cómo se protegerá mi privacidad?
Esta entrevista se está realizando bajo la autoridad del Título 13 del Código de los Estados Unidos, Secciones 6(c), 141 y 193. La ley federal requiere que sus respuestas se mantengan confidenciales (13 U.S.C. Sección 9) y protege su privacidad bajo la Ley de Privacidad (Título 5, Código de los Estados Unidos, Sección 552a). Sólo el personal de estudios de investigación de la Oficina del Censo de los Estados Unidos y el personal de las compañías contratadas para realizar las encuestas, RTI International y Research Support Services, sabrán sus respuestas y/o comentarios de la entrevista. La Oficina del Censo puede usar sus respuestas únicamente para producir estadísticas y no se le permite publicar

sus respuestas de una manera que pueda identificarle a usted, a su negocio, a su organización o institución.

Además, de acuerdo con la Ley Federal de Mejora de la Ciberseguridad de 2015, su información está protegida de los riesgos de ciberseguridad a través de la evaluación de los sistemas que transmiten su información. Su información está protegida por el estricto cumplimiento de las disposiciones de la Ley de Privacidad y otras reglamentaciones y políticas para la protección de la privacidad y confidencialidad de la información.

Esta recolección de información ha sido aprobada por la Oficina de Administración y Presupuesto (OMB, por sus siglas en inglés). Este número de OMB de ocho dígitos, 0607-0725, confirma su aprobación y vence el 31/12/2022. Sin esta aprobación, no podríamos realizar este estudio.

¿Cómo seré compensado(a)?
Usted recibirá $40.

¿Qué sucede si tengo preguntas sobre la entrevista?
Si tiene inquietudes o preguntas sobre la entrevista, puede comunicarse con el director del proyecto en RTI, Sr. Doug Currivan, al 919-316-3334, o a la dirección de correo electrónico dcurrivan@rti.org.

- -

Acuerdo del (de la) participante:
He leído la información arriba mencionada. Estoy de acuerdo en participar en esta entrevista de manera voluntaria.

☐ Estoy de acuerdo en que esta entrevista sea grabada en audio y video.

☐ No estoy de acuerdo en que esta entrevista sea grabada en audio y video.

_____ _____
Firma de la persona que participa Fecha

_____
Nombre en letra de imprenta de la persona que participa

_____ _____
Firma de la persona que obtiene el consentimiento Fecha

_____
Nombre en letra de imprenta de la persona que obtiene el consentimiento

Appendix 1D: Round 1 Protocol Changes by Mode

Obtaining Consent:

- In-person interviews:
  - Interviewers will provide respondents with a copy of the consent form and review the information
  - Interviewers will ask respondents to mark their responses to the participation/recording consent questions and sign the form
- Virtual interviews:
  - Interviewers will email the Qualtrics link with the consent form at the beginning of the interview.
  - Interviewers will ask respondents to open this link and share the consent form on their screen. Interviewers will then review the information with respondents.
  - Respondents will sign the consent form and submit via Qualtrics. Respondents will then stop sharing their screen.
- Telephone interviews:
  - Interviewers conducting phone interviews will ask respondents to open the Qualtrics link to the consent form emailed to them.
  - Interviewers will read the consent form verbatim to respondents.
  - Respondents will then sign the consent form and submit via Qualtrics.
- \All interviews will require that consent be recorded. Interviewers will review the consent form with respondents who will then sign the form. Interviewers will then start the recording and ask respondent to verbally confirm their consent on the recording.

Recording the Interview:

- In-person interviews:
  - Interviewers will record using Skype for Business
  - Interviewers will save the recording to the appropriate location on the Census network
- Virtual interviews:
  - Interviewers will record using Skype for Business, SnagIt, or external recorders
  - If using Skype for Business, Interviewers will denote the appropriate file (on the Census network) in which to save recordings in their settings to avoid recordings being saved to the cloud.
  - Should interviewers record using external recorders, they will email recordings to their Census account via Kiteworks
- Telephone interviews:
  - Interviewers will record using Skype for Business, SnagIt, or external recorders by placing the call on speaker
  - Interviewers will save the recording to the appropriate location on the Census network.
  - Should interviewers record using external recorders, they will email recordings to their Census account via Kiteworks
- All interviewers (regardless of mode) will test recording/audio quality before conducting interviews

- For all interviews (regardless of mode) external recorders will be the back-up option for recording.

