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MEMORANDUM FOR ACS Research and Evaluation Advisory Group

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Subject: American Community Survey 2012 Content Reinterview Survey

Attached is the final American Community Survey Research and Evaluation report for the American Community Survey 2012 Content Reinterview Survey. This survey evaluated the reliability of responses to American Community Survey questions by re-contacting a sample of households that responded to the American Community Survey between January and December of 2012.

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Attachment

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January 6, 2014

American Community Survey 2012 Content Reinterview Survey



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EXECUTIVE SUMMARY

The American Community Survey is an ongoing survey designed to collect detailed data about the nation's population and housing. Beginning with the 2010 Census, the American Community Survey has replaced the decennial long form, allowing annual updates of information that the U.S. Census Bureau previously did only once every ten years.

We designed the American Community Survey 2012 Content Reinterview Survey to evaluate the reliability of responses to American Community Survey questions. Along with other measures of data quality such as item nonresponse and response bias, item-level measures of response reliability are important to both data users and American Community Survey planners. Data users need to understand how errors in the data may affect the conclusions they draw from analyzing the data. American Community Survey planners need information about current data quality to develop and test methods for improving data quality in the future.

The American Community Survey 2012 Content Reinterview Survey used a simple response variance type reinterview, meaning that we asked essentially the same questions in the reinterview that we asked in the original American Community Survey interview. We selected a sample of 72,000 households from American Community Survey returns processed between January 3, 2012 and December 3, 2012. The Content Reinterview Survey sample included returns from all three data collection modes used in 2012: Mail, Computer Assisted Telephone Interviewing, and Computer Assisted Personal Interviewing. The Content Reinterview Survey was conducted only in the Computer Assisted Telephone Interviewing mode. The overall response rate for the Content Reinterview Survey was about 67 percent.

We calculated four evaluation measures: the gross difference rate, the index of inconsistency, the aggregate gross difference rate, and the aggregate index of inconsistency. We also calculated the net difference rate for each analysis category to determine when the index of inconsistency is invalid. The gross difference rate, index of inconsistency, and net difference rate are category-level measures. The aggregate gross difference rate and aggregate index of inconsistency are analysis-topic-level measures calculated for analysis topics with three or more analysis categories. (For dichotomous analysis topics, the aggregate measures have the same value as the gross difference rate and the index of inconsistency for either category.)

We used the index of inconsistency and gross difference rate to identify analysis categories with potential reliability problems. Analysis topics are considered to have potential reliability problems if they have one or more categories with potential reliability problems. The American Community Survey questions associated with these analysis topics have the most inconsistent responses.

Overall, we see that response error is probably not a major concern for most American Community Survey questions. Using the traditional rule of thumb for the index of inconsistency, the inconsistency level for the majority of analysis categories is either "Low" or "Moderate". There are a relatively small number of categories (and analysis topics) for which response error appears to be a significant proportion of total error, and we should focus future study on these categories and analysis topics.

We identify 36 analysis topics as having potential reliability problems, 10 housing analysis topics and 26 person analysis topics. Many of these correspond to questions that require dollar amount responses, especially amounts that tend to change frequently or are otherwise difficult to recall. Eight of the ten housing analysis topics correspond to questions that ask for dollar amounts. Examples include Monthly Electricity Cost, Annual Water and Sewer Cost, Condominium Fee, and Second Mortgage Payment Amount. Of the eight personal income amount analysis topics, six have potential reliability problems; and these six account for all person analysis topics with potential reliability problems that ask for a dollar amount response. Other analysis topics with potential reliability problems, such as Number of Rooms, Year of Naturalization, and Commute Minutes, have numeric (non-dollar) responses and a large number of analysis categories. These and other non-numeric analysis topics with potential reliability problems may present the respondent with a difficult cognitive task, or the questions may simply be unclear to some respondents.

We also calculated the response reliability evaluation measures by American Community Survey collection mode, and by five population subgroups defined using Hispanic Origin and Race (Hispanic, White, Black, Hispanic, and Other). Using a criterion based only on category gross difference rate estimates and their Coefficient of Variation values, we identified thirteen analysis topics that may have reliability issues specific to one or more of the three American Community Survey data collection modes. Similarly, we identified 22 analysis topics that may have reliability issues specific to one or more of the five Hispanic Origin/Race subgroups. Our analysis of reliability by mode and Hispanic Origin/Race subgroup is limited, but the identification of analysis topics that may have issues specific to a mode or subgroup could be the basis for future research.

1 Introduction

1.1 Description of the American Community Survey in 2012

The American Community Survey (ACS) is an ongoing survey designed to collect detailed data about the nation's population and housing. Beginning with the 2010 Census, the ACS has replaced the decennial long form, allowing annual updates of information that the U.S. Census Bureau previously did only once every ten years.

Since its inception, the ACS has collected data using three modes: mailout/mailback of a paper questionnaire (Mail), Computer-Assisted Telephone Interview (CATI) and Computer-Assisted Personal Interview (CAPI). In general, sampled addresses receive the mail questionnaire first and are later eligible to be contacted by Computer-Assisted Telephone Interview and then as part of Computer-Assisted Personal Interview nonresponse follow-up operations.

It is assumed that one member of the household is responding for the whole household; but sometimes there are multiple respondents. We ask respondents to designate one person in each household, in whose name the house, apartment, or mobile home is rented or owned; and this person is identified as "Person 1" (the householder.) The respondent and the householder may be the same person, but that is not required or assumed.

The mailout/mailback paper questionnaire version of the ACS used for calendar year 2012 consisted of three sections, covering three broad analysis topic areas: person-level basic demographic analysis topics, housing and other household-level analysis topics, and detailed person-level analysis topics. See Appendix E for images of all questions as they appeared on the 2012 paper questionnaire. Note that the questions were presented in this order (first basic demographics, then housing, then detailed person questions) in all three modes.

The basic demographics section had six questions: (1) name, (2) relationship to householder, (3) sex, (4) age (with date of birth), (5) Hispanic origin, and (6) race. The form had five iterations of the basic demographic section, to capture data for up to five people in a household. A supplemental section allowed households responding by mail to list the name, sex, and age (without date of birth) for up to seven additional persons (Person 6 through Person 12). The ACS attempted to follow up by telephone with large households in order to collect complete basic demographic information for Persons 6 and higher. In the CATI and CAPI modes, the detailed basic demographic questions were asked about all persons in the household regardless of household size.

The housing analysis topics section had 24 questions about characteristics of the housing unit (house, apartment, or mobile home) and the household (the group of persons living in the housing unit).

The detailed person-level analysis topics section had 48 questions. As with the basic demographics section, the paper questionnaire had only five iterations of the detailed person-level questions, and the ACS attempted to follow up by telephone with larger households that

responded by Mail to obtain answers to these questions for Persons 6 and higher. Again, in the CATI and CAPI modes, the ACS asked about all persons in the household regardless of household size.

Most ACS questions were presented with a discrete set of response options. In some cases (e.g., Sex, or Tenure) the respondent was expected to select only one response. In other cases (e.g., Race, Period of Military Service) the respondent was asked to "mark all that apply." There were also questions, such as the one about Health Insurance Coverage, that could have had "mark all that apply" response options, but were instead presented as a series of separate questions, each having "Yes or No" response options. Finally, there were a number of places on the paper questionnaire where the respondent was asked to write a response to an open-ended question. (In CATI and CAPI, such questions were asked aloud, and the interviewer typed in the response.) In some cases (such as Ancestry) the only way to answer the question was with a written (or spoken) response. In other cases (such as Hispanic Origin, or Race) a write-in response option was provided as an alternative to pre-defined categories in case the respondent could not select one of the other response options, or needed to add to them.

1.2 Purpose of the ACS 2012 Content Reinterview Survey

The ACS 2012 Content Reinterview Survey (CRS) is an evaluation of the quality of data collected by the ACS in 2012. Specifically, the goal of the CRS is to determine the consistency of responses to ACS questions. The results are evaluation measures for the reliability of the data collected, reliability being one measure of data quality. Along with other measures of data quality such as item nonresponse and response bias, item-level measures of reliability are important to both data users and ACS planners. Data users need to understand how response errors in the data may affect the conclusions they draw from analyzing the data. ACS planners need information about current data quality to develop and test methods for improving data quality in the future.

1.3 Background

The methods used to collect and process data for a survey like the ACS are complex and subject to error. One particular type of error, response error, occurs when respondents answer questions incorrectly. This can be due to flaws in the survey design, misunderstanding of the questions, misreporting by respondents, or interviewer effects. To the extent that survey questions are prone to response error, the data are less reliable. Hence, response error relates directly to reliability, the focus of this study.

One way to evaluate the extent of survey response error is a content reinterview¹, where the survey organization re-contacts persons that responded to the original survey shortly after the

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¹ We use the term *content reinterview* to distinguish this type of evaluation from a *quality reinterview*. For surveys (including the ACS) where data are collected using interviewers, the U.S. Census Bureau conducts a *quality reinterview* survey to help determine whether interviewers are following proper procedures.

original interview and asks the same (or similar) questions. Analysts then compare reinterview responses with original survey responses to measure differences that translate into response error for each item of interest.

There are a number of precedents for the ACS 2012 CRS. The U.S. Census Bureau has conducted a content reinterview survey following every decennial census since 1950, up through 2010.² While we have not previously conducted a content reinterview survey for the ACS, we did conduct content reinterviews for the ACS content tests in 2006, 2007, and 2010.³ We designed the ACS content tests to test changes to questions and alternative versions of new questions under consideration for the ACS. One criterion for deciding between competing versions of a question was the level of response error associated with each version, so we used a reinterview to provide reliability measures. However, we only included the questions being tested and a few others for context in the content test reinterviews.

When conducting a reinterview survey, a reinterview question may simply be a repetition of the original interview question. We call this a response-variance-type reinterview question, since one may use it to estimate simple response variance (SRV). Simple response variance is a measure of variation in responses when the same question is asked repeatedly.

Alternatively, a reinterview question may be a detailed, probing one designed to elicit more accurate responses than were obtained in the original interview. We call this a response-bias-type reinterview question, since one may use it to estimate response bias. Response bias measures systematic patterns in the differences between respondents' answers and the true responses.

The 1990 Census CRS used both types of questions (varying by analysis topic), while the corresponding 2000 and 2010 surveys used only response-variance-type questions. For the 2010 Census, a separate reinterview, the 2010 Census Alternative Questionnaire Experiment (AQE) reinterview, estimated response bias for the race and Hispanic origin items using response-bias-type reinterview questions. The content reinterviews associated with the ACS content tests used both types of questions.

For the ACS 2012 CRS, we used only response-variance-type reinterview questions. However, we may be able to estimate response bias for some analysis topics using Latent Class Analysis (LCA) techniques (Biemer, 2011). LCA may also reveal other patterns in the data not evident from the traditional evaluation measures presented here. Another advantage of LCA is that it does not require the assumption of parallel measurements that a response-variance-type

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² CRS evaluation reports from the past three decennial censuses are available on the U.S. Census Bureau web site. See the list of references (section 5) for a URL address for each document. [1990 CRS report: (US Census Bureau, 1993); 2000 CRS report: (Singer & Ennis, 2003); 2010 CRS report: (Dusch & Meier, 2012); 2010 AQE report: (Compton, Bentley, Ennis, & Rastogi, 2012)]

³ For example, see description of content follow-up interview for Food Stamps in the 2010 ACS Content Test: (Loveless, 2012).

reinterview requires in order for estimates of SRV (and the related index of inconsistency) to be valid. We plan to present results of LCA applied to the CRS data in a future report.

1.4 Research Questions

- How consistent was the reporting of ACS 2012 analysis topics between the CRS and the original ACS production interview?
- What are the reliability measures associated with each mode of data collection in the original ACS interview?
- What are the reliability measures associated with Hispanic Origin and Race classification in the original ACS interview?

2 Methodology

In this section, we discuss the evaluation measures used for analysis of the CRS data, and the design of the CRS. All of the evaluation measures are calculated using weighted counts. For each analysis topic, we restrict our analysis to cases with responses in both ACS and CRS.

2.1 Evaluation Measures Used for CRS Analysis

We use the following evaluation measures to evaluate the consistency of reporting of ACS analysis topics:

- (1) Gross Difference Rate (GDR)
- (2) Index of Inconsistency (IOI)
- (3) Aggregate (L-fold) gross difference rate (GDR_L)
- (4) Aggregate (L-fold) index of inconsistency (IOI_L)

In addition, we calculate the Net Difference Rate (NDR) measure in order to check the validity of the IOI evaluation measure.

We define each of these five measures in detail below, but first we establish some basic concepts and notation.

We treat all ACS analysis topics as *categorical* for the purposes of this report. This means that all possible responses for each analysis topic are mapped to a set of L discrete categories, where L is an integer greater than or equal to two. For almost all analysis topics, these categories are mutually exclusive, in the sense that every household or person may only be assigned to one category.⁴

⁴ For two topics, Ancestry and Field of Bachelor's Degree, it is impractical to define mutually exclusive categories. Both have open-ended write-in response options that allow a respondent to give multiple answers. For Ancestry, we capture and code up to two responses per person. For Field of Bachelor's degree, we capture and code up to ten

For some analysis topics, the categories have an obvious one-to-one correspondence with the possible responses to the ACS questions from which we derive the analysis topics. For example, we derive the Sex analysis topic directly from the question "What is Person <#>'s sex?" for which the valid responses are "Male" or "Female." These are the two categories for the Sex analysis topic.

For other analysis topics, we worked with subject matter experts to define categories as ranges, sets, or combinations of the possible responses to the ACS question. For example, we derive the Rooms analysis topic from the question "How many separate rooms are in this house, apartment, or mobile home?" for which the valid responses are one to 99. Rather than having 99 categories, we define nine, with the first eight corresponding to the responses one to 8, and the ninth category defined as responses of nine or higher.

From some ACS questions, we derive multiple analysis topics. For example, from the question "What is Person <#>'s race?" we derive seventeen analysis topics. Referring to the mail (paper) questionnaire, twelve of the Race analysis topics correspond to twelve individual checkboxes, one corresponds to a collapsed group of three checkboxes, and three correspond to the three write-in spaces. Each of these first sixteen Race analysis topics has two categories. For the checkboxes, the categories are "checked" (or "Yes") and "not checked" (or "No"). For the write-in spaces, the categories are "write-in present" and "blank". However, we also wanted to measure the overall reliability of the Race question, so we created a seventeenth "Race Aggregate" analysis topic by defining seven mutually exclusive categories. Six of these categories are restricted to persons with only one race specified, while the seventh category contains all other persons. (See Appendix E -- pages E-5 to E-6 -- for details.) Defining the "Race Aggregate" analysis topic allowed us to calculate the GDR_L and IOI_L measures, providing a means to measure overall response reliability for Race.

See Appendix E for a list of all CRS analysis topics and analysis categories, with explanations of how we derived these from the ACS questions.

Now consider a single category for some analysis topic. For illustration, suppose the analysis topic is Tenure, and the category is "rented". Define the following quantities:

a = weighted count of units in the category (rented) for both ACS and CRS

b = weighted count of units not in the category for ACS, but in the category for CRS

c = weighted count of units in the category for ACS, but not in the category for CRS

d = weighted count of units not in the category for either ACS or CRS

n = a + b + c + d = weighted count of all units with a response in both ACS and CRS

responses per person. In both cases, it is possible for the coded responses to result in a person being in two or more CRS analysis categories simultaneously.

We exclude units that do not have a valid non-missing response for both ACS and CRS from the analysis for this analysis topic, so the sample size for an analysis topic is the count (or sum of weights) of units with valid non-missing responses for both ACS and CRS.

Table 1 shows the cross-tabulation of ACS results by CRS results for any single analysis topic category. For illustration, Table 2 shows the actual (weighted) results for the Tenure "rented" category.

Table 1: Cross-tabulation of ACS results by CRS results for a single analysis topic category

		ACS		
		in category	not in category	CRS totals
CRS status	in category	a	b	a + b
CKS status	not in category	С	d	c + d
ACS totals		a + c	b+d	n

Table 2: Cross-tabulation of ACS results by CRS results for Tenure "rented" category

		ACS	CRS totals	
		rented	not rented	CKS totals
CRS status	rented	12,450,736	361,583	12,812,319
	not rented	386,342	26,121,227	26,507,569
ACS totals		12,837,078	26,482,810	39,319,888

Source: U.S. Census Bureau, 2012 ACS Content Reinterview Survey, January to December 2012

From Table 1, we define the following four proportions, and calculate the corresponding actual estimates for Tenure based on Table 2:

ACS proportion in category (rented):
$$p_1 = \frac{a+c}{n} = 0.3265$$

CRS proportion in category (rented):
$$p_2 = \frac{a+b}{n} = 0.3258$$

ACS proportion not in category (not rented):
$$q_1 = 1 - p_1 = \frac{b+d}{n} = 0.6735$$

CRS proportion not in category (not rented):
$$q_2 = 1 - p_2 = \frac{c+d}{n} = 0.6742$$

We use the variables p_1 , p_2 , q_1 , and q_2 in the calculation of IOI and NDR later in this section.

Next, suppose that an analysis topic has L analysis categories. For Tenure, L = 4. Let X_{ij} be the weighted count of sample units (households or persons) for which we have CRS responses in category i and ACS responses in category j. Here, both i and j range from 1 to L. Table 3 shows a cross-tabulation of ACS results and CRS results for a generic analysis topic. Note that if L = 2 then Table 3 is equivalent to Table 1.

Table 3: Cross-tabulation of ACS results with CRS results for an analysis topic with L categories

		ACS	analy	sis ca	ategor	ies		
		1	2		j		L	CRS totals
	1	X_{11}	X_{12}		X_{1j}		X_{1L}	X_{1+}
	2	X_{21}	X_{22}		X_{2j}		$X_{2\mathrm{L}}$	X_{2+}
CRS analysis	•••		•••	• • •	•••	•••	•••	
categories	i	X_{i1}	X_{i2}	• • •	X_{ij}	•••	•••	X_{i+}
	• • •		• • •	• • •	• • •	• • •	• • •	•••
	L	X_{L1}	$X_{\rm L2}$		$X_{ m Lj}$		X_{LL}	$X_{\mathrm{L}+}$
ACS totals	•	X_{+1}	X_{+2}		X_{+j}		X_{+L}	$T = \sum_{i=1}^{L} \sum_{j=1}^{L} X_{ij}$

For illustration, Table 4 shows the actual weighted counts for "Tenure".

Table 4: Cross-tabulation of ACS results with CRS results for Tenure

			ACS analysis categories				
		Owned with a mortgage	Owned without a mortgage	Rented	Occupied without payment of rent	CRS totals	
	Owned with a mortgage	16,294,865	331,396	164,958	21,232	16,812,451	
CRS analysis	Owned without a mortgage	803,592	7,745,224	89,938	145,045	8,783,799	
categories	Rented	209,472	86,180	12,450,736	65,931	12,812,319	
	Occupied without payment of rent	110,504	127,854	131,446	541,515	911,319	
ACS totals		17,418,433	8,290,654	12,837,078	773,723	39,319,888	

Source: U.S. Census Bureau, 2012 ACS Content Reinterview Survey, January to December 2012

Now define the following proportions:

$$p_{ij} = \frac{X_{ij}}{T}$$

$$p_{+j} = \frac{X_{+j}}{T}$$

$$p_{i+} = \frac{X_{i+}}{T}$$

We will use these terms for calculating IOI_L later in this section. For illustration, Table 5 shows the estimates of these proportions for "Tenure".

Table 5: Proportion Cross-tabulation for Tenure

		ACS analysis categories				
		Owned with a mortgage	Owned without a mortgage	Rented	Occupied without payment of rent	CRS totals
	Owned with a mortgage	0.4144	0.0084	0.0042	0.0005	0.4276
CRS analysis	Owned without a mortgage	0.0204	0.1970	0.0023	0.0037	0.2234
categories	Rented	0.0053	0.0022	0.3167	0.0017	0.3258
	Occupied without payment of rent	0.0028	0.0033	0.0033	0.0138	0.0232
ACS totals		0.4430	0.2109	0.3265	0.0197	1.0000

Source: U.S. Census Bureau, 2012 ACS Content Reinterview Survey, January to December 2012

We now define the evaluation measures used in this report using the variables from Table 1 and Table 3.

2.1.1 Gross Difference Rate (GDR)

The GDR for an analysis category is the percentage of the total responses for the analysis topic that move to or from that category between the original interview (ACS) and the reinterview (CRS). The formula for calculating GDR (using Table 1 variables) is:

$$GDR = \left(\frac{b+c}{n}\right) \times 100$$

The GDR is the primary category-level evaluation measure we use in this report. A small GDR indicates good consistency for an analysis topic category, while a large GDR indicates poor consistency. For illustration, using estimates from Table 2, the GDR estimate for the "Rented" category in the "Tenure" analysis topic is:

$$GDR = \left(\frac{361,583 + 386,342}{39,319,888}\right) \times 100 = 1.9 \ percent$$

2.1.2 Index of Inconsistency (IOI)

In order to define the IOI, we must first discuss the variance of a category proportion estimate. If we are interested in the true proportion of a total population that is in a certain category, we can

use the proportion of a survey sample in that category as an estimate. Under certain reasonable assumptions, it can be shown that the total variance of this proportion estimate is the sum of two components, sampling variance (SV) and simple response variance (SRV). It can also be shown that an unbiased estimate of SRV is half of the GDR for the category.

SV is the part of total variance resulting from the differences between all the possible samples of size *n* one might have selected. SRV is the part of total variance resulting from the aggregation of response error across all sample units. If the responses for all sample units were perfectly consistent, then SRV would be zero, and the total variance would be due entirely to SV. As the name suggests, the IOI is a measure of how much of total variance is due to inconsistency in responses, as measured by SRV. A preliminary definition of the IOI is:

$$IOI = \frac{SRV}{SRV + SV} \times 100$$

We can estimate SRV using GDR, but also need to estimate the denominator (i.e., total variance) in this expression. Based on previous studies, the estimate we use for total variance is:

$$SRV + SV = \frac{p_1 q_2 + p_2 q_1}{2}$$

Here, p_1 , p_2 , q_1 , and q_2 are the proportions defined at the beginning of this section. Using the variables b and c from Table 1, the calculation formula for IOI is:

$$IOI = \frac{GDR/2}{(p_1q_2 + p_2q_1)/2} \times 100 = \frac{(b+c)/n}{p_1q_2 + p_2q_1} \times 100$$

For illustration, the estimate of *IOI* for the "Rented" category in the "Tenure" analysis topic is:

$$IOI = \frac{(361,583 + 386,342)/39,319,888}{(0.3265)(0.6742) + (0.3258)(0.6735)} \times 100 = 4.3 \ percent$$

Table 6 illustrates a frequently used "rule of thumb" for interpreting the Index of Inconsistency (Singer & Ennis, 2003). This interpretation also applies to the aggregate IOI explained in the following section. The tables of results in Appendices A and B each include a column indicating the Inconsistency Level for the analysis category or analysis topic.

Table 6: Interpretation of Index of Inconsistency (IOI) and L-fold Index of Inconsistency (IOIL)

Index value	Inconsistency Level	Interpretation
Less than 20 percent	Low	Usually not a major problem
20 up to 50 percent	Moderate	Somewhat problematic
Greater than 50 percent	High	Very problematic

2.1.3 Aggregate (L-fold) GDR (GDR_L) for an analysis topic

The GDR_L for an analysis topic is a weighted average of the L category GDR estimates. This measure evaluates consistency for the analysis topic as a whole, as opposed to the individual categories. The weight for category i is

$$w_i = \frac{a_i + b_i + c_i}{M}$$

where a_i b_i , and c_i are the values a, b, and c from Table 1 for category i, and M is the sum

$$M = \sum_{i=1}^{L} (a_i + b_i + c_i)$$

Then we calculate GDR_L as

$$GDR_L = \sum_{i=1}^{L} (w_i \times GDR_i)$$

Note that for dichotomous analysis topics (L = 2) the aggregate GDR is equal to the category GDR for either of the two categories.

2.1.4 Aggregate (L-fold) IOI (IOIL) for an analysis topic

The IOI_L is an overall analysis-topic-level measure corresponding to the category-level measure IOI. It can be shown that IOI_L for a given analysis topic is a weighted average of the IOI measures across all the categories for that analysis topic (Biemer, 2011). However, we show here a more straightforward calculation formula:

$$IOI_{L} = \frac{1 - \sum_{i=1}^{L} p_{ii}}{1 - \sum_{i=1}^{L} (p_{i+} p_{+i})} \times 100$$

For illustration, the estimate of IOI_L for the "Tenure" analysis topic, using estimates from Table 5, is:

$$IOI_{L} = \frac{1 - [0.4144 + 0.1970 + 0.3167 + 0.0138]}{1 - [(0.4430)(0.4276) + (0.2109)(0.2234) + (0.3265)(0.3258) + (0.0197)(0.0232)]} \times 100$$

$$= 8.9 \text{ percent}$$

2.1.5 Net Difference Rate (NDR)

The NDR for a single analysis topic category is the difference between the ACS and CRS incategory proportion estimates. The formula for calculating NDR is:

$$NDR = p_1 - p_2$$

If the CRS were a response-bias type reinterview, we would expect CRS responses more likely to be "true" than ACS responses, and NDR would be an estimate of the bias in the ACS incategory proportion estimate. In this case, a significantly negative NDR would indicate that the ACS is under-estimating the true proportion, while a significantly positive NDR would indicate an over-estimate.

However, since the CRS is a response-variance type reinterview, it is generally not valid to interpret NDR as an estimate of ACS bias. Rather, one should think of NDR in this context as a way to check whether the same essential survey conditions existed in the CRS as in the ACS. If the survey conditions were essentially the same, then we would expect p_1 and p_2 to be approximately equal, and NDR to be close to zero. If NDR is significantly positive or negative, we must be cautious about our interpretation of the other evaluation measures defined above, gross difference rate (GDR) and index of inconsistency (IOI).

For a few CRS analysis topics, we think it may be reasonable to treat CATI responses as being more reliable than Mail and/or CAPI responses. Recall that we administered CRS re-interviews only in the CATI mode. Therefore, if the absolute value of the NDR is relatively large for Mail and/or CAPI responses while the NDR for CATI responses is near zero, we may relax the rule stated above and treat the NDR for Mail and/or CAPI responses as an indicator of bias. However, this situation is rare, and even for these few CRS analysis topics the interpretation of NDR as an indicator of bias is speculative.

2.2 How We Use the Evaluation Measures to Answer the Research Questions

We want to emphasize that the methods and specific criteria described in this section are just one of many possible approaches for interpreting the CRS evaluation measures. Alternative methods and/or criteria could identify different sets of response categories and analysis topics as having reliability problems. However, we found the approach taken here to produce the most reasonable results from among several we tried.

2.2.1 How consistent was the reporting of ACS 2012 analysis topics between the CRS and the original ACS production interview?

To evaluate reliability of an analysis topic, we start by looking at the reliability of response categories within each analysis topic. (If an analysis topic is binary, the measures for either category are equivalent to the analysis-topic-level measures.) In evaluating the reliability of analysis categories, the first measure we consider is the IOI. However, if the NDR for a category is large, this is strong evidence that the assumption of parallel measures does not hold. This assumption is necessary for the IOI to be a valid measure of response reliability. Consequently,

we consider the IOI invalid if the absolute value of the NDR is larger than three percent and the NDR standard error is small enough to make it significantly non-zero.

In addition, extremely large or small category proportions cause the IOI to be unstable. Therefore, if either the ACS or CRS proportion estimate for a category is extremely small (less than 3.5 percent) or extremely large (greater than 96.5 percent), we consider the IOI invalid.

We determined these cutoff values for the NDR and proportion estimates by evaluating the correlation between the category IOI and GDR estimates for those categories where the IOI is valid, given a pair of cutoff values. The correlation $\rho(X, Y)$ between two variables X and Y is the ratio of the covariance of X and Y to the product of the standard deviations of X and Y:

$$\rho(X,Y) = \frac{Cov(X,Y)}{\sigma_X \sigma_Y}$$

Correlation values range from -1 to 1, with values closer to zero indicating a weak relationship between X and Y. Evaluated over all response categories, $\rho(IOI, GDR)$ has a value of 0.36, indicating that GDR and IOI will often lead to different conclusions about reliability if all response categories are considered.

We limited the range of cutoff values to consider by requiring that at least 420 categories - 60 percent of the 699 defined analysis categories - have valid IOI; and we required that the NDR cutoff be no larger than 3 percent. With these constraints, the value of $\rho(IOI, GDR)$ has a maximum of 0.73 with the NDR cutoff at its maximum allowed value of 3.0 percent and the category proportion cutoff at 3.5 percent. There are 422 categories with valid IOI with these cutoffs. By excluding the 277 categories with invalid IOI estimates, we substantially increase the correlation between IOI and GDR for the remaining categories.

To identify ACS questions that may have poor response reliability, we first consider categories where the IOI is valid. For each category with a valid IOI, we designate it as having a potential reliability problem (PRP) if the upper bound of the 90 percent confidence interval for the IOI estimate is greater than 50 percent. We consider the remaining items with valid IOI to have acceptable reliability.

Next, we consider the categories designated as having invalid IOI. The only viable measure we have to judge reliability for these categories is GDR. We identify a category with invalid IOI as PRP if the GDR is 5.8 percent or higher. We chose this value as the cutoff because 75 percent of categories have GDR estimates below 5.8 percent. We designate any analysis topic with one or more PRP analysis categories as being a PRP analysis topic. Table 7 summarizes the PRP results.

Table 7: Potential Reliability Problem (PRP) Summary Counts

Count of	Housing	Person	All Analysis Topics
Total Categories	215	484	699
Valid IOI Categories	143	280	423
Invalid IOI Categories	72	204	276
Valid IOI PRP Categories	37	43	80
Invalid IOI PRP Categories	2	13	15
Total PRP Categories	39	56	95
Total Analysis Topics	36	110	146
PRP Analysis Topics	10	25	35

Source: U.S. Census Bureau, 2012 ACS Content Reinterview Survey, January to December 2012

2.2.2 What are the reliability measures associated with each mode of data collection in the original ACS interview?

To answer this question, we calculated the aggregate analysis-topic-level measures GDR_L and IOI_L , and the category-level measures GDR and IOI, for the three data collection modes: Mail (including Failed Edit Follow-Up [FEFU]), CATI, and CAPI.

A previous study using ACS data from 2005 showed that the demographic and socio-economic characteristics of respondents correlate with their propensity to respond in each mode (Joshipura, 2008). This suggests that any differences in response reliability that we observe between modes may be due to characteristic differences as much as any mode effect. Because we did not use an experimental design that would allow us to distinguish between mode effects and differences in group characteristics, we cannot use any differences in response reliability across modes observed in the CRS to conclude that there is a mode effect for response reliability.

However, we are interested in identifying response categories and analysis topics that appear to have noticeable response reliability problems in each mode, considered independently. To this end, for each mode, we independently calculated the 90th percentile of GDR for the 699 response categories. We then identified all response categories with GDR values higher than the 90th percentile for each mode. Because small sample sizes for some analysis topics cause the GDR standard error estimates to be relatively large, we eliminate from this list those categories where the GDR coefficient of variation (the estimate divided by its standard error) is greater than 50 percent. The list of categories identified for each mode is in the results section later in this report.

2.2.3 What are the reliability measures associated with Hispanic Origin and Race classification in the original ACS interview?

To answer this question, we first defined five mutually exclusive population subgroups:

• <u>Hispanic</u> – Hispanic (any race)

- White White alone (not Hispanic)
- Black Black alone (not Hispanic)
- Asian Asian alone (not Hispanic)
- Other Multiple races or any other race alone (not Hispanic)

For housing analysis topics, we classify households according to which subgroup contains the reference person (Person 1), based on the original ACS responses to the Hispanic Origin and Race questions. For person analysis topics, we classify each person based on the original ACS responses to the Hispanic Origin and Race questions for that person.

We then calculated the analysis-topic-level aggregate measures GDR_L and IOI_L, and the category-level measures GDR and IOI, for each of the five Hispanic Origin/Race subgroups.

To identify response categories and analysis topics that appear to have noticeable response reliability problems for each of these five groups, we followed the same procedure described in the previous sub-section for the three data collection mode groups. The list of categories identified for each group is in the results section later in this report.

2.3 Weighting

There were three steps in CRS weighting, which we outline here. For more details, see (Keathley, 2013).

In the first step, we defined a baseweight for each CRS sample household to make the CRS sample representative of the national population. The baseweight takes into account ACS probability of selection, CRS eligibility rates, and CRS probability of selection.

The second step in CRS weighting was a CRS non-interview adjustment. Since some CRS sample households did not respond to the reinterview, we needed to make each responding CRS household representative of similar non-responding households. We grouped the CRS sample households into twelve cells defined by CRS module⁵ and original ACS response mode. The noninterview adjustment factor for all responding CRS households in each cell is the ratio of the total CRS sample base weight sum for that cell to the base weight sum of households that completed a CRS reinterview. For each CRS sample household that completed a reinterview, we calculated a final household level weight as the product of the household CRS baseweight and the noninterview adjustment factor for the cell containing the household.

The third step in CRS weighting was necessary for person analysis topics. We calculated four person-level adjustment factors, used to adjust the final household-level weight depending on both the person and the analysis topic. To reduce respondent burden, we asked most person-level questions only about the CRS respondent and one other randomly selected member of the household (if any). We refer to the CRS respondent as CRS Person 1, and the randomly selected

⁵ See section 2.4.1 for a description of the three CRS modules.

second person (if any) as CRS Person 2. In addition, many of the person analysis topics are restricted to the universe of persons 15 years of age or older. Therefore, we calculated two adjustment factors for each CRS Person (1 and 2), one for analysis topics with no universe restriction, and one for analysis topics with the age 15+ universe restriction. We chose not to adjust the weights for analysis topics with other age-based universe restrictions since these affected a relatively small number of CRS sample cases. We decided to make CRS Person 1 self-representing, so that both adjustment factors for the CRS respondent are 1; that is, CRS Person 1 has the same weight as the household. Since the respondents are self-representing, all CRS Person 2 responses must represent the unselected members of households (if any) who were in the universe for a given analysis topic. Therefore the adjustment factor for CRS Person 2 is (N-1) for analysis topics with no universe restriction, and $(N_{15} - 1)$ for analysis topics with the age 15+ universe restriction, where N is the total number of persons in the household, and N_{15} is the number of persons in the household age 15+.

2.4 Variance Estimation and Standard Errors for all CRS Evaluation measures

All of the evaluation measures in this report are weighted estimates. We estimate variances for these measures using a modified successive difference replication method developed by Fay and Train (Fay, 1995). This method uses eighty final CRS replicate weights together with the final CRS weight calculated for each unit (household or person). For each evaluation measure estimate, we also calculate eighty replicate versions of the estimate. The variance estimate is the average of the eighty squared differences between each replicate estimate and the base estimate, times a factor of 4. (See the article by Fay and Train for a derivation of this variance estimator.) The estimated standard error for each base estimate is then the square root of that variance estimate. We show every evaluation measure in Appendices A, B, C, and D with its standard error.

2.5 Design of the CRS

2.5.1 The CRS Survey Instrument

The CRS covered almost all questions on the 2012 ACS. We modified some questions that involve a reference period (e.g., "LAST WEEK, how many hours did this person work?") to refer to approximately the same period asked about in the original interview. In addition, because only households that have telephone service are eligible for the CRS, we did not ask the telephone service question. Aside from these two caveats, the CRS questions were verbatim repetitions of the production ACS CATI mode questions. We used a Spanish version of the CRS instrument for households that originally responded in Spanish in the ACS.

We grouped the questions into three CRS modules, and assigned each CRS sample household to one of the three modules. For the most part, we kept questions within a CRS module in the same order they appear in production ACS CATI to replicate any ACS sequencing and context effects. We asked a household's respondent only questions from that single module. See Appendix F for a list of the questions included in each module. This modular design was a way to reduce the respondent burden imposed by the CRS.

Module 1 consists of all of the housing questions, with the exception of the telephone service question. Module 2 contains about half of the person-level questions, beginning with the basic demographic questions and ending with the questions about Veteran's Service-Connected Disability. Module 3 begins with the age and date of birth questions, then asks the household question about food stamps, and finishes with all of the person-level questions from military service through the income questions.

Module 3 includes the food stamps question from Module 1 because we wanted a larger sample of households that received foodstamps, such households being relatively rare. Module 3 also includes the age, date of birth, military service, and Veteran's Service-Connected Disability questions from Module 2. We need the age and date of birth questions in module 3 because the CATI instrument uses age as a screener for all of the remaining person-level questions, and we didn't want to reuse the age data from the original ACS interview. We include the military service and Veteran's Service-Connected Disability questions in both modules 2 and 3 because we wanted a larger sample of veterans.

2.5.2 CRS Sampling

The CRS universe (Denby, Coan, and Lembo, 2011) excluded the following:

- Group Quarters
- Remote Alaska
- Puerto Rico
- Households without a valid phone number
- Households with interviews conducted in any language other than English or Spanish
- Interviews completed via Telephone Questionnaire Assistance (TQA)
- Households selected for an ACS CAPI quality control reinterview
- Households for which the 2012 ACS interview date was shifted in order to mitigate their also being in the 2012 sample for one of these other Census Bureau surveys:
 - o Consumer Expenditures Diary Survey (CED)
 - o Consumer Expenditures Quarterly Interview Survey (CEQ)
 - o Current Population Survey (CPS)
 - o National Crime Victimization Survey (NCVS)
 - o State Children's Health Insurance Programs Survey (SCHIP)
 - o Survey of Income and Program Participation (SIPP)
- Duplicate responses from ACS sample households already added to the CRS universe
- Temporarily occupied housing units
- Vacant housing units
- Single-person households where the person did not have a valid name
- Households with two or more persons where there were not at least two valid names, and one of the persons with a valid name was at least 15 years old
- Households with certain ACS outcome codes indicating incomplete interviews (e.g., "sufficient partials")

Beginning in January 2012, on a daily basis, we placed all other ACS returns in the CRS frame as they arrived during ACS post-collection processing. We then selected daily CRS samples from these daily frames. We also kept a cumulative record of all ACS returns during the CRS sampling period (January 3 through December 3). This record has the results of the CRS eligibility determination (if we excluded it from the frame and why) and the results of the CRS sampling process (which returns we selected for sample).

To reduce aggregate respondent burden for households that went through the ACS Failed Edit Follow Up (FEFU) process, the CRS sampling rate for FEFU returns was approximately one-fifth the sampling rate used for other returns. We designated each eligible ACS mail return as FEFU or non-FEFU at the beginning of the CRS sampling process.

We then used Poisson sampling to select daily CRS samples. That is, for each of the two sampling strata (FEFU and non-FEFU), we set a probability parameter (an estimate between 0 and 1) designed to achieve the desired sample size for the stratum over the course of the survey. For each eligible ACS return, we generated a random number and compared it to the appropriate probability parameter. If the random number was less than the parameter estimate, we selected the return for the CRS sample. If we selected a return, we randomly assigned it to one of the three CRS modules described previously.

In addition to determining the CRS module, the sampling process also randomly assigned a rank to each person in a CRS sample household. The CRS CATI instrument used this rank – if the case was in module 2 or module 3 – to pick a second person to ask about once the CRS respondent was finished answering the questions about themselves (assuming there was more than one person in the household).

2.5.3 CRS Data Collection

When we selected an ACS return for CRS, we determined a three-week CRS interviewing window for that case.

