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MEMORANDUM FOR	ACS Research and Evaluation Steering Committee
From:	Peter Miller / <i>Signed</i> / Chief, Center for Survey Measurement
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Subject:	Behavior Coding Evaluation of the 2010 ACS Content Test

Attached is the final American Community Survey Research and Evaluation report on the Behavior Coding Evaluation of the 2010 ACS Content Test. This report covers an evaluation of the interviewer-respondent interaction during the administration of both the test and control versions of the 2010 ACS Content Test Questionnaire.

If you have any questions about this report, please contact Joanne Pascale (301)763-4920 or Patricia Goerman at (301)763-1819.

Attachment: (Final Report on the Behavior Coding Evaluation of the 2010 ACS Content Test)

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2010 ACS Content Test Evaluation: Behavior Coding Results

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Disclaimer: This report is released to inform interested parties of research and to encourage discussion. The views expressed are those of the authors and not necessarily those of the U.S. Census Bureau.

EXECUTIVE SUMMARY

INTRODUCTION

In 2010 the American Community Survey (ACS) Content Test was carried out to serve as a large-scale test of changes to existing questions that were designed to enhance data quality, and to evaluate alternative ways of asking about new topic areas. The questions being tested were in the topic areas of food stamps, public assistance income, wages and interest income, veterans' identification, period of military service, computers, internet access and subscriptions, and parental place of birth. In order to test these questions, they were inserted into the existing ACS questionnaire and two versions were developed – a "control" and a "test" version.

This report focuses on the behavior coding of recordings of a sample of CATI and CAPI interviews from the ACS Content Test. Behavior coding is a pretesting method that involves the systematic application of standardized codes to behaviors that interviewers and respondents display during the question/response process. This research also serves as the pilot project for the Census Bureau's new Computer Audio Recorded Interviewing (CARI) system.

For the ACS Content Test behavior coding evaluation, interviews (or designated subsets of interviews) were recorded and coded in a total of 1,427 households. The coded interviews were conducted in both English and Spanish (1,092 and 335 cases, respectively) and they were recorded in CATI and CAPI modes (726 and 701 cases, respectively). Eight bilingual telephone interviewers from the Tucson Telephone Center served as coders and were trained by headquarters staff to listen to the recordings, assign the standardized codes and write open-text notes where appropriate.

The unit of analysis for this research is a "turn" of speech between an interviewer and respondent. A turn begins when one person starts speaking and ends when the other person starts speaking. For this research, we captured and coded both the first set of turns – that is, one turn by the interviewer and one turn by the respondent (commonly known as the "first level exchange"), the second exchange between interviewers and respondent where present, the respondent's "final answer" (the ultimate answer given by the respondent) and whether the data entered by the interviewer matched the final answer given by the respondent, as captured in the recording.

The goal of this report was to aid the project sponsor in choosing between the test and control versions of the ACS Content Test questions – not to test and possibly improve the questions – thus the analysis focuses primarily on differences in interviewer and respondent behavior between these two treatments. An important secondary goal was to identify challenges with administering these questions that would help us in identifying areas for training the staff.

The main research question for each variable of interest was whether the test or control version of the question showed higher rates of standard interviewer and respondent behavior and higher rates of appropriate final outcome in terms of the response ultimately entered by interviewers.

For interviewers, "standard" first level behavior is asking the question exactly as worded or only with slight changes, or correctly verifying information provided earlier in the interview. "Non-standard" interviewer behavior is reading the question with a major change to the wording, verifying in a non-neutral way, or skipping the question altogether. On the respondent side, standard behavior is providing an answer that is directly or indirectly codeable, while non-standard behavior is asking for clarification, providing a qualified answer or some other response that is not codeable. Finally, a standard data entry is when the final answer given by the respondent matches the answer the interviewer entered in the instrument.

RESULTS

Following is a summary of results. Appendix A provides a list of all codes used and more detailed definitions of each one are provided in the main body of the report.

OVERALL INTERVIEWER AND RESPONDENT BEHAVIOR

Interviewer first level behavior

Across all questions interviewers read questions as worded 41 percent of the time, and used a correct verification very rarely (1 percent). Most of the non-standard interviewer behavior was "major change" (44 percent) followed by skipped (4 percent) and incorrect verification (3 percent). We also observed a higher than expected level of inaudible utterances, at 7 percent (see Appendix B, Table 3).

Respondent first level behavior

Respondents provided a codeable answer (whether direct or indirect) – one that met the question objectives – 73 percent of the time overall. Most of the time (66 percent) this was an answer that could be directly classified into one of the given response categories, and the other 7 percent of the time the answer was indirect. Non-standard respondent behaviors – requests for clarification, qualified answers, uncodeable answers and the catch-all "other" responses – were fairly uncommon and no one type of non-standard behavior dominated (frequencies ranged from 1-2 percent). However, the rate of inaudible respondent answers was quite high, at 19 percent (see Appendix B, Table 4).

Final Answer

Overall levels of standard behavior, (i.e., codeable and indirect final answers) were rather high (75 percent). Other behaviors were very infrequent (around one percent) but levels of inaudible utterances were quite high – 21 percent (see Appendix B, Table 6).

Data Entry Matches

Data entry matches occur when the image of the interviewer's data entry matched the respondent's final answer as captured on the recording. The overall rate of a match was 74 percent but non-matches were only 1 percent. There was a high level of inaudible respondent utterances in this category. In addition, the other 24 percent of data entry codes were classified as "other" and among these, the respondent's final answer was coded "inaudible" 94 percent of the

time, meaning that coders were unable to hear any respondent verbalizations that may have occurred (see Appendix B, Table 7).

COMPARISONS BY TOPIC AREA AND PANEL

In order to make comparisons by panel, mode and language, the detailed behavior codes were collapsed into standard and non-standard behaviors (as described above). Levels of standard behavior in the control and test versions of the questions were compared and the differences were tested for statistical significance.

Internet Access and Subscriptions

For the sub-topic of *internet access*, the control version contained one question on a subscription to the internet (SUBSCRIBE), while the test contained two separate questions – one on *access* to the internet (INTERNETT) and another on whether that access was with or without a *subscription* (ACCESST). For interviewer first level behavior, standard readings were significantly higher in the control item (SUBSCRIBE) at 82 percent than in the two test items combined (at 75 percent), and among the test items ACCESST performed worse (67 percent standard behavior) than INTERNETT (80 percent standard behavior).

For the subtopic of internet subscriptions, the series included seven core questions (DIALUP, DSL, MODEM, FIBEROP, BROAD, STALLITE, and OTHSVCE), each on a different type of subscription service, and one follow-up other/specify question (OTHSVCETYP). For all eight questions the wording was identical in test and control, only the placement within the series was different.

When all eight items were combined within a panel and an overall measure of standard behavior was assessed, there was no statistical evidence of a difference between control and test. Individual item comparisons also showed no significant differences for interviewers or respondents, with the exception of DIALUP for interviewer behavior, which shows a 10 percentage point difference in favor of the control and the difference is significant (see Appendix B, Table 9). On the respondent side, no differences are significant (see Appendix B, Table 10). Results on the nature of major changes made by interviewers, and respondent behavior, are discussed at the item-level in the main body of the report.

Computers

The computer series included three core questions, (LAPTOP, HANDHELD, and COMPUTER) each on a different type of device, and one follow-up other/specify question (COMPUTYP). For all four questions the wording was identical in test and control, only the placement within the series was different.

There were no significant differences between aggregated levels of standard behavior between test and control for interviewer or respondent behavior, While the magnitude of the difference for COMPUTYP appears to be substantial, the number of sample cases available to study this item (only 8 cases in the control and 12 in the test) limited our ability in terms of statistical

power to detect even large differences in magnitude (see Appendix B, Tables 9 and 10).

Food Stamps

This section consisted of only one target item. The control item (FSX) was fairly simple, using the term for the now-phased-out name of the program (Food Stamps) and including the new name of the program, as well as out-of-scope programs, as optional read-if-necessary statements. The test item (FSXT) included the new name for the program (both "SNAP" and the full "Supplemental Nutrition Assistance Program") and here the instruction on out-of-scope programs was part of the question text.

There was a dramatic difference in test and control interviewer behavior – 73 percent standard behavior in the control versus 34 percent standard behavior in the test (Appendix B, Table 9). On the respondent side, however, there were no differences (78 percent and 79 percent standard behavior) (Appendix B, Table 10). The non-standard interviewer behavior in the test was almost always coded as a "major change" to the question wording. The most important finding here was that in the test version, in 17 percent of all question administrations both SNAP and the phrase "Supplemental Nutrition Assistance Program" were dropped by interviewers. This indicates that respondents were not offered the stimuli of the new program name in any way 17 percent of the time (see Appendix D, FSXT, Table B).

Public Assistance

This topic area consisted of only two items and similar to the food stamps items, the control version (PAX) was relatively simple and the test version (CAX) contained more stimuli, describing the program in more detail. Overall levels of exact readings were fairly low for both items (see the main body of the report for more details). Similar to Food Stamps, the rate of interviewer standard behavior in the control version was twice that of the test version – 44 percent for PAX versus 22 percent for CAX (see Appendix B, Table 9). As in the food stamps section, it was very often the case that respondents in the test version were not hearing the new, unique stimuli built into the question. This rendered the question that respondents did hear into a version very similar to the control version (see Appendix E, CAX, Table B).

Property Income

For this section the main control-test difference was a "decomposition" of elements in the control version. Specifically, the control version contained one core question on receipt of income from any of several sources (interest, dividends, rental income, etc.) (INTRX). The test version decomposed this core question into three separate questions on (1) interest and dividends (INTRXT); (2) rental income (RENTX); and (3) royalty income (ROYALX).

Since the test version is a decomposed version of the control question, the results cannot be compared on a question level but need to be aggregated as a series in each version of the instrument. Results indicate that for the series as a whole, the test performed better on interviewer behavior, by 12 percentage points, and the difference was significant (Appendix B, Table 9). Respondent behavior, however, was 3 percentage points worse in the test than the control, and that difference was significant (Appendix B, Table 10).

Wages

These questions are structured like the property income questions, in that the control question (WAGX, WAG) groups different types of wages together and the test questions ask about the same income sources in separate items (EARN, WAGETEST, EARNTIPS, TIPSTEST).

Results indicate that for the series as a whole the test performed better on interviewer behavior, by five percentage points. For the base questions that ask about receipt of wage income, EARN on the test side and WAGX on the control side, both have relatively high rates of standard interviewer behavior (60 percent and 61 percent, respectively), but the other test item on receipt (EARNTIPS) is somewhat lower on standard interviewer behavior, at 53 percent. For the follow-up amounts questions, standard interviewer behavior was fairly low – 15-40 percent with no strong pattern in favor of test or control (see Appendix B, Table 9).

Parental Place of Birth

For the two Parental Place of Birth questions the same question wording was used in the test and control versions of the instrument (PPOBPA, PPOBMA). However, these questions were located at different points in the survey.

There are no significant differences between test and control for either interviewer or respondent behavior. However, for a related item (ANCW) the test-control difference is significant and favors the test. Interviewer behavior was five percentage points better in the test than control and respondent behavior was eight percentage points better (Appendix B, Tables 9 and 10).

Because these questions are asked at the person level, and in many households the answer is the same for all or most household members, interviewers may vary their behavior as they move from one person to the next in the household. One finding of note is that even for the first person in the household, levels of standard interviewer behavior are extremely low – about 18-20 percent for paternal place of birth (across test and control) and about 11 percent for maternal place of birth (see Tables 11 and 12 in the main body of the report). Note that the maternal place of birth question is sequenced after the paternal place of birth question, which may explain some of the drop-off in standard behavior. Review of the open-text notes indicates that interviewers often left off the last sentence ("Tell me the name of the country, or Puerto Rico, Guam, etc."). With regard to shifts by person number, the patterns of behavior are generally as expected for both the paternal and maternal place of birth questions. For the most part, exact readings drop as the person number goes up, and verifications (both correct and incorrect) and skips increase as person number goes up.

Military Period of Service

For the Military Period of Service question, the wording across test and control was identical but in the test version some of the response categories were collapsed. Thus, in the control version (MILP) there were 11 discrete time periods of service offered as response categories, and in the test (VETP) there were only 9 time periods. The test question performed significantly better than the control for interviewers' reading of the question, by 28 percentage points (Appendix B, Table 9). It appears that providing fewer response options for interviewers to read facilitated higher rates of standard interviewer behavior. On the respondent side, the difference between test and control was not significant but the magnitude of the difference was quite high and in the opposite direction – in the control version respondents gave a standard answer 75 percent of the time versus in the test where the rate of a standard answer was only 55 percent (Appendix B, Table 10).

Veterans' Status

The control version of the veterans' status series contained three variables (VET1C, ACTIVEC and MILC) and the test version contained five variables (VET1T, TRAINING, ACTIVET, RESERVES AND VETP).

Overall, the test series of questions performed significantly better on interviewer behavior than the control series by 19 percentage points (see Appendix B, Table 9). In particular, VET1C had an especially low rate of interviewer standard behavior – 15 percent compared to 59 percent and 64 percent for MILC and ACTIVEC, respectively. The four items in the test version ranged from 52 to 82 percent standard behavior for interviewers. Again, it appears that dividing a long question into shorter components has facilitated higher rates of standard interviewer behavior. On the respondent side, the control series performed significantly better than the test series, though the magnitude of the difference was rather small – four percentage points (see Appendix B, Table 10).

COMPARISONS BY MODE

Overall, for both interviewer and respondent first level behavior, standard behavior was significantly more likely in the CATI than the CAPI versions. For interviewer behavior there was a significant 7 percentage point difference with interviewers showing more standard behavior in CATI interviews than in CAPI interviews (see Appendix B, Table 17). For respondents the difference was quite high – 27 percentage points, with respondents more often providing easily codeable responses in CATI interviews than in CAPI interviews than in CAPI interviews (see Appendix B, Table 17).

COMPARISONS BY LANGUAGE

Overall, higher levels of standard interviewer behavior were observed in English than in Spanish (54 versus 38 percent), and the difference was significant (see Appendix B, Table 21). Reasons for these differences are discussed more at length in the report.

1. BACKGROUND¹

The American Community Survey (ACS) is a large, ongoing, national survey that provides data every year. The survey essentially replaces the decennial census "long form" (carried out through 2000) where one in six households was selected to provide more detailed information than just the head-count and basic information requested in the short form. One of the many advantages of this shift to the ACS is that data are now available on an annual basis, and researchers no longer have to wait 10 years for the data. ACS data is used to help determine how more than \$400 billion in federal and state funds are distributed each year and, as such, there are several stakeholders, such as local communities, businesses, industries, federal, state, and local governments, and individuals. Research is constantly being conducted to evaluate the quality of the data produced by the existing ACS questions, and also to test new questions that arise due to changes in society (such as the use of computers and other electronic devices). One vehicle for this type of research and development is the "ACS Content Test." In 2010 the ACS Content Test was carried out to serve as a large-scale test of changes to existing questions that were designed to enhance data quality, and to evaluate alternative ways of asking about new topic areas.

The existing questions that were revised in an attempt to improve data quality were in the topic areas of food stamps, public assistance income, wages and interest income, veterans' identification and period of military service. The new questions being tested were in the topic areas of computers, internet access and subscriptions, and parental place of birth. In order to test these questions, they were inserted into the existing ACS questionnaire and two versions were developed – a "control" and a "test" version. Several questions outside the scope of the content test were maintained for context, so much of the overall questionnaire was identical across both control and test versions. See Figure 1 for an overview of the content of both versions of the questionnaires, and the flow from one topic area to the next.

¹We are extremely grateful to the CSM team who stepped in to assist with the open-text notes coding: Marissa Fond, Rachel Freidus and Jennifer Leeman. We are also in deep gratitude to John Chesnut for assistance with SAS programming, guidance on statistical testing and contributing the description of the ACS 2010 Content Test sample design to this report. We would also like to thank Ben Klemens for his assistance with calculating interrater reliability and data editing and the team of coders and supervisors from the Tucson Telephone Center who worked hard to code the interviewer and respondent recordings that make up the behavior coding data. We would like to thank Ann Horwitz for her editorial assistance. Finally, we would like to thank the Census Bureau and RTI International teams who worked to develop the new CARI behavior coding system that was used for the first time on this project.

	Control	Test			
Household Composition	ate of birth, etc.), for Persons 1-5; nly for Persons 6-12				
Household	, number of rooms, etc.				
characteristics	Computer usage (Control version) Computer usage (Test version)				
	Number of vehicles, c	ost of utility bills, etc.			
	Food Stamps (Control version)	Food Stamps (Test version)			
	Rent, mortgage, taxes				
Person	Parental Place of Birth (Control version)	Parental Place of Birth (Test version)			
characteristics	Disability, health insurance, marital history, etc.				
	Armed Forces (Control version)	Armed Forces (Test version)			
Wc		activities			
	Wages and Property Income (Control version)	Wages and Property Income (Test version)			
	Self-employment income, assets income				
	Public Assistance Income (Control version)	Public Assistance Income (Test version)			

Figure 1: ACS 2010 Content Test: Topic Areas, Flow and Questions Being Tested²

The test followed the same data collection methodology currently used in the production ACS survey – that is, mail questionnaire, telephone follow-up CATI interview for those not responding to the mail form, and personal visit follow-up CAPI interview for those not responding (or not available) by phone. The ACS Content Test was carried out in the fall of 2010. Questionnaires were mailed to sampled addresses on August 23, 2010 and respondents were asked to mail back their forms by the end of September. For those households not responding by mail, CATI data collection was conducted October 1-26. For those households not reached via mail or CATI, CAPI data collection was conducted from November 1 through December 1, 2010.

2. METHODOLOGY

2.1 Computer Audio Recorded Interviewing (CARI)

To help evaluate the ACS Content Test the Census Bureau implemented Computer Audio

² Note: in some cases, such as Parental Place of Birth and Computers/Internet, the same question wording was tested in both the test and control versions but the placement or question ordering was different. More details about this can be seen in the sections that discuss each topic area below.

Recorded Interviewing (CARI) for the CATI and CAPI modes of data collection.³ Both CATI interviewers in the Census Bureau telephone centers and CAPI interviewers conducting inperson interviews were able to record the interview directly on to their laptops as the interview was being conducted. The CARI recordings were then used to analyze respondent and interviewer interactions during the interview to learn whether the questions were posing any serious problems. This technology has provided us with a unique opportunity to conduct a behavior coding study using a probability-based sample, something that had not been done at the Census Bureau in the past.

The behavior coding system works by recording the administration of individual survey questions and answers on the interviewers' laptops. Coders later worked with an interface that included the original question wording along with a list of codes that could be applied to describe the interaction. The screen also included a link to controls by which the coder could play the recording that pertained to that particular survey question. Finally, the coder could enter codes about what happened in each instance on the same screen. In addition, there was a link by which the coder could add descriptive notes about what had happened in the interaction.

Because this was a new system, some problems were discovered through this pilot project. For example, due to data storage and transfer limitations, the system was designed to record individual questions of interest, as opposed to recording entire interviews (with the exception of Spanish cases). During the course of our project we found that crucial pieces of information, such as respondent answers were sometimes cut off. Many limitations of this type were addressed through modifications to the system after our project was completed.

2.2 Behavior Coding

Behavior coding is a pretesting method that involves the systematic application of standardized codes to behaviors that interviewers and respondents display during the question/response process (Fowler and Cannell, 1996). The method can be used to evaluate and improve questionnaires in a number of ways. For example, it can help identify survey questions that are problematic (from the interviewer's and/or respondent's perspective) and it can help identify aspects of interviewer training that could be strengthened.

For the ACS Content Test, the CARI system was used to digitally record interviews in both CATI and CAPI modes, each in both English and Spanish. Staff at the Center for Survey Measurement (CSM) developed a set of standardized codes to capture both the interviewers' and respondents' behaviors based on reviewing a sampling of the preliminary recordings. The unit of analysis for this research is a "turn" of speech between an interviewer and respondent. A turn begins when one person starts speaking and ends when the other person starts speaking. Behavior coding often focuses on only the first set of turns – that is, one turn by the interviewer and one turn by the respondent – which is commonly known as the "first level exchange." Indeed, in many instances there is only a first level exchange. If the interviewer reads the

³ The new CARI system was developed by a team of RTI International and Census Bureau staff, from divisions including CSM, ACSO, DSMD, DSD, DSSD, FLD, ITSO and TMO.

question and the respondent provides an answer that can be classified into one of the given response categories (this is known as a "codeable" answer) there is often no more discussion about that question and the interviewer moves on to the next question. In this project we coded the first level but also the second level exchanges – that is, the interviewer's follow-up comment (if any), and the respondent's response to that follow-up comment (if any). In our preliminary review of the recordings there seemed to be certain questions and topic areas that prompted more follow-up discussion than others and we wanted to track both the frequency of any follow-up comments and the nature of these comments.

Among the first level exchange behaviors, the interviewer codes focus on how the interviewer asked the question – whether it was read as worded, verified, skipped or read with major changes. Respondent first level codes were designed to capture what the respondent did right after the question was read – whether he or she provided a codeable answer, asked for clarification about what the question or a particular term meant, gave a qualified or indirect answer, etc. For second level codes, on the interviewer side the codes were simply designed to capture whether the interviewer's follow-up remark was some type of probe, clarification, etc. and whether it was judged by the coder to be correct, incorrect or could not be determined to be correct or incorrect (note we also tracked "off-topic" comments but these were so infrequent that they were grouped in with the "other" code). Second level codes for the respondent were the same as first level codes. See Appendix A for a complete list of standardized codes.

Beyond the first and second level exchanges, two other behaviors were coded and were meant to describe the final outcome of the interaction. One was the respondent's "final answer" – the ultimate answer given by the respondent. This can be one-and-the same as the first or second level behavior if the interaction over a given question ended at or before the second level. But if there were more than two exchanges, the final answer can be something different from the answer given at the first or second exchange. And finally, the CARI system enabled us to verify and code whether the data entered by the interviewer matched the final answer given by the respondent, as captured in the recording.

Thus in total we coded six turns: interviewer and respondent first and second level behaviors, respondent final answer, and whether the final answer matched the data entry.

For the ACS Content Test evaluation, interviews (or designated subsets of interviews) were recorded and coded in a total of 1,427 households. The coded interviews were conducted in both English and Spanish (1,092 and 335 cases, respectively) and they were recorded in CATI and CAPI modes (726 and 701 cases, respectively). Eight bilingual telephone interviewers from the Tucson Telephone Center served as coders and were trained by headquarters staff to listen to the recordings, assign the standardized codes and write open-text notes where appropriate. Training was held December 7-10, 2010, and coding operations were conducted December 13, 2010 through March 6, 2011. Data were then cleaned and processed in the Research and Methodology directorate in Suitland.

As noted above, the unit of analysis was the turn. For each of the six turns, Table 1, below, displays the number of turns in each panel (test versus control). Altogether there were 44,590

Interviewer first level turns. This is the grand total - across both panels and all questions⁴ - of the number of times a question was administered to a respondent. The number of respondent first level turns is slightly lower (41,235). There could be several reasons for this: (1) the respondent literally said nothing (hence their "turn" would not be recorded or coded); (2) it was a CAPI interview conducted by telephone (where the interviewer but not the respondent was recorded due to technology limitations); or (3) coder error (simply not marking a code for the respondent behavior when they should have). As expected there were fewer second-level exchanges than first-level exchanges. After the total 44,590 initial question administrations, there were only 5,683 interviewer follow-up utterances – indicating that a question prompted some type of follow-up response from the interviewer only 13 percent of the time on average. Furthermore, the interviewer's second-level utterance prompted a response from the respondent less than half the time (2,461 of 5,683, or 43 percent). The gap between the number of interviewer and respondent second-level utterances could be due to the same factors as in the first level, and in addition, it is quite likely that some of the interviewer second-level utterances did not even invite a response from the respondent (e.g., when the interviewer gave feedback like "thanks" or "ok"). With regard to the "final answer" codes, there were slightly fewer final answers coded than the number of Interviewer first-level utterances, but the number of "data entry" codes roughly matched the number of Interviewer first-level codes. This may again be due to inaudible responses or coder error in coding the final answer category.

	First Level		Second Level		Final Outcome	
_	Interviewer	Respondent	Interviewer	Respondent	Final Answer	Data Entry
Control	21,288	19,695	2,709	1,185	20,249	21,132
Test	23,302	21,540	2,974	1,276	22,096	23,119
Total	44,590	41,235	5,683	2,461	42,345	44,251

Table 1: Number of Turns by Panel

In addition to applying the standardized codes, coders were instructed to write open-text notes for any utterance that was "non-standard." For example, if interviewers did not read the question as worded, coders were instructed to write a verbatim note describing how the interviewer modified the question. All codes that required coders to make open-text notes are indicated with

⁴ Questions were designated as "target" and "buffer" questions. The target questions were those that were manipulated in the test panel, while the buffer questions were those that were not explicitly manipulated across control and test panels. However, due to their proximity to the target questions, they were recorded and coded in case discussion about the target question "bled" into the buffer question recordings, and/or there was something about the context of the series as a whole that proved noteworthy for analysis. All tables display results for the target questions only (at the question-level and overall totals), with the exception of Tables 1 and 2 (which provide summary measures for the behavior coding operation as a whole), and Tables 15-22 (on language and mode).

an asterisk in Appendix A.

2.3 Inter-rater Reliability (IRR)

As a part of the behavior coding we included a measure of Inter-rater reliability (IRR) to assess the extent to which the coders were applying the codes in a similar manner across cases. For our project, the same 8 bilingual coders coded the Spanish and English language interviews. We therefore assigned all of them some of the same cases in both languages so that we could assess reliability. In assigning the IRR cases, we listened to the interviews and chose some that we deemed difficult to code and others that we deemed more straightforward.

In Spanish, we asked all 8 coders to code one "easy" and one "difficult" CATI case and one "easy" and one "difficult" CAPI case. The coders were aware that they would be coding some of the same cases but they were not aware of which cases they were. This was to ensure that they did not discuss the codes they were assigning in more ambiguous situations.

In some cases we assigned English IRR interviews to all 8 coders but in other cases we assigned them to groups of coders. This was due to time and budget considerations. We assigned "easy" and "difficult" English language cases to be coded by all 8 coders in English CAPI cases. These included an easy and a difficult computer interview, an easy and a difficult veterans' status case, and an easy wages case. All 8 coders also coded an easy and a difficult wages case in the CATI mode.

For the rest of the English CATI cases, we assigned IRR cases to different numbers of coders as a sort of spot check on reliability. We assigned an easy computer case to two coders and a difficult one to two different coders. An easy parental place of birth case was assigned to three different coders and a difficult one was assigned to two other coders. An easy veterans' status case was coded by two coders and a difficult one was coded by two other coders.

We use the kappa statistic to measure the agreement across coders. According to Fleiss (1981), this is a conservative measure of agreement since it accounts for the possibility of agreement by chance. Kappa scores higher than 0.75 represent an excellent level of agreement. Scores ranging from 0.40 to 0.75 represent a "good" to "fair" level of agreement and scores below 0.40 indicate poor agreement (Fleiss, 1981).

Overall the coders displayed a "good" to "fair" level of agreement at .50 (See Table 2 below). However there was some variation. For interviewer behavior, the coders showed a higher level of agreement than for respondent behavior, .55 and .46, respectively. They also displayed different levels of agreement by mode and language. Coders agreed more often on the codes assigned to English interactions and more often on CATI than CAPI cases when coding respondent behaviors, but they did about equally well across modes for interviewer interactions. This is to be expected in the sense that it is often easier to assign a code to an interaction when interviewers and respondents display standard behavior. When non-standard behavior occurs, the coder must choose between more codes and there are more nuances at play (Goerman et al., 2008).

OVERALL	0.502
Interviewer Behavior	0.553
English	0.660
Spanish	0.513
CATI	0.550
CAPI	0.558
Respondent Behavior	0.463
English	0.550
Spanish	0.438
CATI	0.491
CAPI	0.430

Table 2: ACS 2010 Content Test Behavior Coding Kappa Scores

2.4 ACS Content Test Sample Design

The 2010 Content Test behavior coding analysis used topic-based samples (400 cases per topic group) selected for each topic from the universe of completed CATI and CAPI interviews recorded using the CARI technology. To avoid file storage and data transfer issues during data collection due to large audio files, only a limited portion of the CATI-CAPI interview was recorded. The portion of the interview that was recorded at the time of the interview was based on a pre-assignment of all ACS sample address pairs (control-test) to one of five Content Test topic-specific recording scenarios (consent only, computer-internet use and food stamps, parental place of birth, veteran status and period of service, and income) (Keathley, 2010). The topic-specific recordings contain a recording of the target questions as well as the surrounding, ie., "buffer," questions.

The sample design for each topic-specific sample was based on a stratified systematic sample of the recorded CATI-CAPI Content Test interviews for a given topic where the stratification was defined by treatment group (test and control), interview language (English and Spanish), mode of data collection (CATI or CAPI), and other topic-specific characteristics specified by the subject matter experts, as noted below:

Computer-Internet and Food Stamps

- Food stamp recipiency status Total household income less than \$20,000
- Urban-rural
- Educational attainment less than a high school diploma
- At least one Don't Know response to the computer and internet question series was provided
- Age

Parental Place of Birth

- Hispanic/Non-Hispanic

- First, second, or third and higher immigration status

Wages, Property Income, and Public Assistance

- Presence of children in the household
- Presence of elderly adults in the household
- Total household income less than \$30,000
- Presence/absence of wages amount

Veterans

- Age (35-61 or 62 and older)
- Reservist present in the household
- Active duty status reported, but period of service reported is inconsistent

2.5 Data Sources, Analysis and Presentation of Results

We conducted analysis on both quantitative and qualitative data for this report. The quantitative data focuses on frequency distributions of behaviors for the six turns captured in the coding scheme, though this report focuses only on four of those turns: interviewer and respondent first level behavior, respondent final answer and data entry. Differences in these frequencies were examined by panel (test versus control), language, mode and, in some instances, by question and other characteristics. For ease of interpretation in some of the quantitative analysis we collapsed individual codes for all six turns into "standard," "non-standard" or "neutral" behaviors.

In general, for interviewer first level behavior, "standard" behavior is asking the question exactly as worded or only with slight changes, or correctly verifying information provided earlier in the interview. "Non-standard" interviewer behavior is reading the question with a major change to the wording, verifying in a non-neutral way, or skipping the question altogether.

On the respondent side, first-level and final-answer standard behavior is providing an answer that is directly or indirectly codeable, while non-standard behavior is asking for clarification, providing a qualified answer or some other response that is not codeable. Finally, a standard data entry is when the final answer given by the respondent matches the answer the interviewer entered in the instrument. "Neutral" behaviors across all turns were generally catch-all "other" behaviors that didn't fit a more descriptive category, inaudible utterances, don't know and refused responses.

The qualitative data was created by the behavior coders as they listened to the recordings of survey interactions. Any time an interviewer or respondent displayed non-standard behavior, coders were asked to write a descriptive note about what had happened. Appendix A shows the codes along with an asterisk denoting which ones required the coder to include a qualitative note about what happened. The research team then further coded these qualitative notes by grouping them in categories related to specific terms being changed or dropped.

With regard to analysis of the open-text, coder notes, this report focuses on notes that described

the nature of any non-standard question-asking. For most questions, five tables have been produced and they are included in Appendices C, D, E, F and G. Each Appendix contains Tables A-E for every variable in a particular topic area. For example, Appendix C contains the tables related to the larger topic are of Internet access, subscriptions and computers, Appendix D contains the tables related to the food stamps topic area and so on. For variables where there were not enough qualitative notes to discuss, the relevant table is not included.

- Table A: Frequency of Questions as Administered
 - Column 1: displays the verbatim wording of the way the question was actually read. The first row (which is shown in grey) displays the text as worded in the questionnaire. This is mainly for reference, so that the reader can easily compare the way the question appeared on the screen to the non-standard way in which it was actually administered. The final row ("skipped/inaudible/other") indicates the total frequency of administrations of the question that were non-standard but where we have no substantive information on what actually did happen. This is due to a combination of factors. If the question was skipped or it was inaudible, there was no interviewer utterance for the coder to code (the frequency with which these two codes were assigned can be found in Table 3 in Appendix B for each question). The rest of the cases in this category of non-standard administrations are those where the coder's notes did not provide enough detail to be useful. For example, the note could say: "Interviewer did not read question as worded" but not detail what the interviewer said. Note that the rows in this table are mutually exclusive.
 - Column 2: displays the raw frequency of the number of times the question was read in the manner displayed in Column 1.
 - Column 3: displays the percentage of time the question was read in the manner displayed in Column 1 *based on the total number of substantive notes on non-standard behaviors*. That is, the denominator excludes both exact readings (because these were standard), and it excludes the skipped/inaudible/other cases because these notes were non-existent or uninformative. The purpose of this column is to give the reader a sense of the most frequent types of major changes to the question at least those where we have been able to categorize the non-standard question-reading into relatively common categories.
 - Column 4: displays the percentage of time the question was read in the manner displayed in Column 1 *based on the grand total of all administrations of the question.* The purpose of this column is to give the reader a sense of the overall impact or severity of the non-standard reading among all respondents who heard the question.
- Table B: Frequency of Dropped Terms
 - Displays particular words or terms that were dropped or changed. Note that the rows are not mutually exclusive because often discreet terms or phrases were dropped, but there was overlap. For example, in the Food Stamps section, sometimes the interviewer dropped the term "SNAP," sometimes they dropped the entire phrase "Supplemental Nutritional Assistance Program" and sometimes they dropped both. Thus, Table A allows the reader to know, ultimately, how

often respondents heard all, part or none of the key stimuli in the question, and Table B allows the reader to hone in a particular key term or phrase and know how often it was mis-administered. Table B is structured in a similar way as Table A, where the first column displays the text, the second column provides the count, the third column displays percent *among all major changes to the question*, and the last column displays the percent *among all administrations of the question*.

- Table C: Notable Differences by Language
 - This is a slightly abbreviated version of Table A. The main difference is that instances of non-standard question-readings that were relatively infrequent are simply lumped together as "miscellaneous." But the table is broken out by language, which allows the reader to scan the percentage of time a particular change was made to the question in English versus Spanish and note any important language differences.
- Table D: Notable Differences by Mode
 - This is similar to Table C, but displays CATI versus CAPI cases.
- Table E: Respondent First-Level Behavior Detail
 - When respondents provided a non-standard response after the initial questionasking, coders made open-text notes to capture the nature of the response. To the extent that this response could be categorized, this table displays the frequency of respondents' reactions and presents both overall frequencies and frequencies by language and mode.

The main body of the report discusses qualitative findings when they are notable or relevant to our conclusions but more details can be found in the tables pertaining to each variable.

3 LIMITATIONS

There were some limitations to the design. For simplicity, we assumed simple random sampling in the calculation of our estimates and standard errors rather than account for the actual sample design. As a result, we may not be accurately stating the significance of our results.

Given that we did not account for the pre-assignment of Content Test sample cases to the different recording scenarios in the weighting of our estimates and standard errors of our estimates, our results only infer to the universe of recorded scenarios for a given topic.

In this report the inaudible code is used a bit differently than it is in standard behavior coding projects due to a technology limitation related to our CAPI cases. The recording equipment used in the telephone centers for CATI interviews recorded both the interviewers' and respondents' voices over the telephone. In CAPI cases the laptops used to collect data also contained recording equipment that recorded interviewers' and respondents' voices while they were asking and answering questions near the laptop. In some cases CAPI respondents may have been positioned further from the laptop and their voices were more difficult to discern. There were

also some cases where CAPI interviewers conducted or completed CAPI interviews over the phone. In those cases, only the interviewers' voices were recorded. These factors contributed to a greater frequency of inaudible codes in CAPI than CATI cases and may have affected some comparisons in the data across the two modes.⁵

The goal of this report was to aid the project sponsor in choosing between the test and control versions of the ACS Content Test questions – not to test and possibly improve the questions – thus the analysis focuses primarily on differences in interviewer and respondent behavior between these two treatments. An important secondary goal was to identify challenges with administering these questions that would help us in identifying areas for training the staff. The behavior coding data offer rich opportunities for additional analysis, such as in-depth mode and language differences; and an examination of situations where both the test and control versions of the instrument showed problems. Those analyses are not fully addressed in this report, but future projects may include more discussion along with recommendations to improve question wording where both versions show problems.

4 RESEARCH QUESTIONS AND RESULTS

The main research question for each variable of interest was whether the test or control version of the question showed higher rates of standard interviewer and respondent behavior. We discuss this in detail for each topic area below.

4.1 Overall Results

4.1.1 Interviewer First Level Behavior

Arguably, the most important measure behavior coding can offer is an indication of how the interviewer initially presented the question to the respondent. Table 3 in Appendix B displays the frequency of detailed codes applied to the interviewer's first level turn – that is, their initial question asking – for each question, and overall. Across all questions interviewers read questions as worded 41 percent of the time, and used a correct verification very rarely (1 percent). Most of the non-standard interviewer behavior was "major change" (44 percent), skipped (4 percent) and incorrect verification (3 percent), and there was a fairly high level of inaudible utterances, at 7 percent.