Completing the Questionnaire:

- In-person interviews, Paper questionnaire:
  - Interviewer will provide respondent with the paper questionnaire
  - Respondent will complete the questionnaire as if taking the survey, notifying the interviewer of their response to each question.
  - Interviewer will record responses on summary sheet
- Virtual interviews, Paper questionnaire:
  - Interviewer will share their screen to display the fillable PDF of the appropriate paper questionnaire.
  - Respondent will complete the questionnaire as if taking the survey, notifying the interviewer of their response to each question.
  - Interviewer will record responses on the PDF displayed on their screen.
- Telephone interviews, Paper questionnaire:
  - Interviewers will email materials to participants and ask them to open and view the appropriate materials as they move through the interview.
- All modes: CAI instrument will be tested with the interviewer reading the CAI script aloud to respondents. Interviewers will record responses on summary sheet.

Showcards:

- In-person interviews:
  - Interviewer will present respondent with printed showcard and allow the respondent to review
- Virtual interviews:
  - Interviewer will share their screen to display the showcard document and allow the respondent to review
- Telephone interviews:
  - Interviewer will email showcards to respondent at the beginning of the interview
  - As instructed by the interviewer, respondent will open the showcard documents and refer to them on their own device during the interview

Incentives:

- In-person interviews:
  - Provide respondent with $40 cash
- Virtual interviews:
  - Interviewers will email respondents the code for their electronic gift card and a link to the registration site.
  - Interviewer may also text the code to the respondent if the respondent consents
- Telephone interviews:
  - Interviewers will email respondents the code for their electronic gift card and a link to the registration site.
  - Interviewer may also text the code to the respondent if the respondent consents
- For all modes: interviewer will sign incentive receipt to record that the incentive has been delivered.

Appendix 2A: Example Round 2 Recruitment Advertisements

Example English advertisement posted on April 28, 2021

Get paid for one hour of telling us your opinions

Note: Given the volume of participation, we expect to reach out to those invited to schedule an interview within 2 to 3 weeks. We appreciate your patience.

RTI International, a not-for-profit research organization, working with the U.S. Census Bureau, is looking for adults (ages 18 and over) to give their reactions and opinions about questions in a national survey. We are recruiting participants who meet one or more of the following crtieria:

- Uses a septic system for their owned/rented home.
- Primarily heats the home using natural gas.
- Primarily heats the home using butane/propane gas.
- Primarily heats the home using alternative fuel sources (not natural gas or butane/propane gas).
- Has solar panels for their owned/rented home.
- Has been living somewhere temporarily.
- Lives with multiple families in one home address.
- Has a child(ren) ages 0 to 5.
- Has a child(ren) in custody arrangements.
- Is a foster parent.
- Lives with an unrelated child9ren).
- Owns or leases a plug-in electric vehicle.
- Owns or leases a non-plug-in electric or hybrid vehicle.
- Owns a home that is part of a homeowners association (HOA).
- Lives in a condominium.
- Volunteers in a neighborhood association.
- Is enrolled in Medicaid.
- Has health insurance for own child(ren) through a state Children's Health Insurance Program (CHIP)
- Has health insurance coverage through a state or federal marketplace (like healthcare.gov) or Obamacare.
- Is a parent or guardian of a child(ren) with a disabilit(ies).
- Is an individual with disabilities, especially learning disabilities.
- Is a non-native English speaker.
- Is aged 65 or older.

- Did not finish high school or get a GED.
- Did not have any formal education.
- Primarily earned money through gig work (e.g., Lyft/Uber, Upwork) last year.
- Worked at least 35 hours per week last year.
- Did not work for pay in the last year.
- Was self-employed last year.
- Received rental income last year.
- Received commission, bonuses, or tips last year.
- Received retirement income last year.
- Received food stamps/SNAP benefits last year.
- Received unemployed benefits last year, or
- Paid in cash for work or side jobs.
- Has purchased a vehicle in the last 10 years.
- Uses, Uber, Lyft, or another ride-hailing serve app to get to work.
- Uses carpool, vanpool, slug line to get to work.

The interview will be conducted either online using a secure video conferencing app. The interview will take about 60 minutes. We will provide $40 to each eligible person who participants in the 60-minute interview.

Example Spanish advertisement posted on June 3, 2021

Le paragaremos si dedica una hora a darnos sus opiniones

RTI International, una organización sin fines de lucro que realiza estudios sobre distintos temas, está trabajando con la Oficina del Censo de los Estados Unidos y está buscando adultos (de 18 años o más) para obtener sus reacciones y opiniones sobre las preguntas de una encuesta nacional. La entrevista se realizará ya sea por Internet, usando una aplicación segura de videoconferencia, o por telefono. La entrevista durará unos 60 minutos. **Le daremos $40 (en forma de tarjeta regalo virtual) a cada persona que reúna los requisitos y participe en la entrevista de 60minutos.**

Comuníquese con Rebecca Quintanilla al 919-316-3386

Appendix 2B: Round 2 Guidelines for Technical Problems During Interviews

1. If VDI drops the interviewer, the interviewer will continue with the interview using a phone connection. If Teams drops the interviewer or the participant, the interviewer will call the participant immediately on the phone number they have provided to re-establish an audio connection.