For cases where the original interview was in the mail mode (excluding FEFU), we set the beginning of the CRS interviewing window to a date shortly after processing. We wanted this start date, ideally, to be two weeks following the actual original response date. But for the mail mode there is so much uncertainty about the actual original response date (and by the time a mail mode case is being processed it is highly likely that at least one week has elapsed since the actual original response) that it made sense to begin CRS interview attempts as soon as possible after processing. On the other hand, for FEFU and CATI/CAPI interviews, we knew the original interview date, so we set the start date for CRS interviewing to exactly two weeks after that date. For all cases, the CRS interviewing stop date was three weeks after the start date.

As stated earlier, we used a Spanish version of the CRS instrument for households that responded in Spanish in the ACS .

During the three-week interviewing window for a CRS case, CATI interviewers attempted to contact the CRS sample household by telephone on a regular basis. On the first successful

contact, the interviewer requested to speak with the original respondent from the ACS production interview. If the original respondent was unavailable, the interviewer would usually set up a callback appointment. If the interviewer determined that the original respondent would not be available at any time during the three-week interviewing window, he/she attempted to speak with a proxy. On a second successful contact, the interviewer would again request to speak with the original respondent; but if the original respondent was still unavailable, the interviewer requested to speak with another member of the household who was at least 15 years old. If no such person was available, the interviewer ended the call and the case went back into the queue for further attempts. All subsequent successful contacts followed the same protocol as the second successful contact, until the stop date.

Once the interviewer was speaking with an eligible CRS respondent, they proceeded to ask that person the questions from the assigned module. For module 1, the interview was complete after the last housing question. For modules 2 or 3, the respondent first answered part or all of the basic demographics questions for all members of the household. Next, the respondent answered detailed demographics questions about himself/herself. Then the interviewer asked the same detailed demographics questions about the second selected person (based on the random rank assigned during sampling), if any. If for some reason the respondent could not or would not answer questions about the second selected person, the interviewer moved to the next ranked person, continuing until the respondent answered for a second person, or until there were no persons remaining.

2.5.4 CRS Sample Allocation and Response Rates

We selected the first CRS sample cases from the ACS returns processed January 3, 2012. We selected the final CRS sample cases from ACS returns processed December 3, 2012. We originally intended to sample from twelve full months of ACS returns; but changes in ACS production made it necessary to stop CRS sampling early, and reduced our frame to just eleven months of returns. We achieved our target designated sample size of 72,000 ACS returns by adjusting the Poisson sampling parameters. The first CRS interviews took place January 18, 2012; and we completed CRS interviewing by December 21, 2012.

During the eleven months of CRS sampling, we processed approximately 2.2 million ACS returns. These included multiple returns from some households. We determined that approximately 1.6 million (76 percent) of these returns were eligible for CRS sampling. We selected 72,000 (4 percent) of the eligible returns for the CRS sample, with approximately 24,000 assigned to each of the three CRS modules. We completed approximately 48,000 CRS interviews overall (67 percent).

Tables 8 and 9 give a detailed breakdown of the counts and rates for CRS eligibility, sampling, and response. We define the sampling rate as the proportion of eligible ACS returns selected for the CRS sample. We define the response rate as the proportion of households in the CRS sample that completed CRS reinterviews. We define the participation rate as the proportion of eligible ACS returns that were also completed CRS interviews.

Table 8: Unweighted Counts and Rates by Original ACS Response Mode

Response Mode	Mail (w/o FEFU)	FEFU	CATI	CAPI	All Modes Together
Original ACS Return Count	979,556	438,474	210,776	549,568	2,178,374
CRS Eligible Count	853,338	271,886	192,337	326,700	1,644,261
CRS Eligible Percent	87.1	62.0	91.3	59.4	75.5
CRS Sample Count	42,648	2,794	9,797	16,761	72,000
CRS Sampling Rate (percent)	5.0	1.0	5.1	5.1	4.4
CRS Completed Interview Count	31,184	2,069	6,273	8,364	47,890
CRS Response Rate (percent)	73.1	74.1	64.0	49.9	66.5
CRS Participation Rate (percent)	3.7	0.8	3.3	2.6	2.9

Source: U.S. Census Bureau, 2012 ACS Content Reinterview Survey, January to December 2012

Table 9: Unweighted Sample Counts and Rates by CRS Module

CRS Module	#1	#2	#3
Sample Count	23,981	24,091	23,928
Completed Interview Count	16,188	15,917	15,785
Response Rate	67.5%	66.1%	66.0%

Source: U.S. Census Bureau, 2012 ACS Content Reinterview Survey, January to December 2012

2.5.5 Processing of CRS Data

For every ACS return selected into the CRS sample, we obtained the unedited original responses from the production ACS process. There were a small number of cases where an ACS return was selected into the CRS sample but later was found to be an ACS noninterview. We could not obtain data for these, even if CRS reinterviews were completed; so we excluded such cases from CRS analysis. However, the CRS final weights account for these cases.

For every CRS reinterview completed, we obtained the unedited re-interview responses via a process similar to ACS CATI production data capture, but that ran independently. We excluded CRS noninterview cases from analysis, but the weights for completed re-interviews include a non-interview adjustment to account for these.

For questions with write-in responses, there are ACS production coding processes that convert each valid write-in response to a numeric code. We used these for both original ACS write-in responses and CRS re-interview write-in responses; and the results were included on the final CRS unedited data sets.

We created four final unedited CRS data sets. Two contained housing data corresponding to the CRS Module 1 analysis topics (and responses to the Foodstamps question from CRS Module 3); one for ACS responses and one for CRS responses. Similarly, two were person data sets corresponding to the CRS Module 2 and Module 3 analysis topics (except for the Foodstamps question).

Before comparing the CRS re-interview responses to the corresponding ACS original interview responses, we converted each raw response to a numeric response category. The rules for conversion were specific to each analysis topic, and we describe these in Appendix E. However, we converted the responses for many analysis topics using the following generalized algorithm:

- Count the number of distinct response options to the question as it appears on the Mail questionnaire; this is the number L of response categories.
- In the order they appear on the questionnaire, number the response options from 1 to L.
- Assign each valid response to the appropriate numeric response category, corresponding to the numbering scheme determined in the previous step.
- If a response is blank or invalid (e.g., "R" [refusal] or "D" [don't know]) assign a missing value to the numeric response category variable.

For a number of ACS questions, the responses were open-ended (write-in) and it was not possible to carry out the first step above. For these questions, we determined sets or ranges of response values corresponding to a finite number of numeric response categories. Also, there were a few exceptions to the last step. For instance, if the raw response for the Race "Asian" checkbox was blank or invalid, but there was a write-in response with a code in the "Asian" group, then we converted the "Asian" checkbox response to the numeric category 1 ("Yes, Asian"). Again, see Appendix E for the numeric category assignment rules specific to each analysis topic.

3 Limitations

There are a number of limitations to this report, both on the type of analysis possible and on the evaluation measures.

3.1 Differences in Mode of Data Collection

We conducted the reinterviews for CRS using only the CATI data collection mode; but the original ACS responses came via Mail, FEFU, CATI, and CAPI. This means that except for those who originally responded via CATI, we could not truly replicate the original ACS survey conditions in the CRS. For many analysis topics, this is apparent if one compares the number of categories with significant NDR values in the CATI subgroup with the number of categories with significant NDR values in the other two mode subgroups. The CATI subgroup tends to have fewer such categories than the Mail and CAPI subgroups, possibly because the respondents in the CATI subgroup responded via the same mode both times.

While this limitation does appear to have an impact, the ACS instruments are designed to try to elicit the same information from respondents regardless of the mode of response.

3.2 Within-Household Subsampling for Modules 2 and 3

For CRS sample units in Modules 2 and 3, if there were more than two persons on the original roster, we sub-sampled down to two persons in order to reduce the overall respondent burden. This increases the uncertainty of our evaluation measures over what it would be if we had asked about all persons in every household. In addition, we may be under-representing some sub-populations in the CRS sample because of the method used for sub-sampling, and because of certain processing errors that resulted in the sub-sampling method not working as intended for at least seven of the eleven months we were selecting CRS sample. In particular, we probably do not have as many persons under age 15 as we would have liked. This has more impact on some analysis topics than others. The Age analysis topic is one that is obviously affected. The School Attendance and School Grade Level analysis topics probably also have fewer persons included in the CRS analysis than we would have liked. This limitation probably does not have as much of an impact on analysis topics where the universe is restricted to persons age 15 or older.

3.3 Different Respondents in CRS than in ACS

To the extent possible, we attempted to conduct the CRS reinterview with the original ACS respondent; but if we could not contact that person, then we accepted another eligible member of the household as an alternate respondent for CRS. We do not currently have data on how often this was necessary; but we suspect it was a relatively rare occurrence. To the extent that we used alternate respondents, they may cause over-estimates of the gross difference rate and index of inconsistency measures, since it seems more likely that an alternate respondent would give an inconsistent reinterview response than the original respondent. It is not clear to us what effect alternate respondents might have on net difference rates, if any.

Note that we make a distinction here between a CRS "alternate respondent" and a "proxy respondent", since in both ACS and CRS the respondent (original or alternate) acts as a proxy for any other person in the household. We discuss the implications of proxy response briefly at the beginning of section 4.2.

3.4 Problems Inherent to the Index of Inconsistency Evaluation Measure

The index of inconsistency for an analysis category is sensitive to extremes in the prevalence of the population characteristic represented by that category. That is, if a characteristic is very rare in the overall population (say, less than one percent) or very common (say, 99 percent or more) then the index of inconsistency will have a large positive bias. This is because the estimate of total variance that is the denominator of the IOI is given by the expression [$(p_1q_2 + p_2q_1)/2$], where p_1 and p_2 are the ACS and CRS estimates of the characteristic's population proportion, and q_1 and q_2 are their complements, respectively. Since all four terms are between 0 and 1, extreme values will cause the entire expression to be small. No matter what the simple response variance estimate is, it will appear to be large in comparison, resulting in a large IOI estimate.

Another problem with the IOI is that the interpretation of IOI as the proportion of total variance resulting from simple response variance depends on the assumption of parallel measures. If this

assumption appears to be violated — which is indicated when the NDR is significant — then one cannot interpret the IOI this way.

3.5 Less Than one Full Year of ACS Sampled

The original design of the CRS called for the sample to be selected from a full 12 months of ACS returns. Due to a change in ACS production, we had to end CRS sampling after only eleven months. However, we believe the impact of this change to be minimal, since we were still able to select the full designated sample size of 72,000 households.

3.6 Questions Involving a Short Reference Period

Some ACS questions refer to a short, specific period, usually "last week" or "last month". For such questions, we edited the CRS CATI instrument so that in the re-interview we asked about the reference period corresponding to the original ACS response. For example, if the original ACS response date were Tuesday April 15, the reference period for the question "Did this person have a job last week?" would be Sunday April 6 through Saturday April 12. In the CRS re-interview, the question asked would be "Did this person have a job during the week beginning April 6?" Unfortunately, this means that it may have been more difficult for respondents to answer these questions accurately in the CRS re-interview than in the original ACS interview. This may result over-estimating the response error for such questions based on the CRS data.

3.7 Exclusions from the CRS Universe

As described earlier, we excluded some valid ACS returns from the ACS universe. Some of these exclusions may affect our measures of reliability.

We excluded ACS returns designated "sufficient partial" responses, because of the high proportion of item nonresponse in these returns. If we assume households represented by sufficient partial responses tend to respond less reliably in general than households represented by complete returns, then we are likely underestimating response error for some items. There is an added complication that the "sufficient partial" concept only applies to CATI and CAPI returns. For Mail, we may have included returns in the CRS universe that would have been "sufficient partial" (and thus excluded) had they been CATI or CAPI returns.

We also excluded returns where the ACS interview was in a language other than English or Spanish. For the ACS questions involving language, this is clearly a limitation. We must consider our reliability estimates for Language Other Than English Spoken At Home, Specific Language Spoken, and English Speaking Ability in light of this limitation. Our sample sizes for these questions are smaller than they would have been had we included other-language returns in the CRS universe.

4 Summary Results

In this section, we summarize the CRS evaluation measures across all analysis topics, and highlight analysis topics with measures that indicate potential problems with response reliability.

We also summarize the results of calculating the evaluation measures by mode, and by Hispanic Origin/Race subgroups.

The tables in appendices A and B contain the overall evaluation measures for all housing analysis topics and person analysis topics, respectively. The tables in appendices C and D contain the GDR and GDR_L measures by mode and by Hispanic Origin/Race subgroup, respectively. Appendix E shows the ACS questions as they appear on the 2012 ACS paper mail-back questionnaire, along with the corresponding analysis topics we defined for the CRS. Some questions have multiple corresponding analysis topics. There are 36 housing analysis topics and 110 person analysis topics, 146 overall.

Appendix E also shows the analysis categories defined for each analysis topic. For dichotomous analysis topics (that is, questions with only two analysis categories, such as "Yes/No") we only report evaluation measures for the first analysis category, since the GDR and IOI estimates are identical for both categories. In addition, we include only the first category GDR and IOI estimates from dichotomous analysis topics when calculating summary statistics at the category level. Counting only one category for each of the dichotomous analysis topics, we defined 699 analysis categories across all of the CRS analysis topics. Of these, 215 categories are from housing analysis topics, and 484 categories are from person analysis topics.

4.1 Summary of Results for Housing Analysis Topics (All Households)

We defined 36 analysis topics based on the questions in the housing section of the ACS questionnaire. For these analysis topics, there is essentially a one-to-one correspondence between the defined CRS analysis topics and the questions as they appear on the ACS paper questionnaire. See Appendix E for a list of the analysis topic and category definitions corresponding to the ACS housing questions.

Table 10 shows summary statistics of the category GDR and IOI estimates for the housing analysis topics. We calculated the GDR statistics using all 215 housing analysis topic categories; but for the IOI statistics, we included only the 143 categories with valid IOI. Note that for both the GDR and IOI estimates, the median is lower than the mean, and the 75th percentile is closer to the mean than to the maximum. This indicates that the distributions of the GDR and IOI estimates are skewed toward 0, so most housing analysis topic categories have relatively good response reliability, with just a few outliers having poor reliability.

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⁶ The single exception is that we did not ask about telephone service ("8g" on the paper questionnaire) in the CRS since the CRS was administered by telephone.

Table 10: Summary Statistics for Housing Analysis Topics Category GDR and IOI Estimates

Statistic	GDR	IOI (valid only)	IOI _L
minimum	0.0	4.3	8.9
25th percentile	1.5	17.6	19.5
median	3.0	25.5	26.9
mean	4.7	30.7	32.8
75th percentile	6.7	44.7	46.9
90th percentile	11.3	55.6	55.1
maximum	22.9	68.9	67.2
observations*	215	143	24

^{*} The observations are analysis categories for GDR and IOI, but analysis topics for IOI_L. From the 36 housing analysis topics, we exclude the 12 dichotomous analysis topics from the calculation of the IOI_L statistics, leaving just the 24 analysis topics with 3 or more analysis categories.

Source: U.S. Census Bureau, 2012 ACS Content Reinterview Survey, January to December 2012

Table 11 shows category counts for the 10 housing analysis topics identified as PRP. Notice that none of the PRP housing analysis topics is dichotomous. Only two analysis topics have a PRP category with invalid IOI. Only one analysis topic (Annual Mobile Home Costs) is PRP for all of its analysis categories. Two analysis topics (Condominium Fee and Mortgage Status) have only one PRP category each.

Table 11: Category Counts for PRP Housing Analysis Topics

Analysis Topic	Total	Valid IOI	Valid IOI PRP	Invalid IOI PRP	Total PRP
Number Of Rooms	9	7	6	0	6
Monthly Electricity Cost	9	7	4	0	4
Monthly Gas Cost	10	8	6	0	6
Annual Water Sewer Cost	11	7	5	1	6
Condominium Fee	6	6	1	0	1
Annual Property Tax Amount	13	12	4	0	4
Annual Property Insurance Amount	11	6	4	1	5
Mortgage Status	3	1	1	0	1
Second Mortgage Payment Amount	14	9	3	0	3
Annual Mobile Home Costs	3	3	3	0	3

Source: U.S. Census Bureau, 2012 ACS Content Reinterview Survey, January to December 2012

The remainder of this section discusses the PRP housing analysis topics in more detail.

4.1.1 Number of Rooms

The response reliability for this analysis topic is among the poorest, relative to other CRS analysis topics in general, and housing analysis topics in particular. Of the nine analysis categories defined, six are PRP. The aggregate index of inconsistency (IOI_L) is 54.5 (0.7), among the highest values measured for the 24 polytomous housing analysis topics.

We conjecture that respondent confusion regarding the definition of a "room" used in the ACS survey may be an important factor contributing to poor response reliability. To illustrate, consider the question as printed on the paper mail-back questionnaire:

- a. How many separate rooms are in this house, apartment, or mobile home? Rooms must be separated by built-in archways or walls that extend out at least 6 inches and go from floor to ceiling.
 - INCLUDE bedrooms, kitchens, etc.
 - EXCLUDE bathrooms, porches, balconies, foyers, halls, or unfinished basements.

b. How many of these rooms are bedrooms?

Count as bedrooms those rooms you would list if this house, apartment, or mobile home were for sale or rent. If this is an efficiency/studio apartment, print "0".

The definition of "bedrooms" used in part (b) here is probably more familiar to respondents than the definition of "rooms" in part (a). People are used to seeing and using "number of bedrooms" as one of the descriptors for a house or apartment in the real estate market. Consequently, response reliability for the Number of Bedrooms analysis topic - with IOI_L 14.8 (0.6) - is actually among the best for housing analysis topics in the CRS.

The total number of rooms in a house, on the other hand, is not an everyday concept; and the ACS definition of a "room" is somewhat ambiguous and arcane from the perspective of a typical respondent. More people are likely to know the total square feet of floor space in their home than the total number of "rooms" as defined here.

The category GDR measures for Number of Rooms display a pattern common to many analysis topics with naturally ordered analysis categories. That is, the first and last categories in the natural ordering tend to have lower GDR values, while the middle range categories tend to have higher GDR values. This makes sense intuitively -- reporting a small number of rooms may be an easy task; but as the number increases it becomes more likely that responses will be estimates and therefore inconsistent. The mid-range categories may have the most response inconsistency because, between the original interview and reinterview, estimated values may move into or out of those categories, from or to higher or lower categories. At some point, the number of higher categories becomes small enough that the inconsistency starts to decrease. Often the final category is "top-coded", as it is with this analysis topic. That is, any response equal to or higher than the given cutoff is included in the final category. Depending on the analysis topic, the GDR estimate for the final category may be higher, lower, or about the same as the estimate for the first category. For this analysis topic, the GDR estimate for "9 or more rooms" [7.3 (0.3)] is significantly higher than that for "1 room" [2.4 (0.2)]. This could be because a response of "9 or more rooms" is more likely to be a guess than a response of "1 room".

4.1.2 Monthly Electricity Cost

The response reliability for the analysis topic Monthly Electricity Cost is also among the poorest relative to other CRS housing analysis topics. Of nine analysis categories defined, four are PRP. The IOI_L is 50.9 (0.8), again among the highest for housing analysis topics.

As we will see with other ACS questions that ask for a dollar amount response (or more generally, a numeric response), response reliability can be poor if the amount in question is one that changes frequently, as electricity bills tend to do. Responding accurately might require finding last month's electricity bill, which may be impossible, difficult, or just inconvenient, causing the respondent to guess at the amount. In the context of the CRS, if either the original interview or reinterview response is a guess, it is quite likely that the other response will fall in a different category. It is probably relevant that, for this analysis topic, the two analysis categories that are not dollar amount ranges ("Included in rent or condominium fee" and "No charge or electricity not used") the category GDR estimates are among the lowest for the analysis topic [1.2 (0.1) and 0.9 (0.1), respectively]. Responses in these two categories are most likely not guesses, and therefore not prone to the inconsistency seen in the dollar amount categories.

4.1.3 Monthly Gas Cost

The response reliability for the analysis topic Monthly Gas Cost is also relatively poor. Of 10 analysis categories defined, six are PRP. The IOI_L is 45.0 (0.7), significantly higher than the mean for housing analysis topics.

The Monthly Gas Cost analysis topic has seven naturally ordered dollar range categories. We see the common pattern of lower GDR values for the first and last of these, with higher values in the middle categories. However, the values skew to the lower end for this particular analysis topic. We observe that the GDR estimates for the three non-dollar categories for Monthly Gas Cost ("Included in rent or condominium fee", "Included in electricity payment", and "No charge or gas not used") are not noticeably lower than the smaller GDR values for the dollar categories. We speculate that since a large proportion of households do not use gas at all, or only use gas for part of the year, inconsistency in responses in these non-dollar categories may be due to respondent uncertainty or confusion about which of the three is appropriate for them. For instance, a household for which all utilities are included in the rent might legitimately be in any of those three non-dollar categories.

4.1.4 Annual Water Sewer Cost

The response reliability for the analysis topic Annual Water Sewer Cost is also poor. Of eleven analysis categories defined, six are PRP. The IOI_L is 46.6 (0.8), significantly higher than the mean for housing analysis topics.

This analysis topic has nine naturally ordered dollar amount categories. Similar to the pattern seen in Monthly Gas Cost, the GDR values are lower for the first and last of these categories and higher for the middle categories, but skewed toward the lower categories. The two non-dollar categories ("Included in rent or condominium fee" and "No charge") have relatively high GDR values. One possible reason for inconsistency in the "No charge" category is that while the

previous utility cost questions asked for a monthly amount, this question asks for an annual amount. If respondents fail to notice this change in reference period, and have not paid a water/sewer bill in the past month, they may mistakenly place themselves in the "No charge" category. In addition, as with Monthly Gas Cost, respondents may be confused about which of the non-dollar categories is appropriate for them. We note that in the ACS-CRS cross-tabulation for this analysis topic, 57 percent of inconsistent responses from ACS to CRS for these two categories consist of switches between these two categories (not to or from the dollar amount categories).

The category "Less than \$120" has a very high NDR value of 6.2 (0.4), with the ACS percent for this category being 7.9 (0.4), while the CRS percent is 1.7 (0.2). Comparing the data collection mode subgroups for this category, we see that the ACS proportion estimates in Mail, CATI, and CAPI are 13.2 (0.6), 1.7 (0.3), and 2.4 (0.4), respectively. The corresponding CRS estimates are 1.7 (0.2), 1.2 (0.3), and 1.7 (0.3). Of these six estimates, the obvious outlier is the ACS Mail proportion for this category. It is possible that CATI and CAPI interviewers are able to help respondents with confusion about this question. The frequency of water and sewer bills varies, with some coming monthly, some quarterly, some semi-annually, and some annually. In addition, a large number of households use wells and septic systems, and it may not be clear whether costs associated with those should be included in responding to this question.

4.1.5 Condominium Fee

This analysis topic is PRP due to somewhat poor reliability for just one of its six analysis categories, "Less than \$100 per month". The remaining five categories have good reliability. The IOI_L estimate is 18.1 (3.2), which is close to the 25th percentile for housing analysis topics. It is also worth noting that the total sample size for this analysis topic is relatively small, making the confidence intervals for all the evaluation measure estimates relatively wide. In particular, the 90 percent confidence interval for the single PRP category's IOI is (21.7, 51.3). This just barely satisfies the PRP criteria, since the IOI is valid and the upper bound of the 90 percent confidence interval for the IOI estimate is only slightly above 50 percent. Given these caveats, while the analysis topic is technically PRP, we do not think there is real cause for concern about its response reliability.

4.1.6 Annual Property Tax Amount

This analysis topic has 13 categories, four of which are PRP. The IOI_L is 37.7 (1.0), significantly higher than the mean for housing analysis topics.

As with previously discussed analysis topics that have naturally ordered dollar range analysis categories, we see the common pattern for GDR values. That is, the first and last few categories tend to have lower GDR estimates, with the higher GDR estimate values in the middle categories. The four PRP categories are in the middle (5th to 8th in the natural order). Note that for this analysis topic, the "None" category is not PRP, and has a relatively low GDR estimate of 1.9 (0.3).

One possible reason for response inconsistency for this analysis topic is that property taxes are often included as part of monthly mortgage payments. Because the actual payments may come from an escrow account, homeowners may not even be aware of the frequency or amount of property tax payments. This may be mitigated somewhat by required annual reporting of such payments by financial institutions, and by the fact that homeowners frequently deduct property taxes from their income when filing tax returns and so would become aware of the amount once a year. However, if the ACS response is not near tax time, a respondent might easily have forgotten this information. While some might be able and willing to look up the correct amount in their records, we conjecture that many respondents estimate or guess when responding to this question.

4.1.7 Annual Property Insurance Amount

This analysis topic has eleven categories, five of which are PRP. The IOI_L is 47.0 (1.0), which is near the 75th percentile for housing analysis topics.

This analysis topic has naturally ordered dollar range analysis categories, and as we have seen previously, the GDR estimate values have the common low-high-low pattern.

It is noteworthy that for this analysis topic the "None" category is PRP. We also see that the IOI is not valid for this category, and so the PRP status is due to the GDR estimate of 5.9 (0.4). We also note that the IOI is invalid because of the large NDR estimate of 4.3 (0.4). The mode-level NDR estimates for Mail, CATI, and CAPI are 5.9 (0.5), -0.6 (0.4), and 1.6 (1.0), respectively. The corresponding mode-level GDR estimates are 6.8 (0.6), 1.5 (0.4), and 4.7 (0.9). The GDR estimates for Mail and CAPI appear large relative to CATI, suggesting there may be a problem specific to the Mail and CAPI modes for this category.

For the dollar range categories, we hypothesize that the reasons for inconsistency in responses for Annual Property Insurance Amount are similar to the reasons given in the previous section for Annual Property Tax Amount. Property Insurance payments are often included in monthly mortgage payments. Unlike property taxes, insurance premiums are not deductible for tax purposes, so there is even less reason for homeowners to be aware of the annual amounts they are paying for property insurance. Some may be able and willing to refer to records to get the correct amount, but most probably estimate or guess.

4.1.8 Mortgage Status

This analysis topic has three categories, with one PRP category. The IOI_L is 67.2 (3.4), among the highest for housing analysis topics.

A large part of the inconsistency seen for this analysis topic may be due to a problem specific to the Mail mode. Because the information for this analysis topic is derived from a series of "unfolding" questions in CATI (and therefore for all CRS respondents), the CRS responses may actually be more accurate for this analysis topic than the ACS responses in the Mail subgroup. Since the Mail subgroup is the largest of the three mode subgroups, the overall results are similar to the Mail subgroup results. The "Owned with a mortgage" category NDR for the Mail subgroup is -4.0 (0.8), meaning that four percent of Mail respondents for this analysis topic

changed to this category from one of the other two when responding to the CRS. The overall NDR for this category is -2.1 (0.6), somewhat lower but still significant. We conjecture that at least for those who respond to the ACS by Mail, the proportion estimate for the "Owned with a mortgage" category may have a negative bias; that is, it may be an underestimate of the true proportion for this category.

Oddly, the CATI subgroup NDR estimates are significant for all three categories, and opposite in sign from the corresponding Mail and overall values. We might expect there to be less change in the proportion estimates for the CATI subgroup since they responded via the same mode both times. However, it may simply be that the households who originally respond in CATI are inconsistent for reasons unrelated to mode. Note that none of the NDR estimates for the CAPI subgroup is significant.

4.1.9 Second Mortgage Payment Amount

This analysis topic has 14 analysis categories, of which three are PRP. The IOI_L estimate is 36.2 (2.5). This is significantly higher than the median for housing analysis topics, but not significantly different from the mean.

Although this analysis topic has naturally ordered dollar range categories, the GDR estimates do not appear to follow the common low-high-low pattern.

Inconsistency in responses for this analysis topic may be due to the question presenting a difficult cognitive task. The respondent is asked to give a total of all payments on second mortgages and home equity loans. Unlike primary mortgage payments, some second mortgage and home equity loan payments may vary from month to month, making the task that much more complicated.

4.1.10 Annual Mobile Home Costs

This analysis topic has three analysis categories, all of which are PRP. Note that there were originally 17 proposed analysis categories, but we collapsed them down to three because of the small sample size for this analysis topic. The IOI_L is 49.7 (8.9), significantly higher than the mean for housing analysis topics.

Poor response for this analysis topic may be due to confusion about what should be included in mobile home costs. As with other dollar amount analysis topics, many respondents may also be estimating or guessing the amount rather than consulting their records.

4.2 Summary of Results for Person Analysis Topics

We derived the person analysis topics from the basic demographic questions in the first section of the ACS questionnaire, and the more detailed questions in the third section. See Appendix E for a list of the analysis topic and category definitions corresponding to the ACS questions.

Table 12 shows summary statistics of the category GDR and IOI estimates for the person analysis topics. We calculated the GDR statistics using all 484 person analysis topic categories;

but for the IOI statistics, we included only the 281 categories with valid IOI. As we saw with the housing analysis topic categories, the median is lower than the mean for both the GDR and IOI estimates, and the 75th percentile is closer to the mean than to the maximum. This indicates that the majority of person analysis topic categories have relatively good response reliability, with a relatively small number of outliers having poor reliability.

Table 12: Summary Statistics for Person Analysis Topics Category GDR and IOI Estimates

GDR	IOI (valid only)	
0.0	0.0	
0.5	10.6	
1.8	22.1	
3.6	24.1	
5.1	33.6	
9.8	47.5	
24.6	73.2	
181	280	

is categories for GDR and IOI, but analysis topics for IOI $_{
m L}$. From the 110 person analysis topics, we exclude the 62 dichotomous analysis topics from the

Table 13 shows category counts for the 25 PRP person analysis topics. In contrast with the

housing analysis topics that had no dichotomous PRP analysis topics, there are seven dichotomous PRP person analysis topics. In addition to these, there are two person analysis topics (Weeks Worked and Public Assistance Income Amount) with all analysis categories PRP. Of the 15 other PRP person analysis topics, seven have only one PRP category each.

Table 13: Category Counts for PRP Person Analysis Topics

Analysis Topic	Total	Valid IOI	Valid IOI PRP	Invalid IOI PRP	Total PRP
Race - Some Other Race checkbox	1	1	1	0	1
Race Aggregate	7	4	1	0	1
Race Write-in 2 Present	1	1	1	0	1
Year Of Naturalization	7	7	1	0	1
Educational Attainment	24	6	1	0	1
Ancestry	30	7	0	1	1
English Speaking Ability	4	2	1	2	3
Health Insurance Direct	1	1	1	0	1
Grandparents Responsible For Grandchildren	1	0	0	1	1
Grandparents Time Responsible For					
Grandchildren	4	4	3	0	3
Service Connected Disability Level	6	3	0	1	1
Commute Minutes	12	8	8	0	8
Not Working Layoff	1	1	1	0	1
Not Working Informed Of Recall	1	1	1	0	1

				Invalid	
Analysis Topic	Total	Valid IOI	Valid IOI PRP	IOI PRP	Total PRP
Not Working Available To Work	1	0	0	1	1
Weeks Worked	6	3	3	3	6
Class Of Worker	8	5	1	0	1
Wages Income Amount	10	8	1	0	1
Self Employed Income Amount	10	6	4	2	6
Property Income Amount	7	6	4	0	4
Property Income Recipiency	3	2	2	0	2
Supplemental Security Income Amount	4	2	0	2	2
Public Assistance Income Amount	3	3	3	0	3
Other Income Amount	6	6	4	0	4
Total Income Amount	11	9	1	0	1

Source: U.S. Census Bureau, 2012 ACS Content Reinterview Survey, January to December 2012

With the person analysis topics, it is important to keep in mind that for most ACS mail returns and interviews, we expect one respondent to answer for themselves and for all other members of the household. For some analysis topics, such as Age and Sex, this is not problematic. A respondent would usually know these characteristics for all members of the household. However, it may be more difficult for a respondent to accurately answer for another person when the analysis topic is something like income or commute time. For the CRS, this problem is compounded by the fact that while we attempted to re-contact the original ACS respondent, we sometimes had to talk to someone else for the CRS re-interview. On the other hand, in households with three or more persons, we only asked about one other person besides the respondent in the CRS re-interviews. This may have actually reduced overall response error due to proxy interviews in the CRS, relative to ACS. That is, the proportion of persons for whom we collected data by proxy was probably lower in the CRS than in the ACS.

The remainder of this section discusses the PRP person analysis topics in more detail.

4.2.1 Race - Some Other Race Checkbox

This analysis topic corresponds to the "Some other race" checkbox in the ACS Race question (the last checkbox on the mail questionnaire). This is a dichotomous analysis topic, so we analyze the single category consisting of persons for whom "Other" is at least one of their Race selections. The IOI is valid for this category, and it is PRP due to the high IOI value of 66.6 (3.6), among the highest for person categories with valid IOI.

It seems reasonable that persons designated "Other" at one time might be placed in one of the more specific Race options (and not in "Other") at another time. Respondents' understanding of what is included in this catchall category is based on what they believe is covered by the rest of the categories listed. Thus, as their understanding of the rest of the categories changes, so does their definition of "Other", making this category susceptible to inconsistent reporting. This may help explain the relatively poor response reliability for this analysis topic.

Another source of inconsistency for this analysis topic (and for the Race question overall) is the well-documented phenomenon that when presented with separate race and Hispanic origin questions, Hispanics have great difficulty responding to the race question. Appendix G contains a write-up provided by Population division staff that explains this problem in further detail.

4.2.2 Race Aggregate

We defined the Race Aggregate analysis topic to evaluate the response reliability for the Race question as a whole. Because the aggregate measures require mutually exclusive analysis categories, we defined seven mutually exclusive categories based on combinations of responses to the 15 Race checkbox (choose all that apply) options. Our mutually exclusive categories are White alone, Black alone, American Indian or Alaska Native alone, Asian alone, Native Hawaiian or Other Pacific Islander alone, Some Other Race alone, and Multiple races. The single PRP category is "Some other race alone". The IOI is valid for this category, and the value of the IOI estimate is 68.0, among the highest for person categories with valid IOI.

The analysis-topic-level measure IOI_L is 24.0 (1.3), close to the median for polytomous person analysis topics. This suggests that while one Race Aggregate category is PRP, the Race question as a whole has moderately good response reliability.

4.2.3 Race Write-in 2 Present

We defined the Race Write-in 2 Present analysis topic to evaluate the consistency of write-in responses being present when there is a "Yes" response to the Other Asian or Other Pacific Islander Race categories. This is a dichotomous analysis topic (either a write-in response is present or it is not), so we analyze the category of persons for whom this write-in response is present. The IOI is valid for this category, and it is PRP due to the high IOI value of 67.7 (3.6), among the highest for person categories with valid IOI.

As with the "Race Other" analysis topic, relatively high inconsistency in whether Race Write-in 2 is present seems plausible; respondents might easily choose to write in a response one time and not the other. The fact that Race Write-in 2 Present is PRP while the corresponding categories for Race Write-in 1 and Race Write-in 3 are not might be explained by two checkboxes being associated with it, while only one checkbox is associated with each of the others.

An additional cause for concern with this analysis topic is that the second Race write-in space is not only associated with two checkboxes, but is also associated with two of the race categories defined by the Office of Management and Budget (OMB): (1) Asian, and (2) Native Hawaiian and Other Pacific Islander (NHOPI). Therefore, inconsistency for this analysis topic adds to reliability concerns for both of those OMB race categories.

4.2.4 Year of Naturalization

This analysis topic has seven analysis categories, of which one is PRP. That category is "1980 to 1984", which has a valid IOI with an estimated value of 37.7 (9.0). We observe that this analysis topic has a relatively small sample size, causing the confidence intervals for the evaluation measure estimates to be quite wide. In particular, the 90 percent confidence interval for the IOI

is (22.9, 52.5), just barely satisfying the PRP criteria. We also observe that the analysis-topic-level measure IOI_L has an estimate value of 22.8 (2.8), which is near the median for polytomous person analysis topics. While this analysis topic is technically PRP based on having one PRP category, we do not believe there is real cause for concern about its response reliability.

4.2.5 Educational Attainment

This analysis topic has 24 analysis categories, derived from the fourteen response options and the write-in box shown on the ACS questionnaire. (See Appendix D for details.) One of these categories, "Some college, less than one year", is PRP. It has a valid IOI with an estimated value of 62.3 (2.4), among the highest for person categories with valid IOI. The IOI_L is 26.7 (0.7), significantly higher than the mean for polytomous person analysis topics.

The relatively poor response reliability for "Some college, less than one year" might be due to the inherently transitional nature of the category. We see, in the cross-tabulation of ACS and CRS category counts for Educational Attainment, that of the persons in this category for only one of the two interviews, almost all were in either "Regular high school diploma" or "Some college, one or more years, no degree" in the other interview.

4.2.6 Ancestry

This analysis topic has 30 analysis categories, of which one is PRP. That category is "American", for which the IOI is not valid. It is PRP based on an estimated GDR value of 6.8 (0.5). We did not calculate analysis-topic-level (aggregate or L-fold) measures for Ancestry, since the analysis categories are not mutually exclusive.

We observe that this category has a large and significant NDR estimate of 3.9 (0.4). Interestingly, the NDR estimates for the mode subgroups Mail, CATI, and CAPI are all positive: 5.2 (0.6), 0.6 (0.6), and 3.2 (0.6), respectively. This means that in all three modes, the proportion of persons reported as "American" dropped from the original ACS interview to the CRS reinterview, although the CATI change is not significant. In general, it appears that persons are least likely to be reported as "American" in the CATI mode in ACS; the ACS proportion estimates for Mail, CATI, and CAPI are 8.6 (0.6), 3.6 (0.5), and 5.4 (0.7), respectively. It may be that CATI interviewers will probe if a respondent initially responds "American" to this question, making sure the respondent understands the intent of the Ancestry question. Since we conducted the CRS only in CATI, this would be true for all three of the mode subgroups in the re-interview. This might explain the large drop in the Mail mode proportion. It is not clear why respondents would be more likely to respond "American" in CAPI than in CATI, since the Ancestry question is asked the same way in both modes. Perhaps there is a difference in the training of interviewers for the two modes.

4.2.7 English Speaking Ability

This analysis topic has four analysis categories, of which three are PRP. The three PRP categories are "Very well", "Well", and "Not well". The IOI_L is 41.6 (2.2), significantly higher than the 75th percentile for polytomous person analysis topics.

We observe that the NDR estimates for the "Very Well" and "Well" categories are significant and large. Furthermore, the NDR is positive for "Very Well" and negative for "Well". This is a result of many sample persons moving from "Very Well" to "Well" between the original ACS interview and the CRS reinterview (about twice as many as moved in the other direction). Finally, we see that the GDR estimate for the category "Not at all" is significantly smaller than the GDR estimates for the other three categories.

We conjecture that people in the universe for this question (those who speak a language other than English at home) have a hard time distinguishing between the three responses, and tend to choose haphazardly among these categories. The higher number of moves from "Very well" to "Well" is probably just due to the fact that there is only one direction to go from "Very well" (down), whereas from "Well" a person can go either up or down. There appears to be some movement between "Not at all" and "Not well", but not as much as between the other three pairs of categories.

A potential limitation specific to this analysis topic is that the CRS universe excluded ACS interviews conducted in languages other than Spanish or English. It is not clear how inclusion of those interviews might have affected response reliability estimates for this analysis topic. They are a tiny fraction of ACS interviews overall, but perhaps a larger fraction of the target universe for the English Speaking Ability analysis topic. However, we also have no way of knowing, from the results of the CRS, whether this excluded group might be different from the general population with respect to response reliability for this analysis topic.