4.1.2 Respondent First Level Behavior

Another important measure is the respondent's initial response to the question. Table 4 in Appendix B displays frequencies of detailed codes for each question and overall. Respondents provided a codeable answer (whether direct or indirect) – one that met the question objectives – 73 percent of the time overall. Most of the time (66 percent) this was an answer that could be

⁵ About 16% of CAPI cases were conducted over the telephone, and among them about 74% of R 1st level utterances were coded 'inaudible.'

directly classified into one of the given response categories, and the other 7 percent of the time the answer was indirect. Non-standard respondent behaviors – requests for clarification, qualified answers, uncodeable answers and the catch-all "other" responses – were fairly uncommon and no one type of non-standard behavior dominated (frequencies were 1-2 percent each).

However, the rate of inaudible respondent answers was quite high, at 19 percent. There was a large difference between the rates of this behavior across modes with 37 percent of respondent answers coded as inaudible in the CAPI mode and only 7 percent coded this way in CATI cases (see Tables 15 and 16 below in the discussion on mode). This is most likely due to the fact that the recording technology in use in the telephone centers recorded both the interviewers and the respondents speaking on the telephone. In the in-person interviews, there were a number of cases where interviewers actually conducted interviews over the phone using their own personal telephones, which did not include recording equipment⁶. In these cases only the interviewers' voices were recorded. In addition, there were cases in the in-person interviews where there were multiple respondents and where some or all respondents were presumably positioned far from the laptop, which may have reduced recording quality.

4.1.3 Interviewer Second Level Behavior

As noted above, in the vast majority of question administrations there was a single interviewer utterance followed by a single respondent utterance and the interviewer then moved on to the next question. As for the ratio of second-level exchanges to first-level exchanges, on average there was only a single exchange 87 percent of the time. That is, the respondent provided an answer after the initial question-asking and the interviewer moved on to the next question – and for the other 13 percent of initial question-asking utterances the interviewer followed up with a second utterance. While the average of second exchanges is rather low, for this measure the range across questions is particularly broad – from none to 68 percent. See Table 5 in Appendix B for a question-by-question display. Because second level exchanges were infrequent, we focus only on first level exchanges in this report.

4.1.4 Final Answer

Overall levels of standard behavior (i.e., codeable and indirect final answers) were rather high (75 percent). Other behaviors were very infrequent (around one percent) but levels of inaudible utterances were quite high -21 percent. Again, this might be related to technology issues where it can be difficult to hear respondents in certain situations. It also may be related to the fact that respondents often use non-verbal cues, such as nodding to say yes, particularly in face-to-face interactions. See Table 6 in Appendix B.

⁶ About 16% of CAPI cases were conducted over the phone, and among them about 74% of respondent 1st level utterances were coded 'inaudible.'

4.1.5 Data Entry Matches

Table 7 in Appendix B displays the outcome for data entry matches – that is, whether the image of the interviewer's data entry matched the respondent's final answer as captured on the recording. The overall rate of a match was 74 percent but non-matches were only 1 percent. Again, there was a high level of inaudible respondent utterances recorded in this category. The other 24 percent of data entry codes were classified as "other" and among these, the respondent's final answer was coded "inaudible" 83 percent of the time (using as the denominator the total number of "other" data matches in Table 7 (4,915) and as the numerator the total number of inaudible respondent final answers from Table 6 (4,056)). In other words, coders often could not hear the respondent's final answer, and though they could see the image of what the interviewer entered, they could not make a judgment as to whether the data entry matched what was said.

4.1.6 Interruptions

The rate of interviewers being interrupted by respondents is important in that it can indicate that a given question is too long or complicated or that respondents feel that they do not need to hear the rest of the question in order to provide an answer. Interviewers are instructed to continue reading a question as worded after being interrupted, but it can be difficult to do so, particularly if the question is interrupted more than once. A question that is interrupted at a high rate may need to be reworded so that respondents will be more likely to hear all of the question text. Table 8 in Appendix B displays the frequency with which interviewers were interrupted during the initial reading of each question. The overall interruption rate was rather low (five percent) but the rate varied quite a bit by item, from zero to almost 22 percent.

4.2 Comparisons by Panel

In order to make comparisons by panel, mode and language, the detailed codes discussed above were collapsed into standard behavior and non-standard behavior (as described in Section 3 above). Levels of standard behavior in the two conditions were compared and the differences were tested.⁷ For all comparisons this report focuses on only interviewer and respondent first level behaviors. Second level exchanges were fairly rare, and for both the final answer and data entry turns there was little variation across versions.

Table 9 in Appendix B displays the comparison of interviewer first level standard behavior between test and control by topic for each item. Note that for some topic areas there is a one-to-one question match between test and control. For example in the computers topic area, an item in the control version (LAPTOPC) has a corresponding single item in the test version (LAPTOPT). But for other topic areas a set of questions needs to be taken as a whole and then combined to produce a test-control comparison. For example, in the internet access section the control version

⁷ For all statistical tests performed in this report, we use two-sided t-tests at an $\alpha = 0.10$ significance level to determine comparisons that are significantly different. For any analysis that requires a family of pair-wise comparisons, we use the Bonferroni method for controlling the family-wise error rate.

has a single item (SUBSCRIBE) while the equivalent in the test is comprised of two items (ACCESST and INTERNETT). Table 10 in Appendix B displays the comparison of respondent first level standard behavior across panels.

In the next section of the report we discuss the results of each topic area, summarizing comparisons by panel and additional information from the appendices. Most comparisons by panel discussed below rely on Tables 9 and 10, though at times the more detailed code frequencies from Tables 3-8 are discussed.

4.2.1 Internet Access and Subscriptions; Computers

There are three sub-topics within this topic area: internet access, internet subscription services and computers. Each is discussed separately below. The questions from these three topic areas were presented to respondents in a different order in the test and control panels. In the control panel, respondents first heard questions on subscription types, then on internet access and then on computer types. In the test panel, the order was reversed and respondents first heard questions on computer types, followed by internet access and then subscription types.

Internet Access: For this sub-topic, the test and control questions were quite different. The control version contained one question on a subscription to the internet, while the test contained two separate questions – one on *access* to the internet and another on whether that access was with or without a *subscription*.

SUBSCRIBE

At this [house/apartment/mobile home], do you or any member of this household subscribe to the Internet?

- Yes
- No

INTERNETT

At this [house/apartment/mobile home], do you or any member of this household access the Internet?

- Yes
- No

ACCESST

(At this [house/apartment/mobile home]), Do you or any member of this household access the Internet with or without a subscription to an Internet service?

- With a subscription to an Internet service
- Without a subscription to an Internet service

There is fairly convincing evidence in favor of the control for these items, and among the two test items ACCESST was the more problematic. SUBSCRIBE and INTERNETT were both read as worded quite often (82 and 79 percent of the time respectively), but ACCESST was read as

worded only 67 percent of the time (Appendix B, Table 3). In terms of aggregated non-standard behavior there is an overall 6 percentage point difference in favor of the control (Appendix B, Table 9). On the respondent side the control item also performed significantly better than the test, by 10 percentage points (Appendix B, Table 10). SUBSCRIBE had the highest level of respondent standard behavior among the three items (81 percent). And as with interviewer behavior, between the two test items ACCESST performed worse than INTERNETT (64 percent versus 75 percent).

For the SUBSCRIBE item, among major changes to the initial question-asking the vast majority of changes were to the more generic parts of the question (see SUBSCRIBE, Table B in Appendix C). Eighty-eight percent of major changes were omitting the phrase "you or any member of this household." This accounts for ten percent of the overall administrations of the question. This type of change could be a concern because when interviewers say something like: "Do you subscribe to the internet?," the lack of reference to "any member of the household" could cause response error, particularly in households where respondents live with roommates who may have internet access that they do not share with the rest of the household.

Another 70 percent of the major changes to the SUBSCRIBE question involved omitting the phrase "at this house/apartment/mobile home." This phrase is an important one, since the ACS is required to measure the prevalence of subscribership to broadband service provided at the housing unit address. Forty-two percent of the major changes were interviewers using words other than subscribe, such as "have" or "get" the internet (Appendix C, Table B). But overall these changes happened in only four percent of all administrations of the question (Appendix C, SUBSCRIBE, Table A). Respondents' first-level non-standard behavior was fairly innocuous, with respondents volunteering more information than what the question asked for, such as the name of the service provider or specific household members (Appendix C, SUBSCRIBE, Table E).

Results were similar for INTERNETT. The majority of major changes were to the phrase "you or any member of this household" and "at his house/apartment/mobile home" (88 percent and 73 percent respectively). Twenty-seven percent of the major changes were interviewers omitting or replacing the word "access" with something else (Appendix C, INTERNETT, Table B) but, as with SUBSCRIBE, this only affected four percent of total administrations of the question (Appendix C, INTERNETT, Table A). On the respondent side, results were also similar; most non-standard behavior involved respondents volunteering additional information not requested in the question (Appendix C, INTERNETT, Table E).

ACCESST was the most problematic among these questions. Overall the question was read as worded 67 percent of the time, and in another 6 percent of cases the only change to the question was to drop the generic phrase "Do you or any member of this household" (Appendix C, ACCESST, Table A). Other less-common administrations of the question were "Do you have a subscription to an internet service?" "With or without a subscription?" and "Do you have a subscription?" Part of the problem with this question wording is that it sounds as if it is asking about multiple things: whether 1) "you or any member of this household;"2) "access the internet;" 3) "with or without a subscription to an internet service." In addition, the prior

question, INTERNETT, asks whether "you or any member of this household access the internet." This may have caused the interviewers (and respondents) to perceive ACCESST to be repetitive. Interviewers may have been trying to assist respondents by boiling it down to what they perceived was the most relevant part of the question: whether or not the person has a subscription to an internet service.

Internet Subscriptions: This series included seven core questions, each on a different type of subscription service, and one follow-up other/specify question. For all eight questions the wording was identical in test and control (only the placement within the series was different) so they are displayed here as one set of questions (all but the other/specify question have yes/no response categories).

DIALUP

At this [house/apartment/mobile home], do you or any member of this household subscribe to the Internet using a dial-up service?

DSL

(At this [house/apartment/mobile home]), Do you or any member of this household subscribe to the Internet using a DSL service?

MODEM

(At this [house/apartment/mobile home]), Do you or any member of this household subscribe to the Internet using a cable-modem service?

FIBEROP

(At this [house/apartment/mobile home]), Do you or any member of this household subscribe to the Internet using a fiber-optic service?

BROAD

(At this [house/apartment/mobile home]), Do you or any member of this household subscribe to the Internet using a mobile broadband plan for a computer or a cell phone?

SATELITE

(At this [house/apartment/mobile home]), Do you or any member of this household subscribe to the Internet using a satellite service?

OTHSVCE

{At this [house/apartment/mobile home]), Do you or any member of this household subscribe to the Internet using some other service?

OTHSVCETYP

What is this other type of Internet service?

Exact reading rates ranged across items and panels from 52 to 73 percent. SATELLITE, BROAD and FIBEROP had somewhat higher rates, averaging 66 percent across panels and items; DIALUP, MODEM and OTHSVCE had somewhat lower rates (59 percent on average) and DSL

had the lowest average rate of exact-reading (53 percent in control; 55 percent in test) (Appendix B, Table 3; averages computed from individual items but not shown in table). For the most part interviewers dropped the generic phrases in the question ("At this house/apartment/mobile home" and "do you or any member of this household"), and rather than reading the core phrase "subscribe to the internet," they went directly to the unique part of the question (such as DSL, fiber-optic, etc.). When all eight items were combined within panel and an overall measure of standard behavior was assessed (Appendix B, Table 9), there was no statistical evidence of a difference between control and test. Individual item comparisons also showed no significant differences for interviewers or respondents, with the exception of DIALUP for interviewer behavior, which shows a 10 percentage point difference in favor of the control and the difference is significant. However, for all seven of the other internet subscription services, the magnitude of test-control differences for interviewer behavior is non-trivial (3-5 percentage points), and always in favor of the test version. On the respondent side, no differences are significant, Results on the nature of major changes, and respondent behavior, are discussed at the item level below:

BROAD: Interviewers dropped the generic phrases of the question ("Do you or any member of this household" and "At this house/apartment/mobile home") for 11 and 10 percent of all question administrations respectively, and they dropped key terms specific to the question (such as cell phone, computer, subscribe, plan, internet, mobile and broadband) anywhere from 3-10 percent of all question administrations (Appendix C, BROAD, Table B). But otherwise there were no strong patterns in terms of the way interviewers actually read the question (Appendix C, BROAD, Table A). Respondents sometimes volunteered more information than was asked for, and only very rarely expressed a lack of understanding of the term "broadband" (Appendix C, BROAD, Table E).

DIALUP: Similar to BROAD, interviewers dropped the phrases "Do you or any member of this household" and "At this house/apartment/mobile home" for 11 and 9 percent of all question administrations respectively (Appendix C, DIALUP, Table B). In eight percent of all question administrations interviewers read the question as worded but then added some type of information about a telephone, but otherwise no patterns emerged (Appendix C, DIALUP, Table A). On the respondent side, the most common behavior was volunteering more information than was asked for, and very occasionally mentioning "telephone" or "television" (Appendix C, DIALUP, Table E).

DSL: this item had the lowest rate of exact readings but 14 percent of the non-standard readings were some version of "[At this house] Do you use a DSL [service]?"(aggregating the second, third and fourth rows of DSL, Table A in Appendix C). That is, as noted above, interviewers often dropped the phrase "subscribe to the internet." And as with most other items in this series, interviewers often dropped the generic phrases "Do you or any member of this household" and "At this house/apartment/mobile home" (18 and 6 percent of the time, respectively; Appendix C, DSL, Table B). Again, respondents often volunteered extra information, and in this case occasionally mentioned "cable" (Appendix C, DSL, Table E).

FIBEROP, MODEM: results for these items were very similar to DIALUP and DSL. Here again, the most frequent changes were interviewers dropping the generic phrases "Do you or any

member of this household" and "At this house/apartment/mobile home." (Appendix C, FIBEROP, Table B and MODEM, Table B). Interviewers also made changes to the phrase: "subscribe to the internet" and respondents volunteered extra information.

SATELLITE and OTHSVCE showed similar results to FIBEROP and MODEM. In the case of these two questions, respondents occasionally mentioned "phone or TV" as a part of their responses (Appendix C, SATELLITE, Table E and OTHSVCE, Table E). On the SATELLITE question there were four respondents who mentioned television and three of them wanted to clarify that they got television service, as opposed to internet, through satellite. The fourth person said that his internet was through the phone line. In OTHSVCE, there were five respondents who mentioned "phone or TV" and in this case, they were all clarifying that they got their internet through the phone lines or phone service.

Computers: As with the internet subscriptions series, the computer series included three core questions, each on a different type of device, and one follow-up other/specify question. For all four questions the wording was identical in test and control (only the placement within the series was different) so they are displayed here as one set of questions (all but the other/specify question have yes/no response categories).

LAPTOP

For the next few questions about computers, EXCLUDE GPS devices, digital music players, and devices with only limited computing capabilities, for example: household appliances. At this [house/apartment/mobile home], do you or any member of this household own or use a desktop, laptop, netbook, or notebook computer?

HANDHELD

(At this [house/apartment/mobile home]), Do you or any member of this household own or use a handheld computer, smart mobile phone, or other handheld wireless computer?

• EXCLUDE GPS devices, digital music players, and devices with only limited computing capabilities, for example: household appliances.

COMPUTER

(At this [house/apartment/mobile home]), Do you or any member of this household own or use some other type of computer?

• EXCLUDE GPS devices, digital music players, and devices with only limited computing capabilities, for example: household appliances.

COMPUTYP What is this other type of computer?

Exact reading for these questions ranged from 62 to 73 percent. There was almost no difference by panel, but by item LAPTOP had the lowest exact reading rate (62/63 percent for test/control), HANDHELD was next (68/69 percent for test/control) and COMPUTER had the highest rate of exact reading (73/72 percent for test/control) (Appendix B, Table 3). LAPTOP was the longest

and most complex question of the three and included an introductory statement on the types of devices that were out of scope for the whole set of questions. By far, it was the omission of this introductory statement that was the most frequent major change to LAPTOP, occurring in 19 percent of all question administrations (Appendix C, LAPTOP, Table B). For HANDHELD the most common major change was omitting the phrase "other handheld wireless computer," which occurred in eight percent of all question administrations. However, in seven percent of all question-readings, interviewers added information or gave examples of types of handheld computers (Appendix C, HANDHELD, Table B). The types of changes to COMPUTER, which was a fairly simple question and did not mention specific devices, were fairly generic such as omitting the phrases "At this house…" and "do you or any member…" However, interviewers also added information about computers or gave examples in six percent of all question readings (Appendix C, COMPUTER, Table B).

There are no significant differences between aggregated levels of standard behavior between test and control for interviewer or respondent behavior and the magnitude of differences was very small (1-2 percentage points) for three of four items (COMUTYP being a major exception but for this variable there were only 8 cases in the control and 12 in the test; Appendix B, Tables 9 and 10).

4.2.2 Food Stamps

This section consisted of only one target item. The control item was fairly simple, using the term for the now-phased-out name of the program (Food Stamps) and including the new name of the program, as well as out-of-scope programs, as optional read-if-necessary statements. The test item included the new name for the program (both "SNAP" and the full "Supplemental Nutrition Assistance Program") and here the instruction on out-of-scope programs was part of the question text. Response categories for both items were yes/no.

FSX

IN THE PAST 12 MONTHS, did anyone in this household receive Food Stamps or a Food Stamp benefit card?

• In some states the Food Stamps program may be known as the Supplemental Nutrition Assistance Program (SNAP)

◆ Do NOT include WIC or the National School Lunch Program

FSXT

IN THE PAST 12 MONTHS, 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.

There was a dramatic difference in test and control interviewer behavior - 73 percent standard

behavior in the control versus 34 percent standard behavior in the test (Appendix B, Table 3). On the respondent side, however, there were no differences (78 percent and 79 percent standard behavior) (Appendix B, Table 4). The non-standard interviewer behavior in the test was almost always coded as a "major change" to the question wording (as opposed to skips, incorrect verifications, etc.).

On the control side the most common type of change was to drop the term "Food Stamp benefit card" which occurred in 16 percent of all administrations of the question. Interviewers also often dropped the generic phrases "In the past 12 months" and "did anyone in this household" (10 and 8 percent of the time, respectively; Appendix D, FSX, Table B).

By far the most common change to the test question was to drop the entire second sentence ("Do not include WIC, the School Lunch Program, or assistance from food banks."), which occurred in 52 percent of all administrations. The next-most-common change was dropping the phrase "Supplemental Nutrition Assistance Program" (29 percent of the time) and then "SNAP" (19 percent of the time). In 17 percent of all question administrations both SNAP and the phrase "Supplemental Nutrition Assistance Program" were dropped (Appendix D, FSXT, Table B). This is probably the most important finding for these two items because it indicates that respondents were not offered the stimuli of the new program name in any way 17 percent of the time. Another way to look at the results is in FSXT, Table A in Appendix D. Thirty-four percent of respondents heard the question as worded, and another 31 percent heard the term SNAP or "Supplemental Nutrition Assistance Program" or both but did not hear the "exclude" statement (combining the second and third rows of FSXT, Table A in Appendix D). The remainder (35 percent) did not hear any of the terms or phrases unique to the test version.

There was little of note on the respondent side (most of the respondent non-standard behavior was to offer more information than was asked for), but in the test version a small number of respondents reported having WIC (which did not occur in the control version; Appendix D, FSXT, Table E).

4.2.3 Public Assistance

This topic area consisted of only two items and similar to the food stamps items, the control version was relatively simple and the test version contained more stimuli describing the program in more detail. The test version specifically mentioned receipt on behalf of children, emphasized that receipt for as little as one month should be included, and included state-specific program names as a help screen. The test version also included a statement on the types of programs that were out-of-scope. Response categories for both items were yes/no.

PAX

Did (<Name>/you) receive any public assistance or public welfare payments from the state or local welfare office DURING THE PAST 12 MONTHS?

CAX

Did [<Name>/you] receive any welfare payments or cash assistance from the state or local welfare office for [<Name>/yourself] or any children in this household DURING THE PAST 12 MONTHS, even if for only one month? Do NOT include benefits from food, energy, or rental assistance programs. [State program name]

See help screen for list of all State Welfare Programs.

Overall levels of exact readings were fairly low for both items. Similar to Food Stamps, the rate of interviewer standard behavior in the control version was two-fold that in the test version - 44 percent for PAX versus 22 percent for CAX (Table 3, Appendix B). Most of the non-standard behavior was due to major changes to the question wording. Across versions the most frequent change was to drop the phrase "during the past 12 months" which occurred in 23-30 percent of all question administrations (depending on the panel and language; Appendix E, PAX, Table B and CAX, Table B). On the control side other frequent changes were to drop "or local welfare office (12-16 percent of the time, depending on language) and "from the state" (11-14 percent of the time, depending on language; Appendix E, PAX, Table B). On the test side, interviewers most often stopped reading at "...during the past 12 months" and thus did not read "even if for only one month" (dropped in 30-34 percent of all administrations) or the "do not include" statement (dropped in 42 percent of all administrations). Interviewers also often dropped the phrase "for yourself or any children in this household" (19-22 percent of the time; Appendix E, CAX, Table B). Thus, as in the food stamps section, it was very often the case that respondents in the test version were not hearing the new, unique stimuli built into the question, rendering the question that respondents did hear a version very similar to the control version. On the respondent side, overall levels of standard behavior were fairly high for both panels, but there was a significant difference, with 83 percent providing a standard answer in the test versus 77 percent in the control. It may be that it was easier for respondents to provide a standard response on the test version because the changes made by interviewers caused respondents to hear a much simpler question. The simpler questions may have been easier to answer than the full question wording would have been. Whether or not respondents provided a correct or accurate response after hearing the simplified question wording is unkown.

For the follow-up question on amounts there were no statistically significant differences but the differences were non-trivial in magnitude and in different directions.

4.2.4 Property Income

For this section the main control-test difference was a "decomposition" of elements in the control version. Specifically, the control version contained one core question on receipt of income from any of several sources (interest, dividends, rental income, etc.). If the answer was "yes" a follow-up question was asked about the amount received from all sources combined. The test version decomposed this core question into three separate questions on (1) interest and dividends; (2) rental income; and (3) royalty income. For each of these three questions there was a follow-up question on amount received.

INTRX

{Fill 1: The next few questions are about income DURING THE PAST 12 MONTHS...} Did (<Name>/you) receive any interest, dividends, net rental income, royalty income, or income from estates and trusts {Fill 2: DURING THE PAST 12 MONTHS}? Report even small amounts credited to an account.

INTR

What was the amount received?

INTRXT

[The next few questions are about income DURING THE PAST 12 MONTHS, that is from <DATE > to <DATE >...] Did <Name>/you] receive any interest or dividends [DURING THE PAST 12 MONTHS]? Report even small amounts credited to an account.

INTRT What was the amount?

RENTX Did [<Name>/you] receive any net rental income DURING THE PAST 12 MONTHS? • Net rental income is the total amount after expenses.

RENT What was the net amount?

ROYALX Did [<Name>/you] receive any royalty income or income from estates and trusts DURING THE PAST 12 MONTHS?

ROYALTY What was the amount?

Since the test version is a decomposed version of the control question, the results cannot be compared on a question level but need to be aggregated as a series in each version of the instrument. Results indicate that for the series as a whole, the test performed better on interviewer behavior, by 12 percentage points, and the difference was significant (Appendix B, Table 9). Respondent behavior, however, was 3 percentage points worse in the test than the control, and that difference was significant (Appendix B, Table 10).

It may be that breaking the control question into its separate components reveals the fact that respondents are not certain about each of the individual types of income that the larger question asks for as a group. This issue may be masked when all items are grouped together and the respondent provides a "quick" answer (possibly without doing the calculations required).

Overall levels of respondent standard behavior, however, were relatively high (in the mid-70 percent range) while for interviewer behavior, levels of standard behavior were rather low for all items – test and control – ranging from 12 percent up to only 50 percent.

An examination of the qualitative notes taken by coders regarding the main control question, INTRX, shows that the most common major change made by interviewers was to drop the final instruction statement, which reads "Report even small amounts credited to an account" (See Appendix F, Table B). This happened in 45 percent of all question administrations. The next most common change made by interviewers, present in 15 percent of all cases, was to drop the references to the time period or "during the past 12 months." The next most common change was for interviewers to drop "income from estates and trusts," which happened in 10 percent of cases. INTRX , Table A in Appendix F, shows the frequency of various question wordings which occurred when interviewers dropped the same combinations of phrases.

In terms of respondent behavior, with regards to the control, INTRX, coders provided notes for a total of 36 respondent first level answers in which respondents exhibited difficulty. In 72 percent of these cases a respondent provided more information than requested, for example by stating specific amounts of dividends, rental income, etc. (See Appendix F, INTRX, Table E). In 19 percent of those cases the respondent provided information about some other form of income not requested in the question. Finally, in a smaller number of cases, 8 percent, the respondent did not understand the question and asked for clarification. It should be noted that coders did report that respondents requested clarification in additional instances (a total of 15 or 1.6 percent of cases) but qualitative notes were not always included.

The follow up to the control question, INTR, was asked a total of 76 times, with 23 exact readings and 34 major changes. Of those 34 major changes, 17 (all English/CATI) had pertinent open text notes relating to the interviewer question-asking behavior. Eleven of them indicated that the interviewer "hedged" the respondent by adding words like "rough guess" or "best estimate." The other six notes indicated that the interviewer added the words "do you know" prior to asking the question.

Similar to the situation with the control version, for the main test question, INTRXT, interviewers who made major changes most often omitted the phrase "report even small amounts credited to an account." This occurred in 44 percent of all question administrations (See Appendix F, Table B). Also similar to the situation in the control version, the next most commonly omitted phrase was "during the past 12 months, that is from (date) to (date)." This occurred in 17 percent of all question administrations.

The most common respondent behavior in the 44 cases for which a note was recorded in the test version (INTRXT), was to give more information than requested by the question This happened in 41 percent of those cases. There were also a number of notes about respondents who did not understand the question and who asked for clarification (36 percent).

The follow up, INTRT, was asked a total of 69 times, with 15 exact readings and 33 major

changes. Of those 33 major changes, 18 had pertinent open-text notes relating to the interviewer question asking behavior. Fourteen of them (thirteen English/CATI and one Spanish/CAPI) indicated that the interviewer "hedged" the respondent by adding words like "rough guess" or "best estimate." The other four notes (all English/CATI) indicated that the interviewer added the words "do you know?" prior to asking the question.

In the case of RENTX the majority of the qualitative notes related to interviewers omitting the phrase "during the past 12 months." This happened in 26 percent of cases. In a smaller number of cases, 3 percent overall, the interviewer actually dropped the phrase "net rental income" (Appendix F, RENTX, Table B). In ROYALX, the interviewer similarly omitted "during the past 12 months" in 32 percent of all question administrations (Appendix F, ROYALX, Table B).

In the case of RENTX, most open text respondent behavior notes focused on both respondents asking for clarification, 64 percent of 28 instances, and respondents providing more information than requested by the question, 36 percent.

Overall, the reference period is being dropped a great deal in both test and control versions of the various questions. The cue about reporting even small amounts was also not heard by a large number of respondents in both the test and control versions.

4.2.5 Wages

These questions are structured like the property income questions, in that the control question groups different types of wages together and the test questions ask about the same income sources in separate items.

WAGX

The next few questions are about income DURING THE PAST 12 MONTHS.... Did (<Name>/you) receive any wages, salary, tips, bonuses or commissions?

WAG

How much did (<Name>/you) receive?

EARN

The next few questions are about income DURING THE PAST 12 MONTHS, that is from <DATE> to <DATE>... Did [<Name>/you] receive any wages or salary?

WAGETEST

How much did [<Name>/you] receive in wages and salary from all jobs before taxes and other deductions?

EARNTIPS

Did [<Name>/you] receive any [additional] tips, bonuses or commissions DURING THE PAST 12 MONTHS?

TIPSTEST How much did [<Name>/you] receive in tips, bonuses, or commissions from all jobs before taxes and other deductions?

Results indicate that for the series as a whole the test performed better on interviewer behavior by five percentage points. For the base questions that ask about receipt of wage income, EARN on the test side and WAGX on the control side both have relatively high rates of standard interviewer behavior (60 percent and 61 percent respectively), but the other test item on receipt (EARNTIPS) is somewhat lower on standard interviewer behavior, at 53 percent. For the followup amounts questions, standard interviewer behavior was fairly low – 15-40 percent with no strong pattern in favor of test or control.

On the respondent side the levels of standard behavior were relatively high (65 percent and 67 percent in test and control, respectively) and this difference was not significant. For the most part respondents provided a codeable answer more often in the receipt questions (71-79 percent) than the amounts questions (45-55 percent).⁸

Qualitative notes indicate that for the main control question, WAGX, the most common change interviewers made was to drop the reference period "during the past 12 months". This happened in 58 percent of the 64 administrations for which there was a note (5 percent of the 735 total administrations of the question.) Interviewers also dropped several terms less frequently, in 1 or 2 percent of cases. These terms were: "commissions," "bonuses," and "tips" (see Appendix G, WAGX, Table B).

In terms of the follow-up, control WAG question, a number of the notes on interviewer changes referred to interviewers having added information to the question, such as asking respondents for an "estimate" or "best guess" in 22 percent of overall question administrations. Interviewers also added the phrase "for example" in 13 percent of the overall administrations.

On the test side, the interviewer changes made to the EARN question most commonly included dropping the reference period. In 13 percent of overall administrations interviewers dropped the phrase "that is from (date) to (date)," and in 6 percent of cases they dropped "during the past 12 months." (See Appendix G, EARN, Table B). There were also a smaller number of cases in which interviewers dropped or replaced the terms "salary" and "wages," 5 percent and 4 percent respectively.

In the WAGETEST question, interviewers again added references to the idea of getting an "estimate" or approximate amount from respondents, 10 percent of all question administrations. They also omitted the terms "wages and salary" and/or "before taxes and other deductions in close to 10 percent of cases. In a smaller number of cases, interviewers added information or

⁸ This is a difference in magnitude only. No statistical tests were conducted of this measure.

additional examples, 5 percent (see Appendix G, WAGETEST, Table B).

In the EARNTIPS question, interviewers again most commonly dropped the reference period "during the past 12 months." This occurred in 28 percent of overall question administrations. They also dropped the terms "tips," "commissions," and/or "bonuses" in a small number of cases; 3 percent, 3 percent, and 2 percent, respectively.

On the whole, in both test and control versions, interviewers very often dropped the reference period in these questions and less commonly attempted to assist respondents by asking them to provide estimates or guesses.

4.2.6 Parental Place of Birth

For the two Parental Place of Birth questions the same question wording was used in the test and control versions of the instrument. However, these questions were located at different points in the survey, with the parental place of birth questions coming before the ancestry question in the control panel and after the ancestry question in the test panel. Through behavior coding we can examine whether the different context made any difference in the way the questions performed.

PPOBPA

In what country was [your/name's] FATHER born? Tell me the name of the country, or Puerto Rico, Guam, etc.

- Start typing the country or foreign place name and a look up coding box will appear. Select the appropriate country.
- ◆ If no country matches the respondent's answer, enter one of the following: ABROAD, AT SEA, or NOT LISTED.

PPOBMA

In what country was [your/name's] MOTHER born? Tell me the name of the country, or Puerto Rico, Guam, etc.

• Start typing the country or foreign place name and a look up coding box will appear. Select the appropriate country.

• If no country matches the respondent's answer, enter one of the following: ABROAD, AT SEA, or NOT LISTED.

ANCW:

What is [Fill 1: your/<Name>'s] ancestry or ethnic origin?

(For example: Italian, Jamaican, African-American, Cambodian, Cape Verdean, Norwegian, Dominican, French Canadian, Haitian, Korean, Lebanese, Polish, Nigerian, Mexican, Taiwanese, Ukrainian and so on.)

There are no significant differences between test and control for either interviewer or respondent

behavior. However, for a related item (ANCW) the test-control difference is significant and favors the test. Interviewer behavior was five percentage points better in the test than control and respondent behavior was eight percentage points better.

Because these questions are asked at the person-level, and in many households the answer is the same for all or most household members, interviewers may vary their behavior as they move from one person to the next in the household. For example, we may expect that for the first person in the household interviewers would have a fairly high rate of reading the question exactly as worded, which may trickle down as they get to the fourth, fifth or sixth person in the household, where they may be tempted to say something like "and what about Mary?" rather than repeating the entire question.

Tables 11-14, below, display detailed interviewer question-asking codes by person, for both the test and control versions. One finding of note is that even for the first person in the household, levels of standard interviewer behavior are extremely low – about 18-20 percent for paternal place of birth (across test and control) and about 11 percent for maternal place of birth. Note that the maternal place of birth question is sequenced after the paternal place of birth question, which may explain some of the drop-off in standard behavior. Review of the open-text notes indicates that interviewers often left off the last sentence ("Tell me the name of the country, or Puerto Rico, Guam, etc.").

With regard to shifts by person number, the patterns of behavior are generally as expected for both the paternal and maternal place of birth questions. For the most part, exact readings drop as the person number goes up, and verifications (both correct and incorrect) and skips increase as person number goes up. While similar patterns are observed for both paternal and maternal questions, the starting point (i.e., levels for Person 1) for exact/correct verifications in the maternal place of birth question is lower than in the paternal question (as noted above), and the levels of skips is also different – about 1-2 percent across test and control in the paternal for Person 1, and about 6-11 percent in the maternal question for Person 1.

	Interviewer First Level								
Question/Person	Exact	Verify	Change	Verify -	Skip	Other	Inaudible	Total	
		+							
PPOBPAC-0-1	45	1	186	19	3	1	1	256	
	17.58	0.39	72.66	7.42	1.17	0.39	0.39		
PPOBPAC-0-2	17	1	178	31	3	1	1	232	
	7.33	0.43	76.72	13.36	1.29	0.43	0.43		
PPOBPAC-0-3	14	16	116	30	11	0	2	189	
	7.41	8.47	61.38	15.87	5.82	0	1.06		
PPOBPAC-0-4	9	13	87	19	6	0	7	141	
	6.38	9.22	61.7	13.48	4.26	0	4.96		
PPOBPAC-0-5	7	9	58	21	5	2	4	106	

Table11: Parental Place of Birth Interviewer Question-Asking by Person Number: Paternal Control

	6.6	8.49	54.72	19.81	4.72	1.89	3.77	
Total	92	40	625	120	28	4	15	924
	10%	4%	68%	13%	3%	0%	2%	100%

]	Interviewer	· First Leve	el			
Question/Person	Exact	Verify	Change	Verify -	Skip	Other	Inaudible	Total
		+						
PPOBPAT-0-1	49	1	174	17	6	0	3	250
	19.6	0.4	69.6	6.8	2.4	0	1.2	
PPOBPAT-0-2	22	2	157	23	8	2	5	219
	10.05	0.91	71.69	10.5	3.65	0.91	2.28	
PPOBPAT-0-3	14	6	113	32	9	0	2	176
	7.95	3.41	64.2	18.18	5.11	0	1.14	
PPOBPAT-0-4	9	10	83	27	12	1	3	145
	6.21	6.9	57.24	18.62	8.28	0.69	2.07	
PPOBPAT-0-5	8	5	60	19	9	0	3	104
	7.69	4.81	57.69	18.27	8.65	0	2.88	
Total	102	24	587	118	44	3	16	894
	11%	3%	66%	13%	5%	0%	2%	100%

Table12: Parental Place of Birth Interviewer Question-Asking by Person Number: Paternal Test

]	Interviewer	· First Leve	el			
Question/Person	Exact	Verify	Change	Verify -	Skip	Other	Inaudible	Total
		+						
PPOBMAC-0-1	20	7	191	12	14	0	7	251
	7.97	2.79	76.1	4.78	5.58	0	2.79	
PPOBMAC-0-2	6	11	150	18	35	4	6	230
	2.61	4.78	65.22	7.83	15.22	1.74	2.61	
PPOBMAC-0-3	10	15	88	30	34	1	6	184
	5.43	8.15	47.83	16.3	18.48	0.54	3.26	
PPOBMAC-0-4	5	11	67	16	27	1	11	138
	3.62	7.97	48.55	11.59	19.57	0.72	7.97	
PPOBMAC-0-5	4	7	54	11	18	0	10	104
	3.85	6.73	51.92	10.58	17.31	0	9.62	
Total	45	51	550	87	128	6	40	907
	5%	6%	62%	10%	14%	1%	4%	101%

Table13: Parental Place of Birth Interviewer Question-Asking by Person Number: Maternal Control

Table 14: Parental Place of Birth Interviewer Question-Asking by Person Number: Maternal Test

]	Interviewer	· First Leve	el			
Question/Person	Exact	Verify	Change	Verify -	Skip	Other	Inaudible	Total
		+						
PPOBMAT-0-1	23	5	164	16	26	0	11	245
	9.39	2.04	66.94	6.53	10.61	0	4.49	
PPOBMAT-0-2	9	0	136	23	34	2	10	214
	4.21	0	63.55	10.75	15.89	0.93	4.67	
PPOBMAT-0-3	11	13	90	26	25	0	6	171
	6.43	7.6	52.63	15.2	14.62	0	3.51	
PPOBMAT-0-4	5	10	69	22	30	0	8	144
	3.47	6.94	47.92	15.28	20.83	0	5.56	
PPOBMAT-0-5	5	4	50	15	18	0	11	103
	4.85	3.88	48.54	14.56	17.48	0	10.68	
Total	53	32	509	102	133	2	46	877
	6%	4%	58%	12%	15%	0%	5%	100%

4.2.7 Military Period of Service

For the Military Period of Service question, the wording across test and control was identical but in the test version some of the response categories were collapsed. Thus, in the control version, there were 11 discrete time periods of service offered as response categories, and in the test there were only 9 time periods.