2. The interviewer will then inform the participant they are experiencing technical difficulties and will need to do some troubleshooting.

3. If the interviewer is not able to resolve the technical problem within a few minutes (within a limit of five minutes) and has an audio connection with the participant, the interviewer will continue to complete the interview by phone. This time limit is recommended to avoid losing the participant or significantly increasing the length of the interview. For interviews involving showcards or paper forms, the interviewer will ask the respondent to confirm an email address and send the necessary materials to the participant to use for the remainder of the interview.

    a) Should an interview converted to telephone require the respondent to complete the paper questionnaire, the interviewer will prompt the respondent to indicate which question they are answering as they move through the instrument. Interviewers will also remind respondents (as needed) that they do not need to read the questions aloud as this would add significant time to the length of interview.

    b) Should recording via SnagIt no longer be possible, the interviewer will use an external recorder to record the remainder of the interview.

4. In the event the interviewer is not able to resolve the technical problem within five minutes and there is no audio or phone connection with the participant, the interviewer will email the participant, apologize for the technical difficulties, and ask the participant when they will be available to resume the interview. The interviewer will attempt to reschedule the interview as soon as possible but also allow further time to fix and test the technical problem they encountered.

5. Interviewers will briefly document the technical problem they encountered during the interview in the "General Observations" section of the Interview Summary Template, note how/whether the technical problem was resolved, and indicate whether the interview was (1) completed by Teams, (2) completed by phone, or (3) not completed at that time and rescheduled.

6. If the interview cannot be continued via the Teams conference line and is converted to telephone, observation will no longer be possible. The interviewer will attempt to email observers to let notify them of this; however, the priority will be for the interviewer to

re-establish contact with the respondent. If the Teams line is disconnected and observers do not hear from the interviewer within five minutes, they can assume the interview has been converted to telephone and continued observation will not be possible.

If the interview is rescheduled for a later time or day, the interviewer will update the original calendar invitation, so the respondent and observers receive a notification of the new interview time.

Appendix 2C: Round 2 English and Spanish Informed Consent Forms

American Community Survey

Adult Cognitive Interview Participant Informed Consent Form

What is the purpose of this interview?
The U.S. Census Bureau is conducting cognitive interviews to help with the design and content of the American Community Survey. The American Community Survey helps local officials, community leaders, and businesses understand the changes taking place in their communities. It is an important source of detailed population and housing information about our nation. It's important that the questions make sense, are easy to answer, and that everyone understands the questions in the same way. You are one of about 335 people who are being asked to participate in the cognitive interviews.

What will happen if I take part in this interview?
You will be asked to complete and discuss the American Community Survey during a confidential interview. The survey includes questions about your household, including yourself and other people in the household. The interview will be conducted by a staff member from RTI International or Research Support Services, who are doing this study for the U.S. Census Bureau. Findings from the discussion will be used to clarify survey questions and instructions.

We would like to audio and video record the interview. Only the people who work on this study will view the recording. It will help us make sure we have understood your answers. If you don't want to be recorded, that's okay. Participating in the interview implies consent for the purposes stated.

How much time is required to participate?
The interview will last approximately 1 hour.

Do I have to take part in this interview?
No, participation in this interview is voluntary. You can stop the interview at any time, and you don't have to answer a question if you don't want to. You will not lose any rights you would normally have if you choose not to join this interview.

What are the possible risks and benefits from participating in this interview?
There are no direct benefits to you from doing this interview. Your involvement in this study will help us improve the questions for the American Community Survey. There is no more than minimal risk in participating. You can skip any question that you are not comfortable answering.

How will my privacy be protected?
This interview is being conducted under the authority of 13 U.S.C. Sections 6 (c), 141, and 193. Federal law requires that your answers are kept confidential (13 U.S.C. Section 9), and protects your privacy under the Privacy Act (5 U.S.C. Section 552a). Only research staff from the U.S. Census Bureau and its survey vendors, RTI International and Research Support Services will know your answers and/or comments from the interview. The Census Bureau can use your responses only to produce statistics and is not permitted to publicly

release your responses in a way that could identify you, your business, organization, or institution.