4.2.8 Health Insurance Direct

This is a dichotomous analysis topic corresponding to the Yes/No checkboxes in the second part of the Types of Health Insurance question, which asks whether a person has health insurance purchased directly from an insurance company. We analyze the single category consisting of persons for whom the answer to this question was "Yes". The IOI is valid, with a value of 48.6 (1.4), among the highest for person categories with valid IOI.

We observe that this category has a significant NDR estimate of -2.9 (0.4). The NDR for the CATI subgroup is 0.9 (0.9), which is not significant. The NDR estimates for the Mail and CAPI subgroups are -3.3 (0.6) and -3.3 (0.7), respectively, which are both significant. This means that except for the CATI subgroup, the proportion of persons in this category rose significantly from the ACS to the CRS. For some reason, it appears respondents are more likely to select this category in CATI than in the other two modes.

4.2.9 Grandparents Responsible For Grandchildren

This is a dichotomous analysis topic corresponding to the question: "Is this grandparent currently responsible for most of the basic needs of any grandchildren under the age of 18 who lives in this house or apartment?" We analyze the category consisting of persons for whom the answer is "Yes". The IOI is not valid due to a large NDR estimate of -9.0 (4.9), so the category is PRP based on the GDR estimate of 15.9 (4.8), among the highest for all person categories.

The universe for this question is restricted to persons who have grandchildren living with them. Because of this, the sample size for this category is relatively small, and the confidence intervals are quite wide. Therefore, while this category is technically PRP, it is difficult to draw any definitive conclusions about its response reliability.

4.2.10 Grandparents Time Responsible For Grandchildren

This analysis topic has four categories, of which three are PRP. The IOI_L is 37.4 (9.6), not significantly different from the median for polytomous person analysis topics. The IOI is valid for all of the PRP categories, so their PRP status based on the IOI confidence intervals for those categories.

The universe for this analysis topic is restricted to persons who are responsible for the care of their own grandchildren living with them. Because of this, the sample size for this analysis topic is even smaller than for the previous analysis topic (Grandparents Responsible for Grandchildren); and again the confidence intervals for all evaluation measures are quite wide. Therefore, while this analysis topic is technically PRP, it is difficult to draw any definitive conclusions about its response reliability.

4.2.11 Service Connected Disability Level

This analysis topic has six categories, of which one is PRP. The IOI_L is 18.6 (2.9), significantly below the median for polytomous person analysis topics. Due to a large and significant NDR estimate, the IOI is invalid for the single PRP category, "No rating reported"; so the PRP status results from the GDR estimate of 8.1 (1.8).

In our preliminary analysis, this analysis topic had only five categories, but subject matter experts requested that we add the "No rating reported" category. This category consists of persons for whom the response to the question "Does this person have a VA service-connected disability rating?" is "Yes", but there is no valid response to the Level question that follows. The original five categories appear to have very good response reliability. It is only the addition of the sixth category that makes the analysis topic PRP. However, the sample size for this analysis topic is relatively small, making the standard errors for the evaluation measures relatively large.

4.2.12 Commute Minutes

This analysis topic has twelve categories, of which eight are PRP. The IOI_L estimate is 54.6 (1.0), among the highest for polytomous person analysis topics. All of the PRP categories have valid IOI.

The categories for this analysis topic are naturally ordered ("Less than 5 minutes", "5 to 9 minutes". . . "40 to 44 minutes", "45 to 59 minutes", "60 to 89 minutes", "90 or more minutes"). As we commonly see with naturally ordered categories, the GDR estimates tend to be lower for the first few and last few categories, and higher for categories in the middle. However, we do notice an odd dip at the sixth category, "25 to 29 minutes", where the GDR estimate is 8.6 (0.5), compared with 14.9 (0.7) for the previous category and 12.9 (0.6) for the following category. There is a corresponding pattern in the proportion estimates for these three categories.

There are a number of possible reasons for the relatively poor response reliability we see for this analysis topic. One is simply the number of categories we defined, and the endpoints we chose for the minute ranges. The actual responses are single numbers, not ranges. If we had defined a smaller number of categories with wider ranges, and defined the categories so that the most likely responses (such as "15 minutes", "30 minutes", or "60 minutes") were in the middle of the defined categories (and not at the endpoints) we almost certainly would see better response reliability. We see in the raw (uncategorized) data a definite tendency to report round numbers. (There are relatively few responses of "eleven minutes", for example.) To test our hypothesis that a smaller set of larger minute ranges would improve the evaluation measures, we defined a set of five categories (0-17, 18-37, 38-57, 58-87, and 88+) and calculated the evaluation measures for these. The aggregate measure IOI_L for this set of categories is substantially lower, 31.3 (0.1), versus 54.6 (1.0) for the 12-category set.

Regarding the above discussion of category definitions, it is important to note that the published statistic for this topic is "Mean Travel Time," not proportions in minute range categories. The contribution of response error to the total mean squared error for the reported statistic may actually be better represented by the measures resulting from a larger number of smaller categories. It may also be that a different approach to measuring response error would be more appropriate for this topic (and other topics where the response variables are more aptly treated as continuous rather than categorical); but that is outside the scope of this report.

Because the commute time for a given person can vary dramatically, it may not be easy for a respondent to recall accurately the "usual" number of minutes for a specific week, even in round numbers. For example, if the average duration of a given person's commute is 25 minutes, but can be as short as 15 minutes or as long as 35 minutes, it is easy to imagine a respondent reporting 20 minutes in the ACS and 30 minutes in the CRS. Even with fewer and "better" categories, this phenomenon could result in reliability problems for this analysis topic.

In addition, this is one of the analysis topics that could suffer from a "proxy effect", where the respondent is answering for another member of the household. It seems reasonable that one member of the household might not know the details of another household member's commute. Furthermore, this is one of the analysis topics possibly affected by the short reference period limitation.

4.2.13 Not Working Layoff

This is a dichotomous analysis topic corresponding to the question: "Last week, was this person on layoff from a job?" We analyze the category consisting of persons for whom the answer is "Yes". The IOI is valid, with a value of 45.1 (5.0). This is significantly higher than the 75th percentile for person analysis topics with valid IOI.

We conjecture that the relatively poor response reliability for this category may be at least partly due to respondent uncertainty about the definition of "layoff".

Additionally, this is one of the analysis topics subject to the short reference period limitation.

4.2.14 Not Working Informed Of Recall

This is a dichotomous analysis topic corresponding to the question: "Has this person been informed that he or she will be recalled to work within the next six months OR been given a date to return to work?" We analyze the category consisting of persons for whom the answer is "Yes". The IOI is valid, with a value of 60.9 (17.2). This is significantly higher than the mean for person analysis topics with valid IOI. The large standard error means that it is not significantly larger than the 75th percentile, however.

Due to the small sample size for this analysis topic, it is difficult to do any meaningful analysis of the response reliability.

4.2.15 Not Working Available To Work

This is a dichotomous analysis topic corresponding to the question: "Last week, could this person have started a job if offered one, or returned to work if recalled?" (This question actually has three response options, but because of small sample sizes we collapsed the two "No" options into one category.) We analyze the category consisting of persons for whom the answer is "Yes". The IOI is not valid, due to a significant and large NDR estimate of -4.1 (2.3). Therefore, it is PRP based on the GDR estimate of 9.9 (2.0), significantly higher than the 75th percentile for all person categories.

This is one of the analysis topics subject to the short reference period limitation.

4.2.16 Weeks Worked

This analysis topic has six categories, all of which are PRP. The IOI_L estimate is 63.6 (2.1), among the highest for polytomous person analysis topics. The analysis categories for Weeks Worked are ranges of weeks, which have a natural order. The GDR estimates for the categories display the common pattern we see with naturally ordered categories, with lower values for the first and last categories, and higher values in the middle categories.

We conjecture that the relatively poor response reliability we see for the Weeks Worked analysis topic is due to the difficulty of recalling the exact number of weeks worked for a person who has worked for only part of the reference year. It is likely that many respondents answering this question do not know the exact number of weeks worked and are just estimating. This may be even more likely for a respondent who is answering for another member of the household. We observe that the "50 to 52 weeks" category's GDR estimate is among the lowest for the analysis topic. Intuitively, this makes sense; it would be relatively easy to remember that a person did not work only one or two weeks. However, even this category is PRP, perhaps because the universe for this question is supposed to be persons who answered "No" to the previous question: "During the PAST 12 MONTHS (52 weeks), did this person work 50 or more weeks? Count paid time off as work." That is, theoretically, there should be nobody in the "50 to 52 weeks" category for the Weeks Worked analysis topic. This may be further evidence of respondent uncertainty about this question.

4.2.17 Class of Worker

This analysis topic has eight analysis categories, of which one is PRP. The IOI_L estimate is 32.0 (1.5), significantly higher than the mean for polytomous person analysis topics.

The single PRP category is "Employee of a private not-for-profit organization", which has a valid IOI estimate of 46.7 (3.4). We conjecture that the relatively poor response reliability for this category may be at least partly due to respondent uncertainty about the term "not-for-profit".

4.2.18 Wages Income Amount

This analysis topic has 10 analysis categories, of which just one is PRP. The IOI_L estimate is 31.5 (0.9), significantly higher than the mean for polytomous person analysis topics.

This analysis topic has naturally ordered dollar range categories. We see the common pattern of GDR estimates being lower for the first and last categories, with higher values for the middle categories; however, the high GDR estimate values skew toward the lower dollar ranges.

The single PRP category is "\$10,000 to \$14,999", which has a valid IOI estimate of 48.6 (2.9). This is significantly higher than the 75th percentile for person categories with valid IOI.

While response reliability is relatively good for most categories in this analysis topic, we conjecture that it is poorer for lower categories because persons with low annual wages are likely to be part time employees whose wages tend to be unpredictable. By contrast, persons with higher incomes are more likely to be full time employees whose wages do not change frequently or drastically.

Another possible reason for the difference in reliability between the high and low ranges is that persons with higher incomes are more likely to file annual income tax returns. Since they must review documentation of their income in order to complete the tax returns, it may be easier for them to recall their annual income accurately.

4.2.19 Self Employed Income Amount

This analysis topic has 10 analysis categories, of which six are PRP. The IOI_L estimate is 47.2 (3.5), among the highest for polytomous person analysis topics.

This analysis topic has naturally ordered dollar range categories; and as we saw with Wages Income Amount, the GDR values follow the common low-high-low pattern, but with the higher GDR estimates skewed toward the lower dollar ranges.

A possible explanation for the relatively poor overall response reliability for this analysis topic may be that the annual income for self-employed persons is relatively unstable and therefore more difficult to recall accurately.

As with Wages Income Amount, the higher dollar range categories appear to have better response reliability than the lower range categories. Although Self Employed Income Amount is

probably less stable than Wages Income Amount even for the higher dollar ranges, it is still a reasonable conjecture that Self Employed Income Amount is relatively more stable for higher dollar ranges than for lower dollar ranges. The conjecture regarding income tax returns is probably just as applicable to Self Employed Income Amount as to Wages Income Amount.

4.2.20 Property Income Amount

This analysis topic has seven analysis categories, of which four are PRP. The IOI_L estimate is 50.3 (2.8), among the highest for polytomous person analysis topics.

This analysis topic has naturally ordered dollar range categories; and as we saw with Wages Income Amount and Self Employed Income Amount, the GDR estimates follow the common low-high-low pattern, but with the higher GDR estimates skewed toward the lower dollar ranges. However, we observe that except for the category "Loss or broke even", the GDR estimates for Property Income Amount categories are all among the highest for person categories.

We conjecture that Property Income Amount is highly variable, and may therefore be more difficult for respondents to recall than other types of income.

4.2.21 Property Income Recipiency

This analysis topic has three analysis categories, of which two are PRP. The IOI_L estimate is 48.5 (1.3), among the highest for polytomous person analysis topics.

The relatively poor overall response reliability for this analysis topic may be due to respondent uncertainty about what types of income are included in "Property Income".

It should be noted that for Mail responses where there was a value reported for Property Income Amount, we assumed a "Yes" response to Property Income Recipiency, whether that box was checked or not. Conversely, as long as there was a response to any of the Income questions, if there was no value reported for Property Income Amount, we assumed a response of "No" for Recipiency if neither box was checked.

4.2.22 Supplemental Security Income Amount

This analysis topic has four analysis categories, of which two are PRP. The IOI_L estimate is 32.6 (4.8), significantly higher than the mean for polytomous person analysis topics.

Although the number of categories is small relative to other income amount analysis topics, we do roughly observe the low-high-low pattern in GDR estimates.

Neither of the two PRP categories have valid IOI estimates, due to large and significant NDR estimates. We observe that three of the four category NDR estimates for the Mail mode subgroup are large and significant, as is one NDR estimate for the CAPI subgroup. In contrast, the NDR estimates for the CATI subgroup are all quite small. Furthermore, we note that the category proportion estimates for the Mail and CAPI subgroups move closer to the corresponding CATI estimates between the ACS and the CRS. It is clear that the overall

inconsistency for this analysis topic is almost completely due to inconsistency in the Mail and CAPI modes.

4.2.23 Public Assistance Income Amount

This analysis topic has three analysis categories, all of which are PRP. The IOI_L estimate is 43.0 (11.3), significantly higher than the mean for polytomous person analysis topics.

The sample size for this analysis topic is quite small, so the 90 percent confidence intervals for all evaluation measures are wide. Because of this, it is difficult to draw any meaningful conclusions about the response reliability for this analysis topic.

4.2.24 Other Income Amount

This analysis topic has six analysis categories, of which four are PRP. The IOI_L estimate is 41.3 (6.1), significantly higher than the 75th percentile for polytomous person analysis topics.

The GDR estimates roughly follow the low-high-low pattern we see in other income amount analysis topics. Note that the four PRP categories are the four middle ranges.

One reason for the poor overall response reliability for this analysis topic is may be that the amount of Other Income varies substantially from year to year and is therefore difficult to recall. Another possible reason is respondent uncertainty about what types of income to include in this analysis topic.

4.2.25 Total Income Amount

The Total Income Amount question is intended to capture the sum of the amounts reported for the preceding individual income types. In fact, in CATI and CAPI, the instrument calculates this sum automatically, and the interviewer simply asks the respondent to verify that the calculated sum is correct. Therefore, any inconsistency issues with this analysis topic are confounded with issues in the specific income type analysis topics.

This analysis topic has eleven analysis categories, of which just one is PRP. The IOI_L estimate is 34.7 (0.7), significantly higher than the mean for polytomous person analysis topics.

The GDR estimates roughly follow the low-high-low pattern we see in other analysis topics with naturally ordered dollar range categories. The estimates are somewhat skewed toward the lower dollar ranges, although the skewing is not as pronounced as we saw with some of the other income amount analysis topics.

The single PRP category is "\$10,000 to \$14,999". However, five other categories have comparable GDR estimates; this category is PRP only because its population proportion is significantly smaller than the other categories with comparable GDR estimates. The lower proportion causes the denominator of the IOI estimate to be relatively smaller, thus making the simple response variance larger relative to the total variance. Looking only at the GDR estimates (and ignoring the IOI estimates), we see that the six categories from "Less than \$10,000" through

"\$50,000 to \$74,999" all have GDR values significantly higher than the 75th percentile for person categories.

As we have seen with some of the specific income type amount analysis topics, responses are more consistent for the highest dollar ranges than for the lower ranges. We conjecture that part of the reason for this is a greater fluctuation in income from year to year for persons whose total income is in the lower ranges. Furthermore, as with some of the specific income type amount analysis topics, it may be that persons with higher total income are more likely to file income tax returns, and therefore can more easily recall their total income accurately.

4.3 Summary of Response Reliability by ACS Data Collection Mode

The second research question is: "What are the reliability measures associated with each mode of data collection in the original ACS interview?" To answer this, we calculated all of the evaluation measures by ACS response mode. We show the estimates of GDR and GDR_L by mode for all analysis topics and analysis categories in Appendix C.

As described in the methodology section earlier in this report, we identified, for each collection mode subgroup, response categories that have relatively high GDR estimates. Tables 14-16 summarize the analysis topics with response categories that have GDR estimates higher than the 90th percentile for each mode, excluding categories where the GDR Coefficient of Variation (CV) is higher than 50 percent. (For each subgroup, the percentile is calculated using all 699 response categories. The high CV categories are dropped after the percentile calculation.) We shade rows for analysis topics that are not PRP overall; these analysis topics may have reliability issues specific to the given collection mode.

The analysis topics that may have mode-specific reliability issues are:

•	Number of Vehicles	[CAPI]
•	Heating Fuel Used	[CATI, CAPI]
•	Annual Other Fuel Cost	[Mail]
•	Property Insurance Included	[Mail, CAPI]
•	Race: White	[CAPI]
•	Commute Departure Time	[CATI, CAPI]
•	Not Working Looking for Work	[CAPI]
•	When Last Worked *	[Mail, CATI, CAPI]
•	Worked 50 Weeks or More *	[Mail, CATI, CAPI]
•	Industry Type	[CATI, CAPI]
•	Occupation	[Mail, CATI]
•	Social Security Income Amount *	[Mail, CATI, CAPI]
•	Retirement Income Amount *	[Mail, CATI, CAPI]

The four analysis topics in this list marked with an asterisk are not PRP overall, yet they appear to have potential reliability problems in all three modes based on the GDR criteria described above. This is because the overall IOI values for all but three of the response categories for these analysis topics were valid and relatively low. For the three categories with invalid IOI, the GDR

values were relatively small. If we had used the GDR-only criteria for the overall evaluation, we would have flagged these four analysis topics in the overall analysis.

Table 14: Analysis Topics With Response Category GDR Values Above the 90th Percentile (10.1 percent) for the Mail Collection Mode

Analysis Topic Name	Total Response Categories	High GDR Response Categories	Category with Highest GDR	Highest GDR Value
Number of Rooms	9	5	6 Rooms	19.4 (0.6)
Monthly Electricity Cost	9	5	\$100 to \$149	22.5 (0.8)
Monthly Gas Cost	10	3	\$25 to \$49	14.6 (0.6)
Annual Water Sewer Cost	11	3	\$300 to \$599	17.4 (0.6)
Annual Other Fuel Cost	9	1	No Charge	11.3 (0.6)
Annual Property Tax Amount	13	2	\$1,800 to \$2,399	11.4 (0.8)
Annual Property Insurance Amount	11	4	\$600 to \$899	16.8 (0.9)
Property Insurance Included	1	1	Yes	12.3 (0.8)
Second Mortgage Payment Amount	14	2	\$100 to \$199	12.1 (1.6)
Annual Mobile Home Costs	3	3	\$250 to \$2,499	23.7 (5.4)
Ancestry	30	1	Other Groups	12.4 (0.7)
English Speaking Ability	4	2	Well	18.4 (2.3)
Health Insurance: Purchased Directly	1	1	Yes	12.5 (0.5)
Grandparents Time Responsible for Grandchildren	4	2	1 to 2 Years	26.3 (11.8)
Commute Minutes	12	4	20 to 24 Minutes	15.5 (0.9)
Not Working, Available to Work	1	1	Yes	14.5 (4.0)
When Last Worked	3	1	1-5 Years Ago	10.5 (0.7)
Worked 50 Weeks or More	1	1	Yes	11.5 (0.6)
Weeks Worked	6	4	27 to 39 Weeks	24.9 (2.2)
Class of Worker	8	1	Employee of A Private for-Profit Company or Business	13.0 (1.1)
Occupation	18	1	Management, Business and Financial Occupations	11.0 (0.5)
Self Employed Income Amount	10	3	\$10,000 to \$14,999	14.1 (4.0)
Property Income Amount	7	4	\$1,000 to \$4,999	21.5 (2.6)
Property Income Recipiency	3	2	Received A Positive Amount of Property Income	16.9 (0.7)
Social Security Income Amount	5	1	\$10,000 to \$19,999	13.6 (1.1)
Supplemental Security Income Amount	4	3	\$5,000 to \$9,999	16.0 (3.9)
Public Assistance Income Amount	3	1	\$1,000 to \$4,999	13.7 (5.0)
Retirement Income Amount	7	1	\$10,000 to \$19,999	10.9 (1.2)
Other Income Amount	6	4	\$2,500 to \$4,999	16.3 (2.4)

Table 15: Analysis Topics With Response Category GDR Values Above the 90th Percentile (8.9 percent) for the CATI Collection Mode

Analysis Topic Name	Total Response Categories	High GDR Response Categories	Category with Highest GDR	Highest GDR Value
Number of Rooms	9	4	6 Rooms	18.9 (1.0)
Heating Fuel Used	8	1	Electricity	9.3 (0.8)
Monthly Electricity Cost	9	5	\$100 to \$149	19.9 (1.1)
Monthly Gas Cost	10	3	\$50 to \$74	11.9 (1.0)
Annual Water Sewer Cost	11	2	\$300 to \$599	14.4 (1.1)
Annual Property Insurance Amount	11	4	\$600 to \$899	15.8 (1.6)
Second Mortgage Payment Amount	14	2	\$200 to \$249	11.7 (2.6)
Annual Mobile Home Costs	3	3	\$2,500 or More	52.5 (15.4)
Ancestry	30	1	Naturalized 1990 to 1994	13.4 (5.0)
English Speaking Ability	4	3	Other Groups	9.9 (0.9)
Health Insurance: Purchased Directly	1	1	Well	16.0 (2.2)
Grandparents Time Responsible for Grandchildren	4	1	Yes, Purchased Directly	12.0 (0.7)
Commute Departure Time	6	1	Yes	14.8 (4.8)
Commute Minutes	12	4	7:00 A.M. to 8:59 A.M.	9.2 (1.0)
When Last Worked	3	1	20 to 24 Minutes	14.1 (1.4)
Worked 50 Weeks or More	1	1	1-5 Years Ago	9.8 (1.1)
Weeks Worked	6	4	Yes	12.0 (1.0)
Class of Worker	8	1	27 to 39 Weeks Worked During Past 12 Months	21.7 (3.6)
Industry Type	4	2	Employee of A Private for-Profit Company or Business	13.3 (1.5)
Occupation	18	1	Other (Agriculture, Construction, Service, Government, Etc.)	11.7 (1.0)
Wages Income Amount	10	1	Management, Business and Financial Occupations	9.6 (0.8)
Self Employed Income Amount	10	5	\$15,000 to \$24,999	9.7 (1.2)
Property Income Amount	7	4	\$35,000 to \$49,999	13.4 (4.2)
Property Income Recipiency	3	2	\$100 to \$999	14.7 (3.0)
Social Security Income Amount	5	2	Received A Positive Amount of Property Income	11.8 (0.8)
Retirement Income Amount	7	1	\$10,000 to \$19,999	10.2 (1.3)
Other Income Amount	6	4	\$5,000 to \$9,999	8.9 (2.0)
Total Income Amount	11	1	\$10,000 to \$19,999	18.7 (4.0)

Table 16: Analysis Topics With Response Category GDR Values Above the 90th Percentile (10.6 percent) for the CAPI Collection Mode

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Analysis Topic Name	Total Response Categories	High GDR Response Categories	Category with Highest GDR	Highest GDR Value
Number of Rooms	9	4	5 Rooms	17.7 (0.8)
Number of Vehicles	6	1	2 Vehicles Available	12.7 (0.7)
Heating Fuel Used	8	2	Electricity	12.8 (0.8)
Monthly Electricity Cost	9	4	\$100 to \$149	19.8 (1.1)
Monthly Gas Cost	10	1	\$25 to \$49	11.6 (0.7)
Annual Water Sewer Cost	11	3	\$600 to \$899	13.7 (0.8)
Annual Property Insurance Amount	11	3	\$600 to \$899	14.0 (1.6)
Property Insurance Included	1	1	Yes	10.9 (1.5)
Second Mortgage Payment Amount	14	1	\$200 to \$249	11.9 (4.4)
Annual Mobile Home Costs	3	1	\$250 to \$2,499	20.4 (8.3)
Race 1	1	1	White	10.6 (0.8)
Race Aggregate	7	1	White Alone	11.5 (0.8)
Year of Naturalization	7	2	Naturalized 1995 to 1999	14.5 (4.5)
English Speaking Ability	4	3	Well	22.4 (2.1)
Grandparents Responsible for Grandchildren	1	1	Yes	17.4 (4.9)
Grandparents Time Responsible for Grandchildren	4	3	1 to 2 Years	20.5 (9.3)
Commute Departure Time	6	1	7:00 A.M. to 8:59 A.M.	12.0 (1.0)
Commute Minutes	12	4	15 to 19 Minutes	15.0 (1.0)
Not Working Informed of Recall	1	1	Yes	29.4 (14.2)
Not Working Looking for Work	1	1	Yes	11.7 (1.1)
When Last Worked	3	2	Over 5 Years Ago or Never Worked	19.1 (1.5)
Worked 50 Weeks or More	1	1	Yes	14.4 (1.0)
Weeks Worked	6	4	14 to 26 Weeks Worked During Past 12 Months	29.1 (3.0)
Class of Worker	8	1	Employee of A Private for-Profit Company or Business	13.4 (1.2)
Industry Type	4	2	Other (Agriculture, Construction, Service, Government, Etc.)	15.8 (1.0)
Wages Income Amount	10	2	\$15,000 to \$24,999	12.8 (1.0)
Self Employed Income Amount	10	3	\$15,000 to \$24,999	16.5 (6.8)
Property Income Amount	7	4	\$100 to \$999	18.2 (5.2)
Social Security Income Amount	5	1	\$10,000 to \$19,999	14.7 (2.4)
Supplemental Security Income Amount	4	1	\$5,000 to \$9,999	15.1 (4.7)
Public Assistance Income Amount	3	2	\$1,000 to \$4,999	25.4 (8.7)
Retirement Income Amount	7	2	\$10,000 to \$19,999	12.3 (3.7)
Other Income Amount	6	3	\$1,000 to \$2,499	15.4 (3.3)
Total Income Amount	11	1	\$15,000 to \$24,999	10.7 (0.7)

We do not include testing of the statistical significance of differences in the evaluation measures between modes in this report, because the interpretation of any mode differences in response reliability is problematic, for a number of reasons.

One reason is that, as stated in the CRS project plan, we did not design the experiment to test for mode differences. Our stated objective was simply to present response reliability estimates by mode. (We may be able to use these estimates as a baseline for future evaluations.)

Secondly, the report "2005 American Community Survey Respondents Characteristics Evaluations" (Joshipura, 2008) presents evidence that households and persons with different characteristics have differential propensities to respond by Mail, CATI, or CAPI. One example is the tenure analysis topic, where approximately 69 percent of owners responded by Mail, but only 42 percent of renters responded by Mail. Another example is the Level of Education (Educational Attainment) analysis topic. Respondents were classified as having "Less than High School Education", "High School Education", or "Greater than High School Education". The percent of each of these groups responding by Mail was 47 percent, 55 percent, and 67 percent, respectively.

Another reason the interpretation of mode differences is problematic is the limitation that we administered the CRS reinterviews only in the CATI mode. For a number of analysis topics, the way the ACS presents questions on the Mail questionnaire is qualitatively different from how the ACS administers the corresponding questions in CATI and CAPI. One example of this is the series of Health Insurance Coverage questions. On the mail questionnaire, although there are eight independent questions with "Yes" and "No" checkboxes for each question, Mail respondents often simply check "Yes" for one of the questions, not bothering to check "No" for the other seven. (Because of this, in our analysis we assume a "No" response for all Health Insurance Coverage questions with no response if there is a "Yes" response for at least one of them.) In contrast, the automated instrument forces CATI and CAPI respondents to answer all of the questions, one by one.

For the "Medicaid" health insurance coverage question, the GDR estimates in Mail, CATI, and CAPI are 2.6 (0.3), 4.1 (0.5), and 6.5 (0.6), respectively. Part of the reason for the apparent disparity in these estimates may be that persons covered by Medicaid are less likely to respond by Mail in the first place; so Mail respondents are quite likely to consistently respond "No" (or leave this question blank and then respond "No" in the CATI reinterview). However, it is also possible that the difference in how we present this question in the different modes has something to do with it.

For some analysis topics, such as Food Stamps, a social desirability effect may cause respondents to respond differently in different modes. However, as we noted when discussing the "Medicaid" question, it may also be the case that households who respond "Yes" to the Food Stamps question are less likely to have responded by Mail in the first place.

All these factors combine to make any differences in response reliability by mode difficult to interpret.

We calculated the aggregate evaluation measures GDR_L and IOI_L for the 72 analysis topics with three or more categories (excluding Ancestry and Field of Bachelor's Degree) by data collection mode (Mail, CATI, and CAPI). Table 17 shows the distributions of GDR_L values by mode, along with the overall distribution for comparison. Table 18 shows distributions for IOI_L.

Table 17: Distributions of GDR_L Estimates by ACS Data Collection Mode

Statistic	Overall	Mail	CATI	CAPI
Minimum	0.2	0.0	0.0	0.2
25 th percentile	3.3	2.4	2.3	4.0
Median	6.0	5.5	4.9	6.3
Mean	6.8	6.5	6.1	7.2
75 th percentile	9.7	9.3	7.8	10.0
90 th percentile	13.2	14.0	11.8	12.9
Maximum	21.5	21.7	42.3	22.2

Source: U.S. Census Bureau, 2012 ACS Content Reinterview Survey, January to December 2012

Table 18: Distributions of IOI_L Estimates by ACS Data Collection Mode

Statistic	Overall	Mail	CATI	CAPI
Minimum	0.5	0.2	0.1	0.8
25 th percentile	16.1	14.5	14.1	17.2
Median	23.9	22.7	21.3	27.6
Mean	27.3	26.4	24.1	28.8
75 th percentile	41.4	40.1	32.9	40.4
90 th percentile	49.6	51.5	43.3	45.9
Maximum	67.2	66.7	89.3	78.7

Source: U.S. Census Bureau, 2012 ACS Content Reinterview Survey, January to December 2012

In addition, we calculated the category-level measures IOI and GDR for all analysis topics (including Ancestry and Field of Bachelor's Degree). Including only the first category for dichotomous analysis topics, there are 699 analysis categories. Table 19 shows the distributions of GDR estimates by mode (and overall). Table 20 shows the distributions of IOI estimates.

Table 19: Distribution of category GDR Estimates by ACS Data Collection Mode

Statistic	Overall	Mail	CATI	CAPI
Minimum	0.0	0.0	0.0	0.0
25 th percentile	0.7	0.6	0.5	0.8
Median	2.1	2.0	1.9	2.3
Mean	4.0	3.8	3.5	4.1
75 th percentile	5.8	5.3	4.7	5.8
90 th percentile	10.1	10.1	8.9	10.6
Maximum	24.6	26.3	52.5	29.4

Table 20: Distribution of category IOI Estimates by ACS Data Collection Mode

Statistic	Overall	Mail	CATI	CAPI
Minimum	0.0	0.0	0.0	0.0
25 th percentile	13.9	11.9	11.4	14.9
Median	26.2	25.0	23.6	26.5
Mean	29.9	29.5	27.5	31.3
75 th percentile	41.1	41.1	39.4	43.4
90 th percentile	59.9	64.1	57.0	62.3
Maximum	100.0	100.0	100.0	100.0

4.4 Summary of Response Reliability by Hispanic Origin/Race Groups

The third research question is: "What are the reliability measures associated with Hispanic Origin and Race classification in the original ACS interview?" In order to answer this we calculated all of the evaluation measures by the Hispanic Origin/Race subgroups defined in section 1.3.3 (Hispanic, White, Black, Asian, and Other). We show the estimates of GDR and GDR_L by subgroup for all analysis topics and analysis categories in Appendix D.

As described in the methodology section earlier in this report, we identified, for each Hispanic Origin/Race subgroup, response categories that have relatively high GDR estimates. Tables 21-25 summarize the analysis topics with response categories that have GDR estimates higher than the 90th percentile for each subgroup, excluding categories where the GDR CV is higher than 50 percent. (For each subgroup, the percentile is calculated using all 699 response categories. The high CV categories are dropped after the percentile calculation.) We shade rows for analysis topics that are not PRP overall; these analysis topics may have reliability issues specific to the given subgroup.

The analysis topics that may have reliability issues specific to an Hispanic Origin/Race subgroup are:

•	Lot Size	[Black]
•	Number of Vehicles *	[Hispan

Number of Vehicles * [Hispanic, White, Black, Asian, Other]
 Heating Fuel Used [Hispanic, Black, Asian, Other]

Property Tax Included [Asian]

Property Insurance Included [White, Asian]

• Property Value [Black, Other]

Monthly Mortgage Payment [Other]Race: White [Hispanic, Other]

Race: AIAN [Other]
Race: Write-in 1 Present [Other]

Ancestry [White, Other]Health Insurance: Through Employer [Asian]

Commute Number of Riders [Hispanic]
 Commute Departure Time [Hispanic, Black, Other]

Not Working Looking for Work [Hispanic, Black, Other]

• When Last Worked [Hispanic, White, Black, Asian]

• Worked 50 Weeks or More * [Hispanic, White, Black, Asian, Other]

Usual Hours Worked Per Week [Hispanic]

• Industry Type [Hispanic, White, Asian, Other]

• Occupation [White, Asian]

Social Security Income Amount [Hispanic, White, Black]

Retirement Income Amount [White]

The two analysis topics in this list marked with an asterisk are not PRP overall, yet they appear to have potential reliability problems in all five subgroups based on the GDR criteria described above. This is because the overall IOI values for all but one of the response categories for these analysis topics were valid and relatively low. For the one category with invalid IOI, the GDR value was relatively small. If we had used the GDR-only criteria for the overall evaluation, we would have flagged these two analysis topics in the overall analysis.

Table 21: Analysis Topics With Response Category GDR Values Above the 90th Percentile (11.3 percent) for the HISPANIC Subgroup

Analysis Topic Name	Total Response Categories	High GDR Response Categories	Category with Highest GDR	Highest GDR Value
Number of Rooms	9	5	5 Rooms	23.2 (1.8)
Number of Vehicles	6	1	2 Vehicles Available	11.7 (1.2)
Heating Fuel Used	8	2	Utility Gas	16.5 (1.6)
Monthly Electricity Cost	9	4	\$100 to \$149	21.1 (1.9)
Monthly Gas Cost	10	1	\$25 to \$49	15.3 (1.6)
Annual Water Sewer Cost	11	3	\$600 to \$899	16.0 (1.4)
Annual Property Insurance Amount	11	2	\$600 to \$899	14.3 (2.5)
Race 1	1	1	Race Write-In 2 Present	32.3 (2.1)
Race 15	1	1	Race Write-In 2 Present	32.3 (2.1)
Race Aggregate	7	2	White Alone	33.6 (2.1)
Race wp2	1	1	White Alone	33.6 (2.1)
English Speaking Ability	4	3	Well	21.1 (1.6)
Commute Number of Riders	5	2	2 Riders	13.6 (2.0)
Commute Departure Time	6	2	7:00 A.M. to 8:59 A.M.	12.9 (1.9)
Commute Minutes	12	4	15 to 19 Minutes	18.6 (2.0)
Not Working Looking for Work	1	1	Yes	12.0 (2.1)
Not Working Available to Work	1	1	Yes	14.4 (5.3)
When Last Worked	3	2	Over 5 Years Ago or Never Worked	15.0 (2.4)
Worked 50 Weeks or More	1	1	Yes	16.0 (1.6)
Weeks Worked	6	4	27 to 39 Weeks Worked During Past 12 Months	28.3 (4.5)
Usual Hours Worked Per Week	3	2	Usually Worked 15-34 Hours Per Week	12.2 (1.6)
Industry Type	4	2	Other (Agriculture, Construction, Service, Government, Etc.)	18.3 (1.9)
Wages Income Amount	10	3	\$15,000 to \$24,999	17.6 (2.1)
Self Employed Income Amount	10	1	Less than \$10,000	31.3 (14.1)
Social Security Income Amount	5	2	\$10,000 to \$19,999	13.2 (4.7)
Other Income Amount	•		\$2,500 to \$4,999	14.2 (5.1)
Total Income Amount	11	1	\$15,000 to \$24,999	14.2 (1.4)

Table 22: Analysis Topics With Response Category GDR Values Above the 90th Percentile (10.4 percent) for the WHITE Subgroup

Analysis Topic Name	Total Response Categories	High GDR Response Categories	Category with Highest GDR	Highest GDR Value
Number of Rooms	9	5	6 Rooms	18.3 (0.6)
Number of Vehicles	6	1	2 Vehicles Available	10.5 (0.5)
Monthly Electricity Cost	9	5	\$100 to \$149	21.4 (0.7)
Monthly Gas Cost	10	2	\$25 to \$49	13.0 (0.5)
Annual Water Sewer Cost	11	2	\$300 to \$599	16.1 (0.6)
Annual Property Insurance Amount	11	4	\$600 to \$899	16.5 (0.8)
Property Insurance Included	1	1	Yes	11.6 (0.8)
Second Mortgage Payment Amount	14	1	\$100 to \$199	12.3 (1.8)
Annual Mobile Home Costs	3	3	\$2,500 or More	25.5 (6.3)
Year of Naturalization	7	1	Naturalized 1990 to 1994	10.4 (4.6)
Ancestry	30	4	Other Groups	14.1 (0.6)
English Speaking Ability	4	2	Well	18.1 (3.6)
Health Insurance b	1	1	Yes, Purchased Directly	12.0 (0.4)
Grandparents Responsible for Grandchildren	1	1	Yes	20.1 (7.5)
Grandparents Time Responsible for Grandchildren	4	3	1 to 2 Years	31.9 (10.0)
Commute Minutes	12	4	20 to 24 Minutes	14.2 (0.8)
Not Working Available to Work	1	1	Yes	10.6 (3.2)
When Last Worked	3	2	1-5 Years Ago	12.7 (0.7)
Worked 50 Weeks or More	1	1	Yes	11.4 (0.6)
Weeks Worked	6	4	27 to 39 Weeks Worked During Past 12 Months	24.1 (1.9)
Class of Worker	8	1	Employee of A Private for-Profit Company or Business	12.6 (1.0)
Industry Type	4	1	Other (Agriculture, Construction, Service, Government, Etc.)	11.4 (0.5)
Occupation	18	1	Management, Business and Financial Occupations	10.8 (0.5)
Self Employed Income Amount	10	3	\$15,000 to \$24,999	12.5 (2.4)
Property Income Amount	7	4	\$100 to \$999	19.6 (2.1)
Property Income Recipiency	3	2	Did not Receive Property Income	14.8 (0.6)
Social Security Income Amount	5	1	\$10,000 to \$19,999	13.6 (1.0)
Supplemental Security Income Amount	4	1	\$5,000 to \$9,999	12.8 (3.5)
Public Assistance Income Amount	3	1	\$1,000 to \$4,999	24.7 (11.4)
Retirement Income Amount	7	1	\$10,000 to \$19,999	11.2 (1.2)
Other Income Amount	6	4	\$1,000 to \$2,499	16.5 (3.0)

Table 23: Analysis Topics With Response Category GDR Values Above the 90th Percentile (11.3 percent) for the BLACK Subgroup