MILP

Did (<name>/you) serve on active duty at any time during the following periods?

- Read all answer categories
- Enter all that apply, even if the person served for only part of that period. Separate with commas.
- 11. September 2001 or later
- 12. August 1990 to Agust 2001 (including Persian Gulf War)
- 13. September 1980 to July 1990
- 14. May 1975 to August 1980
- 15. Vietnam Era (August 1964 to April 1975)
- 16. March 1961 to July 1964
- 17. February 1955 to February 1961
- 18. Korean War (July 1950 toJanuary1955)
- 19. January 1947 to June 1950
- 20. World War II (December 1941 to December 1946)
- 21. November 1941 or earlier

VETP

Did (<name>/you) serve on active duty at any time during the following periods?

- Read all answer categories
- Enter all that apply, even if the person served for only part of that period. Separate with commas.
- 11. September 2001 or later
- 12. August 1990 to August 2001 (in**luding Persian Gulf War**)
- 13. May 1975 to July 1990
- 15. Vietnam Era (August 1964 to April 1975)
- 16. February 1955 to July 1964
- 18. Korean War (July 1950 to January 1955)
- 19. January 1947 to June 1950
- 20. World War II (December 1941 to December 1946)
- 21. November 1941 or earlier

The test question performed significantly better than the control for interviewers' reading of the question, by 28 percentage points. It appears that providing fewer response options for interviewers to read may facilitate higher rates of standard interviewer behavior.

On the respondent side, the difference between test and control was not significant but the magnitude of the difference was quite high and in the opposite direction – in the control version respondents gave a standard answer 75 percent of the time versus in the test where the rate of a standard answer was only 55 percent. Possible reasons for this difference are unclear.

4.2.8 Veterans' Status

The Department of Veterans Affairs (VA) proposed several revisions to the wording of the Veterans' Status questions, and results from the 2006 ACS Content Test had suggested that the complexity of the existing question may have resulted in the undercounting of veterans. The control version contained three variables and the test version contained five variables (see

below).

VET1C

[(Has <Name> / Have you)] ever served on active duty in the U.S. Armed Forces, military Reserves, or National Guard? Do not include training for the Reserves or National Guard but do include activation, for example, for service in Iraq, Afghanistan, or elsewhere.

ACTIVEC

(Is <Name>/Are you) currently on active duty?

MILC

(Has <Name>/ Have you) ever been in the U.S. military Reserves or the National Guard?

VET1T

[(Has <Name> / Have you)] ever served on ACTIVE DUTY in the U.S. Armed Forces, Reserves, or National Guard?

TRAINING

(Was <NAME>/Were you) on active duty ONLY FOR TRAINING in the Reserves or National Guard?

ACTIVET

(Is <Name>/Are you) currently on active duty?

RESERVES

(Has <Name>/ Have you) ever been in the Reserves or National Guard?

VETP

Did (<name>/you) serve on active duty at any time during the following periods?

- Read all answer categories
- Enter all that apply, even if the person served for only part of that period. Separate with commas.

Overall, the test series of questions performed significantly better on interviewer behavior than the control series by 19 percentage points. In particular, VET1C had an especially low rate of interviewer standard behavior – 15 percent compared to 59 percent and 64 percent for MILC and ACTIVEC, respectively. The four items in the test version ranged from 52 to 82 percent standard behavior for interviewers. Again, it appears that dividing a long question into shorter components has facilitated higher rates of standard interviewer behavior.

On the respondent side, the control series performed significantly better than the test series, though the magnitude of the difference was rather small – four percentage points. Among the four test items ACTIVET had the lowest rate of standard behavior, at 53 percent, while the other three test items ranged from 62 to 73 percent standard behavior. As in the property income

series, it maybe that respondent lack of information or misunderstanding is made more obvious when the larger question is broken into its component parts.

4.3 Comparisons by Mode

Overall, for both interviewer and respondent first level behavior, standard behavior was significantly more likely in the CATI than the CAPI versions. For interviewer behavior there was a significant 7 percentage point difference with interviewers showing more standard behavior in CATI interviews than in CAPI interviews. For respondents the difference was quite high – 27 percentage points, with respondents more often providing easily codeable responses in CATI interviews than in CAPI interviews. Tables 15 and 16 below show the frequencies of all types of interviewer and respondent behavior by mode. Here we can see that exact reading rates were higher in CATI. See Tables 17 and 18 in Appendix B for combined frequencies of standard interviewer and respondent behavior by individual question.

This finding may be due in part to the fact that CATI interviewers are regularly monitored by their supervisors and provided feedback on their question-reading performance. Pan and Lubkemann (forthcoming) identify a number of additional issues that may be at play in a face-to-face interview as compared with a telephone interview. These are two very different social settings and the added complexity of having both English and Spanish speakers included in our study can introduce real differences that interviewers must deal with both across modes and across languages. Some of the general differences in social setting identified by Pan and Lubkemann are: 1) the respondents' definition of the situation; 2) communicative conventions; and 3) social role and identity negotiation, all of which may differ in the in-person versus the telephone mode.

Tuble 101 This Let et meet the et l'requéncies by filoue								
Mode	Exact Reading	Correct Verify	Major Change	Incorrect Verify	Skip	Other	Inaudible	
CAPI	40%	1%	39%	5%	9%	0%	7%	
CATI	47%	1%	38%	3%	3%	0%	8%	
Total	44%	1%	38%	4%	6%	0%	7%	

Table 15: First Level Interviewer Frequencies by Mode

Mode	Codeable	Indirect	Clarify	Qualified	Uncodeable	DK/Ref	Inaudible
CAPI	51%	7%	2%	1%	2%	1%	37%
CATI	75%	10%	3%	1%	2%	2%	7%
Total	64%	8%	2%	1%	2%	2%	20%

The CATI-CAPI gap was not at all consistent across languages. For interviewer behavior, in about half the questions the CATI-CAPI gap was wider in English, and in the other half the CATI-CAPI gap was wider in Spanish.

For respondent behavior, however, the difference between CATI and CAPI standard behavior was almost always higher in the English version than in the Spanish. This may be due in part to

the fact that English speakers in the U.S. are more familiar with the survey setting and type of responses expected than are Spanish speakers, many of whom maybe recent immigrants with less survey experience.

4.4 Comparisons by Language

Overall, higher levels of standard interviewer behavior were observed in English than in Spanish (54 versus 38 percent), and the difference was significant (See Table 21 in Appendix B). Table 19 below shows the frequencies of each type of interviewer behavior by language. In this case exact readings were more common in English and major changes to question wording by interviewers were more common in Spanish. This might be explained in part by the fact that the questions were first written in English and then translated into Spanish. The question wording was cognitively tested in both languages prior to the field test and some changes were made to both languages based on that testing. However, only one round of testing was conducted and then proposed changes to the English were evaluated through an expert review. Due to a lack of resources and time it was not possible to conduct an independent expert review of the Spanish wording and therefore final wording changes were made to the English and then translated. It may be that the question style and wording sounded a bit more natural in English than in Spanish, which may have encouraged Spanish interviewers to stray from the script more often in order to make the meaning clearer and/or more culturally appropriate.

According to Pan and Lubkemann (forthcoming), some additional issues that should be considered are: 1) the degree of conceptual equivalence between the English and Spanish terms being used in the survey, 2) the degree of fluency of interviewers and respondents; and 3) the quality of translations being used. All of these factors could make exact reading of question wording more difficult for interviewers.

Levels of overall standard respondent behavior were also higher in English than in Spanish but the magnitude of difference was much lower – only 2 percentage points (though the difference is significant) (see Table 22 in Appendix B). Table 20 below shows that respondents were slightly more likely to provide a directly codeable answer in English and more likely to provide an indirect but codeable response in Spanish. Again it may be that the question wording was slightly less natural for Spanish speaking respondents which caused a need for increased discussion with interviewers. There also maybe cultural conversational norms at play.

There were differences by mode within language but these differences were not consistent. See Tables 21 and 22 in Appendix B.

Mode	Exact Reading	Correct Verify	Major Change	Incorrect Verify	Skip	Other	Inaudible
English	53%	.8%	34%	2%	3%	.4%	6%
Spanish	36%	1%	42%	5%	7%	.4%	8%
Total	44%	1%	38%	4%	6%	.4%	7%

Table 19: First Level Interviewer Frequencies by Language

Table 20: First Level Respondent Frequencies by Language

Mode	Codeable	Indirect	Clarify	Qualified	Uncodeable	DK/Ref	Inaudible
English	67%	7%	2%	1%	2%	2%	19%
Spanish	62%	10%	2%	.8%	2%	2%	21%
Total	65%	8%	2%	1%	2%	2%	20%

5 SUMMARY

On the whole, the results varied a great deal in terms of whether the test or control versions of given questions and question series performed better. In some cases the control version performed better in terms of interviewer behavior and the test performed better in terms of respondent behavior and vice versa. In other cases the overall series performed one way but a given question within the series performed better or worse than the rest of the questions. There was also a great deal of variation in terms of standard behavior across items with some questions performing drastically better than others. This section provides a recap of question and series performance in terms of test and control versions.

In terms of the internet access and subscriptions topic area, when all eight items were combined within panel and an overall measure of standard behavior was assessed, there was no statistical evidence of a difference between control and test. Individual item comparisons also showed no significant differences for interviewers or respondents, with the exception of DIALUP for interviewer behavior, which showed a 10 percentage point difference in favor of the control and the difference was significant. However, for all seven of the other internet subscription services, the magnitude of test-control differences for interviewer behavior was non-trivial (3-5 percentage points), and always in favor of the test version. However, again, these differences were not significant.

For the computer questions, there were no significant differences between aggregated levels of standard behavior between test and control for interviewer or respondent behavior and the magnitude of differences was very small (1-2 percentage points) for three of four items, COMPUTYP being a major exception but for this variable there were only 8 cases in the control and 12 in the test. Again, none of these results were significant.

In the food stamps topic area, there was a dramatic difference between test and control interviewer behavior – 73 percent standard behavior in the control versus 34 percent standard behavior in the test. On the respondent side, however, there were no differences (78 percent and 79 percent standard behavior). The non-standard behavior in the test was almost always coded as a "major change" to the question wording. The most important finding here was that in the test

version, in 17 percent of all question administrations both SNAP and the phrase "Supplemental Nutrition Assistance Program" were dropped by interviewers. This indicates that respondents were not offered the stimuli of the new program name in any way 17 percent of the time.

In the public assistance topic area, overall levels of exact readings were fairly low for both test and control. Similar to Food Stamps, the rate of interviewer standard behavior in the control version was two-fold that in the test version – 44 percent for PAX versus 22 percent for CAX. As in the food stamps section, it was very often the case that respondents in the test version were not hearing the new, unique stimuli built into the question, rendering the question that respondents did hear a version very similar to the control version.

For the property income questions, results indicate that for the series as a whole, the test performed better on interviewer behavior, by 12 percentage points, and the difference was significant. Respondent behavior, however, was 3 percentage points worse in the test than the control, and that difference was significant. Further research would be required to explain this result.

In the wages topic area, the test version performed better on interviewer behavior for the series as a whole, by five percentage points. For the base questions that ask about receipt of wage income, EARN on the test side and WAGX on the control side both have relatively high rates of standard interviewer behavior (60 percent and 61 percent respectively), but the other test item on receipt (EARNTIPS) is somewhat lower on standard interviewer behavior, at 53 percent. For the follow-up amounts questions, standard interviewer behavior was fairly low -- 15-40 percent with no strong pattern in favor of test or control. Further research would be required to explain this result.

For the parental place of birth series, there were no significant differences between test and control for either interviewer or respondent behavior. However, for the related ancestry question, the test-control difference was significant and favored the test. Interviewer behavior was five percentage points better in the test than control and respondent behavior was eight percentage points better. Further research would be required to explain this result.

In the military period of service topic area the test question performed significantly better than the control for interviewers' reading of the question, by 28 percentage points. It appears that providing fewer response options for interviewers to read facilitated higher rates of standard interviewer behavior. On the respondent side, the difference between test and control was not significant but the magnitude of the difference was quite high and in the opposite direction – in the control version respondents gave a standard answer 75 percent of the time versus in the test where the rate of a standard answer was only 55 percent.

Finally, for the veterans' status topic area, overall, the test series of questions performed significantly better on interviewer behavior than the control series by 19 percentage points. In particular, VET1C had an especially low rate of interviewer standard behavior – 15 percent compared to 59 percent and 64 percent for MILC and ACTIVEC, respectively. The four items in the test version ranged from 52 to 82 percent standard behavior for interviewers. As in the

military period of service example, it appears that dividing a long question into shorter components facilitated higher rates of standard interviewer behavior. On the respondent side, the control series performed significantly better than the test series, though the magnitude of the difference was rather small – four percentage points.

On the whole, behavior coding has added a great deal of insight to the statistical comparisons of test and control item functioning in the ACS Content Test. While questions may be worded differently, analysts have no way of knowing if respondents are actually hearing the planned wording. The food stamps items are a case in point. In only 34 percent of cases did respondents actually hear what question designers had planned for them to hear in the new test version of the question. This has strong implications for evaluation of question functioning.

In some cases poor question performance indicates that there are problems with the way the question was written. Ideally questions would be examined and possibly revised and retested when behavior coding flags low levels of standard interviewer and respondent behavior. In cases where this is not possible, interviewer training or the addition of help text might be a useful tool to try and improve question performance.

The behavior coding project has provided a wealth of data and information that can be used to further examine individual question functioning and make recommendations for revised question wording. In addition, the data will allow us to examine cross-cultural differences and translation issues in the performance of the Spanish and English versions of the question wording. We will also be able to look in greater detail at differences in question administration across the CATI and CAPI modes.

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APPENDIX A: ACS 2010 Content Test Behavior Codes (S=Standard; NS=Non-Standard; N=neutral)

A: Interviewer First-Level (Initial Q-Asking) Behavior

1. Interviev	1. Interviewer Question Asking (check one)						
ES	Exact/slight	S					
MC	Major change (detail required)*	NS					
VER	Verification (detail required)*	(na)					
SKIP	Skipped Q completely*	NS					
OTHQ	Other*	Ν					
INAQ	Inaudible	Ν					
1b. Verifi	cation Detail (check one)						
VER+	Verifies correctly*	S					
VER-	Verifies incorrectly*	NS					
VER?	Verifies; unclear*	Ν					

B: Respondent Behavior (First- and Second-Level)

1. Answering Behavior (check one)						
CODR	Codeable answer	S				
INDR	Uncodeable answer but R indirectly answers Q*	S				
QUAL	Qualified/uncertain answer*	NS				
UNCR	Uncodeable answer; R does not answer Q*	NS				
CLAR	Request for clarification or reread	NS				
DKR	Don=t know/uncertainty	Ν				
REFR	Refused	Ν				
OTHR	Other*	Ν				
INAR	Inaudible	Ν				

C: Interviewer Second-Level Behavior (Follow-Up to Initial Question-Asking, if applicable)

1. Intervi	1. Interviewer Follow-Up (check one)						
PRO+	Probes/clarifies/verifies correctly*	S					
PRO-	Probes/clarifies/verifies incorrectly*	NS					
PRO?	Probes/clarifies/verifies; unclear*	N					
OTC	Off topic comment	N					
OTHF	Other follow-up*	Ν					
INAF	Inaudible	N					

D1: Final Outcome: Answer

1. Respond	1. Respondent Answer (check one)							
CODO	Codeable Answer	S						
INDO	Uncodeable Answer but R indirectly answers Q*	S						
QUAO	Qualified/uncertain Answer*	NS						
UNCO	Uncodeable Answer; R does not answer Q*	NS						
DKO	Don=t know	N						
REFO	Refused	N						
OTHO	Other*	Ν						
INAO	Inaudible	N						

D2: Final Outcome: Match

2. Intervie	2. Interviewer Data Entry (check one)						
MATD	Interviewer entry matches R answer	S					
NMTD	Interviewer entry does not match R response*	NS					
OTHD	Other/Unclear if R answer matches*	Ν					

APPENDIX B: Behavior Code Frequencies

Content Test	QUESTION	1. ES	2.	3.	4.	5.	6.	7.	8.	Total
Topic Area		211	Ver+	MC	Ver-	Skip	Ver?	OTHQ	INAQ	200
	FSX (c)	211	0	76	0	0	0	0	1	288
Food Stamps		73.26	0	26.39	0	0	0	0	0.35	
Food Stamps	FSXT (t)	95	0	172	3	3	0	1	5	279
		34.05	0	61.65	1.08	1.08	0	0.36	1.79	
	PAX (c)	401	3	363	4	18	1	4	119	913
Public		43.92	0.33	39.76	0.44	1.97	0.11	0.44	13.03	
Assistance	CAX (t)	193	2	563	7	21	0	2	82	870
		22.18	0.23	64.71	0.8	2.41	0	0.23	9.43	
	SUBSCRIBE (c)	234	0	51	0	0	0	0	2	287
		81.53	0	17.77	0	0	0	0	0.7	
Internet	ACCESST (t)	111	0	46	1	3	0	0	5	166
Access		66.87	0	27.71	0.6	1.81	0	0	3.01	
	INTERNETT (t)	219	3	45	2	1	0	0	7	277
		79.06	1.08	16.25	0.72	0.36	0	0	2.53	
	BROADC	96	2	51	4	3	0	0	3	159
		60.38	1.26	32.08	2.52	1.89	0	0	1.89	
	BROADT	89	0	41	0	5	0	0	2	137
		64.96	0	29.93	0	3.65	0	0	1.46	
	DIALUPC	117	0	47	3	2	0	0	3	172
		68.02	0	27.33	1.74	1.16	0	0	1.74	
	DIALUPT	86	1	55	2	3	0	1	1	149
		57.72	0.67	36.91	1.34	2.01	0	0.67	0.67	
Internet	DSLC	87	1	57	7	8	0	0	4	164
Subscriptions		53.05	0.61	34.76	4.27	4.88	0	0	2.44	
	DSLT	77	3	43	2	8	0	0	6	139
		55.4	2.16	30.94	1.44	5.76	0	0	4.32	
	FIBEROPC	98	1	41	4	5	0	0	6	155
		63.23	0.65	26.45	2.58	3.23	0	0	3.87	
	FIBEROPT	91	0	30	6	5	0	0	5	137
		66.42	0	21.9	4.38	3.65	0	0	3.65	
	MODEMC	83	5	51	7	8	0	0	6	160
		51.88	3.13	31.88	4.38	5	0	0	3.75	

Table 3: Interviewer First Level Behavior by Question: Control (c) vs Test (t)

Content Test	QUESTION	1. ES	2.	3.	4.	5.	6.	7.	8.	Total
Topic Area			Ver+	MC	Ver-	Skip	Ver?	OTHQ	INAQ	
•	MODEMT	80	1	45	2	4	0	0	3	135
		59.26	0.74	33.33	1.48	2.96	0	0	2.22	
	OTHSVCEC	95	1	44	6	11	0	0	6	163
		58.28	0.61	26.99	3.68	6.75	0	0	3.68	
Internet	OTHSVCET	80	0	35	5	9	1	0	3	133
Subscriptions		60.15	0	26.32	3.76	6.77	0.75	0	2.26	
	SATELLITEC	110	0	38	3	6	0	0	5	162
		67.9	0	23.46	1.85	3.7	0	0	3.09	
	SATELLITET	99	0	25	4	4	1	0	2	135
		73.33	0	18.52	2.96	2.96	0.74	0	1.48	
	COMPUTERC	202	0	52	3	16	0	1	5	279
		72.4	0	18.64	1.08	5.73	0	0.36	1.79	
	COMPUTERT	197	0	47	4	15	0	2	5	270
		72.96	0	17.41	1.48	5.56	0	0.74	1.85	
	HANDHELDC	196	2	68	0	10	0	1	6	283
Commentance		69.26	0.71	24.03	0	3.53	0	0.35	2.12	
Computers	HANDHELDT	186	1	67	3	6	0	1	9	273
		68.13	0.37	24.54	1.1	2.2	0	0.37	3.3	
	LAPTOPC	182	0	95	1	4	0	1	5	288
		63.19	0	32.99	0.35	1.39	0	0.35	1.74	
	LAPTOPT	176	0	99	0	3	0	1	4	283
		62.19	0	34.98	0	1.06	0	0.35	1.41	
	INTRX (c)	253	4	601	6	17	0	2	78	961
		26.33	0.42	62.54	0.62	1.77	0	0.21	8.12	
	INTR (c)	23	1	34	0	13	0	3	2	76
		30.26	1.32	44.74	0	17.11	0	3.95	2.63	
	INTRXT (t)	250	0	560	7	25	0	2	67	911
		27.44	0	61.47	0.77	2.74	0	0.22	7.35	
	INTRT (t)	15	2	33	0	12	0	0	7	69
Property		21.74	2.9	47.83	0	17.39	0	0	10.14	
Income	RENTX (t)	444	3	300	9	30	0	4	97	887
		50.06	0.34	33.82	1.01	3.38	0	0.45	10.94	
	RENT (t)	3	0	16	0	5	0	0	1	25
		12	0	64	0	20	0	0	4	
	ROYALX (t)	359	0	373	5	16	0	2	111	866
		41.45	0	43.07	0.58	1.85	0	0.23	12.82	
	ROYALTY (t)	1	0	2	0	0	0	0	0	3
		33.33	0	66.67	0	0	0	0	0	
	WAGX (c)	444	2	196	19	35	0	0	39	735
***		60.41	0.27	26.67	2.59	4.76	0	0	5.31	
Wages	WAG (c)	166	4	363	5	17	1	6	23	585
						1				

Content Test Topic Area	QUESTION	1. ES	2. Ver+	3. MC	4. Ver-	5. Skip	6. Ver?	7. OTHQ	8. INAQ	Total
Topic Area	EARN (t)	436	2	188	15	38	0	5	41	725
		60.14	0.28	25.93	2.07	5.24	0	0.69	5.66	125
	EARNTIPS (t)	388	3	263	11	23	0	2	41	731
		53.08	0.41	35.98	1.5	3.15	0	0.27	5.61	751
Wages	WAGETEST (t)	232	5	283	7	34	0	11	25	597
	WAGETEST (t)	38.86	0.84	47.4	1.17	5.7	0	1.84	4.19	571
	TIPSTEST (t)	5	1	23	1.17	6	0	1.04	3	40
	IIFSIESI (I)	12.5	2.5	57.5	2.5	15	0	2.5	7.5	40
	РРОВМАС	45	51	550	87	128	1	5	40	907
	PPUDMAC	4.96	5.62	60.64	9.59	120	0.11	0.55	40	907
		4.90	3.62	509		14.11		2		077
	PPOBMAT				102		0		46	877
Parental Place	DDODD4 C	6.04	3.65	58.04	11.63	15.17	0	0.23	5.25	024
of Birth	PPOBPAC	90	40	625	120	28	3	3	15	924
		9.74	4.33	67.64	12.99	3.03	0.32	0.32	1.62	
	PPOBPAT	102	24	587	118	44	1	2	16	894
		11.41	2.68	65.66	13.2	4.92	0.11	0.22	1.79	
Military	MILP (c)	8	0	16	0	0	0	0	0	24
Period of		33.33	0	66.67	0	0	0	0	0	
Service	VETP (t)	14	0	8	0	0	0	0	1	23
		60.87	0	34.78	0	0	0	0	4.35	
	VET1C	105	0	507	14	8	0	0	82	716
		14.66	0	70.81	1.96	1.12	0	0	11.45	
	ACTIVEC	15	1	2	5	1	0	0	1	25
		60	4	8	20	4	0	0	4	
	MILC	342	3	123	7	22	0	0	88	585
		58.46	0.51	21.03	1.2	3.76	0	0	15.04	
Veterans'	VET1T	364	1	212	6	20	0	3	95	701
Status		51.93	0.14	30.24	0.86	2.85	0	0.43	13.55	
	TRAINING	16	0	5	0	0	0	0	2	23
		69.57	0	21.74	0	0	0	0	8.7	
	ACTIVET	18	0	0	1	1	0	0	2	22
		81.82	0	0	4.55	4.55	0	0	9.09	
	RESERVES	312	3	123	6	26	1	3	90	564
		55.32	0.53	21.81	1.06	4.61	0.18	0.53	15.96	
	TOTAL	8394	208	8849	634	863	10	71	1323	20352
		41%	1%	44%	3%	4%	0%	0%	7%	

Content Test Topic Area	QUESTION	1. CODR	2. INDR	3. CLAR	4. QUAL	5. UNCR	6. OTHR	7. DKR	8. REFR	9. INAR	Total
	FSX (c)	212	10	8	3	1	1	1	0	49	285
Food Stormer		74.39	3.51	2.81	1.05	0.35	0.35	0.35	0	17.19	
Food Stamps	FSXT (t)	193	25	9	0	6	2	0	0	42	277
		69.68	9.03	3.25	0	2.17	0.72	0	0	15.16	
	PAX (c)	634	13	8	2	8	1	3	1	172	842
Public		75.3	1.54	0.95	0.24	0.95	0.12	0.36	0.12	20.43	
Assistance	CAX (t)	674	14	7	2	4	3	2	0	126	832
		81.01	1.68	0.84	0.24	0.48	0.36	0.24	0	15.14	
	SUBSCRIBE	217	16	12	1	2	1	0	0	38	287
	(c)	75.61	5.57	4.18	0.35	0.7	0.35	0	0	13.24	
Internet	ACCESST (t)	82	21	8	0	15	0	4	0	31	161
Access		50.93	13.04	4.97	0	9.32	0	2.48	0	19.25	
	INTERNETT	186	22	11	1	5	0	2	0	49	276
	(t)	67.39	7.97	3.99	0.36	1.81	0	0.72	0	17.75	
	BROADC	100	5	6	4	6	0	7	0	29	157
		63.69	3.18	3.82	2.55	3.82	0	4.46	0	18.47	
	BROADT	79	3	8	1	6	0	6	0	30	133
		59.4	2.26	6.02	0.75	4.51	0	4.51	0	22.56	
Internet	DIALUPC	99	10	10	3	8	3	9	0	30	172
Subscriptions		57.56	5.81	5.81	1.74	4.65	1.74	5.23	0	17.44	
	DIALUPT	85	7	8	1	9	2	8	0	27	147
		57.82	4.76	5.44	0.68	6.12	1.36	5.44	0	18.37	
	DSLC	85	4	11	1	2	1	12	0	39	155
		54.84	2.58	7.1	0.65	1.29	0.65	7.74	0	25.16	

Table 4: Respondent First Level Behavior by Question: Control (c) vs Test (t)

Content Test	QUESTION	1.	2.	3.	4.	5.	6.	7.	8.	9.	Total
Topic Area		CODR	INDR	CLAR	QUAL	UNCR	OTHR	DKR	REFR	INAR	
	DSLT	72	11	7	4	3	0	6	0	25	128
		56.25	8.59	5.47	3.13	2.34	0	4.69	0	19.53	ļ
	FIBEROPC	80	2	10	2	4	0	15	0	34	147
		54.42	1.36	6.8	1.36	2.72	0	10.2	0	23.13	
	FIBEROPT	82	3	4	2	2	2	7	0	28	130
		63.08	2.31	3.08	1.54	1.54	1.54	5.38	0	21.54	
	MODEMC	88	10	9	3	6	0	4	0	31	151
		58.28	6.62	5.96	1.99	3.97	0	2.65	0	20.53	
Internet	MODEMT	82	8	2	2	6	0	4	0	26	130
Subscriptions		63.08	6.15	1.54	1.54	4.62	0	3.08	0	20	
	OTHSVCEC	101	5	1	3	0	0	6	0	36	152
		66.45	3.29	0.66	1.97	0	0	3.95	0	23.68	
	OTHSVCET	84	4	0	0	4	0	3	0	30	125
		67.2	3.2	0	0	3.2	0	2.4	0	24	
	SATELLITEC	98	5	6	4	1	0	5	0	37	156
		62.82	3.21	3.85	2.56	0.64	0	3.21	0	23.72	
	SATELLITET	82	3	2	0	6	0	3	0	33	129
		63.57	2.33	1.55	0	4.65	0	2.33	0	25.58	
	COMPUTERC	186	9	4	3	4	0	1	0	58	265
		70.19	3.4	1.51	1.13	1.51	0	0.38	0	21.89	
	COMPUTERT	180	11	5	0	1	1	0	0	57	255
		70.59	4.31	1.96	0	0.39	0.39	0	0	22.35	
	HANDHELDC	196	17	1	4	7	1	0	0	49	274
-		71.17	6.2	0.36	1.46	2.55	0.36	0	0	17.88	
Computers	HANDHELDT	178	22	5	2	4	0	3	0	53	267
		66.67	8.24	1.87	0.75	1.5	0	1.12	0	19.85	ļ
	LAPTOPC	178	55	4	2	2	0	1	0	40	282
		63.12	19.5	1.42	0.71	0.71	0	0.35	0	14.18	ļ
	LAPTOPT	164	64	7	0	2	0	0	0	42	279
		58.78	22.94	2.51	0	0.72	0	0	0	15.05	ļ

Content Test	QUESTION	1.	2.	3.	4.	5.	6.	7.	8.	9 .	Total
Topic Area		CODR	INDR	CLAR	QUAL	UNCR	OTHR	DKR	REFR	INAR	020
	INTRX (c)	683	41	15	9	4	2	6		159	920
		74.24	4.46	1.63	0.98	0.43	0.22	0.65	0.11	17.28	
	INTR (c)	29	5	4	11	1	1	14	2	0	67
		43.28	7.46	5.97	16.42	1.49	1.49	20.9	2.99	0	
	INTRXT (t)	607	25	28	12	8	5	15	0	164	864
		70.25	2.89	3.24	1.39	0.93	0.58	1.74	0	18.98	ļ
	INTRT (t)	23	7	6	9	1	0	9	2	3	60
Property		38.33	11.67	10	15	1.67	0	15	3.33	5	ļ
Income	RENTX (t)	595	10	28	3	3	3	2	0	193	837
		71.09	1.19	3.35	0.36	0.36	0.36	0.24	0	23.06	
	RENT (t)	6	8	3	1	0	1	1	0	1	21
		28.57	38.1	14.29	4.76	0	4.76	4.76	0	4.76	
	ROYALX (t)	616	4	4	3	3	3	3	1	174	811
		75.96	0.49	0.49	0.37	0.37	0.37	0.37	0.12	21.45	
	ROYALTY (t)	3	0	0	0	0	0	0	0	0	3
		100	0	0	0	0	0	0	0	0	
	WAGX (c)	427	116	15	2	13	1	8	1	105	688
		62.06	16.86	2.18	0.29	1.89	0.15	1.16	0.15	15.26	
	WAG (c)	239	55	71	38	23	5	84	1	55	571
		41.86	9.63	12.43	6.65	4.03	0.88	14.71	0.18	9.63	
	EARN (t)	415	62	32	5	17	6	13	1	125	676
		61.39	9.17	4.73	0.74	2.51	0.89	1.92	0.15	18.49	
Wages	EARNTIPS (t)	529	17	4	8	6	4	18	0	114	700
		75.57	2.43	0.57	1.14	0.86	0.57	2.57	0	16.29	
	WAGETEST	202	57	56	50	28	11	102	5	69	580
		34.83	9.83	9.66	8.62	4.83	1.9	17.59	0.86	11.9	
	TIPSTEST	18	0	1	1	0	1	3	1	8	33
		54.55	0	3.03	3.03	0	3.03	9.09	3.03	24.24	
Parental Place	PPOBMAC	476	99	1	2	4	5	5	0	194	786
of Birth	_	60.56	12.6	0.13	0.25	0.51	0.64	0.64	0	24.68	

Content Test Topic Area	QUESTION	1. CODR	2. INDR	3. CLAR	4. QUAL	5. UNCR	6. OTHR	7. DKR	8. REFR	9. INAR	Total
	PPOBMAT	477	102	2	0	9	8	2	2	158	760
		62.76	13.42	0.26	0	1.18	1.05	0.26	0.26	20.79	
Parental Place	PPOBPAC	477	102	2	0	9	8	2	2	158	760
of Birth		62.76	13.42	0.26	0	1.18	1.05	0.26	0.26	20.79	
	PPOBPAT	477	102	2	0	9	8	2	2	158	760
		62.76	13.42	0.26	0	1.18	1.05	0.26	0.26	20.79	
	MILP (c)	16	2	1	0	0	1	1	0	3	24
Military Deviced of		66.67	8.33	4.17	0	0	4.17	4.17	0	12.5	
Period of Service	VETP	193	26	21	1	3	1	1	0	42	288
Service		67.01	9.03	7.29	0.35	1.04	0.35	0.35	0	14.58	
	VET1C	482	69	8	16	10	4	5	0	143	737
		65.4	9.36	1.09	2.17	1.36	0.54	0.68	0	19.4	
	ACTIVEC	17	1	0	0	0	0	0	0	6	24
		70.83	4.17	0	0	0	0	0	0	25	
	MILC	350	6	0	0	1	1	0	0	167	525
		66.67	1.14	0	0	0.19	0.19	0	0	31.81	
Veterans'	VET1T	482	69	8	16	10	4	5	0	143	737
Status		65.4	9.36	1.09	2.17	1.36	0.54	0.68	0	19.4	
	TRAINING	5	2	2	4	2	3	9	0	16	43
		11.63	4.65	4.65	9.3	4.65	6.98	20.93	0	37.21	
	ACTIVET	10	0	0	0	0	0	0	0	9	19
		52.63	0	0	0	0	0	0	0	47.37	
	RESERVES	596	76	5	3	10	6	14	2	144	856
		69.63	8.88	0.58	0.35	1.17	0.7	1.64	0.23	16.82	
	Total	12947	1442	492	244	298	110	436	24	3752	19744
		66%	7%	2%	1%	2%	1%	2%	0%	19%	19744

Content Test Topic Area	QUESTION	n with 1st level	n with 2nd level	% with 2nd Level
	FSX (c)	288	36	13%
Food Stamps	FSXT (t)	279	60	22%
Public	PAX (c)	913	36	4%
Assistance	CAX (t)	870	61	7%
	SUBSCRIBE (c)	287	53	18%
Internet Access	ACCESST (t)	166	80	48%
	INTERNETT (t)	277	35	13%
	BROADC	159	32	20%
	BROADT	137	34	25%
	DIALUPC	172	52	30%
	DIALUPT	149	43	29%
	DSLC	164	42	26%
Internet	DSLT	139	33	24%
Subscriptions	FIBEROPC	155	30	19%
	FIBEROPT	137	24	18%
-	MODEMC	160	32	20%
	MODEMT	135	26	19%
	OTHSVCEC	163	12	7%
	OTHSVCET	133	18	14%

Table 5: Ratio of Second to First Level Exchanges by Question: Control (c) vs Test (t)

Content Test Topic Area	QUESTION	n with 1st level	n with 2nd level	% with 2nd Level
Internet	SATELLITEC	162	22	14%
Subscriptions	SATELLITET	135	20	15%
	COMPUTERC	279	21	8%
	COMPUTERT	270	34	13%
~	HANDHELDC	283	35	12%
Computers	HANDHELDT	273	50	18%
	LAPTOPC	288	51	18%
	LAPTOPT	283	43	15%
	INTRX (c)	961	74	8%
	INTR (c)	76	30	39%
	INTRX (t)	911	79	9%
Property	INTRT (t)	69	20	29%
Income	RENTX (t)	887	55	6%
	RENT (t)	25	17	68%
	ROYALX (t)	866	24	3%
	ROYALTY (t)	3	0	0%
	WAGX (c)	735	125	17%
	WAG (c)	585	297	51%
	EARN (t)	725	126	17%
Wages	EARNTIPS (t)	731	28	4%
	WAGETEST (t)	597	308	52%
	TIPSTEST (t)	40	13	33%

Content Test Topic Area	QUESTION	n with 1st level	n with 2nd level	% with 2nd Level
	PPOBMAC	907	56	6%
Parental Place	PPOBMAT	877	73	8%
of Birth	PPOBPAC	924	123	13%
	PPOBPAT	894	117	13%
Military Period of Service	MILP (c)	24	6	25%
	VETP (t)	23	14	61%
	VET1C	716	25	3%
	ACTIVEC	25	1	4%
	MILC	585	4	1%
Veterans' Status	VET1T	701	27	4%
	TRAINING	23	4	17%
	ACTIVET	22	1	5%
	RESERVES	564	8	1%
	Total	20352	2670	13%