Additionally, per the Federal Cybersecurity Enhancement Act of 2015, your data are protected from cybersecurity risks through screening of the systems that transmit your data. Your information is secured by strictly adhering to the provisions of the Privacy Act, and other regulations and policies to protect the privacy and confidentiality of the information.

This collection has been approved by the Office of Management and Budget (OMB). This eight-digit OMB approval number, 0607-0725, confirms this approval and expires on 12/31/2022. Without this approval, we could not conduct this study.

How will I be compensated?
You will receive $40.

What if I have questions about the interview?
If you have concerns or questions about the interview, you may contact RTI's project director, Doug Currivan, at 919-316-3334 or dcurrivan@rti.org.

- -

Participant's Agreement:
I have read the information provided above. I voluntarily agree to participate in this interview.

☐ I agree for this interview to be audio and video recorded.

☐ I do not agree for this interview to be audio and video recorded.

_____ _____
Signature of Research Participant Date

_____
Printed Name of Research Participant

_____ _____
Signature of Person Obtaining Consent Date

_____
Printed Name of Person Obtaining Consent

Encuesta sobre la Comunidad Estadounidense
Formulario de consentimiento informado para adultos que participan en entrevistas cognitivas

¿Cuál es el propósito de esta entrevista?
La Oficina del Censo de los Estados Unidos está realizando entrevistas cognitivas para ayudar con el diseño y el contenido de la Encuesta sobre la Comunidad Estadounidense. La Encuesta sobre la Comunidad Estadounidense ayuda a las autoridades locales, a los líderes comunitarios y a las empresas a entender los cambios que ocurren en sus comunidades. Es una fuente importante de información detallada sobre la población y la vivienda en nuestra nación. Es importante que las preguntas tengan sentido, sean fáciles de responder y que todos entiendan las preguntas de la misma manera. Usted es una de aproximadamente 335 personas a quienes se les pide que participen en las entrevistas cognitivas.

¿Qué sucederá si tomo parte en esta entrevista?
Se le pedirá que complete la Encuesta sobre la Comunidad Estadounidense y converse sobre ella durante una entrevista confidencial. La encuesta incluye preguntas sobre su hogar, incluido(a) usted y otras personas en el hogar. La entrevista la realizará un miembro del personal de RTI International o de Research Support Services, quienes están haciendo este estudio para la Oficina del Censo de los Estados Unidos. Los resultados que se obtengan de la entrevista se usarán para aclarar preguntas e instrucciones de la encuesta.

Nos gustaría grabar la entrevista en audio y video. Sólo las personas que trabajan en este estudio verán la grabación. Esto nos ayudará a asegurarnos que hemos entendido sus respuestas. Si no desea ser grabado(a), no hay ningún problema. Participar en la entrevista indica que usted ha dado consentimiento para los propósitos mencionados.

¿Cuánto tiempo se requiere para participar?
La entrevista durará aproximadamente 1 hora.

¿Tengo que tomar parte en esta entrevista?
No, la participación en esta entrevista es voluntaria. Usted puede parar la entrevista en cualquier momento y no tiene que responder a ninguna pregunta que prefiera no contestar. No perderá ningún derecho que normalmente tendría, si decide no tomar parte en la entrevista.

¿Cuáles son los posibles riesgos y beneficios por participar en esta entrevista?
No hay beneficios directos para usted si participa en esta entrevista. Su participación en este estudio nos ayudará a mejorar las preguntas para la Encuesta sobre la Comunidad Estadounidense. No hay más que un riesgo mínimo por participar. Puede dejar sin contestar cualquier pregunta que lo/la haga sentirse incómodo(a).

¿Cómo se protegerá mi privacidad?
Esta entrevista se está realizando bajo la autoridad del Título 13 del Código de los Estados Unidos, Secciones 6(c), 141 y 193. La ley federal requiere que sus respuestas se mantengan confidenciales (13 U.S.C. Sección 9) y protege su privacidad bajo la Ley de Privacidad (Título 5, Código de los Estados Unidos, Sección 552a). Sólo el personal de estudios de investigación de la Oficina del Censo de los Estados Unidos y el personal de las compañías contratadas para realizar las encuestas, RTI International y Research Support Services, sabrán sus respuestas y/o comentarios de la entrevista. La Oficina del Censo puede usar sus respuestas únicamente para producir estadísticas y no se le permite publicar

sus respuestas de una manera que pueda identificarle a usted, a su negocio, a su organización o institución.