Analysis Topic Name	Total Response Categories	High GDR Response Categories	Category with Highest GDR	Highest GDR Value
Lot Size	3	2	Less than 1 Acre	15.2 (2.4)
Number of Rooms	9	4	5 Rooms	20.6 (2.3)
Number of Vehicles	6	1	2 Vehicles Available	11.6 (1.4)
Heating Fuel Used	8	2	Electricity	12.3 (1.5)
Monthly Electricity Cost	9	5	\$100 to \$149	18.9 (1.8)
Monthly Gas Cost	10	1	\$25 to \$49	12.1 (1.5)
Annual Water Sewer Cost	11	4	\$600 to \$899	16.1 (2.6)
Property Value	8	1	\$100,000 to \$149,999	11.8 (2.4)
Annual Property Tax Amount	13	2	\$1,200 to \$1,499	13.9 (4.7)
Annual Property Insurance Amount	11	4	\$1,200 to \$1,799	18.9 (3.5)
Mortgage Status	3	1	Owned With A Mortgage	12.4 (4.5)
Educational Attainment	24	1	Some College, 1 or More Years, No Degree	11.5 (1.5)
English Speaking Ability	4	2	Well	22.9 (8.9)
Health Insurance b	1	1	Yes, Purchased Directly	13.7 (1.6)
Commute Departure Time	6	2	5:00 A.M. to 6:59 A.M.	11.9 (2.1)
Commute Minutes	12	4	20 to 24 Minutes	17.0 (2.4)
Not Working Informed of Recall	1	1	Yes	56.7 (21.9)
Not Working Looking for Work	1	1	Yes	12.0 (2.0)
When Last Worked	3	2	Over 5 Years Ago or Never Worked	15.1 (2.2)
Worked 50 Weeks or More	1	1	Yes	16.7 (2.1)
Weeks Worked	6	4	14 to 26 Weeks Worked During Past 12 Months	34.8 (8.8)
Class of Worker	8	2	Employee of A Private for-Profit Company or Business	19.9 (3.9)
Wages Income Amount	10	1	\$15,000 to \$24,999	16.7 (4.0)
Self Employed Income Amount	10	1	Less than \$10,000	14.5 (6.9)
Property Income Amount	7	2	\$100 to \$999	55.9 (20.0)
Social Security Income Amount	5	3	\$5,000 to \$9,999	15.1 (4.9)
Supplemental Security Income Amount	4	3	\$5,000 to \$9,999	23.4 (7.1)
Public Assistance Income Amount	3	2	\$1,000 to \$4,999	29.1 (12.1)
Other Income Amount	6	2	\$10,000 to \$19,999	24.3 (8.5)
Total Income Amount	11	1	Less than \$10,000	13.0 (1.9)

Table 24: Analysis Topics With Response Category GDR Values Above the 90th Percentile (10.8 percent) for the ASIAN Subgroup

Analysis Topic Name	Total Response Categories	High GDR Response Categories	Category with Highest GDR	Highest GDR Value
Number of Rooms	9	5	5 Rooms	18.9 (2.4)
Number of Vehicles	6	1	2 Vehicles Available	13.4 (3.3)
Heating Fuel Used	8	2	Utility Gas	24.3 (4.0)
Monthly Electricity Cost	9	4	\$100 to \$149	25.8 (3.0)
Monthly Gas Cost	10	1	\$25 to \$49	13.5 (2.8)
Annual Water Sewer Cost	11	4	\$600 to \$899	15.1 (2.2)
Annual Property Tax Amount	13	2	\$3,600 to \$4,799	16.2 (4.4)
Annual Property Insurance Amount	11	4	\$1,200 to \$1,799	15.2 (4.4)
Property Tax Included	1	1	Yes	15.7 (4.3)
Property Insurance Included	1	1	Yes	19.5 (4.6)
Annual Mobile Home Costs	3	2	Less than \$250	100.0 (47.4)
Year of Naturalization	7	1	Naturalized 1995 to 1999	11.1 (4.5)
English Speaking Ability	4	2	Well	21.4 (3.9)
Health Insurance a	1	1	Yes, Through Employer	11.3 (3.1)
Health Insurance b	1	1	Yes, Purchased Directly	12.0 (2.2)
Commute Minutes	12	3	10 to 14 Minutes	14.6 (3.2)
When Last Worked	3	1	Over 5 Years Ago or Never Worked	11.1 (2.7)
Worked 50 Weeks or More	1	1	Yes	15.7 (2.6)
Weeks Worked	6	3	14 to 26 Weeks Worked During Past 12 Months	21.7 (10.5)
Class of Worker	8	1	Employee of A Private for-Profit Company or Business	17.5 (5.2)
Industry Type	4	1	Other (Agriculture, Construction, Service, Government, Etc.)	14.5 (3.0)
Occupation	18	1	Management, Business and Financial Occupations	11.5 (1.8)
Wages Income Amount	10	2	\$35,000 to \$49,999	11.9 (3.5)
Property Income Amount	7	3	\$100 to \$999	19.0 (5.8)
Property Income Recipiency	3	2	Did not Receive Property Income	12.0 (1.6)

Table 25: Analysis Topics With Response Category GDR Values Above the 90th Percentile (11.7 percent) for the OTHER Subgroup

Analysis Topic Name	Total Response Categories	High GDR Response Categories	Category with Highest GDR	Highest GDR Value
Number of Rooms	9	3	4 Rooms	18.5 (3.2)
Number of Vehicles	6	2	2 Vehicles Available	15.0 (3.3)
Heating Fuel Used	8	2	Electricity	15.3 (3.0)
Monthly Electricity Cost	9	4	\$100 to \$149	17.8 (3.2)
Annual Water Sewer Cost	11	3	\$300 to \$599	15.0 (2.7)
Property Value	8	2	\$100,000 to \$149,999	16.3 (5.5)
Annual Property Tax Amount	13	3	\$1,800 to \$2,399	17.0 (6.0)
Annual Property Insurance Amount	11	4	\$1,200 to \$1,799	15.5 (5.4)
Monthly Mortgage Payment	15	2	\$1,500 to \$1,999	13.4 (4.4)
Race: White	1	1	White	16.4 (3.3)
Race: AIAN	1	1	American Indian or Alaska Native	14.6 (2.5)
Race Aggregate	7	2	Multiple Races	32.4 (4.1)
Race: wp1	1	1	Race Write-In 1 Present	13.5 (2.5)
Ancestry	30	1	Other Groups	16.6 (3.5)
English Speaking Ability	4	2	Very Well	14.7 (5.1)
Grandparents Responsible for Grandchildren	1	1	Yes	41.4 (20.0)
Commute Departure Time	6	1	7:00 A.M. to 8:59 A.M.	12.2 (3.3)
Commute Minutes	12	2	15 to 19 Minutes	16.4 (3.7)
Not Working Informed of Recall	1	1	Yes	59.8 (23.2)
Not Working Looking for Work	1	1	Yes	13.6 (3.3)
Not Working Available to Work	1	1	Yes	23.6 (10.4)
Worked 50 Weeks or More	1	1	Yes	14.5 (3.3)
Weeks Worked	6	3	13 Weeks or Less Worked During Past 12 Months	34.0 (11.7)
Industry Type	4	1	Other (Agriculture, Construction, Service, Government, Etc.)	14.9 (3.5)
Wages Income Amount	10	2	\$25,000 to \$34,999	13.5 (3.1)
Property Income Amount	7	1	\$20,000 or More	16.0 (6.7)

As with the mode analysis, we do not present statistical significance of differences between subgroups in this report. The interpretation of any differences in response reliability between Hispanic Origin/Race subgroups is perhaps even more problematic than for mode differences.

Data from the report cited in the previous section ["2005 American Community Survey Respondents Characteristics Evaluations" (Joshipura, 2008)] show that persons with different Hispanic Origin and Race characteristics have large significant differences in their propensity to respond by Mail. Of respondents who were Hispanic, 31 percent responded by Mail. Of respondents who were not Hispanic, 64 percent responded by Mail. The percent responding by Mail for the five race groups analyzed were 66 percent for White, 36 percent for Black, 46 percent for American Indian or Alaskan Native, 57 percent for Asian or Pacific Islander, and 31 percent for Some Other Race.

These differences in propensity to respond by Mail mean that any differences in response reliability that we see between our Hispanic Origin/Race subgroups may be driven by mode differences. Thus, all the reasons cited for the difficulty in interpreting mode differences apply here as well.

We calculated the aggregate evaluation measures GDR_L and IOI_L for the 72 analysis topics with three or more analysis categories (excluding Ancestry and Field of Degree) by Hispanic Origin/Race subgroup. Table 26 shows the distributions of GDR_L values by mode, along with the overall distribution for comparison. Table 27 shows distributions for IOI_L.

Table 26: Distributions of GDR_L Estimates by Hispanic Origin/Race Subgroup

Statistic	Overall	Hispanic	White	Black	Asian	Other
Minimum	0.2	0.0	0.2	0.0	0.0	0.0
25 th percentile	3.3	4.2	2.8	3.5	3.9	2.7
Median	6.0	7.0	5.6	5.6	6.1	6.0
Mean	6.8	7.8	6.6	7.7	8.7	7.1
75 th percentile	9.7	10.3	9.2	10.2	11.0	9.5
90 th percentile	13.2	14.3	14.2	14.1	16.8	13.3
Maximum	21.5	30.2	23.7	42.5	100.0	25.2

Source: U.S. Census Bureau, 2012 ACS Content Reinterview Survey, January to December 2012

Table 27: Distributions of IOIL Estimates by Hispanic Origin/Race Subgroup

Statistic	Overall	Hispanic	White	Black	Asian	Other
Minimum	0.5	0.5	0.6	0.0	0.0	0.0
25 th percentile	16.1	19.3	14.4	14.2	20.6	14.9
Median	23.9	29.3	26.0	28.6	28.7	23.0
Mean	27.3	32.0	28.9	33.8	33.1	28.6
75 th percentile	41.4	41.7	43.4	46.2	42.9	42.4
90 th percentile	49.6	59.0	53.6	70.6	57.9	52.0
Maximum	67.2	88.1	100.0	100.0	100.0	100.0

In addition, we calculated the category-level measures IOI and GDR for all analysis topics (including Ancestry and Field of Bachelor's Degree) by Hispanic Origin/Race subgroup. Including only the first category for dichotomous analysis topics, there are 698 analysis categories. Table 28 shows the distributions of GDR estimates by subgroup (and overall). Table 29 shows the distributions of IOI estimates.

Table 28: Distribution of (category) GDR Estimates by Hispanic Origin/Race Subgroup

Statistic	Overall	Hispanic	White	Black	Asian	Other
Minimum	0.0	0.0	0.0	0.0	0.0	0.0
25 th percentile	0.7	0.6	0.7	0.4	0.2	0.4
Median	2.1	2.5	2.0	2.0	1.7	1.8
Mean	4.0	4.4	3.8	4.1	4.1	4.2
75 th percentile	5.8	6.2	5.2	5.6	5.4	5.5
90 th percentile	10.1	11.3	10.4	11.3	10.8	11.7
Maximum	24.6	34.1	31.9	56.7	100.0	59.8

Source: U.S. Census Bureau, 2012 ACS Content Reinterview Survey, January to December 2012

Table 29: Distribution of (category) IOI Estimates by Hispanic Origin/Race Subgroup

Statistic	Overall	Hispanic	White	Black	Asian	Other
Minimum	0.0	0.0	0.0	0.0	0.0	0.0
25 th percentile	13.9	17.1	14.8	15.2	12.1	9.4
Median	26.2	33.2	27.0	32.2	30.6	28.4
Mean	29.9	37.4	33.6	38.5	38.6	35.4
75 th percentile	41.1	53.7	45.9	55.8	57.5	52.8
90 th percentile	59.9	77.6	73.8	91.3	100.0	90.1
Maximum	100.0	100.0	100.0	100.0	100.0	100.0

Source: U.S. Census Bureau, 2012 ACS Content Reinterview Survey, January to December 2012

5 Conclusions

Response error can be a significant component of total survey error, but its impact varies depending on a number of factors. Therefore, it is important to establish an understanding of the proportion of total survey error accounted for by response error independently for each analysis topic, and independently for each category within an analysis topic. Our intention is that the ACS 2012 CRS will be a good foundation on which to build a better understanding of response error for ACS analysis topics in the future, as well as giving a snapshot of response error in the 2012 ACS.

Overall, we see that response error is probably not a major concern for most ACS analysis topics. Using the traditional rule of thumb for the index of inconsistency, the inconsistency level for the majority of analysis categories is either "Low" or "Moderate". There are a relatively small

number of categories (and analysis topics) for which response error appears to be a significant proportion of total error, and we should focus future study on these categories and analysis topics.

For all ACS analysis topics and categories, we should use the evaluation measure estimates found here as a baseline against which to compare future response error estimates.

Based on the criteria described at the beginning of section 4, we identify 10 PRP housing analysis topics and 25 PRP person analysis topics.

It is striking that all of the PRP housing analysis topics involve numeric response options. Furthermore, all but one of the PRP housing analysis topics involves dollar amount responses. This trend is not quite as prominent for the person analysis topics; but nine of the PRP person analysis topics involve numeric responses, and seven of these are income amount questions. In addition, a pattern that we see for most analysis topics with naturally ordered analysis categories — most of which are numeric response analysis topics — is that the GDR and IOI values tend to be highest in the middle categories, decreasing for categories that are earlier or later in the natural order. While the degree of inconsistency varies within analysis topics that involve numeric responses, and we should not attribute all of the inconsistency to this single characteristic, this trend does suggest that research into methods for mitigating response error for numeric response analysis topics in general could be fruitful.

Using a criterion based only on category GDR estimates and their CV values, we identified nine analysis topics that may have reliability issues specific to one or two of the three ACS data collection modes. In addition, we identified four other analysis topics that appear to have potential reliability issues in all three modes, based on this GDR-only criterion, but did not flag as PRP in the overall analysis.

Similarly, we identified 22 analysis topics that may have reliability issues specific to one or more of the five Hispanic Origin/Race subgroups. Two of these appear to have potential reliability issues in all five subgroups, but we did not flag them as PRP in the overall analysis.

Our analysis of reliability by mode and Hispanic Origin/Race subgroup is limited, but the identification of analysis topics that may have issues specific to a mode or subgroup could be the basis for future research. The fact that we identified certain analysis topics as having issues in all modes or all subgroups, but did not flag them as PRP overall, is a reminder that our PRP criteria are somewhat subjective. Research into alternative criteria may be useful, both for future analysis of the data collected in this survey, and for future similar projects.

6 References

Biemer, P. (2004). The Twelfth Morris Hansen Lecture; Simple Response Variance, Then and Now. *Journal of Official Statistics*, 20(3), 417-439.

Biemer, P. P. (2011). Latent Class Analysis of Survey Error. Hoboken, NJ, USA: Wiley.

- Compton, E., Bentley, M., Ennis, S., & Rastogi, S. (2012, August 8). 2010 Census Race and Hispanic Origin Alternative Questionnaire Experiment Final Report. Retrieved November 21, 2012, from 2010 Decennial Census: http://2010.census.gov/2010census/pdf/2010 Census Race and Hispanic Origin Alternative Questionnaire Experiment.pdf
- Denby, G., Coan, M., & Lembo, M. (2011, September 9). Requirements Document for Content Reinterview Survey, Eligibility Requirements 2012 Version 1.1.
- Dusch, G., & Meier, F. (2012, June 13). 2010 Census Content Reinterview Survey Evaluation Report. Retrieved February 11, 2013, from 2010 Census: http://www.census.gov/2010census/pdf/2010_Census_Content_Reinterview_Survey_Evaluation_Report.pdf
- Fay, R. a. (1995). Aspects of Survey and Model-Based Postcensal Estimation of Income and Poverty Characteristics for States and Counties. Orlando, FL: American Statistical Association.
- Joshipura, M. (2008). 2005 American Community Survey Respondent Characteristics Evaluation. U.S. Census Bureau, Decennial Statistical Studies Division. Washington, D.C.: U.S. Census Bureau. Retrieved June 25, 2013, from http://www.census.gov/acs/www/Downloads/library/2008/2008_Joshipura_01.pdf
- Keathley, D. (2011, October). Sample Design Specifications for the ACS 2012 Content Reinterview Survey.
- Keathley, D. (2013, April 15). American Community Survey: Specifications for Weighting the 2012 Content Reinterview Survey Sample.
- Lauger, A. (2011, October 10). Sample Design and Weighting Requirements, ACS Methods Panel, 2012 Content Reinterview Survey (CRS).
- Loveless, T. A. (2012, January 26). 2010 ACS Content Test Evaluation Report Covering Food Stamps/SNAP. Retrieved November 20, 2012, from U.S. Census Bureau: http://www.census.gov/acs/www/Downloads/library/2012/2012_Loveless_01.pdf
- Singer, P., & Ennis, S. R. (2003). Census 2000 Content Reinterview Survey: Accuracy of Data for Selected Population and Housing Characteristics as Measured by Reinterview [Census 2000 Evaluation B.5]. Washington, D.C.: U.S. Census Bureau. Retrieved February 11, 2013, from http://www.census.gov/pred/www/rpts/B.5FR_RI.PDF
- U.S. Census Bureau. (2012, September 21). *American Community Survey Accuracy of the Data* (2011). Retrieved November 5, 2012, from United States Census Bureau: http://www.census.gov/acs/www/Downloads/data_documentation/Accuracy/ACS_Accuracy_of_Data_2011.pdf

- US Census Bureau. (1993). Content Reinterview Survey: Accuracy of Data for Selected Population and Housing Characteristics as Measured by Reinterview [1990 Census of Population and Housing Evaluation and Research Reports: 1990 CPH-E-1]. Washington, DC: US Census Bureau. Retrieved February 11, 2013, from http://www.census.gov/prod/cen1990/cph-e/cph-e-1.pdf
- US Census Bureau. (2010, June 14). *American Community Survey, Methodology: Questionnaire Archive -- 2011 English Questionnaire*. Retrieved September 22, 2011, from US Census Bureau Official Web Site:
 - http://www.census.gov/acs/www/Downloads/questionnaires/2011/Quest11.pdf

Appendix A: Detailed Results for Housing Topics

Analysis Topic	Analysis category	GDR Estimate	IOI Estimate	IOI Level	Invalid IOI	PRP	ACS percent	CRS percent
	Mobile home, Boat, RV, van, etc.	1.0 (0.1)	8.0 (1.1)	Low		-	6.8 (0.4)	7.0 (0.4)
	Single unit, detached	3.2 (0.2)	7.1 (0.5)	Low			66.1 (0.6)	66.2 (0.7)
	Single unit, attached	4.4 (0.3)	40.6 (2.3)	Moderate			5.6 (0.3)	6.0 (0.3)
	Apartment building, 2 units	2.5 (0.2)	39.8 (3.2)	Moderate	I		3.7 (0.2)	2.8 (0.2)
	Apartment building, 3 or 4 units	2.1 (0.2)	28.9 (2.7)	Moderate			3.8 (0.2)	3.8 (0.2)
Building Type	Apartment building, 5 to 9 units	2.4 (0.2)	29.1 (2.6)	Moderate			4.1 (0.3)	4.4 (0.3)
Building Type	Apartment building, 10 to 19 units	2.5 (0.2)	34.0 (2.9)	Moderate			3.9 (0.3)	3.7 (0.3)
	Apartment building, 20 to 49 units	1.9 (0.2)	34.5 (2.7)	Moderate	I		2.9 (0.2)	2.9 (0.2)
	Apartment building, 50 or more units	1.5 (0.2)	23.6 (2.4)	Moderate	I		3.2 (0.2)	3.3 (0.2)
	L-Fold (Aggregate)	2.9 (0.2)	19.7 (0.7)	Low				
	Built 2010 or later	0.5 (0.1)	20.8 (5.0)	Moderate	I		1.1 (0.2)	1.3 (0.2)
	Built 2000 to 2009	2.8 (0.2)	9.8 (0.8)	Low			17.2 (0.5)	17.7 (0.5)
	Built 1990 to 1999	4.5 (0.3)	17.8 (1.2)	Low			15.2 (0.5)	14.9 (0.5)
	Built 1980 to 1989	5.2 (0.3)	21.3 (1.3)	Moderate			14.3 (0.6)	14.0 (0.5)
Year Built	Built 1970 to 1979	5.0 (0.3)	19.4 (1.2)	Low			15.2 (0.5)	15.5 (0.5)
Tear Dunt	Built 1960 to 1969	5.2 (0.3)	28.1 (1.5)	Moderate			10.5 (0.5)	10.3 (0.4)
	Built 1950 to 1959	4.7 (0.3)	25.5 (1.8)	Moderate			10.2 (0.4)	10.5 (0.4)
	Built 1940 to 1949	2.9 (0.3)	32.9 (2.7)	Moderate			4.8 (0.3)	4.5 (0.3)
	Built 1939 or earlier	2.4 (0.2)	11.6 (1.1)	Low			11.6 (0.5)	11.4 (0.4)
	L-Fold (Aggregate)	4.2 (0.1)	19.2 (0.6)	Low				
	Moved in 2012 or later	1.5 (0.2)	11.8 (1.4)	Low			6.7 (0.3)	6.8 (0.3)
	Moved in 2011	3.5 (0.3)	17.3 (1.2)	Low			11.6 (0.5)	11.5 (0.5)
Year Person 1	Moved in 2010	4.9 (0.3)	31.7 (1.9)	Moderate			8.5 (0.4)	8.6 (0.5)
Moved In	Moved in 2009	3.4 (0.2)	25.8 (1.7)	Moderate			7.3 (0.4)	7.0 (0.3)
Wioved III	Moved in 2008	2.7 (0.2)	29.9 (2.3)	Moderate			4.7 (0.3)	4.7 (0.3)
	Moved in 2007 or earlier	3.0 (0.2)	6.4 (0.5)	Low			61.2 (0.7)	61.5 (0.6)
	L-Fold (Aggregate)	3.2 (0.1)	16.1 (0.6)	Low				
	Less than one acre	7.0 (0.4)	19.4 (1.2)	Low			77.0 (0.6)	75.3 (0.6)
Lot Size	1 to 9.9 acres	7.3 (0.4)	23.2 (1.4)	Moderate			18.7 (0.6)	20.2 (0.6)
LUI SIZE	10 or more acres	1.1 (0.1)	13.6 (1.6)	Low			4.2 (0.3)	4.5 (0.2)
	L-Fold (Aggregate)	6.8 (0.4)	20.3 (1.2)	Moderate				

In the "estimate" columns – GDR and IOI – the standard error is shown in parentheses following each estimate. You should read both estimates and standard errors as percentages, as we multiplied the original proportion estimates and standard errors by 100.

Appendix A: Detailed Results for Housing Topics

Analysis Topic	Analysis category	GDR Estimate	IOI Estimate	IOI Level	Invalid IOI	PRP	ACS percent	CRS percent
	None	3.4 (0.5)	37.5 (5.6)	Moderate		-	94.2 (0.7)	96.1 (0.6)
	\$1 to \$999	2.3 (0.4)	74.4 (7.2)	High	I		2.1 (0.4)	1.0 (0.3)
	\$1,000 to \$2,499	0.6 (0.1)	42.3 (8.8)	Moderate	I		0.9 (0.2)	0.6 (0.2)
Agricultural Sales	\$2,500 to \$4,999	0.6 (0.2)	76.5 (10.3)	High	I		0.3 (0.1)	0.4 (0.2)
Sales	\$5,000 to \$9,999	0.7 (0.2)	60.8 (12.6)	High	I		0.6 (0.2)	0.5 (0.2)
	\$10,000 or more	0.9 (0.2)	27.9 (9.2)	Moderate	I		1.9 (0.5)	1.3 (0.4)
	L-Fold (Aggregate)	3.3 (0.5)	45.3 (5.7)	Moderate				
Business On Property	Yes	1.9 (0.3)	75.4 (4.8)	High	I		1.7 (0.3)	0.8 (0.1)
	1 room	2.4 (0.2)	52.7 (3.7)	High	I		1.7 (0.1)	3.1 (0.2)
	2 rooms	3.0 (0.2)	55.3 (3.9)	High	I		2.9 (0.2)	2.6 (0.2)
	3 rooms	7.6 (0.4)	49.1 (1.9)	Moderate		P	8.0 (0.3)	8.9 (0.5)
	4 rooms	13.0 (0.5)	47.7 (1.7)	Moderate		P	15.7 (0.5)	16.8 (0.5)
Number Of	5 rooms	17.7 (0.5)	53.9 (1.5)	High		P	20.2 (0.5)	21.2 (0.5)
Rooms	6 rooms	18.0 (0.5)	61.0 (1.5)	High		P	18.1 (0.6)	17.9 (0.5)
	7 rooms	14.3 (0.5)	62.1 (1.8)	High		P	13.4 (0.5)	13.2 (0.5)
	8 rooms	10.1 (0.4)	63.5 (1.8)	High		P	9.4 (0.4)	8.0 (0.3)
	9 or more rooms	7.3 (0.3)	42.3 (1.9)	Moderate			10.7 (0.4)	8.3 (0.4)
	L-Fold (Aggregate)	13.3 (0.2)	54.5 (0.7)	High		P		
	No bedrooms	0.7 (0.1)	80.5 (7.6)	High	I		0.6 (0.1)	0.3 (0.1)
	1 bedroom	1.6 (0.2)	9.1 (1.0)	Low			9.4 (0.4)	9.5 (0.4)
Number Of	2 bedrooms	4.4 (0.3)	11.5 (0.7)	Low			25.4 (0.5)	25.3 (0.5)
Bedrooms	3 bedrooms	7.4 (0.3)	15.1 (0.7)	Low			42.2 (0.6)	42.5 (0.6)
Dedrooms	4 bedrooms	5.4 (0.3)	18.3 (1.0)	Low			18.2 (0.5)	18.2 (0.6)
	5 or more bedrooms	1.7 (0.1)	20.9 (2.1)	Moderate			4.2 (0.2)	4.2 (0.2)
	L-Fold (Aggregate)	5.4 (0.2)	14.8 (0.6)	Low				
Running Water	Yes	0.3 (0.1)	84.0 (4.7)	High	I		99.8 (0.0)	99.8 (0.1)
Toilet	Yes	0.3 (0.1)	85.9 (5.3)	High	I		99.9 (0.0)	99.8 (0.1)
Bath Shower	Yes	0.3 (0.1)	85.2 (5.6)	High	I		99.9 (0.0)	99.8 (0.1)
Sink	Yes	0.5 (0.1)	92.5 (3.0)	High	I		99.9 (0.0)	99.6 (0.1)
Stove	Yes	0.8 (0.1)	60.8 (7.1)	High	I		99.5 (0.1)	99.2 (0.1)
Refrigerator	Yes	0.4 (0.1)	97.8 (1.3)	High	I		99.9 (0.0)	99.7 (0.1)

In the "estimate" columns – GDR and IOI – the standard error is shown in parentheses following each estimate. You should read both estimates and standard errors as percentages, as we multiplied the original proportion estimates and standard errors by 100.

Appendix A: Detailed Results for Housing Topics

Analysis Topic	Analysis category	GDR Estimate	IOI Estimate	IOI Level	Invalid IOI	PRP	ACS percent	CRS percent
	No vehicle available	2.4 (0.2)	17.3 (1.4)	Low		_	7.6 (0.3)	7.6 (0.3)
	1 vehicles available	7.4 (0.4)	16.5 (0.9)	Low			33.2 (0.6)	34.1 (0.6)
N. 1 O.	2 vehicles available	11.0 (0.4)	23.1 (0.9)	Moderate			38.3 (0.6)	39.3 (0.6)
Number Of Vehicles	3 vehicles available	7.0 (0.3)	28.7 (1.4)	Moderate			14.6 (0.5)	13.8 (0.4)
venicies	4 vehicles available	3.2 (0.2)	37.2 (3.1)	Moderate			4.7 (0.3)	4.2 (0.3)
	5 or more vehicles available	1.2 (0.2)	47.0 (5.8)	Moderate	I		1.5 (0.2)	1.1 (0.1)
	L-Fold (Aggregate)	8.0 (0.3)	22.7 (0.8)	Moderate				
	Utility gas	9.4 (0.4)	18.9 (0.8)	Low			49.0 (0.7)	47.7 (0.7)
	Bottled, tank, or LP gas	1.9 (0.2)	22.5 (1.8)	Moderate			4.7 (0.2)	4.3 (0.2)
	Electricity	10.0 (0.4)	21.1 (0.9)	Moderate			37.6 (0.6)	39.1 (0.7)
Haating Eval	Fuel oil, kerosene, etc.	1.3 (0.1)	12.9 (1.5)	Low			5.4 (0.3)	5.1 (0.3)
Heating Fuel Used	Coal or coke	0.0(0.0)	14.8 (8.0)	Low	I		0.1 (0.0)	0.1 (0.0)
Osca	Wood	0.9 (0.1)	20.7 (2.5)	Moderate	I		2.0 (0.1)	2.4 (0.2)
	Solar energy or other fuel	1.0 (0.1)	89.9 (2.7)	High	I		0.5 (0.1)	0.6 (0.1)
	No fuel used	0.9 (0.1)	61.3 (6.7)	High	I		0.7 (0.1)	0.7 (0.1)
	L-Fold (Aggregate)	8.5 (0.4)	20.7 (0.8)	Moderate				
	Less than \$25	1.3 (0.1)	43.6 (3.9)	Moderate	I		1.5 (0.1)	1.5 (0.2)
	\$25 to \$49	6.7 (0.3)	41.3 (2.1)	Moderate			9.2 (0.4)	8.6 (0.3)
	\$50 to \$74	13.4 (0.4)	55.6 (1.5)	High		P	14.0 (0.4)	14.1 (0.5)
	\$75 to \$99	14.8 (0.5)	65.0 (1.7)	High		P	13.4 (0.4)	12.8 (0.4)
Monthly	\$100 to \$149	21.2 (0.6)	59.9 (1.7)	High		P	23.2 (0.6)	22.7 (0.5)
Electricity	\$150 to \$199	15.0 (0.5)	60.7 (1.7)	High		P	14.5 (0.5)	14.4 (0.5)
Cost	\$200 or more	10.8 (0.5)	33.2 (1.5)	Moderate			19.9 (0.6)	21.2 (0.6)
	Included in rent or condominium fee	1.2 (0.1)	16.0 (1.9)	Low			3.8 (0.2)	3.8 (0.2)
	No charge or electricity not used	0.9 (0.1)	68.3 (5.9)	High	I		0.6 (0.1)	0.8 (0.1)
	L-Fold (Aggregate)	14.0 (0.3)	50.9 (0.8)	High		P		
	Less than \$25	8.0 (0.3)	47.6 (2.0)	Moderate		P	9.4 (0.4)	9.0 (0.4)
	\$25 to \$49	13.1 (0.4)	55.5 (1.6)	High		P	13.7 (0.4)	13.6 (0.4)
	\$50 to \$74	11.4 (0.5)	65.3 (2.4)	High		P	9.7 (0.4)	9.6 (0.4)
	\$75 to \$99	7.1 (0.4)	67.1 (2.5)	High		P	5.8 (0.3)	5.5 (0.4)
	\$100 to \$149	8.9 (0.4)	63.2 (2.4)	High		P	7.9 (0.4)	7.3 (0.4)
Monthly Gas	\$150 to \$199	4.0 (0.3)	73.6 (3.6)	High	I		3.0 (0.2)	2.6 (0.2)
Cost	\$200 or more	3.5 (0.2)	54.9 (3.0)	High	I		3.6 (0.2)	3.1 (0.2)
	Included in rent or condominium fee	3.0 (0.2)	37.8 (2.5)	Moderate			4.4 (0.3)	3.9 (0.2)
	Included in electricity payment	7.3 (0.4)	53.1 (2.4)	High		P	6.6 (0.4)	8.3 (0.5)
	No charge or gas not used	6.8 (0.3)	14.7 (0.7)	Low			35.9 (0.6)	37.1 (0.6)
	L-Fold (Aggregate)	8.2 (0.1)	45.0 (0.7)	Moderate		P		

In the "estimate" columns – GDR and IOI – the standard error is shown in parentheses following each estimate. You should read both estimates and standard errors as percentages, as we multiplied the original proportion estimates and standard errors by 100.

Appendix A: Detailed Results for Housing Topics

Analysis Topic	Analysis category	GDR Estimate	IOI Estimate	IOI Level	Invalid IOI	PRP	ACS percent	CRS percent
	Less than \$120	8.6 (0.4)	91.9 (2.0)	High	I	P	7.9 (0.4)	1.7 (0.2)
	\$120 to \$299	7.9 (0.4)	53.7 (2.0)	High		P	7.9 (0.3)	8.0 (0.4)
	\$300 to \$599	15.4 (0.5)	48.3 (1.5)	Moderate		P	19.1 (0.5)	20.8 (0.6)
	\$600 to \$899	15.1 (0.5)	55.3 (1.4)	High		P	15.3 (0.5)	17.3 (0.5)
	\$900 to \$1199	8.0 (0.3)	68.9 (2.5)	High		P	5.8 (0.3)	6.6 (0.3)
Annual Water	\$1200 to \$1799	6.6 (0.3)	59.5 (2.4)	High		P	5.5 (0.4)	6.3 (0.4)
Sewer Cost	\$1800 to \$2399	1.6 (0.2)	76.3 (5.3)	High	I		0.9 (0.1)	1.2 (0.2)
Sewer Cost	\$2400 to \$3599	1.0 (0.1)	77.9 (6.7)	High	I		0.7 (0.1)	0.6 (0.1)
	\$3600 or more	0.4 (0.1)	84.7 (10.7)	High	I		0.2 (0.1)	0.3 (0.1)
	Included in rent or condominium fee	7.7 (0.4)	23.1 (1.1)	Moderate			20.8 (0.6)	21.2 (0.5)
	No charge	6.8 (0.4)	25.3 (1.3)	Moderate			15.8 (0.4)	16.0 (0.4)
	L-Fold (Aggregate)	10.2 (0.2)	46.6 (0.8)	Moderate		P		
	Less than \$300	2.5 (0.2)	70.3 (4.7)	High	I		1.9 (0.2)	1.7 (0.2)
	\$300 to \$599	1.5 (0.1)	71.4 (4.8)	High	I		1.0 (0.1)	1.1 (0.1)
	\$600 to \$899	1.3 (0.1)	64.8 (5.2)	High	I		1.2 (0.1)	0.8 (0.1)
	\$900 to \$1199	1.1 (0.1)	75.2 (5.0)	High	I		0.8 (0.1)	0.6 (0.1)
Annual Other	\$1200 to \$1799	1.6 (0.2)	65.0 (6.1)	High	I		1.5 (0.2)	1.0 (0.2)
Fuel Cost	\$1800 to \$2399	1.1 (0.2)	74.1 (5.1)	High	I		0.8 (0.1)	0.7 (0.2)
i dei cost	\$2400 or more	1.0 (0.1)	32.8 (4.0)	Moderate	I		1.6 (0.2)	1.5 (0.2)
	Included in rent or condominium fee	2.2 (0.2)	84.6 (3.4)	High	I		2.0 (0.2)	0.6 (0.1)
	No charge	7.6 (0.4)	44.7 (1.9)	Moderate			89.2 (0.4)	92.1 (0.4)
	L-Fold (Aggregate)	6.8 (0.3)	55.7 (1.6)	High				
Food Stamp Recipiency	Yes	3.8 (0.2)	16.5 (0.8)	Low			13.0 (0.3)	13.8 (0.3)
	Less than \$100 per month	6.8 (1.9)	36.5 (9.0)	Moderate		P	9.8 (2.1)	10.9 (2.3)
	\$100 to \$149	2.6 (1.0)	13.6 (5.4)	Low			11.2 (1.7)	10.2 (1.8)
Condominium	\$150 to \$199	4.0 (1.3)	13.0 (4.1)	Low			20.3 (2.7)	18.0 (2.6)
Fee	\$200 to \$299	6.5 (1.6)	16.3 (4.1)	Low			27.1 (2.7)	28.0 (3.0)
1.66	\$300 to \$499	5.8 (1.6)	16.7 (4.2)	Low			22.4 (3.0)	22.5 (3.1)
	\$500 or more per month	3.4 (1.1)	18.9 (6.2)	Low			9.3 (1.6)	10.4 (2.0)
	L-Fold (Aggregate)	5.2 (0.9)	18.1 (3.2)	Low		P		
Condominium Status	Yes	2.4 (0.2)	21.9 (1.8)	Moderate			6.0 (0.3)	5.7 (0.3)

Appendix A: Detailed Results for Housing Topics

Analysis Topic	Analysis category	GDR Estimate	IOI Estimate	IOI Level	Invalid IOI	PRP	ACS percent	CRS percent
	Owned with a mortgage	4.2 (0.3)	8.5 (0.6)	Low			44.3 (0.6)	42.8 (0.7)
	Owned without a mortgage	4.0 (0.3)	11.8 (0.8)	Low			21.1 (0.5)	22.3 (0.5)
Tenure	Rented	1.9 (0.2)	4.3 (0.4)	Low			32.6 (0.7)	32.6 (0.7)
Tenure	Occupied without payment of rent	1.5 (0.2)	36.5 (3.9)	Moderate	I		2.0 (0.2)	2.3 (0.2)
	L-Fold (Aggregate)	3.3 (0.2)	8.9 (0.5)	Low				
	Less than \$100	0.4 (0.1)	19.3 (6.3)	Low	I		1.3 (0.2)	1.1 (0.2)
	\$100 to \$149	0.7 (0.2)	40.4 (10.9)	Moderate	I		0.9 (0.2)	0.9 (0.2)
	\$150 to \$199	0.8 (0.2)	27.9 (7.8)	Moderate	I		1.5 (0.3)	1.4 (0.3)
	\$200 to \$249	0.7 (0.3)	16.9 (5.7)	Low	I		2.1 (0.3)	2.2 (0.4)
	\$250 to \$299	0.8 (0.2)	19.3 (7.2)	Low	I		2.0 (0.6)	2.2 (0.6)
	\$300 to \$349	0.9 (0.3)	25.8 (6.8)	Moderate	I		1.8 (0.3)	1.6 (0.3)
	\$350 to \$399	1.5 (0.3)	25.1 (4.5)	Moderate	I		3.0 (0.3)	3.1 (0.4)
	\$400 to \$449	1.0 (0.2)	12.0 (2.7)	Low			4.4 (0.5)	4.4 (0.5)
	\$450 to \$499	1.5 (0.3)	17.5 (3.7)	Low			4.2 (0.5)	4.4 (0.5)
	\$500 to \$549	1.8 (0.3)	16.1 (2.5)	Low			5.9 (0.6)	6.0 (0.6)
Monthly Rent	\$550 to \$599	1.8 (0.4)	16.1 (3.0)	Low			6.0 (0.6)	5.8 (0.6)
Monuny Kent	\$600 to \$649	2.1 (0.4)	22.0 (3.5)	Moderate			4.9 (0.5)	5.4 (0.4)
	\$650 to \$699	1.9 (0.4)	16.7 (3.1)	Low			6.0 (0.6)	6.0 (0.5)
	\$700 to \$749	1.9 (0.3)	19.7 (3.7)	Low			5.0 (0.5)	5.0 (0.4)
	\$750 to \$799	1.9 (0.3)	19.4 (3.7)	Low			5.5 (0.6)	4.8 (0.5)
	\$800 to \$899	2.8 (0.4)	18.0 (2.3)	Low			8.6 (0.6)	8.7 (0.6)
	\$900 to \$999	1.8 (0.4)	13.9 (2.8)	Low			7.1 (0.6)	7.0 (0.6)
	\$1,000 to \$1,249	1.9 (0.4)	8.0 (1.7)	Low			13.4 (0.8)	13.9 (0.8)
	\$1,250 to \$1,499	1.6 (0.3)	14.2 (3.0)	Low			6.2 (0.6)	6.1 (0.6)
	\$1,500 to \$1,999	1.7 (0.3)	14.4 (2.5)	Low			6.1 (0.5)	6.3 (0.6)
	\$2,000 or more	0.5 (0.2)	6.3 (2.7)	Low			3.9 (0.5)	3.8 (0.5)
	L-Fold (Aggregate)	1.7 (0.1)	16.1 (1.0)	Low				
Meals Included In Rent	Yes	1.2 (0.2)	31.3 (5.8)	Moderate	I		1.8 (0.3)	2.0 (0.3)