Content Test Topic Area	QUESTION	1. CODO	2. INDO	3. QUAO	4. UNCO	5. DKO	6. REFO	7. INAO	Total
	FSX (c)	225	6	3	0	0	0	52	286
Food Stamps		78.67	2.1	1.05	0	0	0	18.18	
	FSXT (t)	212	20	0	2	0	0	42	276
		76.81	7.25	0	0.72	0	0	15.22	
	PAX (c)	650	10	1	5	3	2	212	883
Public		73.61	1.13	0.11	0.57	0.34	0.23	24.01	
Assistance	CAX (t)	693	11	2	3	2	0	134	845
		82.01	1.3	0.24	0.36	0.24	0	15.86	
	SUBSCRIBE	238	10	2	0	0	0	34	284
	(c)	83.8	3.52	0.7	0	0	0	11.97	
Internet	ACCESST (t)	101	19	0	8	2	0	32	162
Access		62.35	11.73	0	4.94	1.23	0	19.75	
	INTERNETT	86	5	3	4	7	0	25	130
	(t)	66.15	3.85	2.31	3.08	5.38	0	19.23	
	BROADC	111	5	1	5	6	0	31	159
		69.81	3.14	0.63	3.14	3.77	0	19.5	
	BROADT	86	5	3	4	7	0	25	130
Internet		66.15	3.85	2.31	3.08	5.38	0	19.23	
Subscriptions	DIALUPC	114	11	0	9	9	0	28	171
		66.67	6.43	0	5.26	5.26	0	16.37	
	DIALUPT	97	9	1	4	5	0	27	143
		67.83	6.29	0.7	2.8	3.5	0	18.88	

Table 6: Respondent Final Answer by Question: Control (c) vs Test (t)

Content Test	QUESTION	1. CODO	2. INDO	3.	4. UNCO	5. DKO	6. BEEQ	7. INAO	Total
Topic Area	DSLC	95	5	QUAO 1	UNCO 5	10	REFO	43	159
	DSLC		-	-	-				159
		59.75	3.14	0.63	3.14	6.29	0	27.04	
	DSLT	81	11	1	2	5	0	32	132
		61.36	8.33	0.76	1.52	3.79	0	24.24	
	FIBEROPC	87	3	2	3	16	0	37	148
		58.78	2.03	1.35	2.03	10.81	0	25	
	FIBEROPT	89	3	2	1	8	0	27	130
		68.46	2.31	1.54	0.77	6.15	0	20.77	
	MODEMC	98	7	4	5	4	0	31	149
Internet		65.77	4.7	2.68	3.36	2.68	0	20.81	
Subscriptions	MODEMT	89	6	2	5	2	0	26	130
		68.46	4.62	1.54	3.85	1.54	0	20	
	OTHSVCEC	101	5	3	2	5	0	38	154
		65.58	3.25	1.95	1.3	3.25	0	24.68	
	OTHSVCET	89	3	0	1	2	0	31	126
		70.63	2.38	0	0.79	1.59	0	24.6	
	SATELLITEC	108	2	3	0	4	0	39	156
		69.23	1.28	1.92	0	2.56	0	25	
	SATELLITET	89	2	1	3	2	0	33	130
		68.46	1.54	0.77	2.31	1.54	0	25.38	
	COMPUTERC	191	7	3	3	1	0	63	268
		71.27	2.61	1.12	1.12	0.37	0	23.51	
Computers	COMPUTERT	187	9	0	3	0	0	55	254
		73.62	3.54	0	1.18	0	0	21.65	

Content Test	QUESTION	1.	2. INDO	3.	4.	5. DKO	6.	7. INAO	Total
Topic Area	HANDHELDC	CODO 211	10	QUAO 5	UNCO 2	0	REFO 0	49	277
	HANDHELDU			-	_	-			211
		76.17	3.61	1.81	0.72	0	0	17.69	
	HANDHELDT	192	16	1	1	2	0	55	267
		71.91	5.99	0.37	0.37	0.75	0	20.6	
Computers	LAPTOPC	188	48	2	2	0	0	42	282
		66.67	17.02	0.71	0.71	0	0	14.89	
	LAPTOPT	180	53	0	1	0	0	44	278
		64.75	19.06	0	0.36	0	0	15.83	
	INTRX (c)	702	38	7	4	7	1	178	937
		74.92	4.06	0.75	0.43	0.75	0.11	19	
	INTR (c)	37	2	11	2	15	2	0	69
		53.62	2.9	15.94	2.9	21.74	2.9	0	
	INTRXT (t)	655	25	11	8	10	0	174	883
		74.18	2.83	1.25	0.91	1.13	0	19.71	
	INTRT (t)	37	4	5	1	9	2	4	62
Property		59.68	6.45	8.06	1.61	14.52	3.23	6.45	
Income	RENTX (t)	637	8	2	4	2	0	201	854
		74.59	0.94	0.23	0.47	0.23	0	23.54	
	RENT (t)	12	4	0	0	2	0	1	19
		63.16	21.05	0	0	10.53	0	5.26	
	ROYALX (t)	628	4	3	4	3	1	201	844
		74.41	0.47	0.36	0.47	0.36	0.12	23.82	
	ROYALTY (t)	3	0	0	0	0	0	0	3
		100	0	0	0	0	0	0	

Content Test Topic Area	QUESTION	1. CODO	2. INDO	3. QUAO	4. UNCO	5. DKO	6. REFO	7. INAO	Total
Topic III cu	WAGX (c)	458	102	2	9	7	1	116	695
		65.9	14.68	0.29	1.29	1.01	0.14	16.69	
	WAG (c)	349	37	48	12	61	1	65	573
		60.91	6.46	8.38	2.09	10.65	0.17	11.34	
	EARN (t)	469	54	5	9	12	0	135	684
		68.57	7.89	0.73	1.32	1.75	0	19.74	
Wages	EARNTIPS (t)	543	15	8	6	15	0	122	709
		76.59	2.12	1.13	0.85	2.12	0	17.21	
	WAGETEST	338	29	40	15	72	5	76	575
	(t)	58.78	5.04	6.96	2.61	12.52	0.87	13.22	
	TIPSTEST (t)	22	0	1	0	2	1	10	36
		61.11	0	2.78	0	5.56	2.78	27.78	
	PPOBMAC	497	90	3	10	4	0	196	800
		62.13	11.25	0.38	1.25	0.5	0	24.5	
	PPOBMAT	504	90	0	15	2	2	162	775
Parental Place		65.03	11.61	0	1.94	0.26	0.26	20.9	
of Birth	PPOBPAC	620	73	8	8	7	0	179	895
		69.27	8.16	0.89	0.89	0.78	0	20	
	PPOBPAT	626	65	3	9	13	2	146	864
		72.45	7.52	0.35	1.04	1.5	0.23	16.9	
	MILP (c)	18	1	0	1	0	0	3	23
Military		78.26	4.35	0	4.35	0	0	13.04	
Period of Service	VETP (t)	14	0	0	0	1	0	8	23
		60.87	0	0	0	4.35	0	34.78	

Content Test	QUESTION	1.	2. INDO	3.	4.	5. DKO	6.	7. INAO	Total
Topic Area		CODO		QUAO	UNCO		REFO		
	VET1C	521	5	1	0	3	0	173	703
		74.11	0.71	0.14	0	0.43	0	24.61	
	ACTIVEC	17	1	0	0	0	0	6	24
		70.83	4.17	0	0	0	0	25	
	MILC	352	6	0	2	0	0	190	550
		64	1.09	0	0.36	0	0	34.55	
Veterans'	VET1T	470	8	1	5	0	0	196	680
Status		69.12	1.18	0.15	0.74	0	0	28.82	
	TRAINING	13	1	1	0	0	0	7	22
		59.09	4.55	4.55	0	0	0	31.82	
	ACTIVET	9	0	0	0	0	0	11	20
		45	0	0	0	0	0	55	
	RESERVES	318	1	2	2	0	0	209	532
		59.77	0.19	0.38	0.38	0	0	39.29	
	T ()	13557	964	208	209	349	20	4056	19363
	Total	70%	5%	1%	1%	2%	0%	21%	

Content Test Topic Area	QUESTION	1. Match	2. Non- match	3. Other	Total
•	FSX (c)	234	0	52	286
E I Ct		81.82	0	18.18	
Food Stamps	FSXT (t)	230	3	45	278
		82.73	1.08	16.19	
	PAX (c)	663	2	238	903
Public		73.42	0.22	26.36	
Assistance	CAX (t)	703	2	161	866
		81.18	0.23	18.59	
	SUBSCRIBE (c)	248	2	35	285
		87.02	0.7	12.28	
Internet	ACCESST (t)	118	3	45	166
Access		71.08	1.81	27.11	
	INTERNETT (t)	218	4	53	275
		79.27	1.45	19.27	
	BROADC	122	3	35	160
		76.25	1.88	21.88	
	BROADT	98	3	33	134
		73.13	2.24	24.63	
	DIALUPC	133	6	33	172
		77.33	3.49	19.19	
	DIALUPT	109	2	34	145
		75.17	1.38	23.45	
	DSLC	111	2	50	163
		68.1	1.23	30.67	
	DSLT	100	2	37	139
		71.94	1.44	26.62	
	FIBEROPC	105	3	45	153
Internet		68.63	1.96	29.41	
Subscriptions	FIBEROPT	99	2	33	134
		73.88	1.49	24.63	
	MODEMC	113	2	42	157
		71.97	1.27	26.75	
	MODEMT	98	4	32	134
		73.13	2.99	23.88	
	OTHSVCEC	113	0	49	162
		69.75	0	30.25	
	OTHSVCET	92	3	38	133
		69.17	2.26	28.57	
	SATELLITEC	117	2	41	160
		73.13	1.25	25.63	
	SATELLITET	94	1	39	134
		70.15	0.75	29.1	

Table 7: Data Entry Match by Question: Control (c) vs Test (t)

Content Test	QUESTION	1. Match	2. Non-	3. Other	Total
Topic Area	COMPUTERC	199	match 2	76	277
	COMICIERC	71.84	0.72	27.44	211
	COMPUTERT	195	1	71	267
	COMPCTENT	73.03	0.37	26.59	207
	HANDHELDC	225	1	56	282
	IIANDIIEEDC	79.79	0.35	19.86	202
Computers	HANDHELDT	206	4	62	272
	In the Difference of the Diffe	75.74	1.47	22.79	272
	LAPTOPC	236	2	49	287
	LATIOIC	82.23	0.7	17.07	207
	LAPTOPT	231	3	46	280
	LATIOTI	82.5	1.07	16.43	200
	INTRX (c)	746	5	201	952
	$\mathbf{M}(\mathbf{x})$	78.36	0.53	201 21.11)52
	INTR (c)	69	1	5	75
		92	1.33	6.67	15
	INTRXT (t)	697	1.55	202	906
		76.93	0.77	202	900
	INTRT (t)	54	2	13	69
D (78.26	2.9	13	09
Property Income	RENTX (t)	650	5	226	881
mcome	$\mathbf{KENIA}\left(\mathbf{l}\right)$	73.78	0.57	220	001
	RENT (t)	18	1	6	25
		72	4	24	23
		640	2	24	861
	ROYALX (t)	74.33	0.23	219	801
	ROYALTY (t)	3	0.23	0	3
	KOTALIT (l)	100	0	0	5
	WAGX (c)	561	19	150	730
	WAGA (C)	76.85	2.6	20.55	750
	WAG (c)	470	6	102	578
		81.31	1.04	17.65	570
	EARN (t)	527	9	17.05	721
		73.09	1.25	25.66	121
Wages	EARNTIPS (t)	568		149	727
	EARNIES (I)	78.13	10 1.38		121
	WACETEST (4)	-	1.38	20.5	506
	WAGETEST (t)	466 79.52	8 1.37	112	586
				19.11	20
	TIPSTEST (t)	30 76.02	0	9	39
		76.92	0	23.08	

Content Test Topic Area	QUESTION	1. Match	2. Non- match	3. Other	Total
Торіс Агса	PPOBMAC	600	19	280	899
		66.74	2.11	31.15	077
	PPOBMAT	595	27	243	865
Parental Place		68.79	3.12	28.09	000
of Birth	PPOBPAC	683	25	211	919
		74.32	2.72	22.96	
·	PPOBPAT	682	31	177	890
		76.63	3.48	19.89	
	MILP (c)	19	0	4	23
Military		82.61	0	17.39	
Period of Service	VETP (t)	14	0	9	23
Service		60.87	0	39.13	
	VET1C	528	1	183	712
		74.16	0.14	25.7	
	ACTIVEC	18	0	7	25
		72	0	28	
	MILC	358	2	219	579
		61.83	0.35	37.82	
Veterans'	VET1T	475	4	216	695
Status		68.35	0.58	31.08	
	TRAINING	15	0	7	22
		68.18	0	31.82	
	ACTIVET	9	0	13	22
		40.91	0	59.09	
	RESERVES	318	5	237	560
		56.79	0.89	42.32	
	Total	15023	253	4915	20191
		74%	1%	24%	

Content Test	QUESTION	Number of	f break ins	Total
Topic Area		0	1	
	FSX (c)	279	9	288
		96.88	3.13	
Food Stamps	FSXT (t)	243	36	279
		87.1	12.9	
	PAX (c)	832	81	913
Public		91.13	8.87	
Assistance	CAX (t)	683	187	870
		78.51	21.49	
	SUBSCRIBE (c	287	0	287
)	100	0	
Internet	ACCESST (t)	165	1	166
Access		99.4	0.6	
	INTERNETT	276	1	277
	(t)	99.64	0.36	
	BROADC	152	7	159
		95.6	4.4	
	BROADT	129	8	137
		94.16	5.84	
	DIALUPC	170	2	172
		98.84	1.16	
	DIALUPT	148	1	145
Internet		99.33	0.67	
Subscriptions	DSLC	162	2	164
		98.78	1.22	
	DSLT	139	0	139
		100	0	
	FIBEROPC	154	1	155
		99.35	0.65	
	FIBEROPT	135	2	137
		98.54	1.46	

Table 8: Overall Frequency of Interruptions by Question: Control (c) v Test (t)

Content Test	QUESTION	Number of	break ins	Total
Topic Area	-	0	1	
	MODEMC	160	0	160
		100	0	
	MODEMT	135	0	135
		100	0	
	OTHSVCEC	163	0	163
Internet		100	0	
Subscriptions	OTHSVCET	133	0	133
		100	0	
	SATELLITEC	162	0	162
		100	0	
	SATELLITET	134	1	135
		99.26	0.74	
	COMPUTERC	277	2	279
		99.28	0.72	
	COMPUTERT	270	0	270
		100	0	
	HANDHELDC	265	18	283
~		93.64	6.36	
Computers	HANDHELDT	257	16	273
		94.14	5.86	
	LAPTOPC	272	16	288
		94.44	5.56	
	LAPTOPT	266	17	283
		93.99	6.01	
	INTRX (c)	834	127	961
		86.78	13.22	
	INTR (c)	76	0	76
		100	0	
	INTRXT (t)	860	51	911
Property		94.4	5.6	
Income	INTRT (t)	69	0	69
		100	0	
	RENTX (t)	862	25	887
		97.18	2.82	
	RENT (t)	25	0	25
		100	0	

Content Test	QUESTION	Number of	f break ins	Total
Topic Area		0	1	
	ROYALX (t)	800	66	866
		92.38	7.62	
	ROYALTY (t)	3	0	3
		100	0	
	WAGX (c)	716	19	735
		97.41	2.59	
	WAG (c)	582	3	585
		99.49	0.51	
	EARN (t)	715	10	725
		98.62	1.38	
Wages	EARNTIPS (t)	678	53	731
		92.75	7.25	
	WAGETEST (t)	588	9	597
		98.49	1.51	
	TIPSTEST (t)	40	0	40
		100	0	
	PPOBMAC	892	15	907
		98.35	1.65	
	PPOBMAT	864	13	877
Parental		98.52	1.48	
Place of Birth	PPOBPAC	894	30	924
Dirti		96.75	3.25	
	PPOBPAT	871	23	894
		97.43	2.57	
	MILP (c)	24	0	24
Military		100	0	
Period of Service	VETP (t)	22	1	23
		95.65	4.35	
	VET1C	605	111	716
		84.5	15.5	
	ACTIVEC	25	0	25
Veterans'		100	0	
Status	MILC	567	18	585
		96.92	3.08	
	VET1T	625	76	701
		89.16	10.84	1

Content Test	QUESTION	Number of break ins		Total
Topic Area		0	1	
	TRAINING	23	0	23
Veterans' Status		100	0	
	ACTIVET	22	0	22
		100	0	
	RESERVES	551	13	564
		97.7	2.3	
	Total	19281	1071	20348
		95%	5%	

Content Test		Cont	rol	Tes	t	Diff %			Sig?
Topic Area	Question	% Standard	SE	% Standard	SE	(T-C)	SE Diff	pvalue	p < .10
	Overall	82%	0.022945	75%	0.020550	-6%	0.030802	0.038823	Y
Access	ACCESST			67%	0.036643				
	INTERNETT			80%	0.024012				
	SUBSCRIBE	82%	0.022945						
	Overall	68%	0.015910	68%	0.016168	-1%	0.022684	0.818438	Ν
	Computer	72%	0.026810	73%	0.027080	1%	0.038107	0.882850	N
Computers	Computyp	38%	0.182981	58%	0.148647	21%	0.235750	0.376856	N
-	Handheld	70%	0.027298	68%	0.028166	-1%	0.039224	0.708493	N
	Laptop	63%	0.028468	62%	0.028876	-1%	0.040549	0.804514	N
	Overall	61%	0.014437	63%	0.015487	1%	0.021173	0.485472	Ν
	Broad	62%	0.038686	65%	0.040910	3%	0.056304	0.554438	N
	DSL	54%	0.039058	58%	0.042074	4%	0.057409	0.497429	N
	Dialup	68%	0.035665	58%	0.040517	-10%	0.053978	0.074296	Y
Internet	Fiberop	64%	0.038710	66%	0.040496	3%	0.056021	0.648668	N
	Modem	55%	0.039454	60%	0.042321	5%	0.057859	0.387494	N
	Othsvce	59%	0.038657	60%	0.042613	1%	0.057535	0.827373	N
	Othsvtyp	40%	0.244949	45%	0.157459	5%	0.291193	0.851412	N
	Satellite	68%	0.036793	73%	0.038202	5%	0.053039	0.305754	N
Food	FSXand								
Stamps	FSXT	73%	0.026125	34%	0.028421	-39%	0.038604	0.000000	Y
PubAsst	PAXandCAX	44%	0.016447	22%	0.014146	-22%	0.021694	0.000000	Y
PubAmt	PAandCA	26%	0.103791	32%	0.109561	5%	0.150918	0.727282	Ν
	Overall	27%	0.013809	39%	0.009284	12%	0.016640	0.000000	Y
	INTR	32%	0.053674						
Property	INTRX	27%	0.014285						
Income	INTRT			25%	0.052254				
	INTRXT			27%	0.014792				
	RENT			12%	0.066332				
	RENTX			50%	0.016797				

Table 9: Interviewer First Level Question-Asking (exact reading/correct verification): Control vs Test

Content Test		Cont	rol	Tes	t	Diff %			Sig?
Topic Area	Question	% Standard	SE	% Standard	SE	(T-C)	SE Diff	pvalue	p < .10
Property	ROYALTY			33%	0.333333				
Income	ROYALX			41%	0.016750				
	Overall	47%	0.013737	51%	0.010928	5%	0.017554	0.009514	Y
	WAG	29%	0.018788						
	WAGX	61%	0.018029						
Wages	EARN			60%	0.018175				
8	EARNTIPS			53%	0.018461				
	TIPSTEST			15%	0.057177				
	WAGETEST			40%	0.020041				
ANCW	ANCW	38%	0.015993	43%	0.016443	5%	0.022938	0.049191	Y
Parental	Ppobpa	14%	0.011445	14%	0.011644	0%	0.016327	0.987932	Ν
Place of									
Birth	Ppobma	11%	0.010221	10%	0.009996	-1%	0.014296	0.532564	Ν
	Overall	35%	0.013116	55%	0.013764	19%	0.019012	0.000000	Y
	ACTIVEC	64%	0.097980						
	MILC	59%	0.020354						
VetStatus	VET1C	15%	0.013230						
	ACTIVET			82%	0.084165				
	RESERVES			56%	0.020928				
	TRAINING			70%	0.098100				
	VET1T			52%	0.018882				
MilPeriod	MilPandVetP	33%	0.098295	61%	0.104051	28%	0.143138	0.054385	Y
Total	Overall	45%	0.003407	45%	0.003260	1%	0.004716	0.220242	Ν

Content		Contr	rol	Tes	t	Diff %			Sig?
Test Topic Area	Question	% Standard	SE	% Standard	SE	(T-C)	SE Diff	pvalue	p < .10
	Overall	81%	0.023111	71%	0.021694	-10%	0.031697	0.001576	Y
Access	ACCESST			64%	0.037953				
1200055	INTERNETT			75%	0.025984				
	SUBSCRIBE	81%	0.023111						
	Overall	78%	0.014500	77%	0.014756	-1%	0.020688	0.795420	Ν
	Computer	74%	0.027093	75%	0.027205	1%	0.038395	0.786826	Ν
Computers	Computyp	29%	0.184428	64%	0.152120	35%	0.239069	0.142450	Ν
computers	Handheld	77%	0.025324	75%	0.026583	-2%	0.036714	0.501811	Ν
	Laptop	83%	0.022603	82%	0.023181	-1%	0.032377	0.780157	Ν
	Overall	64%	0.014580	66%	0.015563	2%	0.021326	0.283596	Ν
	Broad	67%	0.037682	62%	0.042382	-5%	0.056711	0.401500	Ν
	DSL	57%	0.039845	65%	0.042611	7%	0.058338	0.220502	Ν
	Dialup	64%	0.037027	63%	0.040048	-1%	0.054542	0.862536	Ν
Internet	Fiberop	56%	0.041103	65%	0.041887	10%	0.058685	0.101789	Ν
	Modem	65%	0.038988	69%	0.040636	4%	0.056315	0.488887	Ν
	Othsvce	70%	0.037385	70%	0.040994	1%	0.055481	0.904857	Ν
	Othsvtyp	50%	0.288675	80%	0.133333	30%	0.317980	0.345448	Ν
	Satellite	66%	0.038042	66%	0.041903	0%	0.056595	0.981087	Ν
FoodStamps	FSXandFSXT	78%	0.024623	79%	0.024644	1%	0.034837	0.817119	Ν
PubAsst	PAXandCAX	77%	0.014547	83%	0.013124	6%	0.019592	0.002820	Y
PubAmt	PAandCA	50%	0.138675	41%	0.123038	-9%	0.185389	0.634113	Ν
	Overall	77%	0.013434	73%	0.008680	-3%	0.015994	0.029275	Y
Property	INTR	51%	0.061539						
Income	INTRX	79%	0.013494						
	INTRT			49%	0.065644				
	INTRXT			73%	0.015080				

 Table 10: Respondent 1st Level Initial Question-Answering (Codeable or indirect answer): Control vs Test

Content		Cont	rol	Tes	t	Diff %			Sig?
Test Topic Area	Question	% Standard	SE	% Standard	SE	(T-C)	SE Diff	pvalue	p < .10
	RENT			67%	0.105409				
Property	RENTX			72%	0.015475				
Income	ROYALTY			100%	0.000000				
	ROYALX			76%	0.014909				
	Overall	67%	0.013325	65%	0.010680	-1%	0.017077	0.503133	Ν
	WAG	52%	0.020968						
	WAGX	79%	0.015600						
Wages	EARN			71%	0.017542				
wages	EARNTIPS			78%	0.015668				
	TIPSTEST			55%	0.088022				
	WAGETEST			45%	0.020730				
ANCW	ANCW	62%	0.016849	69%	0.015828	8%	0.023118	0.000807	Y
Parental	Ppobpa	76%	0.014341	79%	0.014049	2%	0.020076	0.225658	Ν
Place of Birth	Ppobma	73%	0.015817	76%	0.015478	3%	0.022130	0.175568	Ν
	Overall	72%	0.012729	68%	0.013501	-4%	0.018555	0.023901	Y
	ACTIVEC	75%	0.090289						
	MILC	68%	0.020410						
VetStatus	VET1C	76%	0.016357						
	ACTIVET			53%	0.117688				
	RESERVES			64%	0.021508				
	TRAINING			62%	0.108588				
	VET1T			73%	0.017548				
MilPeriod	MilPandVetP	75%	0.090289	55%	0.108657	-20%	0.141275	0.147657	N
Total	Overall	73%	0.003164	73%	0.003031	0%	0.004381	0.720074	Ν

Content Test Topic Area	Language	Question	CATI	SE	САРІ	SE	CATI- CAPI	SE Diff	P value	Sig? p < .10	Adjusted P value	Sig? p < .10
		Overall	88%	0.01904944	71%	0.021542711	18%	0.02875708	1.0924E-09	Y	2.18E-09	Y
	English		86%	0.03586705	78%	0.027247735	8%	0.045043142	0.09371479	Y	0.18743	Ν
Access	Spanish		90%	0.02215304	63%	0.033065634	27%	0.039800671	1.788E-11	Y	3.58E-11	Y
Access		ACCESST	78%	0.05130982	60%	0.049568727	18%	0.071342532	0.01156064	Y	0.023121	Y
		INTERNETT	<i>91%</i>	0.02822292	74%	0.033370376	17%	0.043704862	6.4564E-05	Y	0.000129	Y
		SUBSCRIBE	92%	0.02515498	74%	0.033366052	18%	0.041785958	2.1462E-05	Y	4.29E-05	Y
		Overall	67%	0.01568247	58%	0.014152947	9%	0.021124532	2.7469E-05	Y	5.49E-05	Y
	English		<i>69%</i>	0.02461561	63%	0.018245125	7%	0.030640051	0.02933969	Y	0.058679	Y
	Spanish		66%	0.02032375	52%	0.022101816	14%	0.030025742	6.3197E-06	Y	1.26E-05	Y
		BROADC	67%	0.05654449	57%	0.052728515	10%	0.07731478	0.20314131	Ν	0.406283	Ν
		BROADT	61%	0.06403968	68%	0.053182405	-7%	0.083243312	0.40500729	Ν	0.810015	Ν
		DIALUPC	74%	0.05171119	64%	0.048592953	10%	0.070960008	0.14521888	Ν	0.290438	Ν
		DIALUPT	65%	0.06209615	54%	0.053135064	11%	0.081726784	0.17567357	Ν	0.351347	Ν
		DSLC	56%	0.05979854	52%	0.051800621	4%	0.079114913	0.65030114	Ν	1.300602	Ν
		DSLT	67%	0.06299408	51%	0.055539029	15%	0.083981174	0.06586237	Y	0.131725	Ν
Internet		FIBEROPC	71%	0.05501859	58%	0.053509185	13%	0.076748151	0.09343315	Y	0.186866	Ν
Internet		FIBEROPT	74%	0.05884389	61%	0.054811963	12%	0.080417381	0.12205402	Ν	0.244108	Ν
		MODEMC	61%	0.05841251	51%	0.053296814	10%	0.079073206	0.20592474	Ν	0.411849	Ν
		MODEMT	65%	0.06377449	56%	0.056510068	9%	0.085208998	0.31838372	Ν	0.636767	Ν
		OTHSVCEC	64%	0.05768378	55%	0.051883931	9%	0.077584536	0.22336075	Ν	0.446721	Ν
		OTHSVCET	64%	0.06546203	58%	0.056301927	6%	0.086343408	0.49118811	Ν	0.982376	Ν
		OTHSVTYPC	0%		50%	0.288675135	-50%			Y	0	Y
		OTHSVTYPT	100%	0	25%	0.163663418	75%	0.163663418	4.5928E-06	Y	9.19E-06	Y
		SATELLITEC	76%	0.05162259	62%	0.050893571	14%	0.072491707	0.0577172	Y	0.115434	N
		SATELLITET	74%	0.05799819	73%	0.051086499	1%	0.077289199	0.85517711	Ν	1.710354	Ν

Table 17: Interviewer First Level Standard Behavior by Mode

Content Test Topic Area	Language	Question	CATI	SE	САРІ	SE	CATI- CAPI	SE Diff	P value	Sig? p < .10	Adjusted P value	Sig? p < .10
		Overall	78%	0.01634441	62%	0.015013532	16%	0.022193378	6.7257E-13	Y	1.35E-12	Y
	English		80%	0.02766858	68%	0.020378105	12%	0.034363024	0.00047919	Y	0.000958	Y
	Spanish		77%	0.02021878	56%	0.021744706	21%	0.029692275	1.2775E-12	Y	2.55E-12	Y
		COMPUTERC	85%	0.03433753	64%	0.037078315	20%	0.050535804	5.4246E-05	Y	0.000108	Y
		COMPUTERT	79%	0.04093602	69%	0.035444626	10%	0.054148676	0.07660663	Y	0.153213	Ν
Computer		COMPUTYPC	0%	0	50%	0.223606798	-50%	0.223606798	0.02534732	Y	0.050695	Y
		COMPUTYPT	100%		55%	0.157459164	45%			Y	0	Y
		HANDHELDC	78%	0.03863145	64%	0.037078315	14%	0.053546151	0.00905615	Y	0.018112	Y
		HANDHELDT	80%	0.04055835	62%	0.036890246	18%	0.054825817	0.00122199	Y	0.002444	Y
		LAPTOPC	78%	0.03863145	53%	0.038047497	25%	0.054221775	3.7323E-06	Y	7.46E-06	Y
		LAPTOPT	68%	0.04588415	59%	0.036969999	9%	0.058924832	0.14302301	Ν	0.286046	Ν
		Overall	69%	0.03154696	45%	0.02657722	24%	0.041249964	4.1198E-09	Y	8.24E-09	Y
	English		75%	0.05225437	55%	0.037853239	21%	0.064524309	0.00129039	Y	0.002581	Y
FoodSt	Spanish		66%	0.03920822	35%	0.035959626	31%	0.053201307	5.918E-09	Y	1.18E-08	Y
100000		FSX	<i>91%</i>	0.0266117	61%	0.036996189	30%	0.045573024	6.8259E-11	Y	1.37E-10	Y
		FSXT	44%	0.04940636	28%	0.033935735	16%	0.059938487	0.00810755	Y	0.016215	Y
		Overall	17%	0.01320911	12%	0.010149517	5%	0.016658126	0.00189924	Y	0.003798	Y
	English		19%	0.02837311	16%	0.019071151	2%	0.034186871	0.47430366	Ν	0.948607	Ν
PobDad	Spanish		16%	0.01490768	9%	0.011403537	7%	0.018769111	8.9919E-05	Y	0.00018	Y
100244		PPOBPAC	18%	0.01900896	11%	0.013663216	8%	0.023409914	0.0009983	Y	0.001997	Y
		PPOBPAT	16%	0.01828935	13%	0.01502717	3%	0.023671002	0.28181829	Ν	0.563637	Ν
		Overall	11%	0.01104474	10%	0.009364815	1%	0.014480543	0.43726018	Ν	0.87452	N
	English		13%	0.02507749	11%	0.016434363	2%	0.029982811	0.50374232	Ν	1.007485	N
PobMom	Spanish		10%	0.0122	9%	0.011255409	1%	0.016598925	0.40302562	Ν	0.806051	N
1 00000000		PPOBMAC	11%	0.0156355	10%	0.013497421	1%	0.02065549	0.64496169	Ν	1.289923	N
		PPOBMAT	10%	0.01560913	9%	0.012984218	1%	0.020303565	0.52555651	Ν	1.051113	Ν

Content Test Topic Area	Language	Question	CATI	SE	САРІ	SE	CATI- CAPI	SE Diff	P value	Sig? p < .10	Adjusted P value	Sig? p < .10
		Overall	40%	0.00977573	28%	0.012493282	12%	0.015863383	6.7559E-14	Y	1.35E-13	Y
	English		<i>48%</i>	0.01231669	36%	0.022939722	12%	0.026037121	3.8393E-06	Y	7.68E-06	Y
	Spanish		24%	0.01462934	24%	0.014603804	1%	0.020670959	0.79553072	Ν	1.591061	Ν
		INTR	26%	0.05493406	64%	0.152120005	-37%	0.161735115	0.02047515	Y	0.04095	Y
		INTRT	26%	0.05799819	18%	0.121967344	8%	0.135054889	0.56957587	Ν	1.139152	Ν
		INTRX	33%	0.01897803	15%	0.019238417	18%	0.027023737	8.3327E-12	Y	1.67E-11	Y
		INTRXT	33%	0.01938265	17%	0.020969708	16%	0.028555484	1.1677E-08	Y	2.34E-08	Y
		RENT	6%	0.05555556	29%	0.184427778	-23%	0.192613668	0.23211665	Ν	0.464233	Ν
		RENTX	53%	0.02079923	46%	0.028343787	7%	0.035156484	0.04483269	Y	0.089665	Y
		ROYALTY	33%	0.33333333						Y	0	Y
PropInc		ROYALX	44%	0.02068728	35%	0.028230796	9%	0.034999161	0.00974018	Y	0.01948	Y
		Overall	20%	0.13333333	32%	0.089878981	-12%	0.160798038	0.45015177	Ν	0.900304	Ν
	English		29%	0.18442778	33%	0.142133811	-5%	0.232842491	0.83795354	Ν	1.675907	Ν
	Spanish		0%	0	31%	0.119678388	-31%	0.119678388	0.00902344	Y	0.018047	Y
		CA	17%	0.16666667	38%	0.140441681	-22%	0.217948718	0.31731051	Ν	0.634621	Ν
PubAmt		PA	25%	0.25	27%	0.118187368	-2%	0.276528939	0.95193982	Ν	1.90388	Ν
		Overall	37%	0.01414235	28%	0.018004233	9%	0.022894505	0.00012062	Y	0.000241	Y
	English		43%	0.01815325	31%	0.03174229	13%	0.036566564	0.00054836	Y	0.001097	Y
	Spanish		25%	0.02118719	26%	0.021824371	-2%	0.030417105	0.58835187	Ν	1.176704	Ν
		CAX	26%	0.01835436	15%	0.02090453	11%	0.027818736	8.5336E-05	Y	0.000171	Y
PubAsst		PAX	47%	0.02059849	39%	0.027144524	8%	0.034075257	0.0266296	Y	0.053259	Y
		Overall	52%	0.11167657	42%	0.098809481	10%	0.149113946	0.49933204	Ν	0.998664	Ν
	English		47%	0.12478355	38%	0.100946607	10%	0.160502809	0.55147261	Ν	1.102945	Ν
	Spanish		75%	0.25	100%	0	-25%	0.25	0.31731051	Ν	0.634621	Ν
		MILP	36%	0.15212	31%	0.133234678	6%	0.202217643	0.7820468	Ν	1.564094	Ν
MilPeriod		VETP	70%	0.15275252	54%	0.143909899	16%	0.209865177	0.44146307	Ν	0.882926	Ν

Content Test Topic Area	Language	Question	CATI	SE	САРІ	SE	CATI- CAPI	SE Diff	P value	Sig? p < .10	Adjusted P value	Sig? p < .10
		Overall	52%	0.01396602	38%	0.013196453	14%	0.019214472	8.1986E-13	Y	1.64E-12	Y
	English		67%	0.02262802	<i>48%</i>	0.022107895	18%	0.031635207	6.2153E-09	Y	1.24E-08	Y
	Spanish		44%	0.01707253	32%	0.016047881	12%	0.023430869	1.3127E-07	Y	2.63E-07	Y
		ACTIVEC	73%	0.14083576	57%	0.137252703	16%	0.196654558	0.42808277	Ν	0.856166	Ν
		ACTIVET	78%	0.14698618	85%	0.104154339	-7%	0.180147341	0.70427476	Ν	1.40855	Ν
		MILC	62%	0.02841825	56%	0.029122711	5%	0.040690654	0.20064595	Ν	0.401292	Ν
		RESERVES	63%	0.02916529	<i>49%</i>	0.02951122	13%	0.041491276	0.00126539	Y	0.002531	Y
		TRAINING	60%	0.16329932	77%	0.121626064	-17%	0.203616223	0.40590236	Ν	0.811805	Ν
		VET1C	20%	0.02130479	10%	0.015473098	10%	0.0263308	9.5896E-05	Y	0.000192	Y
VetStat		VET1T	67%	0.02604867	39%	0.02535133	27%	0.036348635	5.6667E-14	Y	1.13E-13	Y
		Overall	55%	0.01054617	39%	0.014163374	16%	0.017658509	1.1341E-19	Y	2.27E-19	Y
	English		60%	0.01289943	41%	0.024321997	18%	0.027530981	1.8252E-11	Y	3.65E-11	Y
	Spanish		<i>46%</i>	0.01784818	38%	0.01741385	8%	0.024935913	0.00082765	Y	0.001655	Y
		EARN	67%	0.0216367	47%	0.031331995	20%	0.038076775	1.5091E-07	Y	3.02E-07	Y
		EARNTIPS	61%	0.02247257	40%	0.030469919	21%	0.037860695	1.9964E-08	Y	3.99E-08	Y
		TIPSTEST	11%	0.05952381	25%	0.130558242	-14%	0.143487067	0.31943973	Ν	0.638879	Ν
		WAG	29%	0.02297281	30%	0.032716835	-1%	0.039976761	0.73729118	Ν	1.474582	Ν
		WAGETEST	46%	0.02528559	27%	0.030951274	19%	0.039966764	1.277E-06	Y	2.55E-06	Y
Wages		WAGX	68%	0.02135995	47%	0.031196727	21%	0.03780851	3.1936E-08	Y	6.39E-08	Y
Total (including buffer questions)		Overall	48%	0.00321504	41%	0.003440083	7%	0.00470857	1.4011E-54	Y	2.8E-54	Y