Además, de acuerdo con la Ley Federal de Mejora de la Ciberseguridad de 2015, su información está protegida de los riesgos de ciberseguridad a través de la evaluación de los sistemas que transmiten su información. Su información está protegida por el estricto cumplimiento de las disposiciones de la Ley de Privacidad y otras reglamentaciones y políticas para la protección de la privacidad y confidencialidad de la información.

Esta recolección de información ha sido aprobada por la Oficina de Administración y Presupuesto (OMB, por sus siglas en inglés). Este número de OMB de ocho dígitos, 0607-0725, confirma su aprobación y vence el 31/12/2022. Sin esta aprobación, no podríamos realizar este estudio.

¿Cómo seré compensado(a)?
Usted recibirá $40.

¿Qué sucede si tengo preguntas sobre la entrevista?
Si tiene inquietudes o preguntas sobre la entrevista, puede comunicarse con el director del proyecto en RTI, Sr. Doug Currivan, al 919-316-3334, o a la dirección de correo electrónico dcurrivan@rti.org.

- -

Acuerdo del (de la) participante:
He leído la información arriba mencionada. Estoy de acuerdo en participar en esta entrevista de manera voluntaria.

☐ Estoy de acuerdo en que esta entrevista sea grabada en audio y video.

☐ No estoy de acuerdo en que esta entrevista sea grabada en audio y video.

_____ _____
Firma de la persona que participa Fecha

_____
Nombre en letra de imprenta de la persona que participa

_____ _____
Firma de la persona que obtiene el consentimiento Fecha

_____
Nombre en letra de imprenta de la persona que obtiene el consentimiento

Appendix 2D: Round 2 Protocol Changes by Mode

Obtaining Consent:

- In-person interviews:
  - Interviewers will provide participants with a copy of the consent form and review the information.
  - Interviewers will ask participants to mark their responses to the participation/recording consent questions and sign the form.
  - Interviewers will begin the recording and ask participants to verbally confirm they agree to participate in the interview and to be recorded.
- Virtual/Telephone interviews:
  - Interviewers will include the Qualtrics link to the electronic consent form with the Outlook calendar invite emailed to participants when scheduling interviews.
  - Interviewers will ask participants to review the information in the consent form and sign prior to the start of their scheduled interview.
  - At the beginning of the interview, interviewers will summarize the information in the consent form, answer any questions asked by participants, and confirm that participants consent to participation and audio recording.
  - Interviewers will begin the recording and ask participants to verbally confirm they agree to participate in the interview and to be recorded.

Recording the Interview:

- In-person interviews:
  - Interviewers will record using an external audio recorder.
  - Interviewers will save the recording to the appropriate location on the Census network.
- Virtual/Telephone interviews:
  - Interviewers will record using SnagIt or external recorders.
  - Interviewers will save the recording to the appropriate location on the Census network.
  - Should interviewers record using external recorders, they will email recordings to their Census account via Kiteworks.
- All interviewers (regardless of mode) will test recording/audio quality before conducting interviews.

Completing the Questionnaire:

- In-person interviews, Paper questionnaire:
  - Interviewers will provide participants with the paper questionnaire.
  - Participants will complete the questionnaire as if taking the survey, notifying the interviewer of their response to each question.
  - Interviewers will record responses on their summary sheet.
- Virtual interviews, Paper questionnaire:
  - Interviewers will share their screen to display the fillable PDF of the appropriate paper questionnaire.

    - Participants will complete the questionnaire as if taking the survey, notifying interviewers of their response to each question.
    - Interviewers will record responses on the PDF displayed on their screen.
- Telephone interviews, Paper questionnaire:
    - Interviewers will email materials to participants and ask them to open and view the appropriate materials as they move through the interview.
    - Participants will complete the questionnaire as if taking the survey, notifying the interviewer of their response to each question.
    - Interviewers will record responses on their summary sheet.
- All modes: CAI instrument will be tested with the interviewer reading the CAI script aloud to participants. Interviewers will record responses on summary sheet.
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Flashcards:

- In-person interviews:
    - Interviewers will present participants with printed flashcard and allow participants to review.
- Virtual interviews:
    - Interviewers will share their screen to display the flashcard document and allow participants to review.
- Telephone interviews:
    - Interviewers will email flashcards to participants at the beginning of the interview.
    - As instructed by interviewers, participants will open the flashcard documents and refer to them on their own device during the interview.

Incentives:

- In-person interviews:
    - Interviewers will provide participants with $40 cash
- Virtual/Telephone interviews:
    - Interviewers will email participants the code for their electronic gift card, a link to the registration site, and instructions for using the gift card.
    - Interviewers may also text the code to the participants if the participant consents.

For all modes: Interviewers will sign incentive receipt to record that the incentive has been delivered.