Appendix A: Detailed Results for Housing Topics

Analysis Topic	Analysis category	GDR Estimate	IOI Estimate	IOI Level	Invalid IOI	PRP	ACS percent	CRS percent
	Less than \$50,000	2.8 (0.2)	20.8 (1.8)	Moderate		-	7.8 (0.4)	6.9 (0.4)
	\$50,000 to \$99,999	5.0 (0.3)	19.9 (1.3)	Low			15.3 (0.6)	14.3 (0.6)
	\$100,000 to \$149,999	8.6 (0.5)	29.6 (1.5)	Moderate			17.5 (0.6)	18.0 (0.7)
_	\$150,000 to \$199,999	8.5 (0.4)	31.5 (1.4)	Moderate			16.0 (0.6)	16.2 (0.6)
Property Value	\$200,000 to \$299,999	7.6 (0.5)	23.7 (1.3)	Moderate			20.0 (0.8)	20.2 (0.7)
value	\$300,000 to \$499,999	5.4 (0.4)	20.5 (1.7)	Moderate			15.3 (0.7)	15.9 (0.6)
	\$500,000 to \$999,999	2.0 (0.3)	16.0 (1.9)	Low			6.5 (0.4)	6.8 (0.4)
	\$1,000,000 or more	0.3 (0.1)	10.2 (2.2)	Low	I		1.7 (0.2)	1.7 (0.2)
	L-Fold (Aggregate)	6.4 (0.2)	23.8 (0.8)	Moderate				
	None	1.9 (0.3)	37.8 (4.4)	Moderate	I		2.8 (0.3)	2.4 (0.3)
	\$1 to \$299	3.0 (0.3)	31.0 (3.1)	Moderate			5.3 (0.4)	5.1 (0.4)
	\$300 to \$599	4.0 (0.4)	32.1 (3.0)	Moderate			6.4 (0.4)	6.9 (0.4)
	\$600 to \$899	4.9 (0.4)	32.0 (2.4)	Moderate			8.7 (0.5)	8.0 (0.4)
	\$900 to \$1199	5.9 (0.4)	46.6 (2.7)	Moderate		P	6.3 (0.4)	7.4 (0.5)
	\$1,200 to \$1,499	8.0 (0.6)	48.0 (2.8)	Moderate		P	9.0 (0.6)	9.4 (0.5)
Annual	\$1,500 to \$1,799	6.3 (0.4)	50.5 (3.1)	High		P	6.9 (0.5)	6.4 (0.4)
Property Tax Amount	\$1,800 to \$2,399	10.2 (0.6)	47.6 (2.5)	Moderate		P	11.9 (0.5)	12.4 (0.7)
Amount	\$2,400 to \$3,599	9.6 (0.5)	34.1 (1.8)	Moderate			17.2 (0.6)	16.9 (0.6)
	\$3,600 to \$4,799	5.4 (0.3)	34.6 (2.5)	Moderate			8.5 (0.4)	8.4 (0.4)
	\$4,800 to \$5,999	3.5 (0.3)	37.9 (2.8)	Moderate			4.8 (0.4)	4.8 (0.4)
	\$6,000 to \$7,199	3.2 (0.3)	36.8 (3.2)	Moderate			4.4 (0.4)	4.6 (0.3)
	\$7,200 or more	2.5 (0.2)	17.9 (2.0)	Low			7.8 (0.4)	7.3 (0.4)
	L-Fold (Aggregate)	6.3 (0.2)	37.7 (1.0)	Moderate		P		
	None	5.9 (0.4)	42.0 (2.9)	Moderate	I	P	9.7 (0.6)	5.3 (0.4)
	\$1 to \$119	1.6 (0.2)	90.6 (5.5)	High	I		1.1 (0.2)	0.7 (0.1)
	\$120 to \$299	4.0 (0.4)	53.7 (4.3)	High		P	3.6 (0.4)	4.1 (0.4)
	\$300 to \$599	13.0 (0.7)	39.7 (2.0)	Moderate			19.8 (0.8)	21.5 (0.7)
Annual	\$600 to \$899	16.0 (0.8)	42.3 (1.9)	Moderate			25.4 (0.8)	25.0 (0.7)
Property	\$900 to \$1,199	13.1 (0.6)	52.0 (2.3)	High		P	14.2 (0.6)	15.2 (0.6)
Insurance	\$1,200 to \$1,799	13.1 (0.7)	47.3 (2.3)	Moderate		P	15.9 (0.8)	17.2 (0.7)
Amount	\$1,800 to \$2,399	6.0 (0.4)	58.6 (3.5)	High		P	5.2 (0.4)	5.7 (0.5)
	\$2,400 to \$3,599	3.6 (0.3)	59.2 (3.5)	High	I		3.0 (0.3)	3.4 (0.3)
	\$3,600 to \$4,799	0.9 (0.2)	52.1 (9.8)	High	I		0.9 (0.2)	0.9 (0.2)
	\$4,800 or more	1.1 (0.2)	55.0 (8.8)	High	I		1.1 (0.2)	0.9 (0.2)
	L-Fold (Aggregate)	11.7 (0.3)	47.0 (1.0)	Moderate		P		

Appendix A: Detailed Results for Housing Topics

Analysis Topic	Analysis category	GDR Estimate	IOI Estimate	IOI Level	Invalid IOI	PRP	ACS percent	CRS percent
	Owned with a mortgage	6.7 (0.5)	66.3 (3.5)	High		P	93.6 (0.5)	95.7 (0.4)
Mortgage	Under contract to purchase	2.2 (0.3)	76.4 (7.8)	High	I		1.3 (0.3)	1.6 (0.3)
Status	No mortgage	4.9 (0.4)	64.9 (3.7)	High	I		5.1 (0.4)	2.7 (0.3)
	L-Fold (Aggregate)	6.5 (0.5)	67.2 (3.4)	High		P		
	Less than \$200	0.5 (0.1)	31.0 (9.3)	Moderate	I		0.8 (0.2)	0.9 (0.2)
	\$200 to \$249	0.5 (0.1)	28.9 (9.0)	Moderate	I		0.9 (0.2)	0.7 (0.2)
	\$250 to \$299	0.6 (0.2)	36.3 (8.5)	Moderate	I		0.9 (0.2)	0.9 (0.2)
	\$300 to \$349	0.7 (0.1)	26.7 (5.4)	Moderate	I		1.3 (0.2)	1.4 (0.3)
	\$350 to \$399	1.1 (0.2)	32.3 (6.6)	Moderate	I		1.9 (0.3)	1.6 (0.2)
	\$400 to \$449	1.4 (0.3)	28.5 (5.0)	Moderate	I		2.5 (0.3)	2.5 (0.3)
	\$450 to \$499	1.2 (0.2)	30.4 (5.2)	Moderate	I		1.9 (0.2)	2.3 (0.3)
Monthly	\$500 to \$599	2.7 (0.4)	22.9 (2.8)	Moderate			6.4 (0.5)	6.2 (0.5)
Mortgage Payment	\$600 to \$699	3.6 (0.5)	26.3 (3.2)	Moderate			7.6 (0.6)	7.2 (0.5)
rayment	\$700 to \$799	3.3 (0.4)	23.8 (2.4)	Moderate			7.3 (0.6)	7.5 (0.6)
	\$800 to \$999	4.6 (0.4)	18.8 (1.5)	Low			14.4 (0.7)	13.7 (0.8)
	\$1,000 to \$1,249	6.2 (0.6)	23.7 (2.4)	Moderate			15.1 (0.8)	16.1 (0.8)
	\$1,250 to \$1,499	4.3 (0.4)	23.3 (2.0)	Moderate			10.3 (0.7)	10.4 (0.7)
	\$1,500 to \$1,999	4.9 (0.5)	19.7 (2.0)	Low			15.0 (0.9)	14.4 (0.9)
	\$2,000 or more	2.9 (0.4)	11.9 (1.6)	Low			13.9 (0.7)	14.0 (0.7)
	L-Fold (Aggregate)	3.9 (0.2)	21.7 (0.9)	Moderate				
Property Tax Included	Yes	7.3 (0.5)	17.7 (1.1)	Low			71.3 (0.8)	71.0 (0.8)
Property Insurance Included	Yes	11.5 (0.7)	24.4 (1.5)	Moderate			61.1 (0.9)	63.1 (0.8)
	Home equity loan	6.5 (0.3)	30.7 (1.5)	Moderate			11.6 (0.5)	12.5 (0.5)
	Second mortgage	3.0 (0.3)	44.0 (3.2)	Moderate	I		3.3 (0.3)	3.7 (0.3)
Second Mortgage	Second mortgage and home equity loan	1.3 (0.2)	77.4 (7.6)	High	I		0.5 (0.1)	1.3 (0.2)
Type	No second mortgage or home equity loan	6.3 (0.3)	22.8 (1.2)	Moderate			84.5 (0.6)	82.6 (0.6)
	L-Fold (Aggregate)	6.1 (0.3)	29.9 (1.1)	Moderate				

Appendix A: Detailed Results for Housing Topics

Analysis Topic	Analysis category	GDR Estimate	IOI Estimate	IOI Level	Invalid IOI	PRP	ACS percent	CRS percent
	Less than \$100	4.6 (1.1)	20.8 (5.2)	Moderate		-	11.9 (2.1)	13.4 (2.3)
	\$100 to \$199	11.3 (1.5)	33.8 (4.1)	Moderate			22.1 (2.0)	20.4 (1.5)
	\$200 to \$249	11.3 (1.4)	54.7 (6.3)	High		P	12.0 (1.5)	11.4 (1.6)
	\$250 to \$299	5.5 (0.9)	33.2 (6.3)	Moderate			8.7 (1.4)	9.7 (1.5)
	\$300 to \$349	6.5 (1.0)	31.5 (4.6)	Moderate			10.8 (1.4)	12.5 (1.7)
~ ·	\$350 to \$399	3.8 (0.9)	47.2 (8.8)	Moderate	I		5.1 (1.1)	3.3 (0.7)
Second	\$400 to \$449	3.3 (0.5)	39.2 (7.8)	Moderate		P	4.0 (0.9)	4.8 (0.8)
Mortgage Payment	\$450 to \$499	2.1 (0.6)	33.9 (8.2)	Moderate	I		3.5 (0.8)	2.8 (0.5)
Amount	\$500 to \$599	6.7 (1.2)	54.7 (7.0)	High		P	5.7 (0.9)	7.3 (1.2)
Timount	\$600 to \$699	2.1 (0.5)	26.2 (7.5)	Moderate			3.9 (0.8)	4.6 (0.9)
	\$700 to \$799	1.3 (0.3)	39.2 (11.1)	Moderate	I		1.8 (0.4)	1.6 (0.4)
	\$800 to \$999	2.4 (0.7)	46.3 (11.0)	Moderate	I		3.2 (0.8)	2.2 (0.5)
	\$1,000 to \$1,249	1.6 (0.4)	21.8 (8.3)	Moderate			3.9 (1.0)	3.7 (0.9)
	\$1,250 or more	1.9 (0.5)	33.9 (9.1)	Moderate	I		3.4 (0.7)	2.2 (0.6)
	L-Fold (Aggregate)	6.7 (0.6)	36.2 (2.5)	Moderate		P		
A 1	Less than \$250	17.0 (4.5)	52.7 (14.6)	High		P	19.9 (4.2)	20.4 (5.2)
Annual	\$250 to \$2,499	22.9 (4.4)	52.7 (10.6)	High		P	30.6 (5.5)	33.2 (5.7)
Mobile Home Costs	\$2,500 or more	22.6 (5.2)	45.2 (10.3)	Moderate		P	49.6 (5.6)	46.4 (5.7)
Costs	L-Fold (Aggregate)	21.5 (3.9)	49.7 (8.9)	Moderate		P		

Appendix B: Detailed Results for Person Topics

Analysis Topic	Analysis category	GDR Estimate	IOI Estimate	IOI Level	Invalid IOI	PRP	ACS percent	CRS percent
	Householder	0.0 (0.0)	0.0 (0.0)	Low	-		40.6 (0.3)	40.6 (0.3)
	Husband or Wife	0.4 (0.1)	1.4 (0.2)	Low			19.8 (0.3)	19.8 (0.3)
	Biological Son or Daughter	1.3 (0.1)	3.2 (0.3)	Low			26.8 (0.4)	26.4 (0.4)
	Adopted Son or Daughter	0.4 (0.1)	35.3 (5.2)	Moderate	I		0.5 (0.1)	0.6 (0.1)
	Stepson or Stepdaughter	0.5 (0.1)	17.6 (3.1)	Low	I		1.3 (0.2)	1.4 (0.2)
	Brother or sister	0.2 (0.0)	13.1 (2.5)	Low	I		0.9 (0.1)	0.9 (0.1)
	Father or mother	0.4 (0.1)	20.6 (2.6)	Moderate	I		1.0 (0.1)	1.1 (0.1)
Relationship	Grandchild	0.2 (0.0)	5.4 (1.0)	Low	I		2.1 (0.2)	2.1 (0.2)
То	Parent-in-law	0.1 (0.0)	19.2 (4.8)	Low	I		0.3 (0.1)	0.4 (0.1)
Householder	Son-in-law or daughter-in-law	0.1 (0.0)	12.3 (3.9)	Low	I		0.3 (0.0)	0.4 (0.1)
	Other relative	0.6 (0.1)	29.6 (4.5)	Moderate	I		1.1 (0.1)	1.0 (0.1)
	Roomer or boarder	0.6 (0.1)	79.0 (5.8)	High	I		0.4 (0.1)	0.4 (0.1)
	Housemate or roommate	1.3 (0.2)	49.1 (5.2)	Moderate	I		1.6 (0.2)	1.1 (0.1)
	Unmarried partner	0.8 (0.1)	17.7 (1.7)	Low	I		2.3 (0.1)	2.2 (0.1)
	Foster child	0.1 (0.0)	35.0 (14.6)	Moderate	I		0.1 (0.0)	0.1 (0.0)
	Other nonrelative	1.6 (0.2)	64.5 (4.2)	High	I		0.8 (0.1)	1.7 (0.2)
	L-Fold (Aggregate)	0.5 (0.0)	6.0 (0.3)	Low				
Sex	Male	0.7 (0.1)	1.5 (0.2)	Low			48.6 (0.4)	48.6 (0.3)

Appendix B: Detailed Results for Person Topics

Analysis Topic	Analysis category	GDR Estimate	IOI Estimate	IOI Level	Invalid IOI	PRP	ACS percent	CRS percent
	Age 0-4	0.2 (0.0)	1.8 (0.2)	Low			6.4 (0.2)	6.3 (0.2)
	Age 5-9	0.3 (0.0)	2.6 (0.3)	Low			6.7 (0.2)	6.7 (0.2)
	Age 10-14	0.3 (0.0)	2.5 (0.3)	Low			6.9 (0.1)	6.9 (0.1)
	Age 15-17	0.3 (0.0)	4.0 (0.5)	Low			3.8 (0.1)	3.8 (0.1)
	Age 18-19	0.3 (0.0)	7.3 (0.8)	Low	I		2.4 (0.1)	2.4 (0.1)
	Age 20	0.4 (0.0)	16.6 (2.0)	Low	I		1.1 (0.1)	1.1 (0.1)
	Age 21	0.4 (0.0)	13.7 (1.8)	Low	I		1.3 (0.1)	1.3 (0.1)
	Age 22-24	0.5 (0.0)	6.8 (0.5)	Low			3.9 (0.1)	3.9 (0.1)
	Age 25-29	0.6 (0.0)	4.8 (0.4)	Low			6.6 (0.2)	6.5 (0.2)
	Age 30-34	0.5 (0.0)	4.1 (0.4)	Low			6.5 (0.1)	6.5 (0.2)
	Age 35-39	0.5 (0.0)	4.6 (0.4)	Low			5.9 (0.2)	5.9 (0.1)
A	Age 40-44	0.6 (0.1)	5.3 (0.5)	Low			6.5 (0.2)	6.5 (0.2)
Age	Age 45-49	0.7 (0.1)	5.2 (0.4)	Low			6.8 (0.1)	6.8 (0.2)
	Age 50-54	0.7 (0.1)	4.9 (0.4)	Low			7.3 (0.2)	7.4 (0.2)
	Age 55-59	0.6 (0.0)	4.8 (0.4)	Low			6.8 (0.1)	6.8 (0.1)
	Age 60-61	0.5 (0.0)	9.1 (0.8)	Low	I		2.5 (0.1)	2.6 (0.1)
	Age 62-64	0.4 (0.0)	6.2 (0.6)	Low			3.7 (0.1)	3.6 (0.1)
	Age 65-66	0.4 (0.0)	8.4 (1.0)	Low	I		2.2 (0.1)	2.3 (0.1)
	Age 67-69	0.3 (0.0)	5.9 (0.6)	Low	I		2.7 (0.1)	2.7 (0.1)
	Age 70-74	0.3 (0.0)	4.1 (0.4)	Low			3.7 (0.1)	3.8 (0.1)
	Age 75-79	0.2 (0.0)	4.5 (0.5)	Low	I		2.6 (0.1)	2.6 (0.1)
	Age 80-84	0.2 (0.0)	4.8 (0.8)	Low	I		1.9 (0.1)	1.9 (0.1)
	Age 85 +	0.1 (0.0)	2.7 (0.6)	Low	I		1.7 (0.1)	1.8 (0.1)
	L-Fold (Aggregate)	0.4 (0.0)	4.9 (0.2)	Low				
Age Range Estimate	Age Range 0-14	4.4 (1.7)	20.1 (6.4)	Moderate			13.3 (4.0)	11.6 (2.9)
Hispanic Origin	Not Hispanic	1.7 (0.2)	6.1 (0.8)	Low			84.1 (0.7)	83.6 (0.7)
Hispanic Origin	Mexican	1.4 (0.2)	7.7 (1.2)	Low			10.2 (0.5)	10.7 (0.5)
Hispanic Origin	Puerto Rican	0.2 (0.1)	9.9 (2.4)	Low	I		1.2 (0.2)	1.3 (0.2)
Hispanic Origin	Cuban	0.1 (0.0)	5.5 (2.3)	Low	I		0.8 (0.2)	0.8 (0.1)
Hispanic Origin	Other Hispanic	1.4 (0.2)	18.2 (2.6)	Low			4.0 (0.3)	3.9 (0.3)
Hispanic Origin	Hispanic origin write-in present	1.8 (0.3)	23.1 (2.8)	Moderate			4.4 (0.4)	3.9 (0.3)

Appendix B: Detailed Results for Person Topics

Analysis Topic	Analysis category	GDR Estimate	IOI Estimate	IOI Level	Invalid IOI	PRP	ACS percent	CRS percent
	Not Hispanic or Latino	1.5 (0.2)	5.5 (0.8)	Low	-	•	84.3 (0.7)	83.7 (0.7)
	Mexican alone	1.4 (0.2)	7.3 (1.0)	Low			10.2 (0.5)	10.5 (0.5)
	Puerto Rican alone	0.2 (0.1)	10.4 (2.8)	Low	I		1.1 (0.1)	1.2 (0.2)
Hispanic	Cuban alone	0.1 (0.0)	3.4 (1.5)	Low	I		0.7 (0.1)	0.8 (0.2)
Origin Aggregate	Other Hispanic or Latino (no write-in, or one write-in alone)	0.9 (0.1)	13.5 (1.8)	Low	I		3.3 (0.2)	3.4 (0.2)
	Multiple responses (with at least one Hispanic response)	0.5 (0.1)	53.8 (9.6)	High	I		0.4 (0.1)	0.4 (0.1)
	L-Fold (Aggregate)	1.4 (0.2)	7.9 (0.8)	Low				
Race	White	6.1 (0.4)	19.5 (1.3)	Low			80.8 (0.7)	80.4 (0.7)
Race	Black	0.6 (0.1)	3.2 (0.5)	Low			11.5 (0.6)	11.4 (0.6)
Race	American Indian or Alaska Native	1.9 (0.2)	48.0 (3.7)	Moderate	I		1.6 (0.2)	2.4 (0.2)
Race	Asian Indian	0.3 (0.1)	10.3 (2.6)	Low	I		1.2 (0.2)	1.3 (0.2)
Race	Chinese	0.2 (0.1)	11.6 (3.3)	Low	I		0.9 (0.1)	0.9 (0.1)
Race	Filipino	0.1 (0.0)	7.1 (2.3)	Low	I		1.0 (0.2)	1.0 (0.2)
Race	Japanese	0.1 (0.1)	16.3 (6.9)	Low	I		0.4(0.1)	0.4 (0.1)
Race	Korean	0.0(0.0)	5.7 (3.3)	Low	I		0.3 (0.1)	0.3 (0.1)
Race	Vietnamese	0.0(0.0)	7.7 (4.3)	Low	I		0.3 (0.1)	0.3 (0.1)
Race	Other Asian	0.5 (0.1)	36.6 (7.4)	Moderate	I		0.7 (0.1)	0.6 (0.1)
Race	Native Hawaiian	0.0(0.0)	10.6 (3.7)	Low	I		0.1 (0.1)	0.1 (0.1)
Race	Guamanian or Chamorro, Samoan, or Other Pacific Islander	0.1 (0.1)	27.6 (9.7)	Moderate	I		0.2 (0.1)	0.3 (0.1)
Race	Some other race	6.5 (0.5)	66.6 (3.6)	High		P	4.8 (0.3)	5.5 (0.5)
Race	Race write-in 1 present	1.5 (0.2)	49.6 (4.1)	Moderate	I		1.4 (0.2)	1.7 (0.1)
Race	Race write-in 2 present	6.1 (0.4)	67.6 (3.6)	High		P	4.3 (0.3)	5.1 (0.5)
Race	Race write-in 3 present	0.9 (0.2)	49.2 (6.5)	Moderate	I		1.1 (0.2)	0.8 (0.1)
	White alone	7.2 (0.5)	20.7 (1.3)	Moderate			78.1 (0.7)	77.0 (0.7)
	Black alone	1.0 (0.1)	5.2 (0.7)	Low			10.3 (0.6)	10.1 (0.6)
	American Indian or Alaska Native alone	0.6 (0.1)	41.8 (4.5)	Moderate	I		0.7 (0.1)	0.8 (0.1)
Race	Asian alone	0.6(0.1)	8.8 (1.4)	Low			3.7 (0.3)	3.6 (0.3)
Aggregate	Native Hawaiian or Other Pacific Islander alone	0.0 (0.0)	12.8 (5.5)	Low	I		0.1 (0.0)	0.2 (0.0)
	Some Other Race alone	5.0 (0.4)	68.0 (3.4)	High		P	3.7 (0.3)	4.0 (0.4)
	Multiple Races	4.0 (0.3)	53.3 (3.3)	High	I		3.4 (0.2)	4.3 (0.3)
	L-Fold (Aggregate)	6.0 (0.4)	24.0 (1.3)	Moderate		P		

Appendix B: Detailed Results for Person Topics

Analysis Topic	Analysis category	GDR Estimate	IOI Estimate	IOI Level	Invalid IOI	PRP	ACS percent	CRS percent
	Born in U.S., in state of current residence	1.3 (0.1)	2.5 (0.3)	Low	-		52.5 (0.6)	52.1 (0.6)
	Born in U.S., Northeast region, not state of current residence	0.4 (0.1)	2.7 (0.6)	Low			7.0 (0.3)	7.1 (0.3)
	Born in U.S., Midwest region, not state of current residence	0.5 (0.1)	3.0 (0.8)	Low			8.9 (0.4)	8.9 (0.4)
	Born in U.S., South region, not state of current residence	0.7 (0.1)	4.0 (0.6)	Low			9.9 (0.4)	10.0 (0.4)
	Born in U.S., West region, not state of current residence	0.5 (0.1)	5.2 (1.1)	Low			5.3 (0.3)	5.3 (0.3)
	Puerto Rico and U.S. Island and Outlying Areas	0.0 (0.0)	2.1 (1.3)	Low	I		0.5 (0.1)	0.5 (0.1)
	Mexico	0.0 (0.0)	0.4 (0.1)	Low			5.5 (0.4)	5.5 (0.4)
	El Salvador	0.0 (0.0)	4.3 (4.1)	Low	I		0.3 (0.1)	0.3 (0.1)
Place of Birth	Cuba	0.0 (0.0)	1.2 (1.1)	Low	I		0.5 (0.1)	0.5 (0.1)
	Dominican Republic	0.1 (0.0)	9.4 (8.5)	Low	I		0.3 (0.1)	0.3 (0.1)
	Guatemala	0.0 (0.0)	1.3 (1.0)	Low	I		0.4 (0.1)	0.4 (0.1)
	All Other Latin America	0.1 (0.1)	2.7 (1.4)	Low	I		2.2 (0.3)	2.2 (0.3)
	Northern America	0.0 (0.0)	6.8 (3.9)	Low	I		0.3 (0.1)	0.3 (0.1)
	China	0.0 (0.0)	1.7 (1.2)	Low	I		0.6 (0.1)	0.6 (0.1)
	India	0.1 (0.0)	3.8 (2.1)	Low	I		0.8 (0.1)	0.8 (0.1)
	Philippines	0.0 (0.0)	0.6 (0.6)	Low	I		0.7 (0.1)	0.6 (0.1)
	Vietnam	0.0(0.0)	1.9 (1.9)	Low	I		0.2 (0.1)	0.2 (0.1)
	Korea	0.0(0.0)	0.0(0.0)	Low	I		0.1 (0.0)	0.1 (0.0)
	All Other Asia	0.1 (0.0)	4.0 (1.5)	Low	I		1.4 (0.2)	1.4 (0.2)
	Europe	0.1 (0.0)	1.3 (0.4)	Low	I		2.0 (0.2)	2.0 (0.2)
	Africa	0.0(0.0)	1.5 (1.5)	Low	I		0.4 (0.1)	0.4 (0.1)
	Oceania	0.0(0.0)	18.4 (9.4)	Low	I		0.1 (0.0)	0.2 (0.0)
	L-Fold (Aggregate)	0.8 (0.1)	2.9 (0.3)	Low				
Place of Birth US or Not	Born in the U.S. (including Puerto Rico and outlying areas)	0.3 (0.1)	1.2 (0.3)	Low			84.1 (0.6)	84.0 (0.6)
	Born outside the U.S.: Americas	0.2 (0.2)	0.4 (0.4)	Low			60.3 (2.0)	60.1 (2.0)
	Born outside the U.S.: Asia	0.2 (0.2)	0.7 (0.5)	Low			23.7 (1.7)	23.8 (1.6)
Place Of Birth	Born outside the U.S.: Europe	0.1 (0.1)	0.4 (0.3)	Low			12.6 (1.2)	12.6 (1.2)
Outside US 1	Born outside the U.S.: Africa	0.0 (0.0)	0.0 (0.0)	Low	I		2.8 (0.6)	2.8 (0.6)
	Born outside the U.S.: Oceania	0.0 (0.0)	1.1 (0.7)	Low	I		0.7 (0.2)	0.7 (0.2)
	L-Fold (Aggregate)	0.2 (0.2)	0.5 (0.3)	Low				

Appendix B: Detailed Results for Person Topics

Analysis Topic	Analysis category	GDR Estimate	IOI Estimate	IOI Level	Invalid IOI	PRP	ACS percent	CRS percent
	Born outside the U.S.: Northern America	0.0 (0.0)	0.6 (0.5)	Low	I		1.8 (0.3)	1.8 (0.3)
	Born outside the U.S.: Latin America	0.2 (0.2)	0.4 (0.4)	Low			58.5 (2.1)	58.4 (2.1)
Place Of Birth	Born outside the U.S.: Asia	0.2 (0.2)	0.7 (0.5)	Low			23.7 (1.7)	23.8 (1.6)
Outside US 2	Born outside the U.S.: Europe	0.1 (0.1)	0.4 (0.3)	Low			12.6 (1.2)	12.6 (1.2)
	Born outside the U.S.: Africa	0.0(0.0)	0.0(0.0)	Low	I		2.8 (0.6)	2.8 (0.6)
	Born outside the U.S.: Oceania	0.0(0.0)	1.1 (0.7)	Low	I		0.7 (0.2)	0.7 (0.2)
	L-Fold (Aggregate)	0.2 (0.1)	0.5 (0.3)	Low				·
	U.S. citizen, born in U.S.	0.3 (0.1)	1.2 (0.3)	Low			84.1 (0.6)	84.0 (0.6)
	U.S. citizen, born in Puerto Rico or U.S. outlying areas	0.0 (0.0)	4.3 (1.8)	Low	I		0.5 (0.1)	0.5 (0.1)
Citizenship Status	U.S. citizen, born abroad of American parent(s)	0.4 (0.1)	25.7 (4.9)	Moderate	I		0.8 (0.1)	0.9 (0.1)
	U.S. citizen by naturalization	0.8 (0.1)	6.8 (1.0)	Low			5.9 (0.3)	6.1 (0.3)
	Not a U.S. citizen	0.5 (0.1)	3.0 (0.5)	Low			8.7 (0.5)	8.6 (0.5)
	L-Fold (Aggregate)	0.4 (0.1)	3.6 (0.4)	Low				
	Naturalized 2005 or later	2.7 (1.2)	6.0 (2.6)	Low			33.1 (3.3)	33.2 (3.3)
	Naturalized 2000 to 2004	6.5 (2.1)	28.1 (7.4)	Moderate			13.0 (2.5)	13.7 (2.1)
	Naturalized 1995 to 1999	9.2 (2.2)	35.0 (7.0)	Moderate			16.2 (2.2)	14.8 (2.5)
Year Of	Naturalized 1990 to 1994	6.2 (1.4)	31.8 (8.6)	Moderate			10.7 (2.4)	11.2 (2.6)
Naturalization	Naturalized 1985 to 1989	4.7 (1.2)	34.9 (7.6)	Moderate			7.1 (1.2)	7.4 (1.4)
	Naturalized 1980 to 1984	4.4 (1.0)	37.7 (9.0)	Moderate		P	7.1 (1.4)	5.4 (1.2)
	Naturalized before 1980	3.3 (0.8)	13.9 (3.7)	Low			12.8 (1.7)	14.3 (1.8)
	L-Fold (Aggregate)	5.1 (0.9)	22.8 (2.8)	Moderate		P		
	Entered 2005 or later	1.9 (0.5)	6.9 (1.7)	Low			17.4 (1.5)	16.7 (1.5)
	Entered 2000 to 2004	3.1 (0.8)	12.0 (2.9)	Low			14.3 (1.3)	15.8 (1.5)
	Entered 1995 to 1999	4.4 (0.8)	17.0 (2.9)	Low			15.7 (1.4)	15.1 (1.4)
Year Of Entry	Entered 1990 to 1994	3.0 (0.5)	15.6 (3.1)	Low			10.8 (1.2)	10.7 (1.1)
Teal Of Entry	Entered 1985 to 1989	4.4 (0.7)	21.4 (3.4)	Moderate			11.8 (1.4)	11.4 (1.4)
	Entered 1980 to 1984	3.3 (0.8)	20.7 (4.4)	Moderate			9.2 (1.2)	8.2 (1.0)
	Entered before 1980	2.1 (0.5)	6.3 (1.6)	Low			20.9 (1.4)	22.1 (1.4)
	L-Fold (Aggregate)	3.1 (0.4)	13.1 (1.5)	Low				
	Enrolled in Public School	3.3 (0.3)	14.2 (1.1)	Low			13.7 (0.4)	13.0 (0.4)
School	Enrolled in Private School	1.4 (0.2)	29.2 (3.1)	Moderate	I		2.4 (0.2)	2.5 (0.2)
Attendance	Not enrolled in school	2.9 (0.2)	11.0 (0.9)	Low			83.8 (0.5)	84.5 (0.5)
	L-Fold (Aggregate)	2.9 (0.2)	14.0 (1.0)	Low				

Appendix B: Detailed Results for Person Topics

Analysis Topic	Analysis category	GDR Estimate	IOI Estimate	IOI Level	Invalid IOI	PRP	ACS percent	CRS percent
	Enrolled in nursery school, preschool	0.6 (0.2)	8.7 (3.0)	Low			4.0 (0.6)	3.8 (0.6)
	Enrolled in kindergarten	1.7 (0.6)	16.4 (5.4)	Low			5.8 (1.0)	5.1 (0.8)
	Enrolled in Grade 1	1.6 (0.7)	26.5 (10.3)	Moderate	I		2.7 (0.6)	3.5 (0.8)
	Enrolled in Grade 2	1.6 (0.5)	18.7 (5.7)	Low			4.1 (0.8)	4.6 (0.8)
	Enrolled in Grade 3	1.8 (0.6)	17.5 (6.1)	Low			5.3 (0.9)	5.3 (0.9)
	Enrolled in Grade 4	1.8 (0.6)	24.6 (7.5)	Moderate			4.0 (0.7)	3.8 (0.6)
	Enrolled in Grade 5	2.7 (0.7)	32.9 (7.5)	Moderate	I		5.2 (0.8)	3.4 (0.6)
	Enrolled in Grade 6	2.7 (0.8)	27.7 (7.3)	Moderate			4.7 (0.7)	5.5 (0.8)
School Grade	Enrolled in Grade 7	1.9 (0.5)	20.6 (5.1)	Moderate			4.6 (0.8)	5.0 (0.9)
Level	Enrolled in Grade 8	1.8 (0.4)	22.7 (4.8)	Moderate			4.1 (0.7)	4.3 (0.8)
	Enrolled in Grade 9	1.6 (0.5)	18.9 (5.5)	Low			4.5 (0.8)	4.6 (0.9)
	Enrolled in Grade 10	1.6 (0.5)	14.7 (4.3)	Low			6.1 (0.9)	5.7 (0.9)
	Enrolled in Grade 11	1.8 (0.5)	17.9 (5.3)	Low			5.0 (0.8)	5.6 (0.9)
	Enrolled in Grade 12	1.7 (0.4)	18.4 (4.2)	Low			4.7 (0.7)	4.8 (0.7)
	Enrolled in college, undergraduate years	2.9 (0.5)	7.2 (1.3)	Low			27.9 (1.8)	27.3 (1.7)
	Graduate or professional school	1.5 (0.3)	10.4 (1.9)	Low			7.6 (0.7)	7.7 (0.7)
	L-Fold (Aggregate)	2.1 (0.2)	16.5 (1.5)	Low				

Appendix B: Detailed Results for Person Topics

Analysis Topic	Analysis category	GDR Estimate	IOI Estimate	IOI Level	Invalid IOI	PRP	ACS percent	CRS percent
	No schooling completed	1.4 (0.2)	37.5 (4.5)	Moderate	I		2.2 (0.2)	1.4 (0.1)
	Nursery school	0.5 (0.1)	33.4 (5.8)	Moderate	I		0.8 (0.1)	0.8 (0.1)
	Kindergarten	0.3 (0.1)	22.4 (6.6)	Moderate	I		0.6 (0.1)	0.6 (0.1)
	1st grade	0.2 (0.1)	17.1 (5.9)	Low	I		0.5 (0.1)	0.6 (0.1)
	2nd grade	0.4 (0.1)	20.3 (5.9)	Moderate	I		0.9 (0.1)	0.9 (0.1)
	3rd grade	0.5 (0.1)	28.6 (7.5)	Moderate	I		0.8 (0.1)	0.9 (0.2)
	4th grade	0.6 (0.1)	34.2 (6.3)	Moderate	I		1.0 (0.2)	0.8 (0.1)
	5th grade	0.6 (0.1)	27.4 (4.9)	Moderate	I		1.1 (0.1)	1.1 (0.1)
	6th grade	1.0 (0.2)	25.3 (3.9)	Moderate	I		2.0 (0.2)	2.0 (0.2)
	7th grade	0.7 (0.1)	33.4 (5.0)	Moderate	I		1.0 (0.1)	1.1 (0.2)
	8th grade	1.2 (0.2)	33.0 (4.6)	Moderate	I		1.9 (0.2)	1.9 (0.2)
	9th grade	1.5 (0.2)	29.6 (3.8)	Moderate	I		2.5 (0.2)	2.7 (0.2)
Educational	10th grade	1.5 (0.2)	32.4 (3.3)	Moderate	I		2.3 (0.2)	2.4 (0.2)
Attainment	11th grade	1.8 (0.2)	31.7 (2.7)	Moderate	I		2.8 (0.2)	3.1 (0.2)
	12th grade, no diploma	1.2 (0.1)	74.2 (5.2)	High	I		1.0 (0.1)	0.6 (0.1)
	Regular high school diploma	7.6 (0.3)	22.4 (1.0)	Moderate			21.3 (0.5)	21.8 (0.6)
	GED, or alternative credential	2.0 (0.2)	32.9 (2.8)	Moderate	I		3.3 (0.3)	3.0 (0.2)
	Some college, less than one year	6.1 (0.4)	62.3 (2.4)	High		P	5.5 (0.4)	4.7 (0.3)
	Some college, one or more years, no degree	8.6 (0.4)	33.0 (1.5)	Moderate			14.9 (0.5)	15.6 (0.5)
	Associate's degree	3.3 (0.2)	26.4 (1.9)	Moderate			6.7 (0.3)	6.7 (0.3)
	Bachelor's degree	2.7 (0.2)	9.6 (0.8)	Low			16.6 (0.4)	17.0 (0.5)
	Master's degree	1.5 (0.2)	11.5 (1.6)	Low			6.7 (0.4)	7.1 (0.4)
	Professional school degree	1.4 (0.2)	40.6 (4.1)	Moderate	I		2.2 (0.2)	1.3 (0.1)
	Doctorate degree	0.8 (0.1)	29.0 (3.8)	Moderate	I		1.2 (0.1)	1.6 (0.1)
	L-Fold (Aggregate)	4.4 (0.1)	26.7 (0.7)	Moderate		P		

Appendix B: Detailed Results for Person Topics

Analysis Topic	Analysis category	GDR Estimate	IOI Estimate	IOI Level	Invalid IOI	PRP	ACS percent	CRS percent
	Computers, Mathematics, and Statistics	1.6 (0.4)	13.7 (2.6)	Low			5.0 (0.5)	5.4 (0.6)
	Biological, Agricultural, and Environmental Sciences	1.2 (0.2)	9.4 (1.4)	Low			6.3 (0.4)	6.2 (0.4)
	Physical and Related Sciences	2.4 (0.3)	23.8 (2.2)	Moderate			3.6 (0.4)	4.3 (0.4)
	Psychology	1.1 (0.2)	9.6 (1.4)	Low			5.5 (0.5)	5.3 (0.4)
	Social Sciences	3.0 (0.4)	14.6 (1.6)	Low			9.7 (0.7)	9.7 (0.7)
F: 1100	Engineering	1.2 (0.2)	8.6 (1.5)	Low			7.0 (0.4)	7.1 (0.4)
Field Of	Multidisciplinary Studies	0.7 (0.2)	24.7 (6.2)	Moderate	I		1.1 (0.3)	1.2 (0.3)
Bachelor's Degree	Science and Engineering Related	2.3 (0.2)	12.5 (1.2)	Low			8.9 (0.6)	8.6 (0.6)
	Business	3.1 (0.3)	8.5 (0.8)	Low			21.3 (0.8)	21.1 (0.8)
	Education	3.6 (0.4)	13.1 (1.3)	Low			14.4 (0.7)	13.0 (0.7)
	Literature and Languages	1.7 (0.3)	15.6 (2.2)	Low			4.5 (0.4)	5.1 (0.4)
	Liberal Arts and History	3.2 (0.3)	22.5 (1.7)	Moderate			5.5 (0.4)	6.0 (0.4)
	Visual and Performing Arts	1.7 (0.3)	15.8 (2.4)	Low			4.5 (0.4)	5.0 (0.5)
	Communications	1.0 (0.1)	10.5 (1.7)	Low			4.3 (0.4)	4.2 (0.4)
	Other Bachelor Degree Field	1.9 (0.2)	15.2 (1.4)	Low			5.8 (0.4)	5.3 (0.4)