Content Test Topic Area	Language	Question	САТІ	SE	CAPI	SE	CATI- CAPI	SE Diff	P value	Sig? p < .10	Adjuste d P value	Sig? p < .10
				0.0203031		0.02227485		0.03013947				
		Overall	87%	7	68%	3	19%	2	4.71307E-10	Y	9.43E-10	Y
				0.0296111		0.03108290		0.04292979				
	English		91%	5	67%	3	24%	1	3.09789E-08	Y	6.2E-08	Y
				0.0266716		0.03199365		0.04165298	0.00016561			
	Spanish		84%	6	69%	6	16%	7	2	Y	0.000331	Y
Access				0.0513098		0.05165947			0.00133728			
		ACCESST	78%	2	54%	5	23%	0.07281071	8	Y	0.002675	Y
				0.0298675		0.03568570						
		INTERNETT	90%	3	67%	3	23%	0.04653535	5.90024E-07	Y	1.18E-06	Y
				0.0296566		0.03258375		0.04405922	0.00444743			
		SUBSCRIBE	89%	1	76%	1	13%	5	7	Y	0.008895	Y
						0.01481834		0.02032545				
		Overall	78%	0.0139119	54%	3	24%	8	6.79014E-32	Y	1.36E-31	Y
				0.0217379				0.02911328				
	English		80%	6	54%	0.01936607	26%	9	1.95186E-18	Y	3.9E-18	Y
				0.0180757		0.02304047		0.02928474				
	Spanish		77%	5	54%	2	23%	2	4.79698E-15	Y	9.59E-15	Y
				0.0543847		0.05199814		0.07524301				
Internet		BROADC	71%	8	63%	6	8%	9	0.27520463	N	0.550409	Ν
				0.0500328		0.05832789		0.07684678				
		BROADT	83%	4	46%	5	37%	9	1.6645E-06	Y	3.33E-06	Y
				0.0539427		0.05008612		0.07361005	0.08520699			
		DIALUPC	71%	5	58%	3	13%	2	9	Y	0.170414	Ν
				0.0503752		0.05391282		0.07378521				
		DIALUPT	82%	4	49%	5	32%	2	1.24459E-05	Y	2.49E-05	Y

Table 18: Respondent First Level Standard Behavior by Mode

Content Test Topic Area	Language	Question	CATI	SE	CAPI	SE	CATI- CAPI	SE Diff	P value	Sig? p < .10	Adjuste d P value	Sig? p < .10
		DSLC	72%	0.05416993	45%	0.053997458	27%	0.07648598 9	0.00039248 7	Y	0.000785	Y
		DSLT	75%	0.05927839	57%	0.058763967	18%	0.08346934 1	0.03497224 3	Y	0.069944	Y
		FIBEROPC	64%	0.05828983	49%	0.056961554	15%	0.08150044 8	0.06479989 3	Y	0.1296	N
		FIBEROPT	77%	0.05606982	56%	0.05847602	21%	0.08101400 8	0.00944054 7	Y	0.018881	Y
		MODEMC	77%	0.0511793	56%	0.055555556	21%	0.07553635 5	0.00489270 5	Ŷ	0.009785	Y
Internet		MODEMT	88%	0.04459413	55%	0.058177593	32%	0.07330258 3	1.19569E-05	Y	2.39E-05	Ŷ
		OTHSVCEC	88%	0.03882454	54%	0.055019044	34%	0.06733825 3	3.83052E-07	Y	7.66E-07	Ŷ
		OTHSVCET	89%	0.04316826	56%	0.059279356	33%	0.07333171 7	9.04402E-06	Ŷ	1.81E-05	Ŷ
		OTHSVTYPC	0%		67%	0.3333333333	-67%			Y	0	Y
		OTHSVTYPT	67%	0.333333333	86%	0.142857143	-19%	0.36265586 2	0.59942627 9	Ν	1.198853	N
		SATELLITEC	77%	0.05055153	57%	0.053702065	20%	0.07375207 6	0.00625109 3	Y	0.012502	Y
		SATELLITET	86%	0.04641669	50%	0.059339083	36%	0.07533681 6	1.80708E-06	Ŷ	3.61E-06	Y
		Overall	94%	0.00961408	67%	0.014944452	27%	0.01776983 9	1.48496E-51	Ŷ	2.97E-51	Ŷ
	English		91%	0.01984271	63%	0.021430987	28%	0.02920651 4	4.49459E-21	Ŷ	8.99E-21	Ŷ
Computer	Spanish		95%	0.01051846	70%	0.02070841	25%	0.02322662 9	2.5312E-26	Y	5.06E-26	Ŷ
		COMPUTERC	93%	0.02444456	60%	0.039889037	33%	0.04678324	1.7713E-12	Y	3.54E-12	Y
		COMPUTERT	93%	0.02589374	63%	0.038678051	29%	0.04654543 1	2.43631E-10	Ŷ	4.87E-10	Ŷ

Content Test Topic Area	Language	Question	CATI	SE	CAPI	SE	CATI- CAPI	SE Diff	P value	Sig ? p < .10	Adjusted P value	Sig ? p < .10
		COMPUTYP							0.57746866			
		C	50%	0.5	20%	0.2	30%	0.538516481	2	Ν	1.154937	N
		COMPUTYPT	100%		60%	0.163299316	40%			Y	0	Y
Computer		HANDHELDC	92%	0.02536716	67%	0.037325985	25%	0.045130056	2.26328E-08	Y	4.53E-08	Y
		HANDHELDT	92%	0.02726599	65%	0.037099441	27%	0.046041317	2.92363E-09	Y	5.85E-09	Y
		LAPTOPC	96%	0.0190999	74%	0.03419073	22%	0.039163915	1.93984E-08	Y	3.88E-08	Y
		LAPTOPT	97%	0.01681192	73%	0.033510883	24%	0.037491599	1.12762E-10	Y	2.26E-10	Y
		Overall	92%	0.0189332	70%	0.024629312	22%	0.031065561	3.58249E-12	Y	7.16E-12	Y
FoodSt	English		96%	0.02508829	65%	0.036446693	30%	0.044246848	5.7058E-12	Y	1.14E-11	Y
1 00001	Spanish		90%	0.02505179	75%	0.032888897	15%	0.041343342	0.00030227 2	Y	0.000605	Y
	•	FSX	91%	0.02683683	69%	0.035308959	22%	0.044350173	7.32684E-07	Y	1.47E-06	Y
		FSXT	92%	0.0267515	71%	0.034449527	21%	0.043616653	1.04276E-06	Y	2.09E-06	Y
D.I.D.I		Overall	90%	0.01053551	66%	0.015282144	24%	0.018561813	8.66124E-38	Y	1.73E-37	Y
PobDad	English		89%	0.02269467	57%	0.026299036	32%	0.034737408	5.15288E-20	Y	1.03E-19	Y
	Spanish		91%	0.0118652	72%	0.018345597	19%	0.021848204	8.55245E-18	Y	1.71E-17	Y
		PPOBPAC	89%	0.0157863	65%	0.021699195	23%	0.026833979	6.22204E-18	Y	1.24E-17	Y
		PPOBPAT	92%	0.01378181	68%	0.021534086	25%	0.025566678	5.63412E-22	Y	1.13E-21	Y

Content Test Topic Area	Language	Question	CATI	SE	CAPI	SE	CATI- CAPI	SE Diff	P value	Sig ? p < .10	Adjusted P value	Sig ? p < .10
				0.0101777		0.01692659						
		Overall	92%	4	60%	7	32%	0.019750851	1.88518E-59	Y	3.77E-59	Y
				0.0202338		0.02790184						
	English		92%	9	53%	4	39%	0.03446626	6.15527E-30	Y	1.23E-29	Y
				0.0117870		0.02107331						
PobMom	Spanish		92%	1	64%	9	28%	0.024145773	1.3701E-30	Y	2.74E-30	Y
				0.0142873		0.02387134						
		PPOBMAC	92%	5	57%	7	35%	0.02782031	1.08314E-35	Y	2.17E-35	Y
				0.0145219								
		PPOBMAT	92%	9	63%	0.02395589	29%	0.028013799	8.84209E-26	Y	1.77E-25	Y
				0.0070897		0.01455405						
		Overall	86%	5	51%	5	35%	0.01618904	3.1862E-105	Y	6.4E-105	Y
				0.0083216		0.02438232						
	English		87%	2	42%	2	45%	0.025763289	9.57978E-68	Y	1.92E-67	Y
				0.0132208		0.01794673						
	Spanish		83%	3	55%	8	28%	0.022290713	8.84974E-37	Y	1.77E-36	Y
						0.16329931						
		INTR	53%	0.0667227	40%	6	13%	0.176404609	0.473956032	N	0.947912	N
				0.0686802		0.24494897						
		INTRT	50%	8	40%	4	10%	0.254395325	0.694253759	N	1.388508	N
PropInc				0.0119046		0.02775245						
		INTRX	91%	5	57%	2	34%	0.030198	1.49809E-29	Y	3E-29	Y
				0.0150533		0.02915640						
		INTRXT	85%	4	51%	3	34%	0.032813091	3.56701E-25	Y	7.13E-25	Y
				0.1139112		0.28867513						
		RENT	71%	7	50%	5	21%	0.310337094	0.507064658	N	1.014129	N
				0.0148692		0.02973659						
		RENTX	86%	1	46%	3	40%	0.033246932	8.96645E-33	Y	1.79E-32	Y
		ROYALTY	100%	0						Y	0	Y
				0.0129957		0.03076739						7
		ROYALX	90%	4	49%	5	41%	0.03339943	3.87942E-34	Y	7.76E-34	Y

Content Test Topic Area	Language	Question	САТІ	SE	CAPI	SE	CATI- CAPI	SE Diff	P value	Sig? p < .10	Adjusted P value	Sig? p < .10
		Overall	50%	0.18898224	43%	0.10568966	7%	0.216528497	0.763265483	Ν	1.526531	Ν
	English		33%	0.21081851	30%	0.152752523	3%	0.260341656	0.898119787	Ν	1.79624	Ν
	Spanish		100%	0	54%	0.143909899	46%	0.143909899	0.001340641	Y	0.002681	Y
		CA	40%	0.24494897	42%	0.148647098	-2%	0.286523925	0.953614412	Ν	1.907229	Ν
PubAmt		PA	67%	0.33333333	45%	0.157459164	21%	0.368652275	0.565023201	Ν	1.130046	Ν
		Overall	91%	0.00856813	57%	0.0209198	34%	0.022606436	2.91923E-50	Y	5.84E-50	Y
	English		93%	0.00941737	52%	0.03606065	41%	0.037270059	1.59359E-28	Y	3.19E-28	Y
	Spanish		87%	0.01699102	60%	0.025583853	27%	0.030712021	1.81739E-18	Y	3.63E-18	Y
		CAX	94%	0.01001221	60%	0.029639812	34%	0.031285185	3.49298E-28	Y	6.99E-28	Y
		PAX	88%	0.01379567	55%	0.029515543	33%	0.032580483	5.93143E-24	Y	1.19E-23	Y
		Overall	81%	0.08780519	52%	0.10198039	29%	0.134572473	0.031441951	Y	0.062884	Y
	English		88%	0.08054743	48%	0.106499554	40%	0.133529189	0.002476114	Y	0.004952	Y
MilPeriod	Spanish		50%	0.28867513	100%	0	-50%	0.288675135	0.083264517	Y	0.166529	Ν
		MILP	82%	0.12196734	69%	0.133234678	13%	0.180630873	0.485891467	Ν	0.971783	Ν
		VETP	80%	0.13333333	33%	0.142133811	47%	0.194884063	0.016639137	Y	0.033278	Y
			86%	0.0100412	56%	0.014061314	31%	0.017278492	3.76981E-71	Y	7.54E-71	Y
	English		91%	0.01430822	55%	0.022843238	35%	0.026954381	1.52687E-39	Y	3.05E-39	Y
	Spanish		84%	0.01335995	56%	0.017853228	28%	0.022298563	9.76064E-37	Y	1.95E-36	Y
		ACTIVEC	82%	0.12196734	69%	0.133234678	13%	0.180630873	0.485891467	Ν	0.971783	Ν
VetStat		ACTIVET	100%	0	10%	0.1	90%	0.1	2.25718E-19	Y	4.51E-19	Y
		MILC	87%	0.021133	49%	0.030827782	37%	0.037375869	1.64482E-23	Y	3.29E-23	Y
		RESERVES	74%	0.02860952	55%	0.030703654	19%	0.041966878	4.27622E-06	Y	8.55E-06	Y
		TRAINING	80%	0.13333333	45%	0.157459164	35%	0.206327812	0.09407176	Y	0.188144	Ν
		VET1C	91%	0.01585622	62%	0.026085614	29%	0.030526692	2.34819E-21	Y	4.7E-21	Y
		VET1T	91%	0.01640734	56%	0.026967685	35%	0.031566703	1.31034E-28	Y	2.62E-28	Y
		Overall	74%	0.00937866	49%	0.015264806	26%	0.017915736	3.91714E-47	Y	7.83E-47	Y
Wages	English		78%	0.01107136	41%	0.025507147	36%	0.027806286	4.55729E-39	Y	9.11E-39	Y
	Spanish		68%	0.01696112	52%	0.018904177	16%	0.025397785	6.81616E-10	Y	1.36E-09	Y

Content Test Topic Area	Language	Question	CATI	SE	CAPI	SE	CATI- CAPI	SE Diff	P value	Sig? p < .10	Adjusted P value	Sig? p < .10
		EARN	82%	0.017848	46%	0.033826311	36%	0.038246183	1.59582E-21	Y	3.19E-21	Y
		EARNTIPS	89%	0.01459532	57%	0.032183581	32%	0.035338452	7.32488E-20	Y	1.46E-19	Y
Wages		TIPSTEST	70%	0.09810019	20%	0.133333333	50%	0.165533756	0.002751056	Y	0.005502	Y
		WAG	57%	0.02544167	41%	0.035906086	16%	0.044005971	0.000402147	Y	0.000804	Y
		WAGETEST	49%	0.0256423	36%	0.034546539	12%	0.043023145	0.003924367	Y	0.007849	Y
		WAGX	88%	0.01528616	61%	0.032804005	27%	0.036190738	6.2775E-14	Y	1.26E-13	Y
Total (including buffer questions)		Overall	85%	0.0023742	58%	0.00362747	27%	0.004335364	0	Y	0	Y

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Content Test Topic Area	Mode	Question	English	SE	Spanish	SE	Eng- Span	SE Diff	P value	Sig? p < .10	Adjusted P value	Sig? p < .10
		Overall	80%	0.021984967	76%	0.021486218	5%	0.030740793	0.127739089	Ν	0.255478	Ν
	CAPI		78%	0.027247735	63 %	0.033065634	15%	0.042845947	0.000491572	Y	0.00098	Y
	CATI		86%	0.035867055	90%	0.022153042	-4%	0.042156884	0.310825733	Ν	0.621651	Ν
		ACCESST	71%	0.049714956	63%	0.053990295	8%	0.073392976	0.298821074	Ν	0.597642	Ν
		INTERNETT	82%	0.034696606	79%	0.033172883	4%	0.048003069	0.460544067	Ν	0.921088	Ν
Access		SUBSCRIBE	85%	0.032484701	79%	0.031755548	6%	0.045427641	0.171739478	Ν	0.343479	Ν
		Overall	65%	0.014697453	59%	0.015115788	6%	0.02108322	0.005096324	Y	0.01019	Y
	CAPI		63%	0.018245125	52%	0.022101816	11%	0.028659638	0.000191778	Y	0.00038	Y
	CATI		69%	0.024615608	66%	0.020323753	4%	0.031921515	0.232992547	Ν	0.465985	Ν
		BROADC	68%	0.054746935	56%	0.053864732	13%	0.07680258	0.098762737	Y	0.197525	Ν
		BROADT	68%	0.054226751	61%	0.062364984	7%	0.082643401	0.416858757	Ν	0.833718	Ν
		DIALUPC	77%	0.047374281	60%	0.05154303	16%	0.070007189	0.021432072	Y	0.04286	Y
		DIALUPT	71%	0.051964326	45%	0.059470272	25%	0.078974707	0.001274822	Y	0.00255	Y
		DSLC	58%	0.055617933	50%	0.05488213	8%	0.078137076	0.337129891	Ν	0.67426	Ν
		DSLT	59%	0.056746996	56%	0.06310687	4%	0.084868715	0.666714348	Ν	1.333429	Ν
		FIBEROPC	59%	0.058751137	68%	0.051262641	-9%	0.077971498	0.264389519	Ν	0.528779	Ν
		FIBEROPT	70%	0.054549061	62%	0.06016741	8%	0.081214022	0.306708055	Ν	0.613416	Ν
		MODEMC	57%	0.057233061	54%	0.054741946	3%	0.079197878	0.704132934	Ν	1.408266	Ν
		MODEMT	62%	0.05802309	58%	0.062220357	4%	0.08507674	0.624918391	Ν	1.249837	Ν
		OTHSVCEC	61%	0.057136299	57%	0.052728515	4%	0.077748653	0.651899096	Ν	1.303798	Ν
		OTHSVCET	58%	0.058252743	63%	0.062737308	-6%	0.085611635	0.498170379	Ν	0.996341	Ν
		OTHSVTYPC			40%	0.244948974				Y	0	Y
		OTHSVTYPT	56%	0.175682092	0%	0	56%	0.175682092	0.001565402	Y	0.003131	Y
		SATELLITEC	65%	0.054735534	71%	0.049714956	-6%	0.073942921	0.444550483	Ν	0.889101	Ν
Internet		SATELLITET	77%	0.049938325	69%	0.058397074	9%	0.076837846	0.256719381	Ν	0.513439	Ν
		Overall	71%	0.016674543	65%	0.015369085	6%	0.022677062	0.006391306	Y	0.01278	Y
Computer	CAPI		68%	0.020378105	56%	0.021744706	12%	0.029800997	3.36371E-05	Y	6.7E-05	Y
					76							

Table 21: Interviewer First Level Standard Behavior by Language

	CATI		80%	0.027668579	77%	0.020218778	3%	0.034268779	0.337368357	Ν	0.674737	N
		COMPUTERC	72%	0.042071608	73%	0.034878252	-1%	0.054648995	0.790133857	Ν	1.580268	Ν
		COMPUTERT	73%	0.040655781	73%	0.036427228	0%	0.054587869	0.937637989	Ν	1.875276	Ν
		COMPUTYPC	67%	0.333333333	20%	0.2	47%	0.388730126	0.229949057	Ν	0.459898	Ν
		COMPUTYPT	63%	0.182981264	50%	0.288675135	13%	0.341782791	0.714567039	Ν	1.429134	Ν
		HANDHELDC	71%	0.041587322	69%	0.036256565	3%	0.055172855	0.647054578	Ν	1.294109	Ν
		HANDHELDT	77%	0.038498561	62%	0.039531734	15%	0.055180587	0.006498631	Y	0.013	Y
		LAPTOPC	68%	0.042664164	60%	0.038042311	8%	0.057161598	0.16758368	Ν	0.335167	Ν
		LAPTOPT	69 %	0.04134913	57%	0.039672312	12%	0.057303079	0.031013188	Y	0.06203	Y
		Overall	60%	0.031425365	49%	0.027815973	11%	0.04196763	0.006506782	Y	0.01301	Y
	CAPI		55%	0.037853239	35%	0.035959626	20%	0.05221075	0.000178133	Y	0.00036	Y
	CATI		75%	0.052254366	66%	0.039208218	9%	0.065328425	0.151230608	Ν	0.302461	Ν
		FSX	80%	0.036938517	69 %	0.035795265	11%	0.051436904	0.029552219	Y	0.0591	Y
FoodSt		FSXT	42%	0.044493204	28%	0.036078725	14%	0.057282804	0.013219423	Y	0.02644	Y
		Overall	17%	0.015842987	1 3 %	0.009409601	5%	0.018426633	0.013072925	Y	0.02615	Y
	CAPI		16%	0.019071151	9 %	0.011403537	7%	0.022220474	0.000891605	Y	0.00178	Y
	CATI		19%	0.028373109	16%	0.014907678	2%	0.032051088	0.439321419	Ν	0.878643	Ν
		PPOBPAC	15%	0.021588589	14%	0.013487352	2%	0.02545537	0.539667461	Ν	1.079335	Ν
PobDad		PPOBPAT	1 9 %	0.023079196	12%	0.013075885	8 %	0.026525988	0.004422615	Y	0.00885	Y
		Overall	12%	0.01376893	9%	0.008290409	3%	0.016072159	0.075928714	Y	0.151857	Ν
	CAPI		11%	0.016434363	9%	0.011255409	3%	0.019919149	0.149071401	Ν	0.298143	Ν
	CATI		13%	0.025077494	10%	0.012200004	3%	0.027887646	0.210690338	Ν	0.421381	Ν
		PPOBMAC	12%	0.01976585	10%	0.011890421	2%	0.023066663	0.351069836	Ν	0.70214	Ν
PobMom		PPOBMAT	12%	0.019224577	9%	0.011512768	4%	0.022408217	0.107436605	Ν	0.214873	Ν
		Overall	45%	0.010907756	24%	0.010332946	21%	0.015024943	2.06241E-45	Y	4.1E-45	Y
	CAPI		36 %	0.022939722	24%	0.014603804	12%	0.027193785	9.89018E-06	Y	2E-05	Y
	CATI		48%	0.012316689	24%	0.014629336	24%	0.019123762	9.69708E-35	Y	1.9E-34	Y
		INTR	32%	0.054226751	0%		32 %			Y	0	Y
		INTRT	26%	0.056788551	13%	0.125	14%	0.137295082	0.317310508	Ν	0.634621	Ν
		INTRX	37%	0.021466902	16%	0.017156489	21%	0.027480411	7.88035E-14	Y	1.6E-13	Y
		INTRXT	37%	0.022050995	17%	0.01814826	20%	0.028558811	6.52052E-12	Y	1.3E-11	Y
		RENT	6%	0.0625	22%	0.146986184	-16%	0.159722222	0.317310508	Ν	0.634621	Ν
PropInc		RENTX	60%	0.02245835	39%	0.024147218	21%	0.032976744	3.51772E-10	Y	7E-10	Y

		ROYALTY	33%	0.3333333333						Y	0	Y
		ROYALX	55%	0.023005873	26%	0.021957	29 %	0.031802202	5.59915E-20	Y	1.1E-19	Y
		Overall	32%	0.109561368	26%	0.103790873	5%	0.150917987	0.727282322	Ν	1.454565	Ν
	CAPI		33%	0.142133811	31%	0.119678388	2%	0.185808872	0.910726371	Ν	1.821453	Ν
	CATI		29%	0.184427778	0%	0	29%	0.184427778	0.12133525	Ν	0.242671	Ν
		CA	18%	0.121967344	50%	0.188982237	-32%	0.224922917	0.157178167	Ν	0.314356	Ν
PubAmt		PA	50%	0.188982237	9%	0.090909091	41%	0.209711107	0.051088514	Y	0.102177	Ν
			41%	0.015868352	26%	0.01519875	15%	0.02197286	1.1013E-11	Y	2.2E-11	Y
	CAPI		31%	0.03174229	26%	0.021824371	4%	0.038521113	0.269392911	Ν	0.538786	Ν
	CATI		43%	0.018153254	25%	0.021187192	1 9 %	0.027900497	3.04628E-11	Y	6.1E-11	Y
		CAX	28%	0.0205624	16%	0.018521037	11%	0.027673834	3.37298E-05	Y	6.7E-05	Y
PubAsst		ΡΑΧ	53%	0.022707042	34%	0.022940562	19%	0.032278152	5.38769E-09	Y	1.1E-08	Y
		Overall	41%	0.077896192	83%	0.166666667	-42%	0.183971722	0.022852664	Y	0.04571	Y
	CAPI		38 %	0.100946607	100%	0	-63%	0.100946607	5.96352E-10	Y	1.2E-09	Y
	CATI		47%	0.12478355	75%	0.25	-28%	0.279411765	0.317310508	Ν	0.634621	Ν
		MILP	24%	0.095238095	100%	0	-76%	0.095238095	1.24419E-15	Y	2.5E-15	Y
MilPeriod		VETP	60%	0.112390297	67%	0.3333333333	-7%	0.351770792	0.849687362	Ν	1.699375	Ν
		Overall	57%	0.016110691	38 %	0.011809911	19%	0.019975695	3.29498E-21	Y	6.6E-21	Y
	CAPI		48 %	0.022107895	32 %	0.016047881	17%	0.027318373	1.10512E-09	Y	2.2E-09	Y
	CATI		67%	0.022628021	44%	0.017072526	23%	0.028346048	1.2892E-15	Y	2.6E-15	Y
		ACTIVEC	64%	0.104972776	67%	0.3333333333	-3%	0.349471594	0.930901235	Ν	1.861802	Ν
		ACTIVET	79%	0.096091677	100%	0	-21%	0.096091677	0.028459737	Y	0.05692	Y
		MILC	72%	0.032442055	53%	0.025281941	19%	0.041129837	4.01161E-06	Y	8E-06	Y
		RESERVES	74%	0.03135305	46%	0.026094498	28%	0.040791379	1.40932E-11	Y	2.8E-11	Y
		TRAINING	71%	0.101015254	50%	0.5	21%	0.510102031	0.674424072	Ν	1.348848	Ν
		VET1C	1 9 %	0.024970365	13%	0.01531858	6%	0.029294676	0.046444905	Y	0.09289	Y
VetStat		VET1T	66%	0.030109684	44%	0.023399587	21%	0.038133105	2.01789E-08	Y	4E-08	Y
		Overall	56%	0.01153166	42%	0.012509714	14%	0.017013881	4.43734E-16	Y	8.9E-16	Y
	CAPI		41%	0.024321997	38%	0.01741385	4%	0.029913237	0.228170594	Ν	0.456341	Ν
	CATI		60%	0.012899433	46%	0.017848181	14%	0.022021647	4.06519E-10	Y	8.1E-10	Y
		EARN	66%	0.023989799	54%	0.027316687	12%	0.036355355	0.000880456	Y	0.00176	Y
		EARNTIPS	62%	0.024438682	44%	0.027132467	1 8 %	0.036516023	5.50476E-07	Y	1.1E-06	Y
Wages		TIPSTEST	22%	0.087939112	6%	0.058823529	16%	0.105799315	0.133935922	Ν	0.267872	Ν

	WAG	33%	0.026168298	24%	0.026538458	9%	0.037270224	0.017106397	Y	0.03421	Y
	WAGETEST	48%	0.027624865	30%	0.027922623	18%	0.03927857	3.93569E-06	Y	7.9E-06	Y
	WAGX	67%	0.023764081	54%	0.027043335	13%	0.036001021	0.000278218	Y	0.00056	Y
Total (including buffer											
questions)	Overall	54%	0.003544157	38%	0.003076917	16%	0.004693449	9.6296E-263	Y	2E-262	Y

Content Test Topic Area	Mode	Question	English	SE	Spanish	SE	Eng- Span	SE Diff	Adjusted P value	Sig? p < .10
		Overall	74%	0.02429185	76%	0.02144012	-2%	0.032400195	1.04804	Ν
	CAPI		67%	0.031082903	69%	0.03199366	-2%	0.044606512	1.385057	Ν
Access	CATI		91%	0.029611148	84%	0.02667166	6%	0.039852195	0.226335	Ν
		ACCESST	65%	0.053122753	63%	0.05457699	1%	0.076162163	1.720061	Ν
		INTERNETT	72%	0.040849837	78%	0.03336064	-7%	0.052741269	0.38328	Ν
		SUBSCRIBE	83%	0.034317672	80%	0.03123475	3%	0.046403797	1.096249	Ν
		Overall	63%	0.015233833	66%	0.0148544	-3%	0.021277283	0.217566	Ν
	CAPI		54%	0.01936607	54%	0.02304047	0%	0.030098306	1.892322	Ν
	CATI		80%	0.021737961	77%	0.01807575	3%	0.028271393	0.654231	Ν
		BROADC	66%	0.055924423	68%	0.05126264	-2%	0.075864349	1.5631	Ν
		BROADT	52%	0.058875785	75%	0.05717497	-23%	0.08206909	0.012131	Y
		DIALUPC	71%	0.051437937	57%	0.05216405	14%	0.073259469	0.12132	Ν
		DIALUPT	65%	0.054215942	59%	0.05954803	6%	0.080531585	0.917848	Ν
		DSLC	60%	0.05694948	55%	0.05597242	5%	0.079850827	1.06241	Ν
		DSLT	61%	0.058599448	68%	0.06211546	-7%	0.085394528	0.825751	Ν
Internet		FIBEROPC	60%	0.059776089	52%	0.05657302	8%	0.082302412	0.615395	Ν
momet		FIBEROPT	57%	0.060420594	74%	0.05602506	-17%	0.08239815	0.081945	Y
		MODEMC	63%	0.058905781	67%	0.05221639	-4%	0.078717487	1.251736	Ν
		MODEMT	61%	0.059983504	78%	0.052799	-17%	0.079910917	0.075921	Y
		OTHSVCEC	68%	0.055934166	72%	0.05041362	-4%	0.075300493	1.190681	Ν
		OTHSVCET	65%	0.058382898	77%	0.05606982	-12%	0.080946817	0.245841	Ν
		OTHSVTYPC			50%	0.28867513			0	Y
		OTHSVTYPT	75%	0.163663418	100%	0	-25%	0.163663418	0.253261	Ν
		SATELLITEC	67%	0.055945424	65%	0.05218696	1%	0.076507316	1.752692	Ν
		SATELLITET	61%	0.059183818	72%	0.05866532	-11%	0.08333273	0.390184	Ν

Table 22: Respondent First Level Standard Behavior by Language

Content Test Topic Area	Mode	Question	English	SE	Spanish	SE	Eng- Span	SE Diff	Adjusted P value	Sig? p < .10
		Overall	72%	0.01688045	82%	0.01267804	-10%	0.021111186	1.68E-06	Y
	CAPI		63%	0.021430987	70%	0.02070841	-7%	0.029801434	0.043132	Y
	CATI		91%	0.019842713	95%	0.01051846	-4%	0.022458212	0.151236	Ν
		COMPUTERC	67%	0.045255806	79%	0.03298715	-12%	0.056002145	0.072191	Y
		COMPUTERT	69%	0.042610813	80%	0.03433123	-11%	0.054720331	0.079954	Y
Computer		COMPUTYPC	33%	0.333333333	25%	0.25	8%	0.416666667	1.682961	Ν
		COMPUTYPT	71%	0.184427778	50%	0.28867513	21%	0.342559395	1.063229	Ν
		HANDHELDC	71%	0.042663394	82%	0.03055034	-11%	0.052473696	0.078332	Y
		HANDHELDT	64%	0.043692363	84%	0.03077859	-19%	0.053444776	0.000704	Y
		LAPTOPC	80%	0.036938517	85%	0.0283116	-5%	0.046540314	0.598588	Ν
		LAPTOPT	78%	0.037212899	85%	0.02915071	-6%	0.047271176	0.366583	Ν
		Overall	74%	0.028460775	82 %	0.02159213	-8%	0.035724442	0.052982	Y
FoodSt	CAPI		65%	0.036446693	75%	0.0328889	-10%	0.049092169	0.094467	Y
100031	CATI		96%	0.025088286	90%	0.02505179	6%	0.0354544	0.204628	Ν
		FSX	72%	0.041494592	82%	0.02979548	-10%	0.051083968	0.10047	Ν
		FSXT	75%	0.039147319	81%	0.03142622	-6%	0.050200799	0.482882	Ν
		Overall	68%	0.019929049	81%	0.01126662	-13%	0.022893313	2.46E-08	Y
	CAPI		57%	0.026299036	72%	0.0183456	-15%	0.032065561	7.64E-06	Y
PobDad	CATI		89%	0.022694674	91%	0.0118652	-2%	0.025609203	0.980614	Ν
		PPOBPAC	65%	0.029274833	81%	0.01577178	-17%	0.033253044	1.36E-06	Y
		PPOBPAT	72%	0.026994645	82 %	0.01611047	-10%	0.031436572	0.003984	Y
		Overall	67%	0.021081426	78%	0.01275161	-11%	0.024637981	7.95E-06	Y
PobMom	CAPI		53%	0.027901844	64%	0.02107332	-11%	0.034965665	0.002397	Y
	CATI		92%	0.020233886	92%	0.01178701	0%	0.02341674	1.939108	Ν
		PPOBMAC	63%	0.031244479	78%	0.01784317	-15%	0.035980496	8.39E-05	Y
		PPOBMAT	71%	0.02834802	79%	0.01823362	-8%	0.033705714	0.026615	Y
PropInc		Overall	78%	0.009209404	69%	0.01165131	9%	0.014851466	1.18E-08	Y
	CAPI		42%	0.024382322	55%	0.01794674	-13%	0.030275123	5.78E-05	Y
	CATI		87%	0.008321622	83%	0.01322083	4%	0.015621775	0.024792	Y

Content Test Topic Area	Mode	Question	English	SE	Spanish	SE	Eng- Span	SE Diff	Adjusted P value	Sig? p < .10
		INTR	50%	0.062017367	100%		-50%		0	Y
		INTRT	52%	0.06863316	20%	0.2	32%	0.2114486	0.263948	Ν
		INTRX	80%	0.017992111	77%	0.02034135	3%	0.027156703	0.573929	Ν
PropInc		INTRXT	78%	0.019202923	68 %	0.02357572	10%	0.030406691	0.001879	Y
		RENT	64%	0.132894358	71%	0.18442778	-7%	0.227320294	1.506708	Ν
		RENTX	78%	0.019144822	65%	0.02474931	14%	0.031289813	3.1E-05	Y
		ROYALTY	100%	0					0	Y
		ROYALX	83%	0.017447985	68 %	0.02482243	16%	0.030341148	2.81E-07	Y
		Overall	31%	0.119678388	60%	0.13093073	-29%	0.177385946	0.210138	Ν
PubAmt	CAPI		30%	0.152752523	54%	0.1439099	-24%	0.209865177	0.511695	Ν
FUDAIII	CATI		33%	0.210818511	100%	0	-67%	0.210818511	0.003131	Y
		CA	33%	0.166666667	50%	0.18898224	-17%	0.251976315	1.016663	Ν
		PA	29%	0.184427778	71%	0.18442778	-43%	0.260820265	0.200696	Ν
		Overall	84%	0.011975441	74%	0.01594875	10%	0.019944272	4.23E-07	Y
	CAPI		52%	0.03606065	60%	0.02558385	-8%	0.044214297	0.114641	Ν
PubAsst	CATI		93%	0.009417369	87%	0.01699102	6%	0.01942631	0.004333	Y
		CAX	87%	0.015656555	77%	0.02180759	10%	0.026845835	0.000591	Y
		ΡΑΧ	82%	0.018089348	71%	0.02312952	11%	0.029363229	0.000461	Y
		Overall	65%	0.076376262	67%	0.21081851	-2%	0.224227067	1.881497	Ν
MilPeriod	CAPI		48%	0.106499554	100%	0	-52%	0.106499554	1.93E-06	Y
	CATI		88%	0.080547435	50%	0.28867513	38%	0.29970189	0.404068	Ν
		MILP	71%	0.101015254	100%	0	-29%	0.101015254	0.009355	Y
		VETP	58%	0.1163728	33%	0.33333333	25%	0.353063365	0.973277	Ν
		Overall	72%	0.01509656	70%	0.01175554	2%	0.019133707	0.57081	Ν
	CAPI		55%	0.022843238	56%	0.01785323	-1%	0.028992262	1.680698	Ν
VetStat	CATI		91%	0.01430822	84%	0.01335995	7%	0.019575835	0.001359	Y
Verolai		ACTIVEC	71%	0.101015254	100%	0	-29%	0.101015254	0.009355	Y
		ACTIVET	44%	0.128086885	100%	0	-56%	0.128086885	2.25E-05	Y
		MILC	69%	0.034473213	67%	0.02535758	1%	0.042794968	1.510373	Ν

Content Test Topic Area	Mode	Question	English	SE	Spanish	SE	Eng- Span	SE Diff	Adjusted P value	Sig? p < .10
		RESERVES	70%	0.03398596	60%	0.02750818	10%	0.043723509	0.047616	Y
VetStat		TRAINING	68%	0.109561368	0%	0	68 %	0.109561368	8.48E-10	Y
		VET1C	76%	0.028155055	76%	0.0201176	0%	0.034603827	1.911897	Ν
		VET1T	74%	0.028657491	72%	0.02221337	2%	0.036258593	1.326747	Ν
		Overall	70%	0.010833966	61%	0.01281531	10%	0.016781147	1.65E-08	Y
	CAPI		41%	0.025507147	52%	0.01890418	-11%	0.03174874	0.00117	Y
	CATI		78%	0.011071357	68%	0.01696112	10%	0.020254741	2.82E-06	Y
		EARN	79 %	0.021134819	60%	0.02820565	19%	0.035245416	2.57E-07	Y
Wages		EARNTIPS	80%	0.020604722	76%	0.02401665	4%	0.031644182	0.508101	Ν
		TIPSTEST	61%	0.118235637	47%	0.13333333	14%	0.178206183	0.835252	Ν
		WAG	54%	0.028201411	48%	0.03129592	6%	0.042127833	0.326208	Ν
		WAGETEST	49%	0.028162779	40%	0.03039102	9 %	0.041433754	0.055499	Y
		WAGX	83%	0.019102786	73%	0.0253606	10%	0.031750223	0.002578	Y
Total		Overall	74%	0.003205279	72%	0.0029933	2%	0.004385622	7.69E-05	Y

Appendix C: Internet Access, Subscriptions and Computers

SUBSCRIBE

Table A-SUBSCRIBE: Interviewer First Level Frequency of Question as Administered

Change Made to Question (mutually exclusive categories)	Frequency	Percent of Open Text Notes (n=33)*	Percent of All Administrations (n=287)
EXACT READING: At this [house/apartment/mobile home] do you or any member of this household subscribe to the Internet?	234	N/A	82%
Do you [word other than subscribe] to the Internet?	11	33%	4%
Do you subscribe to the Internet?	8	24%	3%
At this [house/apartment/mobile home] do you subscribe to the Internet?	7	21%	2%
Do you or any member of this household subscribe to the Internet?	4	12%	1%
At this [house/apartment/mobile home] do you [word other than subscribe] to the Internet?	3	9%	1%
Skipped/Inaudible/Other	20	N/A	7%
TOTAL	287	100%	100%

*This is the sum of cases for which substantive notes were made. It excludes exact readings, skipped and inaudible cases, as well as other cases where the notes were not detailed enough to be useful or informative.

Table B-SUBSCRIBE: Interviewer First Level Frequency of Dropped Terms

Change made to Question (overlapping categories)	Frequency	Percent of Open Text Notes (n=33)	Percent of All Administrations (n=287)
Omitted "you or any member of this household"	29	88%	10%
Omitted "At this [house/apartment/mobile home]"	23	70%	8%
Omitted or replaced "subscribe" with words like "get" and "have"	14	42%	5%

Change Made to Question	Frequency	English Frequency	Percent English (n=12)	Spanish Frequency	Percent Spanish (n=21)
Do you [word other than subscribe] to the Internet?	11	3	25%	8	38%
Do you subscribe to the Internet?	8	4	33%	4	19%
At this [house/apartment/mobile home] do you subscribe to the Internet?	7	1	8%	6	29%
Do you or any member of this household subscribe to the Internet?	4	4	33%	0	0%
At this [house/apartment/mobile home] do you [word other than subscribe] to the Internet?	3	0	0%	3	14%
TOTAL	33	12	100%	21	100%

Table C-SUBSCRIBE: Interviewer First Level Notable Differences by Language

Table D- SUBSCRIBE: Interviewer First Level Notable Differences by Mode

Change Made to Question	Frequency	CAPI Frequency	Percent CAPI (n=31)	CATI Frequency	Percent CATI (n=2)
Do you [word other than subscribe] to the Internet?	11	11	35%	0	0%
Do you subscribe to the Internet?	8	7	23%	1	50%
At this [house/apartment/mobile home] do you subscribe to the Internet?	7	6	19%	1	50%
Do you or any member of this household subscribe to the Internet?	4	4	13%	0	0%
At this [house/apartment/mobile home] do you [word other than subscribe] to the Internet?	3	3	10%	0	0%
TOTAL	33	31	100%	2	100%

Table E- SUBSCRIBE: Respondent First Level Behavior Details from Open

Respondent Behavior	Ov	erall	English		Spanish		CAPI		CATI	
Respondent Benavior	n	%	n	n	%	%	n	%	n	%
R gave more info than needed when answering the Q (ex. Name of the service provider)	11	41%	3	100%	8	33%	7	70%	4	24%
R did not understand Q and asked for clarification	7	26%	0	0%	7	29%	1	10%	6	35%
R mentions a specific household member when answering	7	26%	0	0%	7	29%	1	10%	6	35%
R mentions 'computer'	2	7%	0	0%	2	8%	1	10%	1	6%
TOTAL	27	100%	3	100%	24	100 %	10	100 %	17	100%

INTERNETT

Table A-INTERNETT: Interviewer First Level Frequency of Question as Administered

Change Made to Question (mutually exclusive categories)	Frequency	Percent of Open Text Notes (n=41)*	Percent of All Administrations (n=277)
EXACT READING: At this [house/apartment/mobile home], do you or any member of this household access the internet?	219	N/A	79%
Do you access the Internet?	15	37%	5%
At this [house/apartment/mobile home] do you access the Internet?	10	24%	4%
Do you [word other than access] the Internet?	10	24%	4%
Do you or any member of this household access the Internet?	5	12%	2%
At this [house/apartment/mobile home] do you [word other than access] the Internet?	1	2%	0%
Skipped/Inaudible/Other**	17	N/A	6%
TOTAL	277	100%	100%

*This is the sum of cases for which substantive notes were made. It excludes exact readings, skipped and inaudible cases, as well as other cases where the notes were not detailed enough to be useful or informative.

Table B- INTERNETT: Interviewer First Level Frequency of Dropped Terms

Change made to Question (overlapping categories)	Frequency	Percent of Open Text Notes (n=41)	Percent of All Administrations (n=277)
Omitted "you or any member of this household"	36	88%	13%
Omitted "At this [house/apartment/mobile home]"	30	73%	11%
Omitted or replaced "access"	11	27%	4%

Table C- INTERNETT: Interviewer First Level Notable Differences by Language

Change Made to Question	Frequency	English Frequency	Percent English (n=14)	Spanish Frequenc y	Percent Spanish (n=27)
Do you access the Internet?	15	9	64%	6	22%
At this [house/apartment/mobile home] do you access the Internet?	10	4	29%	6	22%
Do you [word other than access] the Internet?	10	0	0%	10	37%
Do you or any member of this household access the Internet?	5	1	7%	4	15%
At this [house/apartment/mobile home] do you [word other than access] the Internet?	1	0	0%	1	4%
TOTAL	41	14	100%	27	100%

Change Made to Question	Frequency	CAPI Frequency	Percent CAPI (n=34)	CATI Frequency	Percent CATI (n=7)
Do you access the Internet?	15	14	41%	1	14%
At this [house/apartment/mobile home] do you access the Internet?	10	7	21%	3	43%
Do you [word other than access] the Internet?	10	10	29%	0	0%
Do you or any member of this household access the Internet?	5	2	6%	3	43%
At this [house/apartment/mobile home] do you [word other than access] the Internet?	1	1	3%	0	0%
TOTAL	41	34	100%	7	100%

Table E- INTERNETT: Respondent First Level Behavior Details from Open-Text Notes

Despendent Debeyion	Ov	erall	English		Spanish		CAPI		CATI	
Respondent Behavior	n	%	n	n	%	%	n	%	n	%
R gave more info than needed when answering the Q (ex. Name of the service provider)	11	44%	3	30%	8	53%	7	58%	4	31%
R did not understand Q and asked for clarification	6	24%	4	40%	2	13%	3	25%	3	23%
R mentions a specific household member when answering	8	32%	3	30%	5	33%	2	17%	6	46%
TOTAL	25	100%	10	100%	15	100%	12	100%	13	100%

ACCESST

Table A-ACCESST: Interviewer First Level Frequency of Question as Administered

Change Made to Question (mutually exclusive categories)	Frequency	Percent of Open Text Notes (n=22)*	Percent of All Administrations (n=166)
EXACT READING: Do you or any member of this household access the Internet with or without a subscription to an Internet service?	111	N/A	67%
Do you access the internet with or without a subscription to an Internet service?	10	45%	6%
Do you have a subscription to an Internet service?	5	23%	3%
With or without a subscription?	3	14%	2%
Do you have a subscription?	2	9%	1%
Do you or any member of this household have Internet service?	1	5%	1%
Do you or any member of this household access the Internet?	1	5%	1%
Skipped/Inaudible/Other**	33	N/A	20%
Total	166	100%	100%

*This is the sum of cases for which substantive notes were made. It excludes exact readings, skipped and inaudible cases, as well as other cases where the notes were not detailed enough to be useful or informative.

Table B-ACCESST: Interviewer First Level Frequency of Dropped Terms

Change made to Question (overlapping categories)	Frequency	Percent of Open Text Notes (n=22)	Percent of All Administrations (n=166)
Omitted "Do you or any member of this household"	20	91%	12%
Omitted "access the Internet"	11	50%	7%
Omitted "to an Internet service"	6	28%	4%
Omitted "with or without a subscription"	4	18%	2%

Table C-ACCESST: Interviewer First Level Notable Differences by Language

Change Made to Question	Frequency	English Frequency	Percent English (n=17)	Spanish Frequency	Percent Spanish (n=5)
Do you access the internet with or without a subscription to an Internet service?	10	6	35%	4	80%
Do you have a subscription to an Internet service?	5	5	29%	0	0%
With or without a subscription?	3	3	18%	0	0%
Other Miscellaneous Change	4	3	18%	1	20%
TOTAL	22	17	100%	5	100%

Table D-ACCESST: Interviewer First Level Notable Differences by Mode

Change Made to Question	Frequency	CAPI Frequency	Percent CAPI (n=18)	CATI Frequency	Percent CATI (n=4)
Do you access the internet with or without a subscription to an Internet service?	10	9	50%	1	25%
Do you have a subscription to an Internet service?	5	4	22%	1	25%
With or without a subscription?	3	3	17%	0	0%
Other Miscellaneous Change	4	2	11%	2	50%
TOTAL	22	18	100%	4	100%

Table E-ACCESST: Respondent First-Level Behavior Detail from Open-Text Notes

Respondent Behavior	Ov	erall	En	glish	Spa	nish	C	API	(CATI
	n	%	n	%	n	%	n	%	n	%
R answered 'Yes/No' instead of 'With/Without'	23	56%	12	57%	8	71%	11	46%	15	56%
R gave more info than needed when answering the Q (ex. Name of the service provider)	6	15%	2	7%	1	12%	4	17%	5	19%
R did not understand Q and asked for clarification	4	10%	1	14%	2	6%	3	13%	2	7%
R is focused on the concept of 'access the internet'	4	10%	1	14%	2	6%	3	13%	2	7%
R is focused on the concept of 'pay/paid' instead of 'subscribe'	4	10%	1	7%	1	6%	3	13%	3	11%
TOTAL	41	100%	17	100%	14	100%	24	100%	27	100%

BROADC and BROADT

(combined)

Table A-BROADC and BROADT: Interviewer First Level Frequency of Question as Administered

Change Made to Question (mutually exclusive categories)	Frequency	Percent of Open Text Notes (n=55)*	Percent of All Administrations (n=296)
EXACT READING: At this [house/apartment/mobile home] do you or any member of this household subscribe to the Internet using a mobile broadband plan for a computer or a cell phone?	185	N/A	63%
At this [house/apartment/mobile home] do you or any member of this household subscribe to the Internet using a mobile broadband plan?	8	15%	3%
Do you have mobile broadband?	6	11%	2%
At this [house/apartment/mobile home] do you {OTHER CHANGE TO WORDING}?	6	11%	2%
Do you use {OTHER CHANGE TO WORDING}?	6	11%	2%
At this [house/apartment/mobile home] do you or any member of this household {OTHER CHANGE TO WORDING}?	5	9%	2%
Do you {connect/access/use/get on} the Internet {OTHER CHANGE TO WORDING}?	5	9%	2%
Do you or any member of this household {OTHER CHANGE TO WORDING}?	4	7%	1%
Do you subscribe to the Internet using a mobile broadband plan for a computer or a cell phone?	3	5%	1%
Do you subscribe to the Internet using a broadband plan for a computer or a cell phone?	3	5%	1%
Do you subscribe {OTHER CHANGE TO WORDING}?	3	5%	1%
At this [house/apartment/mobile home] do you or any member of this household subscribe to the Internet using a broadband plan?	2	4%	1%
At this [house/apartment/mobile home] do you or any member of this household subscribe to the Internet using mobile broadband for a computer or a cell phone?	2	4%	1%
At this [house/apartment/mobile home] do you or any member of this household subscribe to the Internet using a mobile broadband plan for a computer?	2	4%	1%
Skipped/Inaudible/Other**	56	N/A	19%
TOTAL	296	100%	100%

*This is the sum of cases for which substantive notes were made. It excludes exact readings, skipped and inaudible cases, as well as other cases where the notes were not detailed enough to be useful or informative.

Table B- BROADC and BROADT: Interviewer First Level Frequency of Dropped Terms

Change made to Question (overlapping categories)	Frequency	Percent of Open Text Notes (n=55)	Percent of All Administrations (n=296)
Omitted "do you or any member of this household"	32	58%	11%
Omitted "cell phone"	31	56%	10%
Omitted "At this [house/apartment/mobile home]"	30	55%	10%
Omitted "computer"	29	53%	10%
Omitted "subscribe"	23	42%	8%
Omitted "plan"	21	38%	7%
Omitted "the Internet"	18	33%	6%
Omitted "mobile"	18	33%	6%
Omitted "broadband"	8	15%	3%

Table C- BROADC and BROADT: Interviewer First Level Notable Differences by Language

Change Made to Question	Frequency	English Frequency	Percent English (n=22)	Spanish Frequency	Percent Spanish (n=33)
At this [house/apartment/mobile home] do you	8	0	0%	8	240/
or any member of this household subscribe to the Internet using a mobile broadband plan?	0	0	0%	0	24%
Do you have mobile broadband?	6	6	27%	0	0%
At this [house/apartment/mobile home] do you {OTHER CHANGE TO WORDING}?	6	1	5%	5	15%
Do you use {OTHER CHANGE TO WORDING}?	6	3	14%	3	9%
At this [house/apartment/mobile home] do you or any member of this household {OTHER CHANGE TO WORDING}?	5	2	9%	3	0%
Do you {connect/access/use/get on} the Internet {OTHER CHANGE TO WORDING}?	5	1	5%	4	12%
Do you or any member of this household {OTHER CHANGE TO WORDING}?	4	1	5%	3	9%
Other Miscellaneous Changes	15	8	36%	7	21%
TOTAL	55	22	100%	33	100%

Change Made to Question	Frequency	CAPI Frequency	Percent CAPI (n=26)	CATI Frequency	Percent CATI (n=29)
At this [house/apartment/mobile home] do you or any member of this household subscribe to the Internet using a mobile broadband plan?	8	3	12%	5	17%
Do you have mobile broadband?	6	3	12%	3	10%
At this [house/apartment/mobile home] do you {OTHER CHANGE TO WORDING}?	6	4	15%	2	7%
Do you use {OTHER CHANGE TO WORDING}?	6	4	15%	2	7%
At this [house/apartment/mobile home] do you or any member of this household {OTHER CHANGE TO WORDING}?	5	1	4%	4	14%
Do you {connect/access/use/get on} the Internet {OTHER CHANGE TO WORDING}?	5	2	8%	3	10%
Do you or any member of this household {OTHER CHANGE TO WORDING}?	4	2	8%	2	7%
Other Miscellaneous Changes	15	7	27%	8	28%
TOTAL	55	26	100%	29	100%

Table D- BROADC and BROADT: Interviewer First Level Notable Differences by Mode

Table E- BROADC and BROADT: Respondent First Level Behavior Detail from Open Text Notes

Domondont Doborion	Ov	erall	En	glish	Spa	nish	CAPI		CATI	
Respondent Behavior	n	%	n	n	%	%	n	%	n	%
R gave more info than needed when answering the Q (ex. Name of the service provider)	11	48%	6	50%	5	45%	7	58%	4	36%
R did not understand Q and asked for clarification	7	30%	5	42%	2	18%	3	25%	4	36%
R did not understand the term 'broadband'	3	13%	1	8%	2	18%	1	8%	2	18%
R is focused on the concept of 'access the internet'	2	9%	0	0%	2	18%	1	8%	1	9%
TOTAL	23	100%	12	100%	11	100%	12	100%	11	100%

DIALUPC and DIALUPT (combined)

Table A-DIALUPC and DIALUPT: Interviewer First Level Frequency of Question as Administered

Change Made to Question (mutually exclusive categories)	Frequency	Percent of Open Text Notes (n=64)*	Percent of All Administrations (n=321)
EXACT READING: At this [house/apartment/mobile home] do you or any member of this household subscribe to the Internet using a dial-up service?	203	N/A	63%
At this [house/apartment/mobile home] do you or any member of this household subscribe to the Internet using a dial-up service? {ADDED INFO ABOUT TELEPHONE}	25	39%	8%
Do you subscribe to the Internet using a dial-up service?	9	14%	3%
Do you use/have dial-up service?	7	11%	2%
Other Change to Wording	5	8%	2%
Do you use dial-up service for the Internet?	4	6%	1%
Do you subscribe to the Internet using dial-up?	4	6%	1%
At this [house/apartment/mobile home] do you subscribe to the Internet using a dial-up service?	3	5%	1%
Do you or any member of this household subscribe to the Internet using a dial-up service?	3	5%	1%
Do you use/have dial up?	2	3%	1%
At this [house/apartment/mobile home] do you subscribe to the Internet using dial-up?	2	3%	1%
Skipped/Inaudible/Other**	54	N/A	17%
TOTAL	321	100%	100%

*This is the sum of cases for which substantive notes were made. It excludes exact readings, skipped and inaudible cases, as well as other cases where the notes were not detailed enough to be useful or informative.

Table B-DIALUPC and DIALUPT: Interviewer first Level Frequency of Dropped Terms

Change made to Question (overlapping categories)	Frequency	Percent of Open Text Notes (n=64)	Percent of All Administrations (n=321)
Omitted "do you or any member of this household"	34	53%	11%
Omitted "at this [house/apartment/mobile home]"	30	47%	9%
Omitted "subscribe"	17	27%	5%
Omitted "service"	17	27%	5%
Omitted "to the Internet"	12	19%	4%

Change Made to Question	Frequency	English Frequency	Percent English (n=25)	Spanish Frequency	Percent Spanish (n=39)
At this [house/apartment/mobile home] do you or any member of this household subscribe to the Internet using a dial-up service? {ADDED INFO ABOUT TELEPHONE}	25	1	4%	24	62%
Do you subscribe to the Internet using a dial-up service?	9	8	32%	1	3%
Do you use/have dial-up service?	7	7	28%	0	0%
Other Change to Wording	5	1	4%	4	10%
Do you use dial-up service for the Internet?	4	1	4%	3	8%
Do you subscribe to the Internet using dial-up?	4	3	12%	1	3%
At this [house/apartment/mobile home] do you subscribe to the Internet using a dial-up service?	3	1	4%	2	5%
Do you or any member of this household subscribe to the Internet using a dial-up service?	3	2	8%	1	3%
Do you use/have dial up?	2	0	0%	2	5%
At this [house/apartment/mobile home] do you subscribe to the Internet using dial-up?	2	1	4%	1	3%
TOTAL	64	25	100%	39	100%

Table C-DIALUPC and DIALUPT: Interviewer 1st Level Notable Differences by Language

Table D-DIALUPC and DIALUPT: Interviewer First Level Notable Differences by Mode

Change Made to Question	Frequency	CAPI Frequency	Percent CAPI (n=43)	CATI Frequency	Percent CATI (n=21)
At this [house/apartment/mobile home] do you or any member of this household subscribe to the Internet using a dial-up service? {ADDED INFO ABOUT TELEPHONE}	25	12	28%	13	62%
Do you subscribe to the Internet using a dial-up service?	9	7	16%	2	10%
Do you use/have dial-up service?	7	6	14%	1	5%
Other Change to Wording	5	4	9%	1	5%
Do you use dial-up service for the Internet?	4	3	7%	1	5%
Do you subscribe to the Internet using dial-up?	4	3	7%	1	5%
At this [house/apartment/mobile home] do you subscribe to the Internet using a dial-up service?	3	3	7%	0	0%
Do you or any member of this household subscribe to the Internet using a dial-up service?	3	3	7%	0	0%
Do you use/have dial up?	2	1	2%	1	5%
At this [house/apartment/mobile home] do you subscribe to the Internet using dial-up?	2	1	2%	1	5%
TOTAL	64	43	100%	21	100%

Respondent Behavior	Ov	erall	En	English		nish	CAPI		CATI	
	n	%	n	n	%	%	n	%	n	%
R gave more info than needed when answering the Q (ex. Name of the service provider)	25	69%	9	100%	16	59%	14	67%	11	73%
R did not understand Q and asked for clarification	8	22%	0	0%	8	30%	4	19%	4	27%
R mentions 'telephone' or 'television'	3	8%	0	0%	3	11%	3	14%	0	0%
TOTAL	36	100%	9	100%	27	100%	21	100%	15	100%

Table E-DIALUPC and DIALUPT: Respondent First Level Behavior Details from Open Text Notes

DSLC and DSLT (combined)

Table A-DSLC and DSLT: Interviewer First Level Frequency of Question as Administered

Change Made to Question (mutually exclusive categories)	Frequency	Percent of Open Text Notes (n=64)*	Percent of All Administrations (n=303)	
EXACT READING: At this [house/apartment/mobile home]				
do you or any member of this household subscribe to the	164	N/A	54%	
Internet using a DSL service?				
Do you use a DSL service?	15	23%	5%	
At this [house/apartment/mobile home] do you use DSL?	14	22%	5%	
At this [house/apartment/mobile home] do you use a DSL service?	11	17%	4%	
At this [house/apartment/mobile home] do you subscribe to the Internet using a DSL service?	6	9%	2%	
At this [house/apartment/mobile home] do you or any member of this household subscribe to the Internet using a DSL service? {ADDED INFO ABOUT TV/PHONE}	4	6%	1%	
Other Change to wording	4	6%	1%	
Do you subscribe to the Internet using a DSL service?	3	5%	1%	
At this [house/apartment/mobile home] do you or any member of this household subscribe to the Internet using a DSL?	3	5%	1%	
At this [house/apartment/mobile home] do you have/use the Internet using a DSL service?	2	3%	1%	
At this [house/apartment/mobile home] do you subscribe to DSL?	2	3%	1%	
Skipped/Inaudible/Other**	75	N/A	25%	
TOTAL	303	100%	100%	

*This is the sum of cases for which substantive notes were made. It excludes exact readings, skipped and inaudible cases, as well as other cases where the notes were not detailed enough to be useful or informative.

Table B-DSLC and DSLT: Interviewer First Level Frequency of Dropped Terms

Change made to Question (overlapping categories)	Frequency	Percent of Open Text Notes (n=64)	Percent of All Administrations (n=303)
Omitted "do you or any member of this household"	55	86%	18%
Omitted "subscribe"	45	70%	15%
Omitted "to the Internet"	43	67%	14%
Omitted "service"	21	33%	7%
Omitted "At this [house/apartment/mobile home]"	19	30%	6%

Change Made to Question	Frequency	English Frequency	Percent English (n=37)	Spanish Frequency	Percent Spanish (n=27)
Do you use a DSL service?	15	0	0%	15	56%
At this [house/apartment/mobile home] do you use DSL?	14	14	38%	0	0%
At this [house/apartment/mobile home] do you use a DSL service?	11	11	30%	0	0%
At this [house/apartment/mobile home] do you subscribe to the Internet using a DSL service?	6	4	11%	2	7%
At this [house/apartment/mobile home] do you or any member of this household subscribe to the Internet using a DSL service? {ADDED INFO ABOUT TV/PHONE}	4	0	0%	4	15%
Other Change to wording	4	2	5%	2	7%
Do you subscribe to the Internet using a DSL service?	3	0	0%	3	11%
At this [house/apartment/mobile home] do you or any member of this household subscribe to the Internet using a DSL?	3	2	5%	1	4%
At this [house/apartment/mobile home] do you have/use the Internet using a DSL service?	2	2	5%	0	0%
At this [house/apartment/mobile home] do you subscribe to DSL?	2	2	5%	0	0%
TOTAL	64	37	100%	27	100%

Table C-DSLC and DSLT: Interviewer First Level Notable Differences by Language

Change Made to Question	Frequency	CAPI Frequency	Percent CAPI (n=36)	CATI Frequency	Percent CATI (n=28)
Do you use a DSL service?	15	7	19%	8	29%
At this [house/apartment/mobile home] do you use DSL?	14	10	28%	4	14%
At this [house/apartment/mobile home] do you use a DSL service?	11	8	22%	3	11%
At this [house/apartment/mobile home] do you subscribe to the Internet using a DSL service?	6	3	8%	3	11%
At this [house/apartment/mobile home] do you or any member of this household subscribe to the Internet using a DSL service? {ADDED INFO ABOUT TV/PHONE}	4	0	0%	4	14%
Other Change to wording	4	2	6%	2	7%
Do you subscribe to the Internet using a DSL service?	3	0	0%	3	11%
At this [house/apartment/mobile home] do you or any member of this household subscribe to the Internet using a DSL?	3	2	6%	1	4%
At this [house/apartment/mobile home] do you have/use the Internet using a DSL service?	2	2	6%	0	0%
At this [house/apartment/mobile home] do you subscribe to DSL?	2	2	6%	0	0%
TOTAL	64	36	100%	28	100%

Table D-DSLC and DSLT: Interviewer First Level Notable Differences by Mode

Table E-DSLC and DSLT: Respondent First Level Behavior Details from Open-Text Notes

Degnandant Dehavion	obarian Overall		En	English Spanish		САРІ		CATI		
Respondent Behavior	n	%	n	n	%	%	n	%	n	%
R gave more info than needed when answering the Q (ex. Name of the service provider)	15	58%	12	67%	3	38%	8	53%	7	64%
R did not understand Q and asked for clarification	7	27%	2	11%	5	63%	5	33%	2	64%
R mentions 'cable'	4	15%	4	22%	0	0%	2	13%	2	64%
TOTAL	26	100%	18	100%	8	100%	15	100%	11	100%

FIBEROPC and FIBEROPT (combined)

Table A-FIBEROPC and FIBEROPT: Interviewer First Level Frequency of Question as Administered

Change Made to Question (mutually exclusive categories)	Frequency	Percent of Open Text Notes (n=54)*	Percent of All Administrations (n=292)
EXACT READING: At this [house/apartment/mobile home]			
do you or any member of this household subscribe to the	189	N/A	65%
Internet using a fiber-optic service?			
At this [house/apartment/mobile home] do you use fiber-	10	19%	3%
optic?	10	1970	J 70
At this [house/apartment/mobile home] do you subscribe to	9	17%	3%
the Internet using a fiber-optic service?	9	1 / %	5%
Other Change to Wording	9	17%	3%
At this [house/apartment/mobile home] do you use a fiber-	8	15%	3%
optic service?	0	13%	5%
Do you use fiber-optic?	7	13%	2%
Do you use/have the Internet using a fiber-optic service?	4	7%	1%
Do you use a fiber-optic service?	3	6%	1%
Do you use/have the Internet using a fiber-optic?	2	4%	1%
Do you subscribe a fiber-optic service?	2	4%	1%
Skipped/Inaudible/Other**	49	N/A	17%
TOTAL	292	100%	100%

Change made to Question (overlapping categories)	Frequency	Percent of Open Text Notes (n=54)	Percent of All Administrations (n=292)
Omitted "do you or any member of this household"	50	93%	17%
Omitted "subscribe"	38	70%	13%
Omitted "to the Internet"	33	61%	11%
Omitted "At this [house/apartment/mobile home]"	23	43%	8%
Omitted "service"	22	41%	8%

Change Made to Question	Frequency	English Frequency	Percent English (n=31)	Spanish Frequency	Percent Spanish (n=23)
At this [house/apartment/mobile home] do you use fiber-optic?	10	10	32%	0	0%
At this [house/apartment/mobile home] do you subscribe to the Internet using a fiber-optic service?	9	9	29%	0	0%
Other Change to Wording	9	4	13%	5	22%
At this [house/apartment/mobile home] do you use a fiber-optic service?	8	8	26%	0	0%
Do you use fiber-optic?	7	0	0%	7	30%
Do you use/have the Internet using a fiber-optic service?	4	0	0%	4	17%
Do you use a fiber-optic service?	3	0	0%	3	13%
Do you use/have the Internet using a fiber- optic?	2	0	0%	2	9%
Do you subscribe a fiber-optic service?	2	0	0%	2	9%
TOTAL	54	31	100%	23	100%

Table C-FIBEROPC and FIBEROPT: Interviewer First Level Notable Differences by Language

Table D-FIBEROPC and FIBEROPT: Interviewer First Level Notable Differences by Mode

Change Made to Question	Frequency	CAPI Frequency	Percent CAPI (n=31)	CATI Frequency	Percent CATI (n=23)
At this [house/apartment/mobile home] do you use fiber-optic?	10	7	23%	3	13%
At this [house/apartment/mobile home] do you subscribe to the Internet using a fiber-optic service?	9	7	23%	2	9%
Other Change to Wording	9	5	16%	4	17%
At this [house/apartment/mobile home] do you use a fiber-optic service?	8	4	13%	4	17%
Do you use fiber-optic?	7	4	13%	3	13%
Do you use/have the Internet using a fiber-optic service?	4	0	0%	4	17%
Do you use a fiber-optic service?	3	2	6%	1	4%
Do you use/have the Internet using a fiber- optic?	2	1	3%	1	4%
Do you subscribe a fiber-optic service?	2	1	3%	1	4%
TOTAL	54	31	100%	23	100%

Degnandant Dehavion	Ov	Overall		English Spanish		CAPI		CATI		
Respondent Behavior	n	%	n	n	%	%	n	%	n	%
R did not understand Q and asked for clarification	9	53%	2	25%	7	78%	2	100%	7	47%
R gave more info than needed when answering the Q (ex. Name of the service provider)	6	35%	4	50%	2	22%	0	0%	6	40%
R mentions 'telephone'	2	12%	2	25%	0	0%	0	0%	2	13%
TOTAL	17	100%	8	100%	9	100%	2	100%	15	100%

 Table E-FIBEROPC and FIBEROPT: Respondent First Level Behavior Details from Open-Text Notes

MODEMC and MODEMT (combined)

Table A-MODEMC and MODEMT: Interviewer First Level Frequency of Question as Administered

Change Made to Question (mutually exclusive categories)	Frequency	Percent of Open Text Notes (n=60)*	Percent of All Administrations (n=295)
EXACT READING: At this [house/apartment/mobile home] do you or any member of this household subscribe to the Internet using a cable modem service?	163	N/A	55%
At this [house/apartment/mobile home] do you use a cable modem?	10	17%	3%
At this [house/apartment/mobile home] do you use a cable modem service?	9	15%	3%
At this [house/apartment/mobile home] do you or any member of this household subscribe to the Internet using a cable modem service? {ADDED INFO ABOUT PHONE OR TV}	8	13%	3%
At this [house/apartment/mobile home] do you use {OTHER CHANGE TO WORDING}	5	8%	2%
Do you subscribe to the Internet using a cable modem?	4	7%	1%
At this [house/apartment/mobile home] do you subscribe to the Internet using a cable modem service?	4	7%	1%
At this [house/apartment/mobile home] {OTHER CHANGE TO WORDING}	4	7%	1%
Do you use a cable modem?	3	5%	1%
At this [house/apartment/mobile home] do you subscribe to the Internet using a cable modem?	3	5%	1%
Do you use a cable?	2	3%	1%
Do you have/use the Internet using a cable modem service?	2	3%	1%
Do you have/use the Internet using a cable modem?	2	3%	1%
Do you subscribe to a cable modem?	2	3%	1%
At this [house/apartment/mobile home] do you or any member of this household subscribe to the Internet using {OTHER CHANGE TO WORDING}	2	3%	1%
Skipped/Inaudible/Other**	75	N/A	25%
TOTAL	295	100%	100%

Table B-MODEMC and MODEMT: Interviewer First Level Frequency of Dropped Terms

Change made to Question (overlapping categories)	Frequency	Percent of Open Text Notes (n=60)	Percent of All Administrations (n=295)
Omitted "do you or any member of this household"	45	75%	15%
Omitted "subscribe"	33	55%	11%
Omitted "to the Internet"	30	50%	10%
Omitted "service"	29	48%	10%
Omitted "At this [house/apartment/mobile home]"	20	33%	7%
Omitted "modem"	6	10%	2%

Table C-MODEMC and MODEMT: Interviewer First Level Notable Differences by Language

Change Made to Question	Frequency	English Frequency	Percent English (n=31)	Spanish Frequency	Percent Spanish (n=29)
At this [house/apartment/mobile home] do you use a cable modem?	10	10	32%	0	0%
At this [house/apartment/mobile home] do you use a cable modem service?	9	9	29%	0	0%
At this [house/apartment/mobile home] do you or any member of this household subscribe to the Internet using a cable modem service? {ADDED INFO ABOUT PHONE OR TV}	8	0	0%	8	28%
At this [house/apartment/mobile home] do you use {OTHER CHANGE TO WORDING}	5	0	0%	5	17%
Do you subscribe to the Internet using a cable modem?	4	0	0%	4	14%
At this [house/apartment/mobile home] do you subscribe to the Internet using a cable modem service?	4	4	13%	0	0%
At this [house/apartment/mobile home] {OTHER CHANGE TO WORDING}	4	4	13%	0	0%
Do you use a cable modem?	3	0	0%	3	10%
At this [house/apartment/mobile home] do you subscribe to the Internet using a cable modem?	3	3	10%	0	0%
Other Miscellaneous Changes	10	1	3%	9	31%
TOTAL	60	31	100%	29	100%

Change Made to Question	Frequency	CAPI Frequency	Percent CAPI (n=36)	CATI Frequency	Percent CATI (n=24)
At this [house/apartment/mobile home] do you use a cable modem?	10	8	22%	2	8%
At this [house/apartment/mobile home] do you use a cable modem service?	9	6	17%	3	13%
At this [house/apartment/mobile home] do you or any member of this household subscribe to the Internet using a cable modem service? {ADDED INFO ABOUT PHONE OR TV}	8	0	0%	8	33%
At this [house/apartment/mobile home] do you use {OTHER CHANGE TO WORDING}	5	4	11%	1	4%
Do you subscribe to the Internet using a cable modem?	4	2	6%	2	8%
At this [house/apartment/mobile home] do you subscribe to the Internet using a cable modem service?	4	2	6%	2	8%
At this [house/apartment/mobile home] {OTHER CHANGE TO WORDING}	4	1	3%	3	13%
Do you use a cable modem?	3	3	8%	0	0%
At this [house/apartment/mobile home] do you subscribe to the Internet using a cable modem?	3	3	8%	0	0%
Other Miscellaneous Changes	10	7	19%	3	13%
TOTAL	60	36	100%	24	100%

Table D-MODEMC and MODEMT: Interviewer First Level Notable Differences by Mode

Table E-MODEMC and MODEMT: Respondent First Level Behavior Details from Open-Text Notes

Despendent Dehevior	Ov	erall	all Englis		glish Spanish		CAPI		CATI	
Respondent Behavior	n	%	n	n	%	%	n	%	n	%
R gave more info than needed when answering the Q (ex. Name of the service provider)	19	73%	9	69%	10	77%	4	80%	15	71%
R did not understand Q and asked for clarification	5	19%	2	15%	3	23%	1	20%	4	19%
R mentions 'cable tv'	2	8%	2	15%	0	0%	0	0%	2	10%
TOTAL	26	100%	13	100%	13	100%	5	100%	21	100%

SATELLITEC and SATELLITET (combined)

Table A-SATELLITEC and SATELLITET: Interviewer First Level Frequency of Question as Administered

Change Made to Question (mutually exclusive categories)	Frequency	Percent of Open Text Notes (n=44)*	Percent of All Administration s (n=297)
EXACT READING: At this [house/apartment/mobile home] do you or any member of this household subscribe to the Internet using a satellite service?	209	N/A	70%
At this [house/apartment/mobile home] do you use a satellite service?	11	25%	4%
Do you use/have the Internet using a satellite service?	8	18%	3%
At this [house/apartment/mobile home] do you subscribe to the Internet using a satellite service?	8	18%	3%
At this [house/apartment/mobile home] do you or any member of this household subscribe to the Internet using a satellite service? {ADDED INFO ABOUT GPS OR SATELLITE DISH}	5	11%	2%
Do you subscribe to the Internet using a satellite service?	4	9%	1%
At this [house/apartment/mobile home] do you use/have the Internet using a satellite service?	4	9%	1%
Do you use a satellite service?	2	5%	1%
At this [house/apartment/mobile home] do you subscribe to a satellite service?	2	5%	1%
Skipped/Inaudible/Other**	44	N/A	15%
TOTAL	297	100%	100%

*This is the sum of cases for which substantive notes were made. It excludes exact readings, skipped and inaudible cases, as well as other cases where the notes were not detailed enough to be useful or informative.