Appendix B: Detailed Results for Person Topics

Analysis Topic	Analysis category	GDR Estimate	IOI Estimate	IOI Level	Invalid IOI	PRP	ACS percent	CRS percent
	American	6.8 (0.5)	42.6 (1.2)	Moderate	I	P	6.8 (0.4)	2.8 (0.2)
	Arab	0.2 (0.0)	12.2 (4.0)	Low	I		0.5 (0.1)	0.6 (0.1)
	British	0.6 (0.1)	38.5 (3.2)	Moderate	I		0.5 (0.1)	0.5 (0.1)
	Czech	0.5 (0.1)	28.0 (3.2)	Moderate	I		0.7 (0.1)	0.7 (0.1)
	Danish	0.3 (0.0)	18.5 (3.2)	Low	I		0.7 (0.1)	0.7 (0.1)
	Dutch	1.3 (0.1)	25.5 (2.2)	Moderate	I		1.8 (0.2)	2.0 (0.2)
	English	7.6 (0.4)	27.8 (0.8)	Moderate			10.5 (0.4)	11.7 (0.5)
	European	1.7 (0.1)	41.9 (1.0)	Moderate	I		1.1 (0.1)	1.2 (0.1)
	French (except Basque)	3.1 (0.3)	28.7 (1.7)	Moderate			3.6 (0.3)	4.5 (0.3)
	French Canadian	0.8 (0.1)	32.3 (2.1)	Moderate	I		0.8 (0.1)	0.8 (0.1)
	German	8.1 (0.4)	20.5 (0.7)	Moderate			18.6 (0.4)	20.3 (0.5)
	Greek	0.1 (0.0)	9.6 (3.0)	Low	I		0.5 (0.1)	0.5 (0.1)
	Hungarian	0.4 (0.1)	24.6 (3.5)	Moderate	I		0.5 (0.1)	0.7 (0.1)
	Irish	8.0 (0.3)	24.3 (0.8)	Moderate			13.8 (0.6)	15.2 (0.5)
	Italian	1.8 (0.2)	13.2 (1.1)	Low			6.2 (0.3)	6.4 (0.3)
Ancestry	Lithuanian	0.4 (0.1)	29.0 (3.7)	Moderate	I		0.5 (0.1)	0.4 (0.1)
	Norwegian	0.8 (0.1)	19.2 (2.4)	Low	I		1.7 (0.2)	1.8 (0.2)
	Polish	1.7 (0.2)	17.7 (1.7)	Low			3.9 (0.3)	4.1 (0.3)
	Portuguese	0.1 (0.0)	9.6 (2.6)	Low	I		0.5 (0.1)	0.5 (0.1)
	Russian	0.7 (0.1)	23.0 (2.7)	Moderate	I		1.1 (0.1)	1.1 (0.1)
	Scotch-Irish	1.6 (0.1)	35.6 (1.5)	Moderate	I		1.3 (0.1)	1.6 (0.1)
	Scottish	1.9 (0.2)	29.3 (1.8)	Moderate	I		2.4 (0.2)	2.3 (0.2)
	Slovak	0.1 (0.0)	21.6 (4.8)	Moderate	I		0.3 (0.1)	0.2 (0.1)
	Sub-Saharan African	0.8 (0.1)	36.8 (3.0)	Moderate	I		0.7 (0.1)	0.6 (0.1)
	Swedish	1.0 (0.1)	22.9 (2.1)	Moderate	I		1.7 (0.2)	1.7 (0.2)
	Swiss	0.3 (0.1)	26.1 (4.1)	Moderate	I		0.4 (0.1)	0.4 (0.1)
	Ukrainian	0.1 (0.0)	15.7 (4.5)	Low	I		0.4 (0.1)	0.4 (0.1)
	Welsh	0.9 (0.2)	32.8 (3.2)	Moderate	I		1.0 (0.2)	0.8 (0.1)
	West Indian (except Hispanic groups)	0.6 (0.2)	23.3 (5.0)	Moderate	I		1.1 (0.3)	1.1 (0.3)
	Other groups	11.2 (0.5)	18.5 (0.6)	Low			44.4 (0.7)	43.9 (0.8)
Language Other Than English Spoken At Home	Yes	4.4 (0.3)	13.7 (0.9)	Low			20.0 (0.7)	19.7 (0.7)

Appendix B: Detailed Results for Person Topics

Analysis Topic	Analysis category	GDR Estimate	IOI Estimate	IOI Level	Invalid IOI	PRP	ACS percent	CRS percent
	Spanish	0.6 (0.2)	1.4 (0.4)	Low			68.7 (1.9)	68.5 (1.9)
	French	0.5 (0.2)	13.9 (6.9)	Low	I		1.6 (0.4)	2.0 (0.4)
	Italian	0.3 (0.2)	16.1 (10.1)	Low	I		0.7 (0.2)	0.9 (0.2)
	Portuguese	0.0 (0.0)	2.4 (1.4)	Low	I		0.8 (0.3)	0.8 (0.3)
	German	0.3 (0.1)	13.2 (4.7)	Low	I		1.1 (0.2)	1.0 (0.2)
	Russian	0.0 (0.0)	1.5 (1.2)	Low	I		0.9 (0.3)	0.9 (0.3)
	Polish, Serbo-Croatian, and other Slavic	0.1 (0.0)	1.9 (1.6)	Low	I		1.9 (0.7)	1.9 (0.7)
	Gujarati	0.3 (0.3)	12.3 (10.7)	Low	I		1.3 (0.4)	1.5 (0.5)
	Hindi	0.6 (0.3)	27.4 (11.2)	Moderate	I		1.3 (0.3)	0.8 (0.2)
	Urdu and other Indic	0.8 (0.4)	18.0 (8.6)	Low	I		2.1 (0.6)	2.3 (0.6)
Specific Language	French Creole, Yiddish, Other W. Germanic, Scandinavian, Greek, Armenian, Persian, and other Indo-European	0.5 (0.3)	6.8 (3.5)	Low			4.3 (0.9)	3.9 (0.9)
Spoken	Chinese	0.1 (0.0)	1.0 (0.6)	Low	I		3.5 (0.7)	3.5 (0.7)
	Korean	0.0 (0.0)	2.6 (2.7)	Low	I		0.7 (0.2)	0.8 (0.2)
	Arabic	0.2 (0.2)	5.3 (4.6)	Low	I		1.9 (0.6)	1.8 (0.6)
	Vietnamese	0.0 (0.0)	0.9 (0.7)	Low	I		1.5 (0.4)	1.5 (0.4)
	Japanese, Mon-Khmer, Cambodian, Hmong, Thai, Laotian, and other Asian	0.1 (0.0)	1.6 (1.0)	Low	I		2.9 (0.6)	2.8 (0.6)
	Tagalog and other Pacific Island	0.1 (0.1)	1.2 (1.0)	Low	I		3.1 (0.8)	3.0 (0.8)
	African languages	0.1 (0.0)	2.4 (1.9)	Low	I		1.1 (0.4)	1.1 (0.4)
	Navajo, other Native American, Hungarian, Hebrew, and all others	0.6 (0.2)	32.0 (10.2)	Moderate	I		0.8 (0.2)	1.0 (0.3)
	L-Fold (Aggregate)	0.5 (0.1)	4.9 (1.0)	Low				
	Very well	13.9 (1.1)	27.9 (2.1)	Moderate	I	P	50.0 (1.5)	44.1 (1.6)
English	Well	20.6 (1.3)	57.5 (3.7)	High	I	P	21.2 (1.4)	25.4 (1.6)
Speaking	Not well	15.4 (1.3)	51.4 (4.2)	High		P	19.0 (1.3)	17.7 (1.3)
Ability	Not at all	6.6 (0.8)	33.0 (4.3)	Moderate			9.8 (1.1)	12.7 (1.4)
	L-Fold (Aggregate)	15.2 (0.8)	41.6 (2.2)	Moderate		P		

Appendix B: Detailed Results for Person Topics

Analysis Topic	Analysis category	GDR Estimate	IOI Estimate	IOI Level	Invalid IOI	PRP	ACS percent	CRS percent
	Same house one year ago	4.6 (0.4)	19.9 (1.5)	Low			86.0 (0.6)	87.4 (0.5)
	Moved within same county	3.4 (0.3)	22.8 (2.1)	Moderate			8.8 (0.5)	7.6 (0.4)
Geographical Mobility In	Moved from different county within state	1.1 (0.1)	21.4 (2.6)	Moderate	I		2.6 (0.3)	2.5 (0.3)
Past Year	Moved from different state	0.8 (0.1)	19.4 (3.2)	Low	I		2.1 (0.2)	2.1 (0.2)
	Moved from outside U.S.	0.3 (0.1)	35.4 (8.4)	Moderate	I		0.5 (0.1)	0.4 (0.1)
	L-Fold (Aggregate)	4.3 (0.3)	21.2 (1.5)	Moderate				
Health Insurance	Yes, through employer	7.7 (0.4)	15.5 (0.7)	Low			55.5 (0.8)	56.4 (0.8)
Health Insurance	Yes, purchased directly	11.1 (0.3)	48.6 (1.4)	Moderate		P	11.6 (0.4)	14.5 (0.4)
Health Insurance	Yes, Medicare	2.7 (0.2)	9.4 (0.5)	Low			17.0 (0.5)	18.0 (0.5)
Health Insurance	Yes, Medicaid	4.5 (0.3)	19.4 (1.3)	Low			13.2 (0.5)	13.4 (0.6)
Health Insurance	Yes, Military	0.8 (0.1)	12.9 (1.6)	Low	I		2.9 (0.2)	3.1 (0.2)
Health Insurance	Yes, Veterans Administration	1.4 (0.1)	26.4 (2.2)	Moderate	I		2.4 (0.2)	2.9 (0.2)
Health Insurance	Yes, Indian Health Service	0.3 (0.1)	23.6 (5.0)	Moderate	I		0.5 (0.1)	0.6 (0.1)
	With private health insurance coverage only	5.1 (0.3)	10.4 (0.5)	Low			55.1 (0.9)	53.6 (0.9)
Health	With public health coverage only	7.4 (0.4)	25.7 (1.4)	Moderate			18.3 (0.6)	16.4 (0.6)
Insurance Aggregate	With both private and public health coverage	6.6 (0.3)	30.1 (1.3)	Moderate			11.3 (0.4)	13.6 (0.4)
	No health insurance coverage	4.4 (0.3)	16.6 (1.2)	Low			15.3 (0.6)	16.3 (0.7)
	L-Fold (Aggregate)	5.6 (0.2)	18.5 (0.7)	Low				
Difficulty Hearing	Yes	3.3 (0.2)	41.3 (2.4)	Moderate			3.8 (0.2)	4.4 (0.2)
Difficulty Vision	Yes	2.6 (0.2)	53.2 (2.7)	High	I		2.2 (0.1)	2.8 (0.2)
Difficulty Cognitive	Yes	4.0 (0.2)	45.0 (2.7)	Moderate			4.3 (0.3)	5.1 (0.3)
Difficulty Ambulatory	Yes	4.8 (0.3)	33.8 (1.7)	Moderate			7.3 (0.3)	8.2 (0.4)
Difficulty Self Care	Yes	2.3 (0.2)	43.8 (3.0)	Moderate	I		2.4 (0.1)	2.9 (0.2)
Difficulty Independent Living	Yes	3.6 (0.2)	36.5 (2.3)	Moderate			5.0 (0.3)	5.4 (0.3)

Appendix B: Detailed Results for Person Topics

Analysis Topic	Analysis category	GDR Estimate	IOI Estimate	IOI Level	Invalid IOI	PRP	ACS percent	CRS percent
	Now married	2.5 (0.3)	23.5 (2.9)	Moderate			6.0 (0.6)	5.5 (0.6)
	Widowed	1.1 (0.1)	4.7 (0.6)	Low			13.0 (0.5)	13.1 (0.5)
36 1 10	Divorced	3.4 (0.4)	8.9 (1.0)	Low			25.6 (0.8)	26.1 (0.7)
Marital Status	Separated	2.2 (0.3)	28.5 (2.9)	Moderate			4.1 (0.3)	4.1 (0.3)
	Never married	2.6 (0.4)	5.3 (0.7)	Low			51.3 (0.8)	51.2 (0.8)
	L-Fold (Aggregate)	2.6 (0.3)	9.2 (0.7)	Low				
Married In Past Year	Yes	1.7 (0.3)	28.5 (3.9)	Moderate	I		3.5 (0.3)	2.7 (0.3)
Widowed In Past Year	Yes	0.6 (0.1)	32.5 (4.6)	Moderate	I		1.0 (0.1)	0.8 (0.1)
Divorced In Past Year	Yes	1.0 (0.2)	38.9 (5.8)	Moderate	I		1.5 (0.2)	1.2 (0.1)
	Once married	2.8 (0.2)	7.2 (0.6)	Low			74.2 (0.6)	73.7 (0.6)
Number Of	Twice married	3.4 (0.2)	10.5 (0.8)	Low			20.3 (0.6)	20.5 (0.5)
Times Married	Married three or more times	1.1 (0.1)	10.0 (1.2)	Low			5.5 (0.2)	5.8 (0.3)
	L-Fold (Aggregate)	2.8 (0.2)	8.9 (0.6)	Low				
	Before 2000	1.4 (0.2)	3.4 (0.5)	Low			71.9 (0.9)	71.6 (0.8)
	2000 to 2004	1.6 (0.2)	8.3 (1.1)	Low			10.7 (0.5)	10.6 (0.5)
V I	2005 to 2009	1.5 (0.2)	7.5 (1.2)	Low			11.4 (0.5)	11.6 (0.5)
Year Last Married	2010	0.7 (0.1)	14.1 (2.4)	Low	I		2.6 (0.3)	2.7 (0.3)
Marrieu	2011	0.5 (0.1)	9.9 (2.4)	Low	I		2.4 (0.3)	2.6 (0.3)
	2012	0.1 (0.1)	7.6 (3.2)	Low	I		0.9 (0.2)	0.9 (0.2)
	L-Fold (Aggregate)	1.4 (0.2)	6.4 (0.7)	Low				
Birth In Past Year	Yes	1.3 (0.2)	13.5 (1.6)	Low			5.5 (0.4)	5.0 (0.4)
Grandparents Living With Own Grandchildren	Yes	1.2 (0.1)	18.2 (2.4)	Low	I		3.3 (0.3)	3.3 (0.3)
Grandparents Responsible For Grandchildren	Yes	15.9 (4.8)	31.6 (9.3)	Moderate	I	P	48.0 (6.2)	56.9 (5.3)
Grandparents	Less than one year	10.2 (3.6)	29.1 (13.6)	Moderate		P	22.9 (8.2)	22.7 (8.2)
Time	1 to 2 years	21.0 (6.8)	60.4 (14.8)	High		P	22.0 (5.0)	22.7 (6.6)
Responsible	3 or 4 years	6.6 (2.5)	25.5 (9.3)	Moderate			14.4 (5.2)	16.2 (5.1)
For	5 or more years	15.9 (6.1)	33.3 (12.7)	Moderate		P	40.6 (8.6)	38.4 (7.4)
Grandchildren	L-Fold (Aggregate)	14.6 (4.5)	37.4 (9.6)	Moderate		P		

Appendix B: Detailed Results for Person Topics

Analysis Topic	Analysis category	GDR Estimate	IOI Estimate	IOI Level	Invalid IOI	PRP	ACS percent	CRS percent
	Now on active duty	0.2 (0.0)	23.7 (3.9)	Moderate	I		0.6 (0.0)	0.4 (0.1)
	On active duty during the last 12 months but not now	0.6 (0.1)	93.1 (2.6)	High	I		0.2 (0.0)	0.4 (0.0)
Military Service	On active duty in the past, but not in last 12 months	1.6 (0.1)	9.3 (0.6)	Low			9.2 (0.2)	9.1 (0.2)
Scrvice	Training in Reserves or National Guard only	0.9 (0.1)	46.1 (3.2)	Moderate	I		1.0 (0.1)	1.0 (0.1)
	Never in the military	0.9 (0.1)	4.7 (0.3)	Low			89.0 (0.2)	89.1 (0.2)
	L-Fold (Aggregate)	1.0 (0.1)	10.5 (0.5)	Low				
	Between Gulf War I and Vietnam era only	4.1 (0.5)	20.1 (2.6)	Moderate			11.8 (0.8)	10.9 (0.8)
	Between Korean War and World War II only	0.4 (0.1)	38.9 (14.5)	Moderate	I		0.5 (0.2)	0.6 (0.2)
	Between Vietnam Era and Korean War only	3.9 (0.5)	21.3 (2.4)	Moderate			10.7 (0.6)	9.4 (0.5)
	Gulf War I and Vietnam era	1.2 (0.3)	42.4 (6.0)	Moderate	I		1.2 (0.2)	1.6 (0.3)
	Gulf War I, no Vietnam era	3.5 (0.5)	19.2 (2.5)	Low			10.1 (0.9)	10.1 (0.8)
	Gulf War II and Gulf War I, and Vietnam era / or no Vietnam era	3.7 (0.5)	30.1 (4.6)	Moderate			6.2 (0.7)	7.0 (0.7)
Period Of Military	Gulf War II, no Gulf War I, no Vietnam Era	3.0 (0.4)	20.4 (2.6)	Moderate			8.2 (0.6)	7.8 (0.6)
Service	Korean War and World War II, no Vietnam Era	0.3 (0.1)	32.1 (11.3)	Moderate	I		0.4 (0.1)	0.3 (0.1)
	Korean War, no Vietnam Era, no World War II	2.1 (0.3)	11.2 (1.5)	Low			10.4 (0.7)	10.2 (0.7)
	Pre-World War II only or World War II, no Korean War, no Vietnam Era	0.6 (0.2)	5.4 (1.3)	Low			6.2 (0.6)	6.3 (0.6)
	Vietnam Era and Korean War, and World War II / or no World War II	0.9 (0.2)	27.0 (7.3)	Moderate	I		1.4 (0.3)	1.8 (0.3)
	Vietnam Era, no Korean War, no World War II	5.7 (0.6)	12.9 (1.4)	Low			32.7 (0.9)	34.0 (0.9)
	L-Fold (Aggregate)	3.8 (0.3)	17.6 (1.1)	Low				
Service Connected Disability Status	Yes	2.5 (0.3)	9.4 (1.2)	Low			16.1 (0.8)	16.0 (0.8)

Appendix B: Detailed Results for Person Topics

Analysis Topic	Analysis category	GDR Estimate	IOI Estimate	IOI Level	Invalid IOI	PRP	ACS percent	CRS percent
	0 percent	1.8 (0.9)	36.3 (12.6)	Moderate	I		2.5 (0.7)	2.6 (0.9)
	10 or 20 percent	5.6 (1.4)	12.1 (3.0)	Low	I		38.4 (3.3)	34.6 (3.3)
Service	30 or 40 percent	6.2 (1.7)	20.8 (5.4)	Moderate			18.6 (2.0)	17.8 (1.8)
Connected	50 or 60 percent	2.1 (0.8)	11.0 (4.1)	Low			11.0 (1.6)	9.9 (1.4)
Disability Level	70 percent or higher	4.4 (1.3)	12.3 (3.5)	Low			22.5 (2.0)	24.6 (2.1)
Level	No rating reported	8.1 (1.8)	50.8 (11.3)	High	I	P	7.0 (1.9)	10.5 (2.2)
	L-Fold (Aggregate)	5.3 (0.9)	18.6 (2.9)	Low		P		
Work Last Week	Yes	5.4 (0.3)	11.0 (0.5)	Low			56.6 (0.6)	55.9 (0.6)
Any Work Last Week	Yes	1.6 (0.2)	88.9 (3.3)	High	I		0.8 (0.1)	1.0 (0.1)
	Worked in state of residence, in county of residence	4.6 (0.4)	11.4 (0.9)	Low			71.7 (0.8)	71.3 (0.8)
Place Of Work	Worked in state of residence, outside county of residence	4.1 (0.3)	11.0 (0.9)	Low			24.5 (0.8)	24.9 (0.8)
	Worked outside state of residence	1.1 (0.2)	14.8 (2.3)	Low			3.7 (0.3)	3.8 (0.3)
	L-Fold (Aggregate)	4.4 (0.3)	11.5 (0.8)	Low				
	Car, truck, or van	5.1 (0.4)	21.9 (1.6)	Moderate			86.9 (0.5)	86.1 (0.6)
	Public transportation	1.3 (0.2)	17.1 (2.5)	Low			4.2 (0.3)	4.0 (0.3)
Commute Transportation	Taxicab, motorcycle, bicycle, or other method	1.8 (0.2)	54.9 (5.7)	High	I		1.8 (0.2)	1.5 (0.2)
Transportation	Walked	1.7 (0.3)	31.7 (4.0)	Moderate	I		2.8 (0.3)	2.7 (0.3)
	Worked at Home	2.7 (0.2)	28.6 (2.3)	Moderate			4.3 (0.3)	5.6 (0.3)
	L-Fold (Aggregate)	4.6 (0.3)	25.7 (1.6)	Moderate				
	Drove alone	6.6 (0.4)	36.3 (2.3)	Moderate			90.1 (0.6)	89.8 (0.6)
Commute	2 riders	6.1 (0.5)	43.4 (3.4)	Moderate			7.6 (0.5)	7.6 (0.5)
Number Of	3 riders	1.7 (0.4)	58.0 (8.8)	High	I		1.3 (0.2)	1.8 (0.3)
Riders	4 riders	0.7 (0.1)	56.0 (10.7)	High	I		0.7 (0.1)	0.5 (0.1)
	5 or more riders	0.5 (0.2)	56.8 (12.5)	High	I		0.4 (0.1)	0.4 (0.1)
	L-Fold (Aggregate)	6.3 (0.4)	41.8 (2.5)	Moderate				
	12:00 a.m. to 4:59 a.m.	2.7 (0.3)	32.7 (3.3)	Moderate			4.5 (0.4)	4.2 (0.4)
	5:00 a.m. to 6:59 a.m.	8.9 (0.5)	21.2 (1.2)	Moderate			29.6 (0.7)	29.9 (0.8)
Commute	7:00 a.m. to 8:59 a.m.	10.7 (0.6)	21.6 (1.1)	Moderate			45.6 (0.7)	46.0 (0.9)
Departure	9:00 a.m. to 11:59 a.m.	4.5 (0.3)	29.1 (1.8)	Moderate			8.8 (0.5)	8.1 (0.5)
Time	12:00 p.m. to 3:59 p.m.	3.0 (0.3)	28.8 (2.8)	Moderate			5.4 (0.4)	5.5 (0.3)
	4:00 p.m. to 11:59 p.m.	2.9 (0.3)	24.5 (3.0)	Moderate			6.2 (0.4)	6.3 (0.5)
	L-Fold (Aggregate)	8.2 (0.4)	23.8 (0.9)	Moderate				

Appendix B: Detailed Results for Person Topics

Analysis Topic	Analysis category	GDR Estimate	IOI Estimate	IOI Level	Invalid IOI	PRP	ACS percent	CRS percent
	Less than 5 minutes	3.8 (0.3)	47.8 (3.6)	Moderate		P	4.1 (0.4)	4.1 (0.4)
	5 to 9 minutes	9.3 (0.6)	48.5 (2.8)	Moderate		P	10.8 (0.7)	10.8 (0.6)
	10 to 14 minutes	12.4 (0.6)	50.5 (2.1)	High		P	14.0 (0.6)	14.6 (0.7)
	15 to 19 minutes	14.4 (0.6)	54.9 (2.0)	High		P	15.0 (0.6)	16.0 (0.6)
	20 to 24 minutes	14.9 (0.7)	60.5 (2.5)	High		P	14.6 (0.7)	14.1 (0.6)
C .	25 to 29 minutes	8.6 (0.5)	68.8 (3.5)	High		P	6.7 (0.4)	6.8 (0.5)
Commute Minutes	30 to 34 minutes	12.9 (0.6)	56.4 (2.6)	High		P	13.7 (0.6)	12.6 (0.6)
Minutes	35 to 39 minutes	3.6 (0.3)	66.0 (4.7)	High	I		2.7 (0.3)	2.9 (0.3)
	40 to 44 minutes	4.9 (0.3)	69.0 (3.1)	High	I		3.4 (0.2)	3.9 (0.3)
	45 to 59 minutes	6.6 (0.4)	47.6 (2.5)	Moderate		P	7.6 (0.4)	7.3 (0.4)
	60 to 89 minutes	4.2 (0.3)	40.9 (2.7)	Moderate			5.5 (0.4)	5.3 (0.4)
	90 or more minutes	1.6 (0.2)	47.7 (4.5)	Moderate	I		2.0 (0.2)	1.5 (0.1)
	L-Fold (Aggregate)	10.6 (0.2)	54.6 (1.0)	High		P		
Not Working Layoff	Yes	4.1 (0.5)	45.1 (5.0)	Moderate		P	4.3 (0.4)	5.1 (0.6)
Not Working Absent	Yes	2.9 (0.6)	48.5 (6.2)	Moderate	I		3.0 (0.5)	3.1 (0.3)
Not Working Informed Of Recall	Yes	22.4 (8.5)	60.9 (17.2)	High		P	16.8 (3.7)	30.1 (8.0)
Not Working Looking For Work	Yes	7.4 (0.6)	31.6 (2.3)	Moderate			12.4 (0.7)	14.7 (0.7)
Not Working Available To Work	Yes	9.9 (2.0)	87.7 (6.6)	High	I	P	92.0 (2.0)	96.1 (1.0)
	Within the past 12 months	6.2 (0.5)	21.5 (1.5)	Moderate			17.2 (0.7)	17.9 (0.8)
When Last	1-5 years ago	13.0 (0.6)	39.3 (1.7)	Moderate			19.8 (0.6)	21.8 (0.6)
Worked	Over 5 years ago or never worked	12.6 (0.7)	26.7 (1.4)	Moderate			63.0 (0.8)	60.3 (0.8)
	L-Fold (Aggregate)	11.6 (0.5)	29.1 (1.2)	Moderate				
Worked 50 Weeks Or More	Yes	12.8 (0.5)	35.4 (1.3)	Moderate			76.5 (0.7)	76.1 (0.6)

Appendix B: Detailed Results for Person Topics

Analysis Topic	Analysis category	GDR Estimate	IOI Estimate	IOI Level	Invalid IOI	PRP	ACS percent	CRS percent
	50 to 52 weeks worked during past 12 months	5.8 (1.1)	98.1 (2.1)	High	I	P	4.5 (1.1)	1.6 (0.4)
	48 to 49 weeks worked during past 12 months	7.4 (0.8)	78.2 (4.3)	High	I	P	6.4 (0.8)	3.5 (0.4)
Weeks	40 to 47 weeks worked during past 12 months	20.6 (1.2)	64.3 (3.2)	High		P	19.1 (1.2)	21.0 (1.4)
Worked	27 to 39 weeks worked during past 12 months	24.2 (1.6)	67.0 (4.0)	High		P	23.6 (1.4)	23.8 (1.4)
	14 to 26 weeks worked during past 12 months	24.6 (1.4)	67.7 (3.8)	High	I	P	22.0 (1.5)	25.7 (1.4)
	13 weeks or less worked during past 12 months	17.3 (1.2)	46.7 (3.2)	Moderate		P	24.5 (1.4)	24.5 (1.3)
	L-Fold (Aggregate)	20.3 (0.7)	63.6 (2.1)	High		P		
	Usually worked 35 or more hours per week	7.0 (0.4)	21.0 (1.2)	Moderate			79.6 (0.6)	78.6 (0.6)
Usual Hours Worked Per	Usually worked 15-34 hours per week	8.4 (0.4)	30.4 (1.4)	Moderate			16.2 (0.5)	17.1 (0.6)
Week	Usually worked 1-14 hours per week	3.1 (0.3)	37.5 (3.0)	Moderate			4.2 (0.3)	4.3 (0.3)
	L-Fold (Aggregate)	7.0 (0.4)	26.7 (1.2)	Moderate				
	Employee of a private for- profit company or business	13.2 (0.8)	28.1 (1.7)	Moderate			62.2 (1.0)	62.6 (0.9)
	Employee of a private not-for- profit organization	6.5 (0.5)	46.7 (3.4)	Moderate		P	8.0 (0.5)	7.0 (0.5)
	A local government employee	5.2 (0.5)	24.7 (2.3)	Moderate			11.2 (0.7)	12.6 (0.7)
	A state government employee	4.6 (0.5)	36.1 (3.2)	Moderate			6.7 (0.4)	7.1 (0.5)
Class Of	A Federal government employee	1.1 (0.2)	16.1 (3.0)	Low	I		3.3 (0.3)	4.0 (0.4)
Worker	Self-employed in own not incorporated business, professional practice, or farm	4.0 (0.4)	39.4 (3.2)	Moderate			6.1 (0.4)	4.7 (0.4)
	Self-employed in own incorporated business, professional practice, or farm	2.0 (0.3)	51.9 (9.7)	High	I		2.4 (0.4)	1.5 (0.4)
	Working without pay in a family business or farm	0.6 (0.2)	100.0 (0.0)	High	I		0.1 (0.0)	0.5 (0.2)
	L-Fold (Aggregate)	9.6 (0.5)	32.0 (1.5)	Moderate		P		

Appendix B: Detailed Results for Person Topics

Analysis Topic	Analysis category	GDR Estimate	IOI Estimate	IOI Level	Invalid IOI	PRP	ACS percent	CRS percent
	Agriculture, forestry, fishing and hunting, and mining	1.0 (0.1)	26.7 (3.5)	Moderate	I		2.2 (0.2)	1.8 (0.2)
	Construction	2.5 (0.3)	19.6 (1.8)	Low			6.5 (0.3)	7.0 (0.4)
	Manufacturing	4.3 (0.2)	22.2 (1.4)	Moderate			10.6 (0.4)	10.8 (0.4)
	Wholesale trade	2.8 (0.3)	48.7 (3.8)	Moderate	I		2.9 (0.2)	3.0 (0.3)
	Retail trade	3.9 (0.3)	19.9 (1.2)	Low			11.3 (0.5)	10.6 (0.5)
	Utilities, and transportation and warehousing	1.6 (0.2)	18.0 (1.8)	Low			4.9 (0.3)	4.7 (0.3)
	Information	1.2 (0.2)	26.2 (3.3)	Moderate	I		2.3 (0.2)	2.3 (0.2)
	Finance and insurance, and real estate and rental and leasing	1.7 (0.2)	14.2 (1.3)	Low			6.1 (0.3)	6.4 (0.3)
Industry	Professional, scientific, and management, and administrative and waste management services	6.1 (0.4)	31.3 (1.4)	Moderate			10.6 (0.5)	11.0 (0.6)
	Educational services, and health care and social assistance	3.9 (0.3)	10.6 (0.9)	Low			24.1 (0.6)	24.0 (0.6)
	Arts, entertainment, and recreation, and accommodation and food services	1.9 (0.2)	12.8 (1.3)	Low			8.1 (0.4)	8.1 (0.4)
	Other services, except public administration	2.5 (0.2)	26.6 (2.0)	Moderate			5.0 (0.3)	4.9 (0.3)
	Public administration	2.2 (0.2)	22.8 (2.0)	Moderate			4.9 (0.3)	5.0 (0.3)
	Military	0.3 (0.1)	40.4 (6.6)	Moderate	I		0.5 (0.1)	0.4 (0.1)
	L-Fold (Aggregate)	3.3 (0.1)	20.2 (0.6)	Moderate				
	Manufacturing	5.1 (0.3)	27.6 (1.8)	Moderate			9.8 (0.4)	10.7 (0.4)
	Wholesale trade	3.6 (0.3)	59.8 (4.1)	High	I		2.9 (0.3)	3.4 (0.3)
	Retail trade	10.5 (0.4)	39.9 (1.5)	Moderate			15.0 (0.5)	16.0 (0.6)
Industry Type	Other (agriculture, construction, service, government, etc.)	12.5 (0.5)	30.5 (1.2)	Moderate			72.3 (0.8)	69.9 (0.8)
	L-Fold (Aggregate)	11.0 (0.4)	34.5 (1.1)	Moderate				

Appendix B: Detailed Results for Person Topics

Analysis Topic	Analysis category	GDR Estimate	IOI Estimate	IOI Level	Invalid IOI	PRP	ACS percent	CRS percent
	Management, business and financial occupations	10.0 (0.4)	37.1 (1.2)	Moderate			15.8 (0.5)	16.5 (0.5)
	Computer, engineering, and science occupations	2.8 (0.2)	26.3 (2.0)	Moderate			5.5 (0.3)	5.7 (0.4)
	Education, legal, community service, arts, and media occupations	3.4 (0.2)	17.2 (1.1)	Low			11.3 (0.3)	10.6 (0.3)
	Healthcare practitioners and technical occupations	1.9 (0.2)	18.6 (1.6)	Low			5.8 (0.3)	5.3 (0.3)
	Healthcare support occupations	1.9 (0.2)	36.8 (3.3)	Moderate	I		2.7 (0.2)	2.7 (0.2)
	Protective service occupations	0.6 (0.1)	13.9 (2.6)	Low	I		2.1 (0.2)	2.2 (0.2)
	Food preparation and serving related occupations	1.6 (0.2)	17.6 (2.3)	Low			4.8 (0.3)	4.7 (0.3)
	Building and grounds cleaning and maintenance occupations	1.7 (0.2)	23.2 (2.5)	Moderate			3.8 (0.2)	3.8 (0.2)
Occupation	Personal care and service occupations	2.1 (0.2)	29.4 (2.7)	Moderate			3.5 (0.3)	3.8 (0.3)
	Sales and related occupations	5.4 (0.3)	29.9 (1.6)	Moderate			10.1 (0.4)	9.8 (0.4)
	Office and administrative support occupations	8.0 (0.4)	34.4 (1.6)	Moderate			13.2 (0.5)	13.6 (0.5)
	Farming, fishing, and forestry occupations	0.6 (0.1)	34.7 (5.5)	Moderate	I		0.8 (0.1)	0.8 (0.1)
	Construction and extraction occupations	2.5 (0.2)	24.9 (2.1)	Moderate			5.5 (0.3)	5.2 (0.3)
	Installation, maintenance, and repair occupations	2.0 (0.2)	33.2 (2.6)	Moderate	I		3.2 (0.2)	3.2 (0.2)
	Production occupations	3.3 (0.3)	30.5 (2.3)	Moderate			5.8 (0.3)	5.8 (0.3)
	Transportation occupations	1.5 (0.2)	21.5 (2.8)	Moderate	I		3.5 (0.3)	3.6 (0.2)
	Material moving occupations	2.3 (0.3)	49.8 (4.6)	Moderate	I		2.3 (0.2)	2.5 (0.3)
	Military occupations	0.2 (0.0)	42.3 (9.8)	Moderate	I		0.3 (0.1)	0.2 (0.1)
	L-Fold (Aggregate)	4.7 (0.1)	28.4 (0.7)	Moderate				

Appendix B: Detailed Results for Person Topics

Analysis Topic	Analysis category	GDR Estimate	IOI Estimate	IOI Level	Invalid IOI	PRP	ACS percent	CRS percent
	Less than \$10,000	4.7 (0.4)	21.7 (1.7)	Moderate			12.2 (0.5)	12.3 (0.6)
	\$10,000 to \$14,999	6.5 (0.5)	48.6 (2.9)	Moderate		P	6.9 (0.5)	7.5 (0.4)
	\$15,000 to \$24,999	10.0 (0.5)	40.9 (2.1)	Moderate			13.6 (0.7)	14.8 (0.7)
	\$25,000 to \$34,999	9.6 (0.5)	42.4 (2.0)	Moderate			13.1 (0.6)	13.0 (0.5)
***	\$35,000 to \$49,999	9.3 (0.5)	33.7 (1.7)	Moderate			17.3 (0.7)	16.0 (0.6)
Wages Income	\$50,000 to \$74,999	7.1 (0.5)	22.6 (1.5)	Moderate			19.7 (0.8)	19.7 (0.8)
Amount	\$75,000 to \$99,999	3.4 (0.3)	22.9 (2.3)	Moderate			8.3 (0.5)	8.0 (0.5)
	\$100,000 to \$149,999	2.5 (0.3)	23.2 (2.4)	Moderate			6.0 (0.4)	5.6 (0.4)
	\$150,000 to \$199,999	1.0 (0.2)	29.3 (5.5)	Moderate	I		1.6 (0.2)	1.9 (0.2)
	\$200,000 or more	0.3 (0.1)	12.2 (3.2)	Low	I		1.3 (0.2)	1.3 (0.2)
	L-Fold (Aggregate)	7.2 (0.2)	31.5 (0.9)	Moderate		P		
Wages Income Recipiency	Yes	7.6 (0.4)	27.0 (1.3)	Moderate			83.8 (0.5)	82.5 (0.5)
	Loss or broke even	6.1 (2.5)	87.7 (7.7)	High	I	P	6.5 (2.5)	0.5 (0.2)
	Less than \$10,000	13.2 (2.6)	29.0 (5.6)	Moderate			34.5 (2.6)	35.3 (3.2)
	\$10,000 to \$14,999	10.5 (2.5)	53.3 (8.5)	High		P	10.3 (1.4)	11.9 (2.7)
	\$15,000 to \$24,999	14.7 (3.0)	56.1 (8.8)	High		P	15.9 (3.0)	15.1 (2.3)
Self Employed	\$25,000 to \$34,999	11.2 (1.8)	57.9 (9.8)	High		P	10.9 (2.0)	10.9 (2.0)
Income	\$35,000 to \$49,999	9.5 (1.5)	59.9 (7.2)	High	I	P	7.0 (1.1)	10.4 (1.8)
Amount	\$50,000 to \$74,999	4.7 (1.0)	38.4 (7.7)	Moderate		P	6.7 (1.3)	6.4 (1.1)
	\$75,000 to \$99,999	1.9 (0.5)	54.9 (10.9)	High	I		2.0 (0.4)	1.5 (0.4)
	\$100,000 to \$149,999	3.1 (0.8)	48.4 (12.6)	Moderate	I		2.6 (0.8)	3.9 (0.9)
	\$150,000 or more	2.1 (0.8)	28.4 (9.7)	Moderate			3.8 (0.8)	4.0 (0.9)
	L-Fold (Aggregate)	10.7 (1.3)	47.2 (3.5)	Moderate		P		
	Received a positive amount of self-employment income	7.1 (0.4)	41.3 (1.9)	Moderate			9.2 (0.4)	10.0 (0.4)
Self Employed Income	Did not receive self- employment income	7.1 (0.4)	39.4 (1.6)	Moderate			89.9 (0.4)	90.0 (0.4)
Recipiency	Had a net loss or broke even for self-employment income	0.9 (0.2)	98.6 (0.8)	High	I		0.9 (0.2)	0.0 (0.0)
	L-Fold (Aggregate)	7.1 (0.3)	41.9 (1.7)	Moderate				
	Loss or broke even	2.4 (0.4)	96.0 (4.7)	High	I		2.0 (0.4)	0.5 (0.2)
	Positive, less than \$100	6.8 (0.8)	28.3 (3.2)	Moderate			13.2 (1.2)	14.7 (1.2)
Dropostr	\$100 to \$999	20.4 (2.3)	53.5 (5.4)	High		P	25.9 (1.8)	25.3 (2.3)
Property Income	\$1,000 to \$4,999	19.6 (2.1)	56.0 (5.0)	High		P	23.2 (2.3)	22.2 (1.6)
Amount	\$5,000 to \$9,999	11.3 (1.1)	53.9 (6.2)	High		P	11.1 (1.4)	12.6 (1.7)
	\$10,000 to \$19,999	13.0 (1.5)	73.2 (4.6)	High		P	10.4 (1.3)	9.2 (1.0)
	\$20,000 or more	8.7 (1.1)	34.6 (4.1)	Moderate			14.1 (1.4)	15.5 (1.4)
	L-Fold (Aggregate)	14.7 (1.1)	50.3 (2.8)	High		P		