Table B-SATELLITEC and SATELLITET: Interviewer First Level Frequency of Dropped Terms

Change made to Question (overlapping categories)	Frequency	Percent of Open Text Notes (n=44)	Percent of All Administrations (n=297)
Omitted "do you or any member of this household"	39	89%	13%
Omitted "subscribe"	25	57%	8%
Omitted "to the Internet"	15	34%	5%
Omitted "At this [house/apartment/mobile home]"	14	32%	5%

Change Made to Question	Frequency	English Frequency	Percent English (n=26)	Spanish Frequency	Percent Spanish (n=18)
At this [house/apartment/mobile home] do you use a satellite service?	11	11	42%	0	0%
Do you use/have the Internet using a satellite service?	8	0	0%	8	44%
At this [house/apartment/mobile home] do you subscribe to the Internet using a satellite service?	8	8	31%	0	0%
At this [house/apartment/mobile home] do you or any member of this household subscribe to the Internet using a satellite service? {ADDED INFO ABOUT GPS OR SATELLITE DISH}	5	1	4%	4	22%
Do you subscribe to the Internet using a satellite service?	4	0	0%	4	22%
At this [house/apartment/mobile home] do you use/have the Internet using a satellite service?	4	4	15%	0	0%
Do you use a satellite service?	2	0	0%	2	11%
At this [house/apartment/mobile home] do you subscribe to a satellite service?	2	2	8%	0	0%
TOTAL	44	26	100%	18	100%

Table C-SATELLITEC and SATELLITET: Interviewer First Level Notable Differences by Language

Table D-SATELLITEC and SATELLITET: Interviewer First Level Notable Differences by Mode

Change Made to Question	Frequency	CAPI Frequency	Percent CAPI (n=23)	CATI Frequency	Percent CATI (n=21)
At this [house/apartment/mobile home] do you use a satellite service?	11	5	22%	6	29%
Do you use/have the Internet using a satellite service?	8	1	4%	7	33%
At this [house/apartment/mobile home] do you subscribe to the Internet using a satellite service?	8	7	30%	1	5%
At this [house/apartment/mobile home] do you or any member of this household subscribe to the Internet using a satellite service? {ADDED INFO ABOUT GPS OR SATELLITE DISH}	5	2	9%	3	14%
Do you subscribe to the Internet using a satellite service?	4	3	13%	1	5%
At this [house/apartment/mobile home] do you use/have the Internet using a satellite service?	4	2	9%	2	10%
Do you use a satellite service?	2	1	4%	1	5%
At this [house/apartment/mobile home] do you subscribe to a satellite service?	2	2	9%	0	0%
TOTAL	44	23	100%	21	100%

Respondent Behavior	Ov	erall	English		Spanish		CAPI		CATI	
Respondent Bellavior	n	%	n	n	%	%	n	%	n	%
R gave more info than needed when answering the Q (ex. Name of the service provider)	10	63%	4	57%	6	67%	4	80%	6	55%
R mentions 'phone or tv'	4	25%	2	29%	2	22%	1	20%	3	27%
R did not understand Q and asked for clarification	2	13%	1	14%	1	11%	0	0%	2	18%
TOTAL	16	100%	7	100%	9	100%	5	100%	11	100%

Table E-SATELLITEC and SATELLITET: Respondent First Level Behavior Details from Open-Text Notes

OTHSVCEC and OTHSVCET (combined)

Table A-OTHSVCEC and OTHSVCET: Interviewer First Level Frequency of Question as Administered

Change Made to Question (mutually exclusive categories)	Frequency	Percent of Open Text Notes (n=52)*	Percent of All Administrations (n=296)
EXACT READING: At this [house/apartment/mobile home] do you or any member of this household subscribe to the Internet using some other service?	175	N/A	59%
Do you subscribe to the Internet using some other service?	20	38%	7%
Do you use/have the Internet using some other service?	15	29%	5%
Do you use some other service?	9	17%	3%
Do you or any member of this household subscribe to the Internet using some other service?	3	6%	1%
At this [house/apartment/mobile home] do you subscribe to the Internet using some other service?	1	2%	0%
At this [house/apartment/mobile home] do you or any member of this household subscribe to the Internet using some other service? {ADDS INFO ABOUT PHONE/TV}	1	2%	0%
Do you or any member of this household subscribe to some other service?	1	2%	0%
At this [house/apartment/mobile home] do you or any member of this household use/have the Internet using some other service?	1	2%	0%
Do you or any member of this household have some other service?	1	2%	0%
Skipped/Inaudible/Other**	69	N/A	23%
TOTAL	296	100%	100%

*This is the sum of cases for which substantive notes were made. It excludes exact readings, skipped and inaudible cases, as well as other cases where the notes were not detailed enough to be useful or informative.

Table B-OTHSVCEC and OTHSVCET: Interviewer First Level Frequency of Dropped Terms

Change made to Question (overlapping categories)	Frequency	Percent of Open Text Notes (n=52)	Percent of All Administrations (n=296)
Omitted "At this [house/apartment/mobile home]"	49	94%	17%
Omitted "you or any member of this household"	46	88%	16%
Omitted "subscribe"	26	50%	9%
Omitted "to the Internet"	11	21%	4%

Change Made to Question	Frequency	English Frequency	Percent English (n=26)	Spanish Frequency	Percent Spanish (n=26)
Do you subscribe to the Internet using some other service?	20	15	58%	5	19%
Do you use/have the Internet using some other service?	15	9	35%	6	23%
Do you use some other service?	9	1	4%	8	31%
Do you or any member of this household subscribe to the Internet using some other service?	3	1	4%	2	8%
Other Miscellaneous Changes	5	0	0%	5	19%
TOTAL	52	26	100%	26	100%

Table D-OTHSVCEC and OTHSVCET: Interviewer First Level Notable Differences by Mode

Change Made to Question	Frequency	CAPI Frequency	Percent CAPI (n=26)	CATI Frequency	Percent CATI (n=26)
Do you subscribe to the Internet using some other service?	20	11	42%	9	35%
Do you use/have the Internet using some other service?	15	8	31%	7	27%
Do you use some other service?	9	4	15%	5	19%
Do you or any member of this household subscribe to the Internet using some other service?	3	1	4%	2	8%
Other Miscellaneous Changes	5	2	8%	3	12%
TOTAL	52	26	100%	26	100%

Table E-OTHSVCEC and OTHSVCET: Respondent First Level Behavior Details from Open-Text Notes

Respondent Behavior	Ov	erall	English		Spanish		CAPI		CATI	
	n	%	n	n	%	%	n	%	n	%
R gave more info than needed when answering the Q (ex. Name of the service provider)	10	63%	4	57%	6	67%	3	75%	7	58%
R mentions 'phone or tv'	4	25%	2	29%	2	22%	1	25%	3	25%
R did not understand Q and asked for clarification	2	13%	1	14%	1	11%	0	0%	2	17%
TOTAL	16	100%	7	100%	9	100%	4	100%	12	100%

Appendix D: Qualitative Notes on Food Stamps

FSX

Table A-FSX: Interviewer First Level Frequency of Question as Administered

Change Made to Question (mutually exclusive categories)	Frequency	Percent of Open Text Notes (n=74)*	Percent of All Administrations (n=288)
EXACT READING: In the past 12 months, did anyone in this household receive Food Stamps or a Food Stamp benefit card?	211	N/A	73%
In the past 12 months, did anyone in this household receive Food Stamps?	18	24%	6%
Receive Food Stamps?	12	16%	4%
Interviewer read question as worded, but repeated part or all of the question after	11	15%	4%
Did anyone in this household receive Food Stamps?	8	11%	3%
Did anyone in this household receive Food Stamps, or a Food Stamp benefit card?	6	8%	2%
In the past 12 months, did you receive Food Stamps?	4	5%	1%
[Did you]* receive Food Stamps, or a Food Stamp benefit card?	3	4%	1%
In the past 12 months, did you receive Food Stamps, or a Food Stamp benefit card?	3	4%	1%
In the past 12 months, did anyone in this household receive Food Stamps, or a Food Stamp benefits?	3	4%	1%
In the past 12 months, did you receive?	2	3%	1%
In the past 12 months, did anyone in this household receive a Food Stamps card?	2	3%	1%
Did anyone in this household receive Food Stamps, or Food Stamp benefits?	1	1%	0%
In the past 12 months, did anyone in this household receive Food Stamp benefits?	1	1%	0%
Skipped/Inaudible/Other**	3	N/A	1%
TOTAL	288	100%	100%

Table B-FSX: Interviewer First Level Frequency of Dropped Terms

Change made to Question (overlapping categories)	Frequency	Percent of Open Text Notes (n=74)	Percent of All Administrations (n=288)
Dropped "Food Stamp benefit card"	46	62%	16%
Dropped "In the past 12 months"	30	41%	10%
Dropped "Did anyone in this household"	24	32%	8%
Dropped "card" but read "Food Stamp benefits"	5	7%	2%
Dropped "Food Stamps"	3	4%	1%

Table C-FSX: Interviewer First Level Notable Differences by Language

Change Made to Question	Frequency	English Frequency	Percent English (n=24)	Spanish Frequency	Percent Spanish (n=50)
In the past 12 months, did anyone in this household receive Food Stamps?	18	8	33%	10	20%
Receive Food Stamps?	12	2	8%	10	20%
Interviewer read question as worded, but repeated part or all of the question after	11	0	0%	11	22%
Did anyone in this household receive Food Stamps?	8	5	21%	3	6%
Did anyone in this household receive Food Stamps, or a Food Stamp benefit card?	6	3	13%	3	6%
In the past 12 months, did you receive Food Stamps?	4	1	4%	3	6%
Did you receive Food Stamps, or a Food Stamp benefit card?	3	1	4%	2	4%
In the past 12 months, did you receive Food Stamps, or a Food Stamp benefit card?	3	2	8%	1	2%
In the past 12 months, did anyone in this household receive Food Stamps, or a Food Stamp benefits?	3	1	4%	2	4%
Miscellaneous Other Changes	6	1	4%	5	10%
TOTAL	74	24	100%	50	100%

Change Made to Question	Frequency	CAPI Frequency	Percent CAPI (n=64)	CATI Frequency	Percent CATI (n=10)
In the past 12 months, did anyone in this household receive Food Stamps?	18	16	25%	2	20%
Receive Food Stamps?	12	12	19%	0	0%
Interviewer read question as worded, but repeated part or all of the question after	11	9	14%	2	20%
Did anyone in this household receive Food Stamps?	8	8	13%	0	0%
Did anyone in this household receive Food Stamps, or a Food Stamp benefit card?	6	3	5%	3	30%
In the past 12 months, [did you]* receive Food Stamps?	4	4	6%	0	0%
[Did you]* receive Food Stamps, or a Food Stamp benefit card?	3	3	5%	0	0%
In the past 12 months, [did you]* receive Food Stamps, or a Food Stamp benefit card?	3	2	3%	1	10%
In the past 12 months, did anyone in this household receive Food Stamps, or a Food Stamp benefits?	3	2	3%	1	10%
Miscellaneous Other Changes	6	5	8%	1	10%
TOTAL	74	64	100%	10	100%

Table D-FSX: Interviewer First Level Notable Differences by Mode

Table E-FSX: Respondent First Level Behavior Detail from Open-Text Notes

Dom on don't Dob ordon	Overall		English Span		anish		API	CATI		
Respondent Behavior	n	%	n	n	%	%	n	%	n	%
R did not understand Q and asked for clarification	8	44%	0	0%	8	50%	1	25%	7	50%
R gave more info than needed when answering the Q (ex. Says 'foodstamps')	5	28%	0	0%	5	31%	2	50%	3	21%
R references a specific household member	5	28%	2	100%	3	19%	1	25%	4	29%
TOTAL	18	100%	2	100%	16	100%	4	100%	14	100%

FSXT

Table A-FSXT: Interviewer First Level Frequency of Question as Administered

Change Made to Question (mutually exclusive categories)	Frequency	Percent of Open Text Notes (n=146)*	Percent of All Administrations (n=279)
EXACT READING: In the past 12 months, 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.	95	N/A	34%
In the past 12 months, did you or any member of this household receive benefits from the Food Stamps Program or SNAP, the Supplemental Nutrition Assistance Program?	63	43%	23%
In the past 12 months, did you or any member of this household receive benefits from the Food Stamps program or SNAP?	23	16%	8%
In the past 12 months, did you or any member of this household receive benefits from the Food Stamps program?	22	15%	8%
Did you receive Food Stamps?	11	8%	4%
In the past 12 months, did you or any member of this household receive some other wording	6	4%	2%
Did you receive some other wording	4	3%	1%
In the past 12 months, did you receive some other wording	4	3%	1%
In the past 12 months, did you or any member of this household receive benefits from Food Stamps?	3	2%	1%
In the past 12 months, did you receive Food Stamps?	3	2%	1%
In the past 12 months, did you or any member of this household receive benefits?	2	1%	1%
In the past 12 months, did you receive benefits from the Food Stamps Program?	2	1%	1%
In the past 12 months, did you receive benefits from the Food Stamps Program or SNAP?	2	1%	1%
Did you or any member of this household receive Food Stamps?	1	1%	0%
Skipped/Inaudible/Other**	38	N/A	14%
TOTAL	279	100%	100%

Table B-FSXT: Interviewer First Level Frequency of Dropped Terms

Change made to Question (overlapping categories)	Frequency	Percent of Open Text Notes (n=146)	Percent of All Administrations (n=279)
Dropped the last sentence "Do not include WIC"	144	99%	52%
Dropped "Supplemental Nutrition Assistance Program"	80	55%	29%
Dropped "SNAP"	52	36%	19%
Dropped "SNAP" & "Supplemental Nutrition Assistance Program"	48	33%	17%
Dropped "Did anyone in this household"*	29	20%	10%
Dropped "In the past 12 months"	19	13%	7%

Table C-FSXT: Interviewer First Level Notable Differences by Language

Change Made to Question	Frequency	English Frequency	Percent English (n=57)	Spanish Frequency	Percent Spanish (n=89)
In the past 12 months, did you or any member of this household receive benefits from the Food Stamps Program or SNAP, the Supplemental Nutrition Assistance Program?	63	30	53%	33	37%
In the past 12 months, did you or any member of this household receive benefits from the Food Stamps program or SNAP?	23	10	18%	13	15%
In the past 12 months, did you or any member of this household receive benefits from the Food Stamps program?	22	2	4%	20	22%
Did you receive Food Stamps?	11	4	7%	7	8%
Miscellaneous Other Changes	27	11	19%	16	18%
TOTAL	146	57	100%	89	100%

Change Made to Question	Frequency	CAPI Frequency	Percent CAPI (n=101)	CATI Frequency	Percent CATI (n=45)
In the past 12 months, did you or any member of this household receive benefits from the Food Stamps Program or SNAP, the Supplemental Nutrition Assistance Program?	63	40	40%	23	51%
In the past 12 months, did you or any member of this household receive benefits from the Food Stamps program or SNAP?	23	17	17%	6	13%
In the past 12 months, did you or any member of this household receive benefits from the Food Stamps program?	22	14	14%	8	18%
Did you receive Food Stamps?	11	11	11%	0	0%
Miscellaneous Other Changes	27	19	19%	8	18%
TOTAL	146	101	100%	45	100%

Table E-FSXT: Respondent First Level Behavior Detail from Open-Text Notes

Degnandant Dehavior	0	verall	English Spanish		Spanish CAPI		API	CATI		
Respondent Behavior	n	%	n	n	%	%	n	%	n	%
R gives more information that needed when answering (ex. Says 'foodstamps')	13	39%	6	46%	7	35%	10	48%	3	25%
R reports having WIC	8	24%	1	8%	7	35%	5	24%	3	25%
R mentions a specific household member	7	21%	6	46%	1	5%	3	14%	4	33%
R did not understand Q and asked for clarification	5	15%	0	0%	5	25%	3	14%	2	17%
TOTAL	33	100%	13	100%	20	100%	21	100%	12	100%

Appendix E: Qualitative Notes on Public Assistance

PAX English

Table A-PAX, English: Interviewer First Level Frequency of Question as Administered

Change Made to Question (mutually exclusive categories)	Frequency	Percent of Open Text Notes (n=151)*	Percent of All Administrations (n=484)
EXACT READING: Did [name/you] receive any public assistance or public welfare payments from the state or local welfare office during the past 12 months?	255	N/A	53%
Did [name/you] receive any public assistance or public welfare payments from the state or local welfare office?	47	31%	10%
Did [name/you] receive any public assistance or public welfare payments?	14	9%	3%
Any public assistance or public welfare payments?	12	8%	2%
SOME OTHER CHANGE TO WORDING	12	8%	2%
Did [name/you] receive any public assistance or public welfare from the state or local welfare office?	10	7%	2%
Any public assistance or public welfare?	9	6%	2%
Any public assistance or public welfare payments from the state or local welfare office during the past 12 months?	8	5%	2%
Public assistance or public welfare payments? {AND SOME OTHER CHANGE TO WORDING}	8	5%	2%
Any public assistance or public welfare payments from the state or local welfare office?	6	4%	1%
Did [name/you] receive any public assistance or public welfare?	6	4%	1%
Did [name/you] receive any public assistance or public welfare payments during the past 12 months?	6	4%	1%
Any public assistance or public welfare payments from the state or local welfare office? {AND SOME OTHER CHANGE TO WORDING}	5	3%	1%
Any public assistance?	4	3%	1%
Any public assistance or public welfare payments during the past 12 months?	4	3%	1%
Skipped/Inaudible/Other**	78	N/A	16%
TOTAL	484	100%	100%

Table B-PAX, English: Interviewer First Level Frequency of Dropped Terms

Change made to Question (overlapping categories)	Frequency	Percent of Open Text Notes (n=151)	Percent of All Administrations (n=484)
Omitted "during the past 12 months"	120	79%	25%
Omitted "or local welfare office"	77	51%	16%
Omitted "from the state"	68	45%	14%
Omitted "Did [you/name] receive"	56	37%	12%
Omitted "payments"	44	29%	9%
Omitted "public welfare"	14	9%	3%
Omitted "public assistance"	4	3%	1%

Table D-PAX, English: Interviewer First Level Notable Differences by Mode

Change Made to Question	Frequency	CAPI Frequency	Percent CAPI (n=41)	CATI Frequency	Percent CATI (n=110)
Did [name/you] receive any public assistance or public welfare payments from the state or local welfare office?	47	9	22%	38	35%
Did [name/you] receive any public assistance or public welfare payments?	14	7	17%	7	6%
Any public assistance or public welfare payments?	12	2	5%	10	9%
SOME OTHER CHANGE TO WORDING	12	3	7%	9	8%
Did [name/you] receive any public assistance or public welfare from the state or local welfare office?	10	9	22%	1	1%
Any public assistance or public welfare?	9	2	5%	7	6%
Any public assistance or public welfare payments from the state or local welfare office during the past 12 months?	8	0	0%	8	7%
Public assistance or public welfare payments? {AND SOME OTHER CHANGE TO WORDING}	8	5	12%	3	3%
Any public assistance or public welfare payments from the state or local welfare office?	6	0	0%	6	5%
Did [name/you] receive any public assistance or public welfare?	6	1	2%	5	5%
Did [name/you] receive any public assistance or public welfare payments during the past 12 months?	6	1	2%	5	5%
Other Miscellaneous Changes	13	2	5%	11	10%
TOTAL	151	41	100%	110	100%

Despendent Dehevior	Overall		CAPI		CATI	
Respondent Behavior	n	%	n	%	n	%
R gives more information that needed when answering	6	75%	1	50%	5	83%
R did not understand Q and asked for clarification	2	25%	1	50%	1	17%
TOTAL	8	100%	2	100%	6	100%

Table E-PAX, English: Respondent First Level Behavior Detail from Open-Text Notes

CAX English

Table A-CAX, English: Interviewer First Level Frequency of Question as Administered

Change Made to Question (mutually exclusive categories)	Frequency	Percent of Open Text Notes (n=225)*	Percent of All Administrations (n=474)
EXACT READING: Did [name/you] receive any welfare payments or cash assistance from the state or local welfare office for [name/yourself] or any children in this household during the past 12 months, even if for only one month? Do not include benefits from food, energy, or rental assistance programs.	131	N/A	28%
Did [name/you] receive any welfare payments or cash assistance from the state or local welfare office?	53	24%	11%
Did [name/you] receive any welfare payments or cash assistance from the state or local welfare office for [name/yourself] or any children in this household during the past 12 months?	45	20%	9%
Did [name/you] receive any welfare payments or cash assistance from the state or local welfare office for [name/yourself] or any children in this household during the past 12 months, even if for only one month?	27	12%	6%
Did [name/you] receive any welfare payments or cash assistance from the state or local welfare office for [name/yourself] or any children in this household, even if for only one month? Do not include benefits from food, energy, or rental assistance programs.	25	11%	5%
Did [name/you] receive any welfare payments or cash assistance?	15	7%	3%
Any welfare payments or cash assistance from the state or local welfare office?	13	6%	3%
Any welfare payments or cash assistance?	8	4%	2%
Any welfare payments?	8	4%	2%
Did [name/you] receive any welfare payments or cash assistance from the state or local welfare office for [name/yourself] or any children in this household?	6	3%	1%
Did [name/you] receive any welfare payments?	4	2%	1%
Any welfare payments or cash assistance from the state or local welfare office for [name/yourself] or any children in this household, even if for only one month?	3	1%	1%
Did [name/you] receive any welfare payments or cash assistance from the state or local welfare office for [name/yourself] or any children in this household, even if for only one month?	3	1%	1%
Any welfare payments or cash assistance from the state or local welfare office for [name/yourself] or any children in this household, even if for only one month?	3	1%	1%
Any welfare payments or cash assistance from the state or local welfare office for [name/yourself] or any children in this household during the past 12 months, even if for only one	3	1%	1%

Change Made to Question (mutually exclusive categories)	Frequency	Percent of Open Text Notes (n=225)*	Percent of All Administrations (n=474)
month? Do not include benefits from food, energy, or rental assistance programs.			
Any welfare payments or cash assistance from the state or local welfare office for [name/yourself] or any children in this household during the past 12 months?	3	1%	1%
Cash assistance?	2	1%	0%
Did [name/you] receive any welfare payments during the past 12 months?	1	0%	0%
Did [name/you] receive any welfare payments for [name/yourself] or any children during the past 12 months?	1	0%	0%
Did [name/you] receive any welfare payments for [name/yourself] or any children in this household during the past 12 months?	1	0%	0%
Any welfare payments or cash assistance from the state or local welfare office for [name/yourself] or any children?	1	0%	0%
Skipped/Inaudible/Other**	118	N/A	25%
TOTAL	474	100%	100%

*This is the sum of cases for which substantive notes were made. It excludes exact readings, skipped and inaudible cases, as well as other cases where the notes were not detailed enough to be useful or informative.

Table B-CAX, English: Interviewer First Level Frequency of Dropped Terms

Change made to Question (overlapping categories)	Frequency	Percent of Open Text Notes (n=225)	Percent of All Administrations (n=474)
Omitted "Do not include benefits from food, energy, or rental assistance programs"	197	88%	42%
Omitted "even if for only one month"	161	72%	34%
Omitted "during the past 12 months"	140	62%	30%
Omitted "for [name/yourself] or any children in this household"	104	46%	22%
Omitted "from the state or local welfare office"	40	18%	8%

Change Made to Question	Frequency	CAPI Frequency	Percent CAPI (n=44)	CATI Frequency	Percent CATI (n=171)
Did [name/you] receive any welfare payments or cash assistance from the state or local welfare office?	53	16	36%	37	22%
Did [name/you] receive any welfare payments or cash assistance from the state or local welfare office for [name/yourself] or any children in this household during the past 12 months?	45	12	27%	33	19%
Did [name/you] receive any welfare payments or cash assistance from the state or local welfare office for [name/yourself] or any children in this household during the past 12 months, even if for only one month?	27	4	9%	23	13%
Did [name/you] receive any welfare payments or cash assistance from the state or local welfare office for [name/yourself] or any children in this household, even if for only one month? Do not include benefits from food, energy, or rental assistance programs.	25	1	2%	24	14%
Did [name/you] receive any welfare payments or cash assistance?	15	6	14%	9	5%
Any welfare payments or cash assistance from the state or local welfare office?	13	0	0%	13	8%
Any welfare payments or cash assistance?	8	1	2%	7	4%
Any welfare payments?	8	1	2%	7	4%
Other Miscellaneous Changes TOTAL	21 225	3 44	7% 100%	18 171	11% 100%

PAX Spanish

Change Made to Question (mutually exclusive categories)	Frequency	Percent of Open Text Notes (n=126)*	Percent of All Administrations (n=429)
EXACT READING: Did [name/you] receive any public assistance or public welfare payments from the state or local welfare office during the past 12 months?	146	N/A	34%
Did [name/you] receive any public assistance or public welfare payments from the state or local welfare office?	65	52%	15%
Did [name/you] receive any public assistance or public welfare payments?	19	15%	4%
Public welfare payments?	15	12%	3%
Other Change to Wording	9	7%	2%
Any public assistance or public welfare payments from the state or local welfare office during the past 12 months?	5	4%	1%
Any public assistance or public welfare payments?	4	3%	1%
Did [name/you] receive any public assistance or public welfare payments from the state?	4	3%	1%
Did [name/you] receive any public assistance ?	3	2%	1%
Any public assistance or public welfare payments from the state or local welfare office during the past 12 months?	2	2%	0%
Skipped/Inaudible/Other**	157	N/A	37%
TOTAL	429	100%	100%

Table A- PAX, Spanish: Interviewer First Level Frequency of Question as Administered

*This is the sum of cases for which substantive notes were made. It excludes exact readings, skipped and inaudible cases, as well as other cases where the notes were not detailed enough to be useful or informative.

Table B- PAX, Spanish: Interviewer First Level Frequency of Dropped Terms

Change made to Question (overlapping categories)	Frequency	Percent of Open Text Notes (n=126)	Percent of All Administrations (n=429)
Omitted "during the past 12 months"	118	94%	28%
Omitted "or local welfare office"	53	42%	12%
Omitted "from the state"	47	37%	11%
Omitted "Did [you/name] receive"	30	24%	7%
Omitted "public assistance"	20	16%	5%
Omitted "public welfare"	7	6%	2%

Change Made to Question	Frequency	CAPI Frequency	Percent CAPI (n=42)	CATI Frequency	Percent CATI (n=84)
Did [name/you] receive any public assistance or public welfare payments from the state or local welfare office?	65	13	31%	52	62%
Did [name/you] receive any public assistance or public welfare payments?	19	4	10%	15	18%
Public welfare payments?	15	10	24%	5	6%
Other Change to Wording	9	4	10%	5	6%
Any public assistance or public welfare payments from the state or local welfare office during the past 12 months?	5	2	5%	3	4%
Any public assistance or public welfare payments?	4	1	2%	3	4%
Did [name/you] receive any public assistance or public welfare payments from the state?	4	4	10%	0	0%
Did [name/you] receive any public assistance ?	3	3	7%	0	0%
Any public assistance or public welfare payments from the state or local welfare office during the past 12 months?	2	1	2%	1	1%
TOTAL	126	42	100%	84	100%

Table D- PAX, Spanish: Interviewer First Level Notable Differences by Mode

Table E- PAX, Spanish: Respondent First Level Behavior Detail from Open-Text Notes

Personal Pahavian		Overall		CAPI		CATI
Respondent Behavior	n	%	n	%	n	%
R gives more information that needed when answering	5	83%	2	100%	3	75%
R did not understand Q and asked for clarification	1	17%	0	0%	1	25%
TOTAL	6	100%	2	100%	4	100%

CAX Spanish

Table A-CAX, Spanish: Interviewer First Level Frequency of Question as Administered

Change Made to Question (mutually exclusive categories)	Frequency	Percent of Open Text Notes (n=170)*	Percent of All Administrations (n=396)
EXACT READING: Did [name/you] receive any welfare payments or cash assistance from the state or local welfare office for [name/yourself] or any children in this household during the past 12 months, even if for only one month? Do not include benefits from food, energy, or rental assistance programs.	62	N/A	16%
Did [name/you] receive any welfare payments or cash assistance from the state or local welfare office for [name/yourself] or any children in this household during the past 12 months, even if for only one month?	46	27%	12%
Did [name/you] receive any welfare payments or cash assistance from the state or local welfare office?	41	24%	10%
Did [name/you] receive any welfare payments or cash assistance from the state or local welfare office for [name/yourself] or any children in this household during the past 12 months?	31	18%	8%
Did [name/you] receive?	27	16%	7%
Did [name/you] receive any welfare payments or cash assistance from the state or local welfare office for [name/yourself] or any children in this household?	12	7%	3%
Did [name/you] receive any welfare payments or cash assistance from the state or local welfare office for [name/yourself] or any children in this household, even if for only one month? Do not include benefits from food, energy, or rental assistance programs.	4	2%	1%
Did [name/you] receive during the past 12 months?	3	2%	1%
Did [name/you] receive any welfare payments or cash assistance?	2	1%	1%
Did [name/you] receive any welfare payments?	2	1%	1%
Any welfare payments or cash assistance from the state or local welfare office?	1	1%	0%
Any welfare payments or cash assistance?	1	1%	0%
Skipped/Inaudible/Other**	164	N/A	41%
TOTAL	396	100%	100%

Table B-CAX, Spanish: Interviewer First Level Frequency of Dropped Terms

Change made to Question (overlapping categories)	Frequency	Percent of Open Text Notes (n=170)	Percent of All Administrations (n=396)
Omitted "Do not include benefits from food, energy, or rental assistance programs"	166	98%	42%
Omitted "even if for only one month"	120	71%	30%
Omitted "during the past 12 months"	90	53%	23%
Omitted "for [name/yourself] or any children in this household"	77	45%	19%
Omitted "from the state or local welfare office"	35	21%	9%

Table D-CAX, Spanish: Interviewer First Level Notable Differences by Mode

Change Made to Question	Frequency	CAPI Frequency	Percent CAPI (n=69)	CATI Frequency	Percent CATI (n=101)
Did [name/you] receive any welfare payments or cash assistance from the state or local welfare office for [name/yourself] or any children in this household during the past 12 months, even if for only one month?	46	17	25%	29	29%
Did [name/you] receive any welfare payments or cash assistance from the state or local welfare office?	41	14	20%	27	27%
Did [name/you] receive any welfare payments or cash assistance from the state or local welfare office for [name/yourself] or any children in this household during the past 12 months?	31	16	23%	15	15%
Did [name/you] receive?	27	14	20%	13	13%
Did [name/you] receive any welfare payments or cash assistance from the state or local welfare office for [name/yourself] or any children in this household?	12	2	3%	10	10%
Other Miscellaneous Change	13	6	9%	7	7%
TOTAL	170	69	100%	101	100%

Table E-CAX, Spanish: Respondent First Level Behavior Detail from Open-Text Notes

Respondent Behavior		Overall		САРІ		ATI
		%	n	%	n	%
R gives more information that needed when answering	5	83%	3	75%	2	100%
R did not understand Q and asked for clarification	1	17%	1	25%	0	0%
TOTAL	6	100%	4	100%	2	100%

Appendix F: Qualitative Notes on Property Income

INTR

Question wording: What was the amount received?

INTR was asked a total of 76 times, with 23 exact readings and 34 major changes. Of those 34 major changes, 17 (all English/CATI) had pertinent open text notes relating to the interviewer question asking behavior. Eleven of them indicated that the interviewer "hedged" the respondent by adding words like "rough guess" or "best estimate." The other six notes indicated that the interviewer added the words "do you know" prior to asking the question.

There were 2 requests for clarification in the Respondent First Level Behavior open text notes, and 2 'Don't know' responses.

INTRT

Question wording: What was the amount?

INTRT was asked a total of 69 times, with 15 exact readings and 33 major changes. Of those 33 major changes, 18 had pertinent open text notes relating to the interviewer question asking behavior. Fourteen of them (thirteen English/CATI and one Spanish/CAPI) indicated that the interviewer "hedged" the respondent by adding words like "rough guess" or "best estimate." The other four notes (all English/CATI) indicated that the interviewer added the words "do you know" prior to asking the question.

There was 1 request for clarification in the Respondent First Level Behavior open text notes, and 6 'Don't know' responses.

INTRX

Table A-INTRX: Interviewer First Level Frequency of Question as Administered

Change Made to Question (mutually exclusive categories)	Frequency	Percent of Open Text Notes (n=466)*	Percent of All Administrations (n=961)
EXACT READING: The next few questions are about income during the past 12 months. Did [name/you] receive any interest, dividends, net rental income, royalty income, or income from estates and trusts during the past 12 months? Report even small amounts credited to an account.	253	N/A	26%
The next few questions are about income during the past 12 months. Did [name/you] receive any interest, dividends, net rental income, royalty income, or income from estates and trusts during the past 12 months?	258	55%	27%
The next few questions are about income. Did [name/you] receive any interest, dividends, net rental income, royalty income, or income from estates and trusts?	72	15%	7%
The next few questions are about income. Did [name/you] receive any interest, dividends, net rental income, royalty income, or income from estates and trusts? Report even small amounts credited to an account.	25	5%	3%
The next few questions are about income during the past 12 months. Did [name/you] receive any interest, dividends, net rental income, or royalty income?	24	5%	2%
The next few questions are about income. Did [name/you] receive any interest or dividends?	18	4%	2%
The next few questions are about income during the past 12 months. Did [name/you] receive any interest, dividends, or net rental income?	18	4%	2%
The next few questions are about income during the past 12 months. Did [name/you] receive any interest or dividends?	11	2%	1%
The next few questions are about income. Did [name/you] receive any interest, dividends, or net rental income?	9	2%	1%
The next few questions are about income. Did [name/you] receive any other money?	7	2%	1%
The next few questions are about income. Did [name/you] receive any interest, dividends, net rental income, or royalty income?	6	1%	1%
The next few questions are about income. Did [name/you] receive any {OTHER CHANGE TO WORDING}	6	1%	1%
The next few questions are about income during the past 12 months. Did [name/you] receive any interest, dividends, net rental income, royalty income, or income from estates and trusts during the past 12 months? Report even small amounts credited to an account. {ADDED INFO OR EXAMPLE}	5	1%	1%
The next few questions are about income. Did [name/you] receive any interest?	3	1%	0%
The next few questions are about income during the past 12 months. Did [name/you] receive any interest?	2	0%	0%
The next few questions are about income during the past 12	2	0%	0%

months. Did [name/you] receive any royalty income?			
Skipped/Inaudible/Other**	242	N/A	25%
TOTAL	961	100%	100%

*This is the sum of cases for which substantive notes were made. It excludes exact readings, skipped and inaudible cases, as well as other cases where the notes were not detailed enough to be useful or informative.