Appendix B: Detailed Results for Person Topics

Analysis Topic	Analysis category	GDR Estimate	IOI Estimate	IOI Level	Invalid IOI	PRP	ACS percent	CRS percent
	Received a positive amount of property income	11.8 (0.4)	48.4 (1.4)	Moderate		P	12.9 (0.4)	15.5 (0.5)
Property Income	Did not receive property income	11.8 (0.4)	48.0 (1.3)	Moderate		P	86.8 (0.4)	84.5 (0.5)
Recipiency	Had a net loss or broke even for property income	0.3 (0.0)	100.0 (0.0)	High	I		0.3 (0.0)	0.0 (0.0)
	L-Fold (Aggregate)	11.8 (0.4)	48.5 (1.3)	Moderate		P		
	Less than \$1,000	1.5 (0.2)	76.2 (11.6)	High	I		1.6 (0.2)	0.5 (0.2)
Social	\$1,000 to \$4,999	5.8 (0.6)	36.9 (4.1)	Moderate			9.5 (0.7)	7.7 (0.7)
Security	\$5,000 to \$9,999	8.3 (0.8)	22.2 (2.2)	Moderate			24.2 (1.2)	25.3 (1.2)
Income	\$10,000 to \$19,999	13.5 (0.9)	27.1 (1.7)	Moderate			51.2 (1.4)	53.1 (1.4)
Amount	\$20,000 or more	6.1 (0.5)	26.3 (2.1)	Moderate			13.4 (1.0)	13.4 (0.9)
	L-Fold (Aggregate)	10.3 (0.6)	27.5 (1.5)	Moderate				
Social Security Income Recipiency	Yes	3.8 (0.3)	11.5 (0.8)	Low			19.9 (0.4)	21.6 (0.5)
	Less than \$1,000	9.8 (2.5)	48.4 (9.5)	Moderate	I	P	15.9 (3.4)	6.4 (2.1)
Supplemental	\$1,000 to \$4,999	9.4 (2.5)	27.6 (7.2)	Moderate			21.4 (3.3)	22.2 (3.8)
Security Income	\$5,000 to \$9,999	14.7 (2.6)	29.9 (5.1)	Moderate	I	P	53.5 (4.9)	61.5 (4.2)
Amount	\$10,000 or more	5.5 (2.0)	31.8 (9.3)	Moderate			9.2 (2.1)	10.0 (2.0)
	L-Fold (Aggregate)	11.9 (1.9)	32.6 (4.8)	Moderate		P		
Supplemental Security Income Recipiency	Yes	2.0 (0.2)	34.2 (3.0)	Moderate	I		3.2 (0.2)	2.9 (0.2)
Public	Less than \$1,000	8.1 (3.8)	39.0 (17.4)	Moderate		P	13.3 (4.4)	10.3 (4.1)
Assistance	\$1,000 to \$4,999	22.4 (6.4)	46.5 (12.7)	Moderate		P	56.3 (8.1)	64.8 (6.9)
Income	\$5,000 or more	16.4 (6.0)	40.9 (13.4)	Moderate		P	30.4 (8.3)	24.9 (6.5)
Amount	L-Fold (Aggregate)	18.8 (5.3)	43.0 (11.3)	Moderate		P		
Public Assistance Income Recipiency	Yes	1.3 (0.2)	54.3 (5.1)	High	I		1.5 (0.1)	0.9 (0.1)

Appendix B: Detailed Results for Person Topics

Analysis Topic	Analysis category	GDR Estimate	IOI Estimate	IOI Level	Invalid IOI	PRP	ACS percent	CRS percent
	Less than \$1,000	2.0 (0.4)	37.9 (6.6)	Moderate	I		3.2 (0.5)	2.2 (0.4)
	\$1,000 to \$4,999	6.2 (0.7)	23.2 (3.1)	Moderate			16.3 (1.5)	15.6 (1.4)
	\$5,000 to \$9,999	7.2 (0.9)	27.3 (3.3)	Moderate			15.0 (1.4)	16.4 (1.5)
Retirement	\$10,000 to \$19,999	10.8 (1.1)	29.6 (3.2)	Moderate			23.8 (1.5)	24.4 (1.6)
Income Amount	\$20,000 to \$49,999	10.0 (1.0)	22.3 (2.2)	Moderate			33.8 (1.7)	33.7 (1.7)
Amount	\$50,000 to \$74,999	3.6 (0.6)	33.0 (5.7)	Moderate			6.1 (0.8)	5.6 (0.7)
	\$75,000 or more	1.1 (0.4)	29.4 (9.5)	Moderate	I		1.8 (0.4)	2.1 (0.5)
	L-Fold (Aggregate)	8.3 (0.6)	26.5 (1.9)	Moderate				
Retirement Income Recipiency	Yes	4.9 (0.2)	24.9 (1.1)	Moderate			11.0 (0.3)	11.0 (0.3)
•	Less than \$1,000	4.1 (0.9)	40.0 (9.0)	Moderate		P	5.4 (1.0)	5.5 (1.1)
	\$1,000 to \$2,499	14.4 (2.2)	46.6 (8.8)	Moderate		P	17.5 (2.8)	20.5 (3.0)
0.1	\$2,500 to \$4,999	15.1 (2.0)	46.0 (6.2)	Moderate		P	21.8 (2.8)	19.4 (2.5)
Other Income	\$5,000 to \$9,999	12.4 (1.7)	40.4 (5.4)	Moderate			20.6 (2.3)	17.4 (2.1)
Amount	\$10,000 to \$19,999	15.3 (2.5)	41.3 (6.1)	Moderate		P	23.7 (2.4)	25.5 (2.4)
	\$20,000 or more	5.6 (1.5)	27.9 (7.4)	Moderate			11.1 (2.1)	11.7 (1.8)
	L-Fold (Aggregate)	12.9 (1.2)	41.3 (3.7)	Moderate		P		
Other Income Recipiency	Yes	6.0 (0.3)	44.8 (1.9)	Moderate			6.7 (0.3)	7.7 (0.3)
	Loss or broke even	5.3 (0.3)	22.0 (1.3)	Moderate			14.7 (0.6)	13.4 (0.6)
	Less than \$10,000	8.1 (0.3)	32.7 (1.3)	Moderate			14.0 (0.4)	15.0 (0.5)
	\$10,000 to \$14,999	7.1 (0.4)	46.9 (2.4)	Moderate		P	8.1 (0.4)	8.5 (0.3)
	\$15,000 to \$24,999	9.7 (0.4)	40.3 (1.5)	Moderate			13.5 (0.5)	14.4 (0.5)
	\$25,000 to \$34,999	9.0 (0.3)	46.6 (1.6)	Moderate			10.7 (0.4)	11.0 (0.4)
Total Income	\$35,000 to \$49,999	8.8 (0.4)	39.0 (1.7)	Moderate			13.2 (0.4)	12.5 (0.4)
Amount	\$50,000 to \$74,999	6.4 (0.4)	27.3 (1.5)	Moderate			13.5 (0.5)	13.5 (0.5)
	\$75,000 to \$99,999	3.1 (0.2)	29.5 (2.1)	Moderate			5.7 (0.3)	5.4 (0.3)
	\$100,000 to \$149,999	2.1 (0.2)	28.2 (2.5)	Moderate			4.0 (0.3)	3.9 (0.2)
	\$150,000 to \$199,999	1.1 (0.1)	43.1 (5.4)	Moderate	I		1.2 (0.1)	1.3 (0.1)
	\$200,000 or more	0.6 (0.1)	23.2 (3.1)	Moderate	I		1.3 (0.1)	1.2 (0.1)
	L-Fold (Aggregate)	7.2 (0.2)	34.7 (0.7)	Moderate		P		

Appendix B: Detailed Results for Person Topics

Analysis Topic	Analysis category	GDR Estimate	IOI Estimate	IOI Level	Invalid IOI	PRP	ACS percent	CRS percent
	Yes, received a positive amount of income	5.5 (0.3)	22.6 (1.4)	Moderate			85.2 (0.6)	86.5 (0.6)
Total Income	No, did not receive income	5.2 (0.3)	21.8 (1.3)	Moderate			14.4 (0.6)	13.5 (0.6)
Recipiency	Had a net loss or broke even (loss box checked)	0.4 (0.1)	100.0 (0.0)	High	I		0.4 (0.1)	0.0 (0.0)
	L-Fold (Aggregate)	5.4 (0.3)	22.8 (1.3)	Moderate				

Appendix C: GDR Estimates By ACS Data Collection Mode (Mail, CATI, or CAPI)

A 1 2		N/L- 21	CATI	CADI	Ma	il	CA	TI	CA	PI
Analysis	Analysis category	Mail GDR	GDR	CAPI GDR	ACS	CRS	ACS	CRS	ACS	CRS
Торіс		GDK	GDK	GDK	percent	percent	percent	percent	percent	percent
	Mobile Home, Boat, Rv, Van, Etc.	0.6 (0.2)	0.7 (0.2)	1.5 (0.2)	5.8 (0.5)	5.7 (0.5)	6.0 (0.6)	6.0 (0.6)	8.1 (0.6)	8.6 (0.6)
	Single Unit, Detached	2.0 (0.2)	3.1 (0.4)	4.6 (0.4)	70.7 (0.7)	71.3 (0.7)	82.3 (0.9)	82.3 (0.9)	58.1 (1.1)	57.7 (1.1)
	Single Unit, Attached	3.2 (0.3)	3.3 (0.5)	6.0 (0.5)	6.5 (0.4)	5.9 (0.4)	4.4 (0.6)	4.5 (0.5)	4.6 (0.5)	6.5 (0.5)
	Apartment Building, 2 Units	1.3 (0.2)	1.3 (0.3)	4.0 (0.4)	2.5 (0.2)	2.1 (0.2)	1.5 (0.3)	1.5 (0.3)	5.4 (0.5)	3.7 (0.4)
	Apartment Building, 3 or 4 Units	1.5 (0.2)	0.8 (0.2)	3.1 (0.4)	2.5 (0.2)	2.6 (0.2)	1.3 (0.3)	1.1 (0.3)	5.7 (0.5)	5.7 (0.5)
Building Type	Apartment Building, 5 to 9 Units	1.6 (0.2)	0.9 (0.2)	3.4 (0.5)	3.0 (0.3)	3.4 (0.3)	1.1 (0.3)	1.4 (0.3)	5.8 (0.6)	6.0 (0.5)
Building Type	Apartment Building, 10 to 19 Units	1.7 (0.2)	0.5 (0.1)	3.8 (0.5)	2.9 (0.2)	3.0 (0.3)	1.2 (0.3)	1.1 (0.3)	5.6 (0.6)	5.0 (0.5)
	Apartment Building, 20 to 49 Units	1.5 (0.1)	0.2 (0.1)	2.8 (0.3)	2.5 (0.2)	2.6 (0.2)	0.9 (0.3)	0.9 (0.3)	3.8 (0.5)	3.4 (0.4)
	Apartment Building, 50 or More Units	1.3 (0.2)	0.4 (0.1)	1.9 (0.3)	3.7 (0.3)	3.5 (0.3)	1.3 (0.3)	1.2 (0.3)	3.0 (0.4)	3.3 (0.5)
	L-Fold (Aggregate)	1.9 (0.2)	2.7 (0.4)	4.0 (0.3)						
	Built 2010 or Later	0.5 (0.2)	0.5 (0.2)	0.4 (0.2)	1.2 (0.2)	1.3 (0.3)	0.6(0.2)	0.5 (0.2)	1.0 (0.3)	1.3 (0.3)
	Built 2000 to 2009	2.5 (0.3)	2.4 (0.4)	3.5 (0.5)	16.6 (0.6)	16.6 (0.6)	13.1 (1.1)	13.4 (1.0)	19.0 (1.2)	20.4 (1.2)
	Built 1990 to 1999	3.8 (0.3)	4.2 (0.5)	5.8 (0.7)	14.9 (0.6)	14.5 (0.6)	16.1 (1.1)	16.3 (1.2)	15.5 (1.0)	15.3 (1.0)
	Built 1980 to 1989	4.4 (0.3)	4.7 (0.6)	6.5 (0.8)	14.6 (0.6)	14.3 (0.6)	12.2 (0.9)	12.4 (1.0)	14.4 (1.0)	13.8 (1.0)
Year Built	Built 1970 to 1979	4.5 (0.3)	4.5 (0.5)	6.1 (0.7)	15.0 (0.6)	15.5 (0.5)	16.4 (0.9)	15.9 (1.0)	15.3 (0.9)	15.3 (0.9)
Teal Duilt	Built 1960 to 1969	4.5 (0.3)	4.3 (0.5)	6.6 (0.7)	11.2 (0.6)	10.8 (0.6)	11.4 (0.9)	11.3 (0.9)	9.1 (0.9)	9.2 (0.9)
	Built 1950 to 1959	3.9 (0.3)	4.4 (0.6)	6.1 (0.7)	10.5 (0.6)	10.6 (0.6)	11.5 (0.8)	11.6 (0.8)	9.5 (0.8)	10.0 (0.8)
	Built 1940 to 1949	3.0 (0.3)	3.0 (0.5)	2.8 (0.5)	4.9 (0.4)	4.7 (0.3)	5.3 (0.6)	5.6 (0.6)	4.5 (0.5)	3.9 (0.5)
	Built 1939 or Earlier	2.1 (0.3)	2.5 (0.4)	2.8 (0.5)	11.2 (0.5)	11.7 (0.4)	13.5 (0.9)	13.0 (0.8)	11.7 (0.9)	10.8 (0.7)
	L-Fold (Aggregate)	3.6 (0.1)	3.8 (0.3)	5.1 (0.3)	<u> </u>			<u> </u>		

Appendix C: GDR Estimates By ACS Data Collection Mode (Mail, CATI, or CAPI)

		37.11	CATE	CADI	Ma	il	CA	TI	CA	PI
Analysis	Analysis category	Mail	CATI	CAPI	ACS	CRS	ACS	CRS	ACS	CRS
Topic		GDR	GDR	GDR	percent	percent	percent	percent	percent	percent
	Moved in 2012 or Later	0.6 (0.1)	0.2 (0.1)	2.7 (0.4)	3.4 (0.2)	3.2 (0.2)	0.6 (0.2)	0.9 (0.2)	11.4 (0.7)	11.8 (0.7)
	Moved in 2011	1.9 (0.2)	1.3 (0.3)	5.8 (0.5)	9.0 (0.5)	9.0 (0.5)	3.4 (0.5)	3.4 (0.5)	15.8 (0.9)	15.5 (0.8)
Year Person 1	Moved in 2010	3.2 (0.3)	2.7 (0.4)	7.3 (0.6)	6.8 (0.4)	6.4 (0.3)	3.8 (0.5)	4.2 (0.5)	11.1 (0.8)	11.8 (0.9)
Moved in	Moved in 2009	2.6 (0.3)	2.3 (0.4)	4.5 (0.4)	5.8 (0.4)	6.0 (0.3)	5.3 (0.6)	5.0 (0.6)	9.4 (0.7)	8.4 (0.5)
Moveu III	Moved in 2008	2.3 (0.3)	2.1 (0.4)	3.2 (0.4)	4.7 (0.4)	4.6 (0.3)	3.6 (0.5)	4.1 (0.6)	4.8 (0.5)	4.9 (0.4)
	Moved in 2007 or Earlier	2.2 (0.2)	2.0 (0.3)	4.1 (0.4)	70.2 (0.8)	70.8 (0.8)	83.3 (0.9)	82.4 (0.9)	47.6 (1.2)	47.7 (1.2)
	L-Fold (Aggregate)	2.3 (0.2)	2.0 (0.3)	4.6 (0.3)						
	Less than 1 Acre	5.4 (0.4)	7.7 (0.8)	9.3 (0.9)	76.6 (0.8)	76.3 (0.7)	70.4 (1.4)	70.9 (1.2)	79.0 (1.2)	74.8 (1.1)
Lot Size	1 to 9.9 Acres	5.8 (0.5)	8.1 (0.8)	9.2 (0.9)	19.3 (0.8)	19.6 (0.7)	23.1 (1.3)	23.3 (1.2)	16.9 (1.1)	20.5 (1.2)
Lot Size	10 or More Acres	1.0 (0.2)	1.5 (0.4)	1.3 (0.3)	4.1 (0.3)	4.2 (0.3)	6.4 (0.6)	5.8 (0.6)	4.0 (0.5)	4.7 (0.6)
	L-Fold (Aggregate)	5.3 (0.4)	7.4 (0.7)	8.9 (0.8)						
	None	4.0 (0.6)	1.6 (0.7)	3.0 (1.1)	92.6 (0.9)	95.9 (0.8)	96.1 (0.9)	96.3 (0.9)	96.5 (1.1)	96.5 (0.9)
	\$1 to \$999	2.5 (0.5)	0.8 (0.5)	2.3 (1.1)	2.7 (0.5)	0.8 (0.3)	0.7 (0.4)	1.2 (0.6)	1.7 (0.9)	1.2 (0.6)
Agricultural	\$1,000 to \$2,499	1.0 (0.2)	0.6(0.5)	0.0 (0.2)	1.1 (0.3)	0.9 (0.2)	0.8(0.5)	0.3 (0.2)	0.4 (0.3)	0.4 (0.3)
Sales	\$2,500 to \$4,999	0.6 (0.2)	0.6 (0.3)	0.5 (0.4)	0.5 (0.1)	0.4 (0.1)	0.3 (0.2)	0.4 (0.2)	0.0(0.2)	0.5 (0.4)
Sales	\$5,000 to \$9,999	0.9 (0.2)	0.8 (0.5)	0.3 (0.2)	0.8 (0.2)	0.5 (0.2)	0.4(0.3)	1.0 (0.6)	0.2 (0.2)	0.4 (0.3)
	\$10,000 or More	1.2 (0.4)	1.1 (0.4)	0.2 (0.2)	2.3 (0.7)	1.5 (0.6)	1.7 (0.5)	0.7 (0.3)	1.2 (0.4)	1.0 (0.5)
	L-Fold (Aggregate)	3.8 (0.6)	1.5 (0.6)	2.9 (1.1)						
Business On Property	Yes	1.9 (0.4)	0.9 (0.2)	2.1 (0.4)	1.8 (0.4)	0.9 (0.1)	1.1 (0.3)	0.4 (0.1)	1.8 (0.4)	0.8 (0.2)
	1 Room	1.7 (0.2)	1.2 (0.2)	3.5 (0.4)	0.7 (0.1)	1.9 (0.2)	1.1 (0.3)	1.1 (0.3)	2.8 (0.3)	4.7 (0.4)
	2 Rooms	2.8 (0.3)	0.7 (0.2)	3.5 (0.4)	3.1 (0.3)	2.4 (0.3)	0.6 (0.2)	0.6 (0.1)	3.0 (0.4)	3.2 (0.4)
	3 Rooms	6.3 (0.4)	3.4 (0.5)	9.7 (0.7)	6.2 (0.4)	7.4 (0.5)	4.6 (0.6)	5.3 (0.6)	10.6 (0.6)	11.1 (0.7)
	4 Rooms	11.8 (0.7)	8.5 (0.6)	15.0 (0.8)	11.9 (0.5)	13.9 (0.6)	11.7 (0.8)	10.9 (0.8)	20.6 (0.8)	20.9 (0.9)
Number of	5 Rooms	17.7 (0.7)	17.2 (1.0)	17.7 (0.8)	18.1 (0.7)	21.1 (0.6)	22.0 (1.0)	21.7 (1.1)	22.3 (0.9)	21.3 (0.9)
Rooms	6 Rooms	19.4 (0.6)	18.9 (1.0)	16.3 (0.9)	18.4 (0.7)	18.4 (0.7)	22.9 (1.1)	23.6 (1.1)	17.0 (0.9)	16.5 (0.8)
	7 Rooms	16.2 (0.6)	14.4 (0.9)	12.1 (0.8)	15.4 (0.7)	15.0 (0.7)	13.2 (0.8)	14.5 (0.9)	11.1 (0.7)	11.0 (0.8)
	8 Rooms	12.3 (0.5)	10.5 (0.8)	7.5 (0.7)	11.6 (0.5)	9.9 (0.4)	11.8 (0.9)	10.6 (0.8)	6.6 (0.7)	5.3 (0.6)
	9 or More Rooms	9.3 (0.5)	6.4 (0.6)	5.1 (0.5)	14.6 (0.6)	10.0 (0.5)	12.0 (0.9)	11.6 (0.9)	6.1 (0.6)	5.9 (0.6)
	L-Fold (Aggregate)	14.1 (0.2)	13.3 (0.5)	13.0 (0.4)						

Appendix C: GDR Estimates By ACS Data Collection Mode (Mail, CATI, or CAPI)

A 1		N.C. 21	CATT	CADI	Ma	il	CA	TI	CA	PI
Analysis Tania	Analysis category	Mail	CATI GDR	CAPI GDR	ACS	CRS	ACS	CRS	ACS	CRS
Topic		GDR	GDK	GDK	percent	percent	percent	percent	percent	percent
	No Bedrooms	0.4 (0.1)	0.8 (0.2)	1.1 (0.2)	0.3 (0.1)	0.1 (0.0)	0.7 (0.2)	0.1 (0.0)	1.0 (0.2)	0.5 (0.2)
	1 Bedroom	1.2 (0.1)	1.5 (0.3)	2.0 (0.3)	8.4 (0.5)	8.4 (0.5)	4.3 (0.5)	5.0 (0.6)	11.4 (0.7)	11.4 (0.8)
Number of	2 Bedrooms	4.0 (0.3)	5.0 (0.6)	4.7 (0.5)	23.2 (0.7)	22.4 (0.7)	18.5 (1.0)	18.8 (1.0)	29.1 (0.9)	29.8 (1.0)
	3 Bedrooms	7.6 (0.5)	7.8 (0.7)	7.1 (0.6)	44.0 (0.8)	44.9 (0.8)	48.9 (1.4)	49.4 (1.4)	39.1 (1.2)	38.7 (1.1)
Bedrooms	4 Bedrooms	5.8 (0.4)	5.8 (0.6)	4.9 (0.5)	19.9 (0.7)	19.7 (0.7)	21.7 (1.2)	20.9 (1.3)	15.6 (0.9)	15.9 (1.0)
	5 or More Bedrooms	1.7 (0.2)	2.0 (0.4)	1.7 (0.3)	4.2 (0.3)	4.5 (0.3)	5.9 (0.6)	5.8 (0.5)	3.8 (0.4)	3.7 (0.4)
	L-Fold (Aggregate)	5.6 (0.3)	6.1 (0.5)	5.2 (0.4)						
Running Water	Yes	0.2 (0.1)	0.3 (0.1)	0.5 (0.2)	100.0 (0.0)	99.8 (0.1)	99.7 (0.1)	99.8 (0.1)	99.7 (0.1)	99.7 (0.2)
Toilet	Yes	0.2 (0.1)	0.2 (0.1)	0.4 (0.1)	100.0 (0.0)	99.8 (0.1)	99.9 (0.1)	99.8 (0.1)	99.8 (0.1)	99.7 (0.1)
Bath Shower	Yes	0.2 (0.1)	0.2 (0.1)	0.4 (0.1)	100.0 (0.0)	99.8 (0.1)	99.9 (0.1)	99.8 (0.1)	99.8 (0.1)	99.7 (0.1)
Sink	Yes	0.3 (0.1)	0.4(0.1)	0.7 (0.2)	100.0 (0.0)	99.7 (0.1)	99.8 (0.1)	99.6 (0.1)	99.7 (0.1)	99.5 (0.2)
Stove	Yes	0.5 (0.1)	0.6 (0.2)	1.2 (0.3)	99.7 (0.1)	99.4 (0.1)	99.4 (0.2)	99.3 (0.2)	99.3 (0.2)	99.0 (0.2)
Refrigerator	Yes	0.2 (0.1)	0.4 (0.2)	0.6(0.2)	100.0 (0.0)	99.8 (0.1)	99.8 (0.1)	99.7 (0.1)	99.9 (0.1)	99.5 (0.2)
	No Vehicle Available	2.0 (0.2)	2.2 (0.3)	3.0 (0.3)	6.1 (0.4)	5.3 (0.3)	7.4 (0.8)	7.4 (0.8)	9.4 (0.5)	10.3 (0.6)
	1 Vehicles Available	5.3 (0.4)	5.9 (0.5)	10.1 (0.7)	31.3 (0.7)	32.7 (0.8)	28.4 (1.2)	28.5 (1.2)	36.2 (0.9)	36.6 (1.0)
Number of	2 Vehicles Available	9.8 (0.6)	8.8 (0.7)	12.7 (0.7)	40.9 (0.8)	42.6 (0.9)	40.9 (1.4)	40.3 (1.3)	34.8 (1.2)	35.3 (1.2)
Vehicles	3 Vehicles Available	6.8 (0.4)	6.8 (0.6)	7.2 (0.6)	15.5 (0.6)	14.4 (0.6)	15.1 (0.9)	16.2 (0.9)	13.5 (0.9)	12.6 (0.9)
Venicles	4 Vehicles Available	2.9 (0.3)	3.4 (0.5)	3.5 (0.4)	4.6 (0.4)	3.9 (0.4)	6.3 (0.7)	5.8 (0.7)	4.6 (0.5)	4.2 (0.4)
	5 or More Vehicles Available	1.1 (0.3)	1.0 (0.2)	1.4 (0.2)	1.5 (0.3)	1.2 (0.2)	1.9 (0.3)	1.8 (0.3)	1.4 (0.2)	1.0 (0.3)
	L-Fold (Aggregate)	7.0 (0.4)	6.7 (0.4)	9.4 (0.5)						
	Utility Gas	7.0 (0.4)	7.5 (0.7)	12.4 (0.8)	53.2 (0.9)	51.7 (0.9)	46.6 (1.2)	47.7 (1.3)	44.6 (1.2)	43.1 (1.2)
	Bottled, Tank, or LP Gas	1.6 (0.2)	3.2 (0.4)	2.1 (0.3)	4.9 (0.3)	4.1 (0.3)	7.5 (0.6)	6.7 (0.6)	4.1 (0.4)	4.3 (0.5)
	Electricity	7.7 (0.5)	9.3 (0.8)	12.8 (0.8)	33.5 (0.8)	35.6 (0.9)	32.5 (1.4)	31.8 (1.3)	43.1 (1.2)	44.2 (1.3)
Heating Fuel	Fuel Oil, Kerosene, Etc.	0.7 (0.1)	1.4 (0.3)	2.0 (0.3)	5.3 (0.5)	5.6 (0.5)	8.6 (0.7)	8.2 (0.7)	4.9 (0.4)	4.1 (0.4)
Heating Fuel Used	Coal or Coke	0.0(0.0)	0.1 (0.1)	0.0(0.0)	0.1 (0.0)	0.1 (0.0)	0.1 (0.1)	0.2 (0.1)	0.1 (0.0)	0.1 (0.0)
Oseu	Wood	0.6 (0.1)	1.5 (0.3)	1.1 (0.2)	2.0 (0.2)	2.1 (0.2)	3.5 (0.4)	3.7 (0.5)	1.9 (0.2)	2.4 (0.3)
	Solar Energy or Other Fuel	0.7 (0.1)	1.1 (0.3)	1.2 (0.2)	0.4 (0.1)	0.4 (0.1)	0.6 (0.2)	0.8 (0.2)	0.5 (0.1)	0.7 (0.2)
	No Fuel Used	0.6 (0.2)	0.8 (0.2)	1.2 (0.2)	0.5 (0.1)	0.4 (0.1)	0.6 (0.2)	0.8 (0.2)	0.9 (0.2)	1.1 (0.2)
	L-Fold (Aggregate)	6.4 (0.4)	6.9 (0.6)	11.1 (0.7)						

Appendix C: GDR Estimates By ACS Data Collection Mode (Mail, CATI, or CAPI)

A1		M-21	CATT	CADI	Ma	il	CA	TI	CA	PI
Analysis Topic	Analysis category	Mail GDR	CATI GDR	CAPI GDR	ACS	CRS	ACS	CRS	ACS	CRS
Topic		GDK	GDK	GDK	percent	percent	percent	percent	percent	percent
	Less than \$25	1.6 (0.2)	0.6 (0.2)	1.0 (0.2)	1.8 (0.2)	1.8 (0.2)	0.9 (0.2)	0.8 (0.2)	1.2 (0.2)	1.3 (0.3)
	\$25 to \$49	7.7 (0.4)	4.7 (0.6)	5.7 (0.6)	9.4 (0.5)	8.8 (0.5)	5.1 (0.5)	5.5 (0.5)	9.6 (0.7)	8.7 (0.7)
	\$50 to \$74	14.2 (0.6)	11.3 (1.0)	12.8 (0.7)	14.2 (0.5)	13.8 (0.5)	13.0 (0.9)	11.7 (0.8)	13.9 (0.8)	14.8 (0.8)
	\$75 to \$99	16.2 (0.6)	13.3 (1.0)	13.2 (0.8)	14.6 (0.6)	13.9 (0.5)	12.9 (0.9)	13.5 (1.0)	11.9 (0.7)	11.4 (0.7)
Monthly	\$100 to \$149	22.5 (0.8)	19.9 (1.1)	19.8 (1.1)	24.2 (0.8)	23.5 (0.7)	23.7 (1.2)	21.0 (1.2)	21.8 (1.0)	22.1 (1.0)
Electricity	\$150 to \$199	16.7 (0.7)	15.0 (1.1)	13.1 (0.9)	14.6 (0.7)	14.8 (0.7)	16.2 (1.0)	17.7 (1.0)	14.2 (0.9)	13.5 (0.9)
Cost	\$200 or More	12.6 (0.7)	11.2 (0.7)	8.7 (0.7)	17.6 (0.6)	19.8 (0.7)	26.1 (1.2)	27.6 (1.2)	21.8 (0.9)	22.1 (1.0)
	Included in Rent or	1.0 (0.1)	0.7 (0.2)	1.5 (0.3)	3.2 (0.3)	3.3 (0.3)	1.7 (0.4)	1.6 (0.3)	4.9 (0.5)	4.8 (0.4)
	Condominium Fee									
	No Charge or Electricity not Used	0.8 (0.1)	0.5 (0.2)	1.2 (0.3)	0.6 (0.1)	0.4 (0.1)	0.5 (0.2)	0.5 (0.2)	0.7 (0.2)	1.2 (0.3)
	L-Fold (Aggregate)	15.4 (0.3)	13.6 (0.5)	12.4 (0.5)	100(01)	0.5 (0.4)	0.0.(0.0)	5 0 (0.5)	0.7 (0.0)	0.7.(0.7)
	Less than \$25	9.1 (0.4)	6.9 (0.7)	6.8 (0.6)	10.2 (0.4)	9.7 (0.4)	8.8 (0.9)	7.8 (0.7)	8.7 (0.8)	8.5 (0.7)
	\$25 to \$49	14.6 (0.6)	11.3 (0.8)	11.6(0.7)	15.1 (0.5)	15.0 (0.6)	12.6 (1.0)	13.0 (1.0)	12.3 (0.7)	12.0 (0.7)
	\$50 to \$74	13.4 (0.6)	11.9 (1.0)	9.0 (0.8)	11.7 (0.6)	9.9 (0.5)	10.8 (0.8)	10.9 (0.9)	7.3 (0.5)	9.0 (0.7)
	\$75 to \$99	8.6 (0.6)	7.6 (0.8)	5.3 (0.5)	6.8 (0.4)	6.9 (0.6)	6.3 (0.7)	5.7 (0.7)	4.5 (0.5)	3.8 (0.5)
	\$100 to \$149	10.3 (0.6)	10.1 (0.8)	7.1 (0.6)	9.4 (0.6)	8.2 (0.5)	9.9 (0.8)	7.7 (0.8)	6.0 (0.6)	6.2 (0.6)
Monthly Gas	\$150 to \$199	4.7 (0.3)	5.0 (0.6)	3.1 (0.5)	3.8 (0.3)	2.5 (0.2)	3.9 (0.6)	4.1 (0.5)	1.9 (0.3)	2.5 (0.4)
Cost	\$200 or More	4.1 (0.3)	4.2 (0.7)	2.8 (0.4)	4.3 (0.4)	3.3 (0.3)	5.0 (0.6)	5.1 (0.7)	2.5 (0.3)	2.5 (0.3)
	Included in Rent or Condominium Fee	2.7 (0.2)	1.5 (0.3)	3.6 (0.4)	4.4 (0.3)	3.4 (0.3)	1.8 (0.4)	1.6 (0.4)	4.8 (0.5)	4.9 (0.4)
	Included in Electricity Payment	8.3 (0.5)	5.3 (0.6)	6.5 (0.6)	4.1 (0.3)	8.5 (0.5)	6.6 (0.7)	8.4 (0.8)	9.4 (0.7)	8.0 (0.7)
	No Charge or Gas not Used	6.9 (0.4)	5.5 (0.7)	6.9 (0.5)	30.2 (0.8)	32.6 (0.9)	34.5 (1.4)	35.7 (1.5)	42.7 (1.2)	42.5 (1.1)
	L-Fold (Aggregate)	9.4 (0.2)	7.7 (0.4)	7.2 (0.3)						

Appendix C: GDR Estimates By ACS Data Collection Mode (Mail, CATI, or CAPI)

A a la-ia		Mail	CATI	CAPI	Ma	ıil	CA	TI	CA	PI
Analysis Topic	Analysis category	Mail GDR	GDR	GDR	ACS	CRS	ACS	CRS	ACS	CRS
Topic		GDK	GDK	GDK	percent	percent	percent	percent	percent	percent
	Less than \$120	13.4 (0.6)	2.5 (0.5)	3.5 (0.5)	13.2 (0.6)	1.7 (0.2)	1.7 (0.3)	1.2 (0.3)	2.4 (0.4)	1.7 (0.3)
	\$120 to \$299	9.9 (0.6)	6.9 (0.7)	5.4 (0.5)	9.8 (0.5)	9.8 (0.6)	7.5 (0.8)	7.0 (0.7)	5.6 (0.5)	5.9 (0.6)
	\$300 to \$599	17.4 (0.6)	14.4 (1.1)	13.2 (0.8)	19.1 (0.7)	22.6 (0.7)	22.3 (1.1)	22.0 (1.1)	18.7 (0.9)	18.4 (1.1)
	\$600 to \$899	16.3 (0.7)	14.1 (1.0)	13.7 (0.8)	13.7 (0.5)	17.9 (0.7)	17.8 (0.9)	19.2 (1.1)	16.9 (0.9)	16.3 (0.9)
	\$900 to \$1199	8.3 (0.5)	8.7 (0.8)	7.6 (0.6)	5.6 (0.3)	7.0 (0.4)	9.4 (0.9)	8.0 (0.9)	5.6 (0.5)	5.8 (0.7)
Annual Water	\$1200 to \$1799	6.2 (0.4)	7.7 (0.8)	7.0 (0.6)	5.5 (0.5)	5.9 (0.4)	6.1 (0.7)	8.1 (0.8)	5.3 (0.7)	6.6 (0.7)
Sewer Cost	\$1800 to \$2399	1.6 (0.2)	2.6 (0.4)	1.3 (0.3)	0.8 (0.1)	1.4 (0.2)	2.5 (0.5)	1.7 (0.4)	0.7 (0.2)	0.9 (0.3)
Sewel Cost	\$2400 to \$3599	1.0 (0.2)	1.5 (0.4)	1.1 (0.2)	0.6 (0.1)	0.6 (0.2)	1.7 (0.4)	1.3 (0.3)	0.7 (0.2)	0.6 (0.2)
	\$3600 or More	0.4 (0.1)	0.6 (0.2)	0.5 (0.2)	0.3 (0.1)	0.2 (0.1)	0.2 (0.2)	0.3 (0.2)	0.1 (0.1)	0.4 (0.2)
	Included in Rent or	5.4.(0.4)	10(06)	10.0 (0.9)	165(06)	17.9 (0.6)	10.1 (0.0)	0.5 (0.9)	27.7.(1.1)	27.1.(1.1)
	Condominium Fee	5.4 (0.4)	4.9 (0.6)	10.9 (0.8)	16.5 (0.6)	17.8 (0.6)	10.1 (0.9)	9.5 (0.8)	27.7 (1.1)	27.1 (1.1)
	No Charge	5.3 (0.4)	4.3 (0.5)	9.0 (0.7)	15.0 (0.5)	15.0 (0.5)	20.7 (1.1)	21.6 (1.1)	16.2 (0.8)	16.4 (0.8)
	L-Fold (Aggregate)	11.1 (0.3)	9.2 (0.4)	10.2 (0.4)						
	Less than \$300	3.6 (0.4)	3.0 (0.5)	1.2 (0.2)	2.8 (0.4)	2.0 (0.2)	2.0 (0.3)	2.5 (0.4)	0.9(0.2)	1.3 (0.2)
	\$300 to \$599	1.8 (0.2)	2.0 (0.4)	1.1 (0.2)	1.5 (0.2)	1.1 (0.2)	1.2(0.3)	1.5 (0.3)	0.5 (0.1)	1.0 (0.2)
	\$600 to \$899	1.9 (0.3)	1.5 (0.3)	0.7(0.1)	1.8 (0.2)	0.8 (0.1)	1.9 (0.4)	1.4 (0.3)	0.5 (0.1)	0.7 (0.1)
	\$900 to \$1199	1.4 (0.2)	1.1 (0.3)	0.8(0.2)	1.2 (0.2)	0.6(0.1)	0.7 (0.2)	0.7 (0.2)	0.4(0.1)	0.7 (0.2)
Annual Other	\$1200 to \$1799	2.2 (0.4)	1.8 (0.3)	1.0(0.2)	2.4 (0.4)	1.1 (0.2)	1.2 (0.3)	1.5 (0.3)	0.7 (0.2)	0.8 (0.2)
Fuel Cost	\$1800 to \$2399	1.6 (0.3)	2.0 (0.4)	0.5 (0.1)	1.1 (0.1)	0.9 (0.3)	1.6 (0.3)	1.8 (0.4)	0.3 (0.1)	0.3 (0.1)
ruci Cost	\$2400 or More	1.4 (0.2)	2.0 (0.4)	0.4(0.1)	2.4 (0.3)	2.0 (0.3)	2.2 (0.3)	2.2 (0.4)	0.6(0.1)	0.8 (0.2)
	Included in Rent or Condominium Fee	3.4 (0.3)	0.3 (0.1)	1.2 (0.3)	3.6 (0.3)	0.4 (0.1)	0.3 (0.1)	0.2 (0.1)	0.7 (0.2)	0.8 (0.2)
	No Charge	11.3 (0.6)	5.0 (0.6)	4.3 (0.5)	83.1 (0.8)	91.0 (0.6)	89.0 (0.8)	88.1 (0.9)	95.4 (0.4)	93.7 (0.5)
	L-Fold (Aggregate)	9.6 (0.5)	4.5 (0.5)	4.0 (0.4)	-	·	-			
Food Stamp Recipiency	Yes	2.3 (0.2)	3.1 (0.3)	5.8 (0.3)	8.3 (0.2)	8.4 (0.3)	11.5 (0.6)	11.2 (0.6)	18.7 (0.6)	20.4 (0.7)