Table B-INTRX: Interviewer First Level Frequency of Dropped Terms

Change made to Question (overlapping categories)	Frequency	Percent of Open Text Notes (n=466)	Percent of All Administrations (n=961)
Omitted "report even small amounts credited to an account"	436	94%	45%
Omitted "during the past 12 months"	146	31%	15%
Omitted "income from estates and trusts"	100	21%	10%
Omitted "royalty income"	68	15%	7%
Omitted "net rental income"	43	9%	4%
Omitted "dividends"	14	3%	1%
Omitted "interest"	9	2%	1%

Table C-INTRX: Interviewer First Level Notable Differences by Language

Change Made to Question	Frequency	English Frequency	Percent English (n=227)	Spanish Frequency	Percent Spanish (n=239)
The next few questions are about income during the past 12 months. Did [name/you] receive any interest, dividends, net rental income, royalty income, or income from estates and trusts during the past 12 months?	258	142	63%	116	49%
The next few questions are about income. Did [name/you] receive any interest, dividends, net rental income, royalty income, or income from estates and trusts?	72	37	16%	35	15%
The next few questions are about income. Did [name/you] receive any interest, dividends, net rental income, royalty income, or income from estates and trusts? Report even small amounts credited to an account.	25	11	5%	14	6%
The next few questions are about income during the past 12 months. Did [name/you] receive any interest, dividends, net rental income, or royalty income?	24	10	4%	14	6%
The next few questions are about income. Did [name/you] receive any interest or dividends?	18	1	0%	17	7%
The next few questions are about income during the past 12 months. Did [name/you] receive any interest, dividends, or net rental income?	18	9	4%	9	4%
Other Miscellaneous Change to Wording	12	6	3%	6	3%
The next few questions are about income during the past 12 months. Did [name/you] receive any interest or dividends?	11	4	2%	7	3%
The next few questions are about income. Did [name/you] receive any interest, dividends, or net rental income?	9	4	2%	5	2%
The next few questions are about income. Did [name/you] receive any other money?	7	0	0%	7	3%
The next few questions are about income. Did [name/you] receive any interest, dividends, net rental income, or royalty income?	6	2	1%	4	2%
The next few questions are about income. Did [name/you] receive any {OTHER CHANGE TO WORDING}	6	1	0%	5	2%
TOTAL	466	227	100%	239	100%

Table D-INTRX: Interviewer First Level Notable Differences by Mode

Change Made to Question	Frequency	CAPI Frequency	Percent CAPI (n=173)	CATI Frequency	Percent CATI (n=293)
The next few questions are about income during the past 12 months. Did [name/you] receive any interest, dividends, net rental income, royalty income, or income from estates and trusts during the past 12 months?	258	92	53%	166	57%
The next few questions are about income. Did [name/you] receive any interest, dividends, net rental income, royalty income, or income from estates and trusts?	72	14	8%	58	20%
The next few questions are about income. Did [name/you] receive any interest, dividends, net rental income, royalty income, or income from estates and trusts? Report even small amounts credited to an account.	25	8	5%	17	6%
The next few questions are about income during the past 12 months. Did [name/you] receive any interest, dividends, net rental income, or royalty income?	24	10	6%	14	5%
The next few questions are about income. Did [name/you] receive any interest or dividends?	18	17	10%	1	0%
The next few questions are about income during the past 12 months. Did [name/you] receive any interest, dividends, or net rental income?	18	8	5%	10	3%
Other Miscellaneous Change to Wording	12	4	2%	8	3%
The next few questions are about income during the past 12 months. Did [name/you] receive any interest or dividends?	11	4	2%	7	2%
The next few questions are about income. Did [name/you] receive any interest, dividends, or net rental income?	9	5	3%	4	1%
The next few questions are about income. Did [name/you] receive any other money?	7	5	3%	2	1%
The next few questions are about income. Did [name/you] receive any interest, dividends, net rental income, or royalty income?	6	2	1%	4	1%
The next few questions are about income. Did [name/you] receive any {OTHER CHANGE TO WORDING}	6	4	2%	2	1%
TOTAL	466	173	100%	293	100%

Table E-INTRX: Respondent First Level Behavior Detail from Open Text Notes

Respondent Behavior	0	verall	Eng	glish	Spa	nish	C	API	(CATI
	n	%	n	%	n	%	n	%	n	%
R gave more info than needed when answering the Q (ex. interest, dividends, rental income)	26	72%	24	71%	2	100%	4	57%	22	76%
R gives info about some other form of income	7	19%	7	21%	0	0%	2	29%	5	17%
R did not understand Q and asked for clarification	3	8%	3	9%	0	0%	1	14%	2	7%
TOTAL	36	100%	34	100%	2	100%	7	100%	29	100%

INTRXT

Table A-INTRXT: Interviewer First Level Frequency of Question as Administered

Change Made to Question (mutually exclusive categories)	Frequency	Percent of Open Text Notes (n=475)*	Percent of All Administrations (n=961)
EXACT READING: The next few questions are about income during the past 12 months, that is from (date) to (date). Did [you/name] receive any interest or dividends during the past 12 months? Report even small amounts credited to an account.	253	N/A	26%
The next few questions are about income during the past 12 months, that is from (date) to (date). Did [you/name] receive any interest or dividends during the past 12 months?	296	62%	31%
The next few questions are about income. Did [you/name] receive any interest or dividends?	113	24%	12%
The next few questions are about income. Did [you/name] receive any interest or dividends? Report even small amounts credited to an account.	39	8%	4%
The next few questions are about income during the past 12 months, that is from (date) to (date). Did [you/name] receive any interest?	9	2%	1%
The next few questions are about income during the past 12 months, that is from (date) to (date). Did [you/name] receive any interest or dividends during the past 12 months? Report even small amounts credited to an account. {ADDED INFO OR EXAMPLE}	6	1%	1%
The next few questions are about income. Did [you/name] receive any interest?	6	1%	1%
The next few questions are about income during the past 12 months, that is from (date) to (date). Did [you/name] receive any interest during the past 12 months? Report even small amounts credited to an account.	4	1%	0%
The next few questions are about income during the past 12 months, that is from (date) to (date). Did [you/name] receive any interest or dividends during the past 12 months? Report even small amounts credited to an account.	1	0%	0%
The next few questions are about income during the past 12 months, that is from (date) to (date). Did [you/name] receive any interest or dividends during the past 12 months? Report even small amounts credited to an account.	1	0%	0%
Skipped/Inaudible/Other**	233	N/A	24%
TOTAL	961	100%	100%

Table B-INTRXT: Interviewer First Level Frequency of Dropped Terms

Change made to Question (overlapping categories)	Frequency	Percent of Open Text Notes (n=475)	Percent of All Administrations (n=961)
Omitted "report even small amounts credited to an account"	425	89%	44%
Omitted "during the past 12 months, that is from (date) to (date)"	160	34%	17%
Omitted "dividends"	19	4%	2%
Omitted "interest"	2	0%	0%

Table C-INTRXT: Interviewer First Level Notable Differences by Language

Change Made to Question	Frequency	English Frequency	Percent English (n=250)	Spanish Frequency	Percent Spanish (n=225)
The next few questions are about income during the past 12 months, that is from (date) to (date). Did [you/name] receive any interest or dividends during the past 12 months?	296	164	66%	132	59%
The next few questions are about income. Did [you/name] receive any interest or dividends?	113	45	18%	68	30%
The next few questions are about income. Did [you/name] receive any interest or dividends? Report even small amounts credited to an account.	39	30	12%	9	4%
The next few questions are about income during the past 12 months, that is from (date) to (date). Did [you/name] receive any interest?	9	3	1%	6	3%
The next few questions are about income during the past 12 months, that is from (date) to (date). Did [you/name] receive any interest or dividends during the past 12 months? Report even small amounts credited to an account. {ADDED INFO OR EXAMPLE}	6	1	0%	5	2%
The next few questions are about income. Did [you/name] receive any interest?	6	4	2%	2	1%
Other Miscellaneous Change to Wording TOTAL	6 475	3 250	1% 100%	3 225	1% 100%

Change Made to Question	Frequency	CAPI Frequency	Percent CAPI (n=172)	CATI Frequency	Percent CATI (n=303)
The next few questions are about income during the past 12 months, that is from (date) to (date). Did [you/name] receive any interest or dividends during the past 12 months?	296	115	67%	181	60%
The next few questions are about income. Did [you/name] receive any interest or dividends?	113	36	21%	77	25%
The next few questions are about income. Did [you/name] receive any interest or dividends? Report even small amounts credited to an account.	39	7	4%	32	11%
The next few questions are about income during the past 12 months, that is from (date) to (date). Did [you/name] receive any interest?	9	5	3%	4	1%
The next few questions are about income during the past 12 months, that is from (date) to (date). Did [you/name] receive any interest or dividends during the past 12 months? Report even small amounts credited to an account. {ADDED INFO OR EXAMPLE}	6	2	1%	4	1%
The next few questions are about income. Did [you/name] receive any interest?	6	5	3%	1	0%
Other Miscellaneous Change to Wording TOTAL	6 475	2 172	1% 100%	4 303	1% 100%

Table D-INTRXT: Interviewer First Level Notable Differences by Mode

Table E-INTRXT: Respondent First Level Behavior Detail from Open Text Notes

Respondent Behavior	0	verall	En	glish	Spa	nish	C	API	(CATI
	n	%	n	%	n	%	n	%	n	%
R gave more info than needed when answering the Q (ex. interest, or dividends)	18	41%	16	55%	2	13%	4	40%	14	41%
R did not understand Q and asked for clarification	16	36%	5	17%	11	73%	6	60%	10	29%
Don't Know	6	14%	6	21%	0	0%	0	0%	6	18%
R gives info about some other form of income	4	9%	2	7%	2	13%	0	0%	4	12%
TOTAL	44	100%	29	100%	15	100%	10	100%	34	100%

RENTX

Table A-RENTX: Interviewer First Level Frequency of Question as Administered
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Change Made to Question (mutually exclusive categories)	Frequency	Percent of Open Text Notes (n=245)*	Percent of All Administrations (n=887)
EXACT READING: Did [name/you] receive any net rental income during the past 12 months?	444	N/A	50%
Did [name/you] receive any net rental income?	208	85%	23%
Did [name/you] receive any {ADDED INFO OR EXAMPLE}	24	10%	3%
Did [name/you] receive any net rental income during the past 12 months? {ADDED INFO OR EXAMPLE}	9	4%	1%
Did [name/you] receive any other money?	4	2%	0%
Skipped/Inaudible/Other**	198	N/A	22%
TOTAL	887	100%	100%

*This is the sum of cases for which substantive notes were made. It excludes exact readings, skipped and inaudible cases, as well as other cases where the notes were not detailed enough to be useful or informative.

Table B-RENTX: Interviewer First Level Frequency of Dropped Terms

Change made to Question (overlapping categories)	Frequency	Percent of Open Text Notes (n=245)	Percent of All Administrations (n=887)
Omitted "during the past 12 months"	232	95%	26%
Omitted "net rental income"	28	11%	3%

Table C-RENTX: Interviewer First Level Notable Differences by Language

Change Made to Question	Frequency	English Frequency	Percent English (n=106)	Spanish Frequency	Percent Spanish (n=139)
Did [name/you] receive any net rental income?	208	100	94%	108	78%
Did [name/you] receive any {ADDED INFO OR EXAMPLE}	24	4	4%	20	14%
Did [name/you] receive any net rental income during the past 12 months? {ADDED INFO OR EXAMPLE}	9	2	2%	7	5%
Did [name/you] receive any other money?	4	0	0%	4	3%
TOTAL	245	106	100%	139	100%

Table D-RENTX: Interviewer First Level Notable Differences by Mode

Change Made to Question	Frequency	CAPI Frequency	Percent CAPI (n=78)	CATI Frequency	Percent CATI (n=167)
Did [name/you] receive any net rental income?	208	58	74%	150	90%
Did [name/you] receive any {ADDED INFO OR EXAMPLE}	24	15	19%	9	5%
Did [name/you] receive any net rental income during the past 12 months? {ADDED INFO OR EXAMPLE}	9	3	4%	6	4%
Did [name/you] receive any other money?	4	2	3%	2	1%
TOTAL	245	78	100%	167	100%

Table E-RENTX: Respondent First Level Behavior Detail from Open Text Notes

Respondent Behavior	Ov	erall	En	glish	Spa	nish	C	API	(CATI
	n	%	n	%	n	%	n	%	n	%
R did not understand Q and asked for clarification	18	64%	13	81%	5	42%	3	60%	15	65%
R gave more info than needed when answering the Q	10	36%	3	19%	7	58%	2	40%	8	35%
TOTAL	28	100%	16	100%	12	100%	5	100%	23	100%

ROYALX

Table A-ROYALX: Interviewer First Level Frequency of Question as Administered

Change Made to Question (mutually exclusive categories)	Frequency	Percent of Open Text Notes (n=283)*	Percent of All Administrations (n=866)
EXACT READING: Did [name/you] receive any royalty income or income from estates and trusts during the past 12 months?	359	N/A	41%
Did [name/you] receive any royalty income or income from estates and trusts?	270	95%	31%
Did [name/you] receive any royalty income?	6	2%	1%
Did [name/you] receive any royalty income or income from estates and trusts during the past 12 months? {ADDED INFO OR EXAMPLE}	3	1%	0%
Did [name/you] receive income from estates and trusts?	3	1%	0%
Did [name/you] receive any royalty income during the past 12 months?	1	0%	0%
Skipped/Inaudible/Other**	224	N/A	26%
TOTAL	866	100%	100%

*This is the sum of cases for which substantive notes were made. It excludes exact readings, skipped and inaudible cases, as well as other cases where the notes were not detailed enough to be useful or informative.

Table B-ROYALX: Interviewer First Level Frequency of Dropped Terms

Change made to Question (overlapping categories)	Frequency	Percent of Open Text Notes (n=283)	Percent of All Administrations (n=866)
Omitted "during the past 12 months"	279	99%	32%
Omitted "income from estates and trusts"	7	2%	1%
Omitted "royalty income"	3	1%	0%

Table C-ROYALX: Interviewer First Level Notable Differences by Language

Change Made to Question	Frequency	English Frequency	Percent English (n=141)	Spanish Frequency	Percent Spanish (n=142)
Did [name/you] receive any royalty income or income from estates and trusts?	270	128	91%	142	100%
Did [name/you] receive any royalty income?	6	6	4%	0	0%
Did [name/you] receive any royalty income or income from estates and trusts during the past 12 months? {ADDED INFO OR EXAMPLE}	3	3	2%	0	0%
Did [name/you] receive income from estates and trusts?	3	3	2%	0	0%
Did [name/you] receive any royalty income during the past 12 months?	1	1	1%	0	0%
TOTAL	283	141	100%	142	100%

Table D-ROYALX: Interviewer First Level Notable Differences by Mode

Change Made to Question	Frequency	CAPI Frequency	Percent CAPI (n=80)	CATI Frequency	Percent CATI (n=203)
Did [name/you] receive any royalty income or income from estates and trusts?	270	74	93%	196	97%
Did [name/you] receive any royalty income?	6	3	4%	3	1%
Did [name/you] receive any royalty income or income from estates and trusts during the past 12 months? {ADDED INFO OR EXAMPLE}	3	3	4%	0	0%
Did [name/you] receive income from estates and trusts?	3	0	0%	3	1%
Did [name/you] receive any royalty income during the past 12 months?	1	0	0%	1	0%
TOTAL	283	80	100%	203	100%

Table E-ROYALX: Respondent First Level Behavior Detail from Open Text Notes

Respondent Behavior	Ov	erall	Eng	glish	Spa	nish	C	API	(CATI
	n	%	n	%	n	%	n	%	n	%
R did not understand Q and asked for clarification	3	100%	1	100%	2	100%	1	100%	2	100%
TOTAL	3	100%	1	100%	2	100%	1	100%	2	100%

Appendix G: Qualitative notes on Wages

EARN

Table A-EARN: Interviewer First Level Frequency of Question as Administered

Question Wording (mutually exclusive categories)	Frequency	Percentage of Open Text Notes (n=108)*	Percentage of All Administrations (n=725)
EXACT READING: The next few questions are about income during the past 12 months, that is from (date) to (date), did [you/name] receive any wages or salary?	436	N/A	61%
The next few questions are about income during the past 12 months, did [you/name] receive any wages or salary?	36	33%	5%
The next few questions are about income, did [you/name] receive any wages or salary?	24	22%	3%
The next few questions are about income during the past 12 months, did [you/name] receive any	11	10%	2%
The next few questions are about income did [you/name] receive any	7	6%	1%
The next few questions are about income during the past 12 months, did [you/name] receive any wages?	6	6%	1%
The next few questions are about income, from (date) to (date) Did [you/name] receive any wages or salary?	5	5%	1%
The next few questions are about income during the past 12 months, that is from (date) to (date) Did [you/name] receive any wages?	5	5%	1%
The next few questions are about income during the past 12 months, that is from (date) to (date) Did [you/name] receive any salary?	3	3%	0%
The next few questions are about income during the past 12 months, that is from (date) to (date) Did [you/name] receive any	3	3%	0%
The next few questions are about income, did [you/name] receive any salary?	3	3%	0%
The next few questions are about income, did [you/name] receive any wages?	3	3%	0%
The next few questions are about income during the past 12 months, did [you/name] receive any salary?	1	1%	0%
The next few questions are about income, from (date) to (date) Did [you/name] receive any	1	1%	0%
Skipped/Inaudible/Other**	181	N/A	25%
TOTAL	725	100%	100%

*This is the sum of cases for which substantive notes were made. It excludes exact readings, skipped and inaudible cases, as well as other cases where the notes were not detailed enough to be useful or informative.

Table B-EARN: Interviewer First Level Frequency of Dropped Terms

Change made to Question (overlapping categories)	Frequency	Percentage of Open Text Notes (n=108)	Percentage of All Administrations (n=725)
Dropped "that is from (date) to (date)"	91	84%	13%
Dropped "During the past 12 months"	43	40%	6%
Dropped/replaced "salary"	36	33%	5%
Dropped/replaced "wages"	29	27%	4%

Table C-EARN: Interviewer First Level Notable Differences by Language

Question Wording	Total Freq.	CAPI Freq.	CAPI % (n=53)	CATI Freq.	CATI % (n=55)
The next few questions are about income during the past 12 months, did [you/name] receive any wages or salary?	36	10	19%	26	47%
The next few questions are about income, did [you/name] receive any wages or salary?	24	13	25%	11	20%
The next few questions are about income during the past 12 months, did [you/name] receive any	11	8	15%	3	5%
The next few questions are about income did [you/name] receive any	7	6	11%	1	2%
The next few questions are about income during the past 12 months, did [you/name] receive any wages?	6	3	6%	3	5%
The next few questions are about income, from (date) to (date) Did [you/name] receive any wages or salary?	5	1	2%	4	7%
The next few questions are about income during the past 12 months, that is from (date) to (date) Did [you/name] receive any wages?	5	2	4%	3	5%
Other Miscellaneous Changes	14	10	19%	4	7%
TOTAL	108	53	100%	55	100%

Question Wording	Total Freq.	ENG Freq.	ENG % (n=53)	SPAN Freq.	SPAN % (n=55)
The next few questions are about income during the past 12 months, did [you/name] receive any wages or salary?	36	17	32%	19	35%
The next few questions are about income, did [you/name] receive any wages or salary?	24	14	26%	10	18%
The next few questions are about income during the past 12 months, did [you/name] receive any	11	6	11%	5	9%
The next few questions are about income did [you/name] receive any	7	3	6%	4	7%
The next few questions are about income during the past 12 months, did [you/name] receive any wages?	6	2	4%	4	7%
The next few questions are about income, from (date) to (date) Did [you/name] receive any wages or salary?	5	4	8%	1	2%
The next few questions are about income during the past 12 months, that is from (date) to (date) Did [you/name] receive any wages?	5	5	9%	0	0%
Other Miscellaneous Changes TOTAL	14 108	2 53	4% 100%	12 55	22% 100%

Table D-EARN: Interviewer First Level Notable Differences by Mode

Table E-EARN: Respondent First Level Behavior Detail from Open Text Notes

Respondent Behavior	Ove	erall	En	glish	Spa	nish	C	API	CA	ATI
	n	%	n	%	n	%	n	%	n	%
R gave more info than needed when answering the Q (Said 'salary')	20	34%	2	6%	18	75%	6	60%	14	29%
R is focused on a concept not in the question (ex. Unemployment, social security, or self- employment	17	29%	17	50%	0	0%	3	30%	14	29%
R gave more info than needed when answering the Q (Said 'wages')	12	21%	12	35%	0	0%	1	10%	11	23%
R did not understand Q and asked for clarification	9	16%	3	9%	6	25%	0	0%	9	19%
TOTAL	58	100%	34	100%	24	100%	10	100%	48	100%

EARNTIPS

Table A-EARNTIPS: Interviewer First Level Frequency of Question as Administered

Question Wording (mutually exclusive categories)	Frequency	Percent of Open Text Notes (n=212)*	Percent of All Administrations (n=731)
EXACT READING: Did you receive any tips, bonuses or commissions DURING THE PAST 12 MONTHS?	388	N/A	53%
Did [name/you] receive any tips, bonuses or commissions?	172	81%	24%
Did [name/you] receive	10	5%	1%
Did [name/you] receive any bonuses or commissions?	7	3%	1%
Did [name/you] receive any tips, or bonuses?	5	2%	1%
Did [name/you] receive any bonuses or commissions DURING THE PAST 12 MONTHS?	5	2%	1%
Did [name/you] receive any tips, or bonuses DURING THE PAST 12 MONTHS?	4	2%	1%
Did [name/you] receive any tips, or commissions?	3	1%	0%
Did [name/you] receive any bonuses?	2	1%	0%
Did [name/you] receive any tips?	2	1%	0%
Did [name/you] receive any tips, or commissions DURING THE PAST 12 MONTHS?	1	0%	0%
Did [name/you] receive any commissions DURING THE PAST 12 MONTHS?	1	0%	0%
Skipped/Inaudible/Other**	131	N/A	18%
Total	731	100%	100%

*This is the sum of cases for which substantive notes were made. It excludes exact readings, skipped and inaudible cases, as well as other cases where the notes were not detailed enough to be useful or informative.

Table B-EARNTIPS: Interviewer First Level Frequency of Dropped Terms

Change made to Question (overlapping categories)	Frequency	Percent of Open Text Notes (n=212)	Percent of All Administrations (n=731)
Dropped "During the past 12 months"	201	95%	28%
Dropped "tips"	25	12%	3%
Dropped "commissions"	23	11%	3%
Dropped "bonuses"	17	8%	2%

Question Wording	Frequency	САРІ	Percent CAPI (n=87)	CATI	Percent CATI (n=125)
Did [name/you] receive any tips, bonuses or commissions?	172	58	67%	114	91%
Did [name/you] receive	10	6	7%	4	3%
Did [name/you] receive any bonuses or commissions?	7	6	7%	1	1%
Did [name/you] receive any tips, or bonuses?	5	3	3%	2	2%
Did [name/you] receive any bonuses or commissions DURING THE PAST 12 MONTHS?	5	5	6%	0	0%
Did [name/you] receive any tips, or bonuses DURING THE PAST 12 MONTHS?	4	2	2%	2	2%
Other Miscellaneous Changes	9	7	8%	2	2%
TOTAL	212	87	100%	125	100%

Table C-EARNTIPS: Interviewer First Level Notable Differences by Language

Table D-EARNTIPS: Interviewer First Level Notable Differences by Mode

Question Wording	Frequency	ENG	Percent ENG (n=100)	SPAN	Percent SPAN (n=112)
Did [name/you] receive any tips, bonuses or commissions?	172	88	88%	84	75%
Did [name/you] receive	10	3	3%	7	6%
Did [name/you] receive any bonuses or commissions?	7	1	1%	6	5%
Did [name/you] receive any tips, or bonuses?	5	3	3%	2	2%
Did [name/you] receive any bonuses or commissions DURING THE PAST 12 MONTHS?	5	0	0%	5	4%
Did [name/you] receive any tips, or bonuses DURING THE PAST 12 MONTHS?	4	2	2%	2	1%
Other Miscellaneous Changes	9	3	3%	6	5%
TOTAL	212	100	100%	112	100%

Table E-EARNTIPS: Respondent First Level Behavior Detail from Open Text Notes

Respondent Behavior	Ov	erall	En	glish	Spa	nish	C	API		CATI
	n	%	n	%	n	%	n	%	n	%
R gave more info than needed when answering the Q (Said 'salary')	14	58%	8	57%	6	60%	1	33%	13	62%
DK	9	38%	5	36%	4	40%	2	67%	7	33%
R did not understand Q and asked for clarification	1	4%	1	7%	0	0%	0	0%	1	5%
TOTAL	24	100%	14	100%	10	100%	3	100%	21	100%

TIPSTEST

Table A-TIPSTEST: Interviewer First Level Frequency of Question as Administered

Change Made to Question (mutually exclusive categories)	Frequency	Percent of Open Text Notes (n=18)*	Percent of All Administrations (n=40)
EXACT READING: How much did [name/you] receive in tips, bonuses, or commissions from all jobs before taxes and other deductions?	5	N/A	13%
How much did [name/you] receive?	7	39%	18%
How much did [name/you] receive? {ADDS 'ABOUT' OR 'ESTIMATE'}	6	33%	15%
How much did [name/you] receive in bonuses? {ADDS 'ABOUT' OR 'ESTIMATE'}	2	11%	5%
How much did [name/you] receive in tips, bonuses, or commissions?	2	11%	5%
How much did [name/you] receive in tips, bonuses, or commissions from all jobs before taxes and other deductions? {ADDS 'ABOUT' OR 'ESTIMATE'}	1	6%	3%
Skipped/Inaudible/Other**	17	N/A	43%
TOTAL	40	100%	100%

*This is the sum of cases for which substantive notes were made. It excludes exact readings, skipped and inaudible cases, as well as other cases where the notes were not detailed enough to be useful or informative.

Table B-TIPSTEST: Interviewer First Level Frequency of Dropped Terms

Change made to Question (overlapping categories)	Frequency	Percent of Open Text Notes (n=18)	Percent of All Administrations (n=40)
Omitted "from all jobs"	17	94%	43%
Omitted "before taxes and other deductions"	17	94%	43%
Omitted "tips"	15	83%	38%
Omitted "commissions"	15	83%	38%
Omitted "bonuses"	13	72%	33%

Change Made to Question	Frequency	English Frequency	Percent English (n=8)	Spanish Frequency	Percent Spanish (n=10)
How much did [name/you] receive?	7	2	25%	5	50%
How much did [name/you] receive? {ADDS 'ABOUT' OR 'ESTIMATE'}	6	4	50%	2	20%
How much did [name/you] receive in bonuses? {ADDS 'ABOUT' OR 'ESTIMATE'}	2	1	13%	1	10%
How much did [name/you] receive in tips, bonuses, or commissions?	2	0	0%	2	20%
How much did [name/you] receive in tips, bonuses, or commissions from all jobs before taxes and other deductions? {ADDS 'ABOUT' OR 'ESTIMATE'}	1	1	13%	0	0%
TOTAL	18	8	100%	10	100%

Table C-TIPSTEST: Interviewer First Level Notable Differences by Language

Table D-TIPSTEST: Interviewer First Level Notable Differences by Mode

Change Made to Question	Frequency	CAPI Frequency	Percent CAPI (n=5)	CATI Frequency	Percent CATI (n=13)
How much did [name/you] receive?	7	2	40%	5	38%
How much did [name/you] receive? {ADDS 'ABOUT' OR 'ESTIMATE'}	6	2	40%	4	31%
How much did [name/you] receive in bonuses? {ADDS 'ABOUT' OR 'ESTIMATE'}	2	0	0%	2	15%
How much did [name/you] receive in tips, bonuses, or commissions?	2	1	20%	1	8%
How much did [name/you] receive in tips, bonuses, or commissions from all jobs before taxes and other deductions? {ADDS 'ABOUT' OR 'ESTIMATE'}	1	0	0%	1	38%
TOTAL	18	5	100%	13	100%

WAG

Table A-WAG: Interviewer First Level Frequency of Question as Administered

Change Made to Question (mutually exclusive categories)	Frequency	Percent of Open Text Notes (n=223)*	Percent of All Administrations (n=585)
EXACT READING: How much did [name/you] receive?	166	N/A	28%
How much did [name/you] receive? {ADDED 'ESTIMATE' OR 'BEST GUESS'}	129	58%	22%
How much did [name/you] receive? {ADDED INFO OR EXAMPLE}	74	33%	13%
How much did [name/you] receive? {ADDED 'ESTIMATE' OR 'BEST GUESS' AND ADDED INFO OR EXAMPLE}	20	9%	3%
Skipped/Inaudible/Other**	196	N/A	34%
TOTAL	585	100%	100%

*This is the sum of cases for which substantive notes were made. It excludes exact readings, skipped and inaudible cases, as well as other cases where the notes were not detailed enough to be useful or informative.

Table C-WAG: Interviewer First Level Notable Differences by Language

Change Made to Question	Frequency	English Frequency	Percent English (n=115)	Spanish Frequency	Percent Spanish (n=108)
How much did [name/you] receive? {ADDED 'ESTIMATE' OR 'BEST GUESS'}	129	61	53%	68	63%
How much did [name/you] receive? {ADDED INFO OR EXAMPLE}	74	42	37%	32	30%
How much did [name/you] receive? {ADDED 'ESTIMATE' OR 'BEST GUESS' AND ADDED INFO OR EXAMPLE}	20	12	10%	8	7%
TOTAL	223	115	100%	108	100%

Table D-WAG: Interviewer First Level Notable Differences by Mode

Change Made to Question	Frequency	CAPI Frequency	Percent CAPI (n=65)	CATI Frequency	Percent CATI (n=158)
How much did [name/you] receive? {ADDED 'ESTIMATE' OR 'BEST GUESS'}	129	26	40%	103	65%
How much did [name/you] receive? {ADDED INFO OR EXAMPLE}	74	33	51%	41	26%
How much did [name/you] receive? {ADDED 'ESTIMATE' OR 'BEST GUESS' AND ADDED INFO OR EXAMPLE}	20	6	9%	14	9%
TOTAL	223	65	100%	158	100%

Respondent Behavior	Ov	erall	En	glish	Spa	nish	C.	API	(CATI
	n	%	n	%	n	%	n	%	n	%
R did not understand Q and asked for clarification	30	67%	15	88%	15	54%	7	32%	23	100%
R gives monthly or weekly income	9	20%	0	0%	9	32%	9	41%	0	0%
DK	6	13%	2	12%	4	14%	6	27%	0	0%
TOTAL	45	100%	17	100%	28	100%	22	100%	23	100%

Table E-WAG: Respondent First Level Behavior Detail from Open Text Notes

WAGETEST

Table A-WAGETEST: Interviewer First Level Frequency of Question as Administered

Change Made to Question (mutually exclusive categories)	Frequency	Percent of Open Text Notes (n=112)*	Percent of All Administrations (n=597)
EXACT READING: How much did [name/you] receive in wages and salary from all jobs before taxes and other deductions?	232	N/A	39%
How much did [name/you] receive in wages and salary from all jobs before taxes and other deductions? {ADDED 'ESTIMATE' OR 'ABOUT'}	38	34%	6%
How much did [name/you] receive from all jobs before taxes and other deductions?	14	13%	2%
How much did [name/you] receive in wages and salary from all jobs before taxes and other deductions? {ADDED INFO OR EXAMPLE}	13	12%	2%
How much did [name/you] receive?	13	12%	2%
How much did [name/you] receive? {ADDED 'ESTIMATE' OR 'ABOUT'}	13	12%	2%
How much did [name/you]? {ADDED INFO OR EXAMPLE}	9	8%	2%
How much did [name/you] receive? {ADDED INFO OR EXAMPLE, AND ADDED 'ESTIMATE' OR 'ABOUT'}	7	6%	1%
How much did [name/you] receive in wages and salary from all jobs?	5	4%	1%
Skipped/Inaudible/Other**	253	N/A	42%
TOTAL	597	100%	100%

*This is the sum of cases for which substantive notes were made. It excludes exact readings, skipped and inaudible cases, as well as other cases where the notes were not detailed enough to be useful or informative.

Table B-WAGETEST: Interviewer First Level Frequency of Dropped Terms

Change made to Question (overlapping categories)	Frequency	Percent of Open Text Notes (n=112)	Percent of All Administrations (n=597)
Added 'estimate' or 'about'	58	52%	10%
Omitted "wages and salary"	56	50%	9%
Omitted "before taxes and other deductions"	47	42%	8%
Added info or example	29	26%	5%

Table C-WAGETEST: Notable Differences by Language N/A – all relevant open text notes are in English

Change Made to Question	Frequency	CAPI Frequency	Percent CAPI (n=31)	CATI Frequency	Percent CATI (n=81)
How much did [name/you] receive in wages and salary from all jobs before taxes and other deductions? {ADDED 'ESTIMATE' OR 'ABOUT'}	38	8	26%	30	37%
How much did [name/you] receive from all jobs before taxes and other deductions?	14	2	6%	12	15%
How much did [name/you] receive in wages and salary from all jobs before taxes and other deductions? {ADDED INFO OR EXAMPLE}	13	4	13%	9	11%
How much did [name/you] receive?	13	5	16%	8	10%
How much did [name/you] receive? {ADDED 'ESTIMATE' OR 'ABOUT'}	13	1	3%	12	15%
How much did [name/you]? {ADDED INFO OR EXAMPLE}	9	7	23%	2	2%
How much did [name/you] receive? {ADDED INFO OR EXAMPLE, AND ADDED 'ESTIMATE' OR 'ABOUT'}	7	3	10%	4	5%
How much did [name/you] receive in wages and salary from all jobs?	5	1	3%	4	5%
TOTAL	112	31	100%	81	100%

Table D-WAGETEST: Interviewer First Level Notable Differences by Mode

Table E-WAGETEST: Respondent First Level Behavior Detail from Open Text Notes

Respondent Behavior	Ov	erall	Er	ıglish	Spa	nish	C	API	(CATI
	n	%	n	%	n	%	n	%	n	%
R did not understand Q and asked for clarification	68	94%	17	100%	51	93%	28	88%	40	100%
R gives monthly or weekly income	4	6%	0	0%	4	7%	4	13%	0	0%
TOTAL	72	100%	17	100%	55	100%	32	100%	40	100%

WAGX

Table A-WAGX: Interviewer First Level Frequency of Question as Administered

Change Made to Question (mutually exclusive categories)	Frequency	Percent of Open Text Notes (n=64)*	Percent of All Administrations (n=735)
EXACT READING: The next few questions are about income during the past 12 months. Did [name/you] receive any wages, salary, tips, bonuses, or commissions?	444	N/A	60%
The next few questions are about income. Did [name/you] receive any wages, salary, tips, bonuses, or commissions?	30	47%	4%
Other Miscellaneous Changes to Wording	7	11%	1%
The next few questions are about income during the past 12 months. Did [name/you] receive any wages, salary, tips, bonuses, or commissions? {ADDED INFO OR EXAMPLE}	6	9%	1%
The next few questions are about income during the past 12 months. Did [name/you] receive any wages, salary, tips, bonuses, or commissions? {ADDED 'ESTIMATE'}	5	8%	1%
The next few questions are about income during the past 12 months. Did [name/you] receive any wages?	5	8%	1%
The next few questions are about income during the past 12 months. Did [name/you] receive any wages, salary, tips, or bonuses?	4	6%	1%
The next few questions are about income during the past 12 months. Did [name/you] receive any wages, salary, or tips?	3	5%	0%
The next few questions are about income. Did [name/you] receive any wages, salary, tips, bonuses, or commissions? {ADDED 'ESTIMATE'}	2	3%	0%
The next few questions are about income. Did [name/you] receive any wages or salary?	2	3%	0%
Skipped/Inaudible/Other** TOTAL	227 735	N/A 100%	31% 100%

*This is the sum of cases for which substantive notes were made. It excludes exact readings, skipped and inaudible cases, as well as other cases where the notes were not detailed enough to be useful or informative.

Table B-WAGX: Interviewer First Level Frequency of Dropped Terms

Change made to Question (overlapping categories)	Frequency	Percent of Open Text Notes (n=64)	Percent of All Administrations (n=735)
Omitted "during the past 12 months"	37	58%	5%
Omitted "commissions"	17	27%	2%
Omitted "bonuses"	14	22%	2%
Omitted "tips"	11	17%	1%
Omitted "salary"	7	11%	1%

Change Made to Question	Frequency	English Frequency	Percent English (n=37)	Spanish Frequency	Percent Spanish (n=27)
The next few questions are about income. Did [name/you] receive any wages, salary, tips, bonuses, or commissions?	30	4	11%	26	96%
Other Miscellaneous Changes to Wording	7	6	16%	1	4%
The next few questions are about income during the past 12 months. Did [name/you] receive any wages, salary, tips, bonuses, or commissions? {ADDED INFO OR EXAMPLE}	6	6	16%	0	0%
The next few questions are about income during the past 12 months. Did [name/you] receive any wages, salary, tips, bonuses, or commissions? {ADDED 'ESTIMATE'}	5	5	14%	0	0%
The next few questions are about income during the past 12 months. Did [name/you] receive any wages?	5	5	14%	0	0%
The next few questions are about income during the past 12 months. Did [name/you] receive any wages, salary, tips, or bonuses?	4	4	11%	0	0%
The next few questions are about income during the past 12 months. Did [name/you] receive any wages, salary, or tips?	3	3	8%	0	0%
The next few questions are about income. Did [name/you] receive any wages, salary, tips, bonuses, or commissions? {ADDED 'ESTIMATE'}	2	2	5%	0	0%
The next few questions are about income. Did [name/you] receive any wages or salary?	2	2	5%	0	0%
TOTAL	64	37	100%	27	100%

Change Made to Question	Frequency	Frequency CAPI Frequency		CATI Frequency	Percent CATI (n=32)	
The next few questions are about income. Did [name/you] receive any wages, salary, tips, bonuses, or commissions?	30	16	(n=32) 50%	14	44%	
Other Miscellaneous Changes to Wording	7	3	9%	4	13%	
The next few questions are about income during the past 12 months. Did [name/you] receive any wages, salary, tips, bonuses, or commissions? {ADDED INFO OR EXAMPLE}	6	2	6%	4	13%	
The next few questions are about income during the past 12 months. Did [name/you] receive any wages, salary, tips, bonuses, or commissions? {ADDED 'ESTIMATE'}	5	1	3%	4	13%	
The next few questions are about income during the past 12 months. Did [name/you] receive any wages?	5	3	9%	2	6%	
The next few questions are about income during the past 12 months. Did [name/you] receive any wages, salary, tips, or bonuses?	4	3	9%	1	3%	
The next few questions are about income during the past 12 months. Did [name/you] receive any wages, salary, or tips?	3	1	3%	2	6%	
The next few questions are about income. Did [name/you] receive any wages, salary, tips, bonuses, or commissions? {ADDED 'ESTIMATE'}	2	2	6%	0	0%	
The next few questions are about income. Did [name/you] receive any wages or salary?	2	1	3%	1	3%	
TOTAL	64	32	100%	32	100%	

Table D-WAGX: Interviewer First Level Notable Differences by Mode

Table E-WAGX: Respondent First Level Behavior Detail from Open Text Notes

Respondent Behavior	Overall		English		Spa	nish	САРІ		CATI	
	n	%	n	%	n	%	n	%	n	%
R said 'wages' or 'salary' instead of 'yes/no'	93	92%	47	94%	46	90%	16	89%	77	94%
R did not understand Q and asked for clarification	5	5%	2	4%	3	6%	1	6%	4	5%
R gives monthly or weekly income	3	3%	1	2%	2	4%	2	11%	1	1%
TOTAL	101	100%	50	100%	51	100%	18	100%	82	100%