Appendix C: GDR Estimates By ACS Data Collection Mode (Mail, CATI, or CAPI)

A 1i		Mail	CATI	CADI	Ma	ıil	CA	TI	CA	PI
Analysis Topic	Analysis category	Mail GDR	GDR	CAPI GDR	ACS	CRS	ACS	CRS	ACS	CRS
Topic		GDK		GDK	percent	percent	percent	percent	percent	percent
	Less than \$100 Per Month	5.8 (1.9)	4.2 (3.1)	9.2 (4.5)	3.7 (1.1)	8.9 (2.2)	8.8 (4.3)	4.6 (3.0)	22.1 (6.1)	15.8 (5.1)
	\$100 to \$149	2.4 (1.2)	3.4 (2.3)	2.9 (1.7)	12.0 (1.8)	10.5 (2.0)	16.4 (6.9)	19.8 (7.1)	8.9 (3.6)	8.6 (3.5)
Condominium	\$150 to \$199	1.2 (0.5)	4.7 (3.2)	9.5 (3.7)	18.4 (2.7)	18.0 (2.7)	12.0 (6.0)	12.9 (6.3)	24.9 (6.1)	18.6 (5.7)
	\$200 to \$299	6.7 (2.1)	4.7 (3.4)	6.4 (3.3)	29.9 (3.1)	28.7 (3.2)	25.0 (7.7)	24.1 (7.4)	21.7 (5.1)	27.0 (6.0)
Fee	\$300 to \$499	6.3 (1.8)	1.9 (2.0)	5.4 (3.3)	26.3 (3.2)	24.8 (3.3)	21.3 (7.5)	19.4 (7.2)	14.7 (5.2)	18.3 (5.9)
	\$500 or More Per Month	3.1 (0.8)	2.8 (2.7)	4.0 (3.2)	9.7 (1.6)	9.2 (1.6)	16.5 (8.3)	19.3 (8.4)	7.7 (3.3)	11.7 (4.3)
	L-Fold (Aggregate)	4.8 (1.1)	3.5 (1.7)	6.9 (2.1)						
Condominium Status	Yes	2.3 (0.3)	1.3 (0.3)	2.7 (0.4)	7.5 (0.4)	6.3 (0.3)	3.3 (0.5)	3.4 (0.5)	4.6 (0.5)	5.4 (0.5)
	Owned With A Mortgage	4.1 (0.3)	4.9 (0.5)	4.1 (0.5)	50.1 (0.8)	47.4 (0.9)	49.6 (1.4)	50.1 (1.4)	36.8 (1.1)	36.3 (1.2)
	Owned Without A Mortgage	4.4 (0.4)	4.5 (0.4)	3.5 (0.4)	26.1 (0.7)	28.5 (0.7)	33.7 (1.3)	33.2 (1.3)	13.5 (0.7)	13.6 (0.7)
Tenure	Rented	1.0 (0.2)	1.5 (0.3)	3.0 (0.4)	22.1 (0.7)	22.4 (0.7)	15.0 (0.9)	14.8 (0.8)	47.4 (1.3)	47.0 (1.3)
Tenure	Occupied Without Payment of Rent	1.4 (0.2)	1.0 (0.2)	1.8 (0.4)	1.7 (0.2)	1.7 (0.2)	1.7 (0.4)	1.9 (0.4)	2.3 (0.3)	3.1 (0.4)
	L-Fold (Aggregate)	3.5 (0.2)	4.2 (0.4)	3.4 (0.4)	•	•	•			•

Appendix C: GDR Estimates By ACS Data Collection Mode (Mail, CATI, or CAPI)

A 1		N.T 21	CATI	CADI	Ma	nil	CA	TI	CA	PI
Analysis	Analysis category	Mail		CAPI	ACS	CRS	ACS	CRS	ACS	CRS
Topic		GDR	GDR	GDR	percent	percent	percent	percent	percent	percent
	Less than \$100	0.2 (0.1)	2.1 (1.2)	0.5 (0.2)	0.7 (0.2)	0.7 (0.2)	1.3 (0.9)	1.8 (0.9)	1.6 (0.4)	1.3 (0.3)
	\$100 to \$149	0.6 (0.4)	1.5 (0.9)	0.8 (0.2)	1.0 (0.4)	1.1 (0.4)	1.8 (0.8)	2.3 (1.0)	0.9 (0.2)	0.7 (0.3)
	\$150 to \$199	0.9 (0.5)	2.3 (1.3)	0.7 (0.2)	2.1 (0.6)	1.7 (0.5)	1.4 (0.6)	2.4 (1.0)	1.2 (0.4)	1.2 (0.3)
	\$200 to \$249	0.7 (0.5)	1.0 (0.6)	0.7 (0.3)	2.4 (0.5)	3.0 (0.7)	1.7 (0.8)	2.2 (0.8)	1.9 (0.4)	1.8 (0.4)
	\$250 to \$299	0.2 (0.1)	0.0 (1.2)	1.2 (0.3)	2.8 (1.4)	2.9 (1.4)	1.8 (0.8)	1.8 (0.8)	1.5 (0.4)	1.8 (0.4)
	\$300 to \$349	0.8 (0.5)	1.6 (1.0)	0.8 (0.3)	1.6 (0.5)	1.4 (0.2)	3.5 (1.6)	2.2 (1.0)	1.8 (0.4)	1.7 (0.4)
	\$350 to \$399	1.1 (0.5)	1.8 (0.8)	1.7 (0.4)	3.0 (0.5)	3.5 (0.7)	4.0 (1.3)	2.8 (1.0)	3.0 (0.5)	2.9 (0.4)
	\$400 to \$449	0.8 (0.2)	2.6 (1.2)	1.1 (0.3)	6.1 (1.3)	6.1 (1.3)	6.2 (1.6)	6.5 (1.8)	3.4 (0.5)	3.4 (0.5)
	\$450 to \$499	0.9 (0.2)	3.7 (1.7)	1.7 (0.4)	3.9 (0.7)	3.7 (0.7)	5.1 (1.7)	3.8 (1.2)	4.4 (0.7)	4.8 (0.7)
	\$500 to \$549	1.3 (0.3)	2.5 (1.4)	2.0 (0.5)	5.6 (0.8)	5.7 (0.7)	5.7 (1.7)	7.6 (2.4)	6.1 (0.7)	6.1 (0.7)
Monthly Dont	\$550 to \$599	1.3 (0.4)	0.6 (0.5)	2.1 (0.5)	5.2 (0.8)	5.2 (0.8)	6.7 (1.9)	7.1 (2.0)	6.5 (0.8)	6.2 (0.8)
Monthly Rent	\$600 to \$649	1.9 (0.6)	0.6 (0.3)	2.4 (0.5)	6.1 (0.7)	6.8 (0.8)	5.7 (1.5)	5.4 (1.6)	4.2 (0.7)	4.6 (0.6)
	\$650 to \$699	2.2 (0.7)	3.4 (1.3)	1.6 (0.4)	7.2 (1.1)	6.5 (0.9)	3.6 (1.3)	4.2 (1.2)	5.5 (0.9)	5.8 (0.8)
	\$700 to \$749	1.8 (0.6)	1.6 (0.8)	1.9 (0.5)	3.8 (0.3)	4.5 (0.6)	7.6 (2.0)	6.0 (1.6)	5.6 (0.8)	5.2 (0.7)
	\$750 to \$799	2.0 (0.5)	1.1 (0.9)	1.9 (0.5)	4.0 (0.7)	3.4 (0.5)	3.4 (1.5)	2.8 (1.3)	6.5 (0.9)	5.7 (0.8)
	\$800 to \$899	2.8 (0.6)	3.0 (1.2)	2.9 (0.5)	8.3 (0.8)	7.7 (0.7)	7.8 (2.0)	8.5 (1.9)	8.7 (0.8)	9.3 (0.9)
	\$900 to \$999	1.8 (0.5)	1.7 (0.8)	1.8 (0.4)	7.2 (0.9)	7.6 (0.9)	6.5 (2.0)	6.7 (1.9)	7.0 (1.0)	6.6 (1.0)
	\$1,000 to \$1,249	1.4 (0.3)	2.0 (0.9)	2.2 (0.6)	11.8 (1.2)	12.0 (1.2)	10.4 (2.3)	10.4 (2.3)	14.4 (1.2)	15.1 (1.2)
	\$1,250 to \$1,499	0.9 (0.2)	0.8 (0.6)	2.1 (0.5)	6.1 (0.6)	5.8 (0.6)	4.4 (1.7)	5.1 (1.9)	6.3 (0.9)	6.3 (0.9)
	\$1,500 to \$1,999	0.8 (0.2)	1.1 (0.6)	2.2 (0.5)	5.3 (0.5)	5.5 (0.5)	7.5 (1.9)	6.5 (1.9)	6.5 (0.8)	6.7 (1.0)
	\$2,000 or More	0.4 (0.1)	0.0 (1.2)	0.5 (0.3)	5.7 (0.7)	5.5 (0.7)	3.7 (1.6)	3.7 (1.6)	2.9 (0.6)	2.9 (0.6)
	L-Fold (Aggregate)	1.4 (0.2)	1.8 (0.3)	1.9 (0.2)						
Meals Included in Rent	Yes	0.8 (0.3)	3.0 (1.6)	1.3 (0.3)	2.2 (0.5)	2.8 (0.5)	3.0 (1.1)	4.7 (1.8)	1.5 (0.4)	1.4 (0.4)

Appendix C: GDR Estimates By ACS Data Collection Mode (Mail, CATI, or CAPI)

A 1		N.T 21	CATI	CADI	Ma	ıil	CA	TI	CA	PI
Analysis Topic	Analysis category	Mail GDR	CATI GDR	CAPI GDR	ACS	CRS	ACS	CRS	ACS	CRS
Topic		GDK	GDK	GDK	percent	percent	percent	percent	percent	percent
	Less than \$50,000	3.4 (0.3)	2.2 (0.4)	1.9 (0.5)	6.6 (0.4)	5.2 (0.4)	6.5 (0.7)	6.1 (0.7)	10.7 (1.0)	10.8 (1.0)
	\$50,000 to \$99,999	5.3 (0.4)	5.1 (0.6)	4.5 (0.7)	14.3 (0.7)	12.8 (0.7)	16.6 (1.0)	17.1 (1.0)	16.9 (1.3)	16.7 (1.2)
	\$100,000 to \$149,999	9.3 (0.6)	6.3 (0.8)	7.8 (1.0)	16.6 (0.7)	18.0 (0.8)	18.4 (1.3)	17.5 (1.2)	19.0 (1.4)	18.0 (1.5)
	\$150,000 to \$199,999	9.0 (0.6)	6.0 (0.8)	8.2 (1.0)	16.7 (0.7)	16.6 (0.7)	16.6 (1.3)	17.4 (1.3)	14.5 (1.2)	15.1 (1.4)
Property Value	\$200,000 to \$299,999	8.3 (0.7)	7.0 (0.8)	6.4 (0.9)	21.2 (1.0)	20.8 (0.9)	16.5 (1.4)	17.2 (1.3)	18.4 (1.5)	19.9 (1.5)
	\$300,000 to \$499,999	5.7 (0.6)	4.8 (0.7)	4.9 (0.9)	15.7 (0.7)	17.2 (0.8)	15.4 (1.2)	14.9 (1.2)	14.4 (1.3)	13.5 (1.2)
	\$500,000 to \$999,999	2.1 (0.3)	2.0 (0.4)	1.8 (0.5)	7.3 (0.4)	7.8 (0.5)	7.7 (0.9)	8.1 (1.0)	4.5 (0.8)	4.4 (0.8)
	\$1,000,000 or More	0.3 (0.1)	0.5 (0.3)	0.3 (0.2)	1.6 (0.3)	1.6 (0.2)	2.2 (0.5)	1.8 (0.4)	1.7 (0.4)	1.6 (0.4)
	L-Fold (Aggregate)	6.9 (0.3)	5.3 (0.4)	5.7 (0.5)						
	None	1.9 (0.3)	1.6 (0.3)	2.1 (0.5)	2.5 (0.4)	2.1 (0.3)	2.1 (0.5)	3.5 (0.6)	3.8 (0.7)	2.9 (0.5)
	\$1 to \$299	2.9 (0.5)	2.8 (0.5)	3.4 (0.7)	4.4 (0.5)	3.8 (0.4)	6.2 (0.9)	5.3 (0.9)	6.9 (1.0)	8.0 (1.2)
	\$300 to \$599	3.7 (0.4)	4.8 (0.7)	4.3 (0.8)	5.3 (0.4)	6.0 (0.4)	9.5 (0.9)	9.4 (0.9)	7.9 (0.9)	8.3 (1.1)
	\$600 to \$899	4.9 (0.5)	5.0 (0.6)	5.0 (0.9)	8.1 (0.6)	7.7 (0.5)	9.7 (1.0)	9.1 (0.8)	9.9 (1.2)	8.4 (1.0)
	\$900 to \$1199	6.3 (0.5)	4.8 (0.7)	5.4 (0.9)	5.9 (0.3)	7.2 (0.5)	7.2 (0.8)	8.6 (1.0)	6.9 (1.1)	7.4 (1.2)
Annual	\$1,200 to \$1,499	7.9 (0.7)	6.9 (0.9)	8.7 (1.1)	8.6 (0.7)	8.9 (0.5)	10.4 (1.1)	8.5 (1.0)	9.7 (1.1)	11.0 (1.4)
Property Tax	\$1,500 to \$1,799	6.3 (0.5)	6.1 (0.9)	6.2 (1.2)	7.1 (0.5)	6.7 (0.5)	6.7 (0.9)	7.1 (0.9)	6.6 (1.2)	5.5 (1.0)
Amount	\$1,800 to \$2,399	11.4 (0.8)	7.5 (0.8)	7.9 (1.2)	12.4 (0.7)	13.0 (1.0)	10.0 (0.8)	9.6 (0.9)	11.3 (1.3)	11.6 (1.5)
Amount	\$2,400 to \$3,599	11.2 (0.7)	7.3 (1.0)	6.7 (1.1)	18.8 (0.8)	18.2 (0.8)	15.6 (1.3)	16.9 (1.3)	13.8 (1.5)	14.1 (1.4)
	\$3,600 to \$4,799	6.2 (0.5)	4.5 (0.7)	3.6 (0.7)	8.7 (0.5)	8.5 (0.5)	6.8 (0.8)	6.8 (0.8)	8.5 (1.3)	8.4 (1.3)
	\$4,800 to \$5,999	3.8 (0.3)	2.3 (0.5)	3.0 (0.7)	5.2 (0.4)	5.3 (0.4)	3.5 (0.6)	3.3 (0.6)	4.4 (0.9)	4.0 (0.9)
	\$6,000 to \$7,199	3.1 (0.3)	3.3 (0.7)	3.3 (0.7)	4.7 (0.5)	4.9 (0.4)	5.2 (0.8)	4.6 (0.8)	3.5 (0.7)	4.0 (0.7)
	\$7,200 or More	2.7 (0.3)	2.9 (0.6)	1.8 (0.6)	8.3 (0.6)	7.7 (0.5)	7.2 (0.9)	7.3 (0.9)	6.9 (1.0)	6.3 (0.9)
	L-Fold (Aggregate)	7.0 (0.3)	5.3 (0.3)	5.4 (0.4)						

Appendix C: GDR Estimates By ACS Data Collection Mode (Mail, CATI, or CAPI)

A a l ai a		Mail	CATI	CADI	Ma	ıil	CA	TI	CA	PI
Analysis Topic	Analysis category	Mail GDR	CATI GDR	CAPI GDR	ACS	CRS	ACS	CRS	ACS	CRS
		GDK	GDK	GDK	percent	percent	percent	percent	percent	percent
	None	6.8 (0.6)	1.5 (0.4)	4.7 (0.9)	9.4 (0.6)	3.5 (0.4)	4.7 (0.6)	5.4 (0.7)	11.7 (1.3)	10.1 (1.3)
	\$1 to \$119	1.5 (0.3)	1.7 (0.5)	1.9 (0.6)	1.0 (0.2)	0.6 (0.2)	0.9 (0.4)	1.0 (0.3)	1.5 (0.5)	0.7 (0.3)
	\$120 to \$299	4.3 (0.5)	2.6 (0.6)	3.4 (0.8)	4.1 (0.5)	3.9 (0.4)	3.4 (0.6)	3.1 (0.5)	2.4 (0.7)	4.9 (1.1)
	\$300 to \$599	14.2 (0.8)	11.8 (1.1)	10.6 (1.3)	20.6 (0.9)	22.7 (0.9)	19.2 (1.4)	18.1 (1.3)	18.0 (1.7)	19.5 (1.6)
Annual	\$600 to \$899	16.8 (0.9)	15.8 (1.6)	14.0 (1.6)	25.4 (0.9)	25.6 (0.9)	28.0 (1.5)	27.1 (1.5)	24.8 (2.1)	23.0 (2.1)
Property	\$900 to \$1,199	13.8 (0.7)	13.5 (1.2)	11.1 (1.7)	14.1 (0.8)	15.3 (0.7)	16.8 (1.3)	16.9 (1.3)	13.8 (1.7)	14.5 (1.4)
Insurance	\$1,200 to \$1,799	13.5 (0.8)	12.1 (1.3)	12.3 (1.5)	15.5 (0.9)	18.2 (1.1)	15.0 (1.2)	17.2 (1.3)	17.2 (1.7)	14.9 (1.5)
Amount	\$1,800 to \$2,399	6.1 (0.6)	6.1 (0.9)	5.8 (0.9)	5.0 (0.4)	5.1 (0.4)	6.6 (0.8)	7.1 (0.9)	5.5 (1.1)	6.7 (1.1)
	\$2,400 to \$3,599	3.3 (0.4)	2.9 (0.7)	4.7 (0.9)	2.9 (0.3)	3.2 (0.4)	3.5 (0.8)	2.5 (0.5)	3.0 (0.8)	4.2 (0.9)
	\$3,600 to \$4,799	1.0 (0.3)	0.8 (0.4)	0.8 (0.4)	1.0 (0.2)	1.1 (0.3)	0.7 (0.3)	0.6 (0.2)	0.7 (0.3)	0.4 (0.3)
	\$4,800 or More	1.0 (0.2)	0.9 (0.3)	1.4 (0.6)	1.0 (0.2)	0.8 (0.2)	1.3 (0.4)	1.0 (0.3)	1.5 (0.6)	1.2 (0.5)
	L-Fold (Aggregate)	12.4 (0.4)	11.4 (0.7)	9.9 (0.7)						
	Owned With A Mortgage	8.6 (0.8)	5.1 (0.9)	4.0 (0.8)	91.0 (0.8)	95.0 (0.5)	96.0 (0.7)	93.3 (1.0)	97.3 (0.7)	97.3 (0.7)
Mortgage	Under Contract to Purchase	1.5 (0.3)	3.2 (0.7)	3.1 (0.7)	0.7 (0.2)	1.2 (0.3)	1.5 (0.4)	2.8 (0.7)	2.3 (0.6)	1.9 (0.6)
Status	No Mortgage	7.5 (0.7)	2.2 (0.5)	1.2 (0.4)	8.3 (0.8)	3.8 (0.4)	2.6 (0.6)	3.8 (0.7)	0.4 (0.2)	0.8 (0.3)
	L-Fold (Aggregate)	8.4 (0.8)	4.9 (0.8)	4.0 (0.7)						

Appendix C: GDR Estimates By ACS Data Collection Mode (Mail, CATI, or CAPI)

A 1		N.C - 21	CATE	CADI	Ma	ıil	CA	TI	CA	PI
Analysis Topia	Analysis category	Mail GDR	CATI GDR	CAPI GDR	ACS	CRS	ACS	CRS	ACS	CRS
Торіс		GDR	GDK	GDR	percent	percent	percent	percent	percent	percent
	Less than \$200	0.3 (0.1)	0.5 (0.2)	0.8 (0.4)	0.7 (0.2)	0.7 (0.2)	1.1 (0.4)	0.8 (0.4)	0.8 (0.3)	1.1 (0.4)
	\$200 to \$249	0.4 (0.1)	0.6 (0.3)	0.6 (0.3)	0.9 (0.3)	0.8 (0.3)	1.0 (0.3)	1.0 (0.3)	1.0 (0.4)	0.6 (0.3)
	\$250 to \$299	0.6 (0.2)	0.6 (0.3)	0.7 (0.4)	0.8 (0.2)	0.7 (0.2)	1.3 (0.6)	1.2 (0.5)	0.9 (0.4)	1.2 (0.5)
	\$300 to \$349	0.7 (0.2)	1.3 (0.4)	0.6 (0.3)	1.3 (0.4)	1.3 (0.4)	1.9 (0.6)	1.3 (0.5)	1.1 (0.3)	1.5 (0.4)
	\$350 to \$399	1.4 (0.4)	1.9 (0.6)	0.5 (0.2)	2.0 (0.5)	1.5 (0.4)	1.9 (0.5)	2.8 (0.5)	1.7 (0.4)	1.6 (0.4)
	\$400 to \$449	1.6 (0.4)	1.6 (0.6)	1.0 (0.4)	2.0 (0.3)	2.4 (0.4)	2.6 (0.7)	2.4 (0.7)	3.2 (0.7)	2.8 (0.7)
M =41-1	\$450 to \$499	1.1 (0.2)	2.1 (0.6)	1.3 (0.5)	1.8 (0.2)	1.9 (0.2)	3.0 (0.7)	3.7 (0.8)	1.9 (0.5)	2.7 (0.7)
Monthly	\$500 to \$599	2.3 (0.4)	3.3 (0.7)	3.2 (0.8)	5.7 (0.5)	6.0 (0.6)	6.5 (0.9)	6.0 (1.1)	7.4 (1.3)	6.6 (1.0)
Mortgage	\$600 to \$699	3.9 (0.7)	3.7 (0.7)	3.0 (0.6)	7.5 (0.9)	6.8 (0.7)	8.7 (1.2)	8.4 (1.0)	7.5 (1.1)	7.6 (1.0)
Payment	\$700 to \$799	3.1 (0.5)	2.9 (0.6)	3.6 (0.8)	7.2 (0.7)	7.2 (0.8)	6.1 (0.8)	6.5 (1.0)	7.8 (1.2)	8.3 (1.2)
	\$800 to \$999	4.6 (0.5)	3.9 (0.8)	4.6 (0.9)	13.5 (1.0)	12.7 (0.8)	14.7 (1.3)	14.8 (1.4)	15.8 (1.5)	15.2 (1.7)
	\$1,000 to \$1,249	7.1 (0.9)	3.2 (0.7)	5.5 (1.1)	15.9 (1.0)	17.1 (1.1)	16.0 (1.6)	15.6 (1.5)	13.5 (1.6)	14.6 (1.5)
	\$1,250 to \$1,499	4.5 (0.4)	3.7 (0.8)	4.1 (0.9)	10.9 (0.8)	11.1 (0.8)	7.5 (1.3)	8.4 (1.3)	9.7 (1.4)	9.6 (1.5)
	\$1,500 to \$1,999	4.8 (0.4)	3.1 (0.7)	5.6 (1.1)	15.9 (1.2)	15.7 (1.2)	13.0 (1.5)	12.3 (1.6)	13.8 (1.5)	12.8 (1.3)
	\$2,000 or More	3.1 (0.5)	1.3 (0.5)	2.7 (0.6)	13.9 (0.7)	14.0 (0.8)	14.6 (1.6)	14.6 (1.7)	13.8 (1.6)	13.9 (1.6)
	L-Fold (Aggregate)	4.2 (0.3)	2.9 (0.3)	3.8 (0.4)						
Property Tax Included	Yes	6.8 (0.7)	6.0 (0.9)	8.3 (1.1)	69.0 (1.0)	69.9 (1.0)	68.8 (1.7)	69.6 (1.5)	75.4 (1.6)	73.0 (1.6)
Property Insurance Included	Yes	12.3 (0.8)	8.2 (1.1)	10.9 (1.5)	56.3 (1.3)	61.1 (1.1)	60.8 (1.7)	62.1 (1.6)	68.9 (1.6)	66.3 (1.7)
	Home Equity Loan	6.9 (0.5)	5.8 (0.7)	6.0 (0.8)	13.6 (0.6)	13.4 (0.6)	14.4 (0.9)	14.2 (1.0)	7.2 (1.0)	10.5 (1.1)
	Second Mortgage	2.0 (0.3)	3.2 (0.5)	4.7 (0.6)	2.9 (0.3)	2.9 (0.3)	3.6 (0.6)	2.6 (0.5)	4.2 (0.6)	5.4 (0.7)
Second Mortgage	Second Mortgage and Home Equity Loan	1.2 (0.2)	1.6 (0.3)	1.6 (0.4)	0.3 (0.1)	1.2 (0.2)	1.1 (0.3)	1.5 (0.4)	0.7 (0.3)	1.4 (0.4)
Type	No Second Mortgage or Home Equity Loan	5.7 (0.4)	4.8 (0.7)	7.7 (0.8)	83.2 (0.7)	82.5 (0.7)	80.9 (1.2)	81.7 (1.1)	87.9 (1.2)	82.8 (1.3)
	L-Fold (Aggregate)	5.7 (0.4)	4.8 (0.6)	7.3 (0.7)						

Appendix C: GDR Estimates By ACS Data Collection Mode (Mail, CATI, or CAPI)

A a l a-' a		Mail	CATI	CADI	Ma	ıil	CA	ATI	CA	PI
Analysis Topic	Analysis category	Mail GDR	CATI GDR	CAPI GDR	ACS	CRS	ACS	CRS	ACS	CRS
Торіс		GDK	GDK	GDK	percent	percent	percent	percent	percent	percent
	Less than \$100	5.0 (1.3)	2.4 (1.3)	4.4 (2.8)	10.0 (1.7)	11.8 (2.0)	13.0 (2.7)	12.5 (2.6)	16.3 (6.4)	17.5 (6.8)
	\$100 to \$199	12.1 (1.6)	9.2 (2.3)	10.1 (4.3)	23.5 (2.3)	20.8 (2.0)	17.1 (2.9)	19.0 (2.9)	20.6 (4.6)	20.0 (3.5)
	\$200 to \$249	11.0 (1.5)	11.7 (2.6)	11.9 (4.4)	12.8 (1.8)	13.2 (2.0)	11.5 (2.5)	11.2 (2.7)	10.2 (3.8)	6.8 (3.2)
	\$250 to \$299	4.6 (0.9)	5.9 (1.6)	7.7 (3.3)	9.8 (1.9)	10.0 (1.7)	8.9 (2.2)	7.8 (1.9)	5.7 (2.6)	9.8 (3.9)
	\$300 to \$349	7.1 (1.3)	7.5 (2.0)	4.5 (2.4)	9.2 (1.2)	11.4 (1.7)	13.1 (2.6)	12.7 (3.0)	13.8 (4.2)	15.1 (4.6)
Second	\$350 to \$399	4.8 (1.2)	2.6 (1.0)	1.8 (1.2)	5.2 (1.2)	3.1 (0.6)	2.7 (1.1)	3.8 (1.4)	5.5 (2.4)	3.7 (2.2)
	\$400 to \$449	3.8 (0.6)	2.1 (1.0)	2.4 (1.5)	4.5 (1.1)	5.2 (1.0)	4.7 (1.8)	5.0 (1.5)	2.4 (1.7)	3.6 (2.1)
Mortgage Payment	\$450 to \$499	2.0 (0.4)	1.4 (0.9)	2.4 (2.2)	3.8 (0.8)	3.2 (0.8)	2.1 (1.3)	3.5 (1.5)	3.4 (2.4)	1.5 (1.0)
Amount	\$500 to \$599	6.1 (1.0)	5.3 (1.8)	8.6 (3.9)	6.6 (1.0)	8.1 (1.3)	7.0 (2.1)	6.8 (1.9)	3.0 (2.0)	5.6 (3.4)
Amount	\$600 to \$699	1.9 (0.5)	4.0 (1.5)	2.0 (1.7)	3.2 (0.8)	3.9 (0.9)	7.7 (2.3)	7.3 (2.2)	4.3 (2.2)	5.5 (2.6)
	\$700 to \$799	1.4 (0.4)	2.0 (1.0)	0.8(0.8)	2.2 (0.6)	1.7 (0.5)	2.9 (1.5)	2.4 (1.4)	0.3 (0.3)	1.2 (0.9)
	\$800 to \$999	3.0 (1.1)	2.2 (1.2)	1.1 (0.9)	3.6 (1.1)	2.5 (0.5)	2.9 (1.4)	2.2 (1.0)	2.5 (1.7)	1.4 (1.4)
	\$1,000 to \$1,249	1.7 (0.4)	1.6 (1.1)	1.3 (1.3)	3.2 (0.8)	3.5 (0.8)	3.2 (1.5)	1.9 (1.0)	6.0 (3.3)	4.8 (3.1)
	\$1,250 or More	1.8 (0.5)	0.7 (0.7)	2.3 (1.5)	2.4 (0.5)	1.4 (0.4)	3.3 (1.3)	3.9 (1.5)	5.9 (2.5)	3.6 (2.0)
	L-Fold (Aggregate)	7.0 (0.6)	6.0 (0.9)	6.3 (1.9)						
	Less than \$250	16.7 (4.4)	27.4	16.2 (8.5)	26.7 (7.3)	30.2 (7.0)	21.1	7.3 (5.5)	11.4 (6.1)	9.9 (7.2)
	Less than \$230	10.7 (4.4)	(11.5)	10.2 (8.3)	20.7 (7.3)	30.2 (7.0)	(12.0)	7.3 (3.3)	11.4 (0.1)	
	\$250 to \$2,499	23.7 (5.4)	37.7	20.4 (8.3)	27.2 (5.7)	20.1 (4.7)	53.1	32.1 (10.3)	32.3 (10.1)	49.2
Annual Mobile	Ψ230 to Ψ2;+77	23.7 (3.4)	(13.5)	20.4 (0.3)	21.2 (3.1)	20.1 (4.7)	(14.8)	32.1 (10.3)	32.3 (10.1)	(11.7)
Home Costs	\$2,500 or More	23.7 (5.6)	52.5	18.3 (9.2)	46.1 (7.0)	49.8 (6.9)	25.8	60.7 (12.3)	56.2 (10.7)	40.9
		23.7 (3.0)	(15.4)	13.3 (7.2)	.0.1 (7.0)	.7.0 (0.7)	(11.5)	00.7 (12.0)	2 3.2 (10.7)	(11.2)
	L-Fold (Aggregate)	21.7 (4.5)	42.3 (10.9)	18.8 (7.0)						

Appendix C: GDR Estimates By ACS Data Collection Mode (Mail, CATI, or CAPI)

Analysis		Mail	CATI	CADI	Ma	il	CA	TI	CA	PI
Analysis Topic	Analysis category	GDR	GDR	CAPI GDR	ACS	CRS	ACS	CRS	ACS	CRS
		GDK	GDK	GDK	percent	percent	percent	percent	percent	percent
	Householder	0.0(0.0)	0.0(0.0)	0.0(0.0)	43.6 (0.5)	43.6 (0.5)	38.1 (0.5)	38.1 (0.5)	37.9 (0.6)	37.9 (0.6)
	Husband or Wife	0.3 (0.1)	0.2(0.1)	0.6(0.1)	24.4 (0.3)	24.4 (0.3)	22.1 (0.4)	22.1 (0.4)	14.7 (0.4)	14.6 (0.5)
	Biological Son or Daughter	0.6 (0.1)	1.0 (0.1)	2.0 (0.2)	22.5 (0.6)	22.3 (0.6)	27.4 (0.7)	27.3 (0.7)	31.1 (0.9)	30.4 (0.8)
	Adopted Son or Daughter	0.1 (0.0)	0.4(0.1)	0.7 (0.1)	0.5 (0.1)	0.4 (0.1)	0.9 (0.2)	0.7 (0.1)	0.6 (0.2)	0.6 (0.1)
	Stepson or Stepdaughter	0.2 (0.0)	0.3 (0.1)	0.8 (0.2)	0.8 (0.1)	0.8 (0.1)	1.1 (0.2)	1.0 (0.2)	1.9 (0.3)	2.1 (0.4)
	Brother or Sister	0.2 (0.1)	0.1 (0.0)	0.3 (0.1)	0.6 (0.1)	0.6 (0.1)	0.8 (0.1)	0.7 (0.1)	1.3 (0.1)	1.3 (0.1)
	Father or Mother	0.3 (0.1)	0.3 (0.1)	0.6 (0.1)	0.8 (0.1)	0.9 (0.1)	1.1 (0.2)	1.4 (0.2)	1.2 (0.1)	1.3 (0.1)
Dalationship to	Grandchild	0.1 (0.0)	0.3 (0.1)	0.3 (0.1)	1.8 (0.3)	1.7 (0.3)	3.6 (0.4)	3.5 (0.4)	2.0 (0.3)	2.2 (0.3)
Relationship to	Parent-In-Law	0.1 (0.0)	0.1 (0.0)	0.2 (0.1)	0.3 (0.1)	0.3 (0.1)	0.5 (0.2)	0.5 (0.2)	0.3 (0.1)	0.4 (0.1)
Householder	Son-In-Law or Daughter-In-Law	0.0 (0.0)	0.2 (0.1)	0.1 (0.0)	0.2 (0.1)	0.3 (0.1)	0.6 (0.1)	0.6 (0.1)	0.4 (0.1)	0.4 (0.1)
	Other Relative	0.5 (0.2)	0.7 (0.2)	0.7 (0.2)	0.8 (0.2)	0.8 (0.2)	1.1 (0.2)	1.2 (0.2)	1.5 (0.2)	1.2 (0.2)
	Roomer or Boarder	0.4 (0.1)	0.1 (0.1)	1.0 (0.2)	0.3 (0.1)	0.3 (0.1)	0.2 (0.1)	0.1 (0.0)	0.5 (0.2)	0.7 (0.2)
	Housemate or Roommate	0.7 (0.1)	0.5 (0.2)	2.1 (0.4)	0.9 (0.1)	0.7 (0.1)	0.4 (0.2)	0.2 (0.1)	2.5 (0.3)	1.7 (0.3)
	Unmarried Partner	0.6 (0.1)	0.4(0.1)	1.1 (0.1)	1.7 (0.1)	1.6 (0.1)	1.0 (0.2)	1.0 (0.1)	3.2 (0.2)	3.1 (0.2)
	Foster Child	0.0 (0.0)	0.1 (0.1)	0.1 (0.0)	0.1 (0.0)	0.1 (0.0)	0.1 (0.1)	0.1 (0.1)	0.1 (0.0)	0.1 (0.0)
	Other Nonrelative	1.2 (0.2)	0.8 (0.2)	2.2 (0.3)	0.7 (0.1)	1.3 (0.2)	0.9 (0.2)	1.4 (0.3)	0.9 (0.2)	2.1 (0.3)
	L-Fold (Aggregate)	0.2 (0.0)	0.4 (0.0)	0.9 (0.1)						
Sex	Male	0.5 (0.1)	0.6 (0.2)	1.0 (0.2)	47.9 (0.5)	47.8 (0.5)	46.7 (0.5)	46.7 (0.5)	49.7 (0.6)	49.7 (0.6)

Appendix C: GDR Estimates By ACS Data Collection Mode (Mail, CATI, or CAPI)

		3.7. 11	CATET	CADI	Ma	nil	CA	TI	CA	PI
Analysis	Analysis category	Mail GDR	CATI GDR	CAPI GDR	ACS	CRS	ACS	CRS	ACS	CRS
Topic		GDR	GDK	GDK	percent	percent	percent	percent	percent	percent
	Age 0-4	0.2 (0.0)	0.2 (0.0)	0.2 (0.0)	4.9 (0.2)	4.7 (0.2)	4.3 (0.3)	4.4 (0.3)	8.3 (0.3)	8.3 (0.3)
	Age 5-9	0.3 (0.0)	0.3 (0.1)	0.3 (0.1)	5.4 (0.2)	5.4 (0.2)	7.3 (0.3)	7.2 (0.3)	7.9 (0.2)	7.9 (0.3)
	Age 10-14	0.3 (0.0)	0.3 (0.1)	0.3 (0.1)	5.5 (0.2)	5.6 (0.2)	7.0 (0.3)	7.1 (0.4)	8.4 (0.2)	8.3 (0.2)
	Age 15-17	0.3 (0.0)	0.2(0.0)	0.3 (0.1)	3.1 (0.1)	3.1 (0.1)	4.3 (0.2)	4.3 (0.2)	4.4 (0.2)	4.4 (0.2)
	Age 18-19	0.4(0.1)	0.3 (0.1)	0.3 (0.1)	1.8 (0.1)	1.8 (0.1)	2.3 (0.2)	2.2 (0.2)	3.0 (0.2)	3.0 (0.2)
	_Age 20	0.3 (0.1)	0.3 (0.1)	0.4 (0.1)	0.8 (0.1)	0.9 (0.1)	0.8 (0.1)	0.9 (0.1)	1.4 (0.1)	1.4 (0.1)
	_Age 21	0.3 (0.1)	0.2 (0.0)	0.4 (0.1)	0.9 (0.1)	0.9 (0.1)	0.8 (0.1)	0.8 (0.1)	1.9 (0.2)	1.8 (0.2)
	Age 22-24	0.3 (0.0)	0.2 (0.0)	0.7 (0.1)	3.0 (0.1)	2.9 (0.1)	1.9 (0.2)	1.9 (0.2)	5.2 (0.3)	5.3 (0.3)
	Age 25-29	0.4 (0.0)	0.3 (0.1)	0.9 (0.1)	5.4 (0.2)	5.4 (0.2)	2.9 (0.2)	3.0 (0.2)	8.4 (0.3)	8.3 (0.3)
	Age 30-34	0.4 (0.1)	0.4(0.1)	0.6 (0.1)	5.4 (0.2)	5.4 (0.2)	3.8 (0.3)	3.8 (0.2)	8.2 (0.3)	8.1 (0.3)
	Age 35-39	0.4 (0.1)	0.4(0.1)	0.6(0.1)	5.1 (0.2)	5.1 (0.2)	4.8 (0.3)	4.9 (0.3)	6.9 (0.3)	6.9 (0.2)
A go	Age 40-44	0.5 (0.1)	0.5 (0.1)	0.8 (0.1)	5.9 (0.2)	5.8 (0.2)	6.5 (0.3)	6.4 (0.3)	7.2 (0.3)	7.1 (0.3)
Age	Age 45-49	0.6(0.1)	0.5 (0.1)	0.8 (0.1)	6.8 (0.2)	6.8 (0.2)	7.2 (0.3)	7.3 (0.3)	6.7 (0.3)	6.8 (0.3)
	Age 50-54	0.6(0.1)	0.9 (0.1)	0.7 (0.1)	8.0 (0.2)	8.0 (0.2)	8.1 (0.4)	8.3 (0.4)	6.6 (0.3)	6.6 (0.3)
	Age 55-59	0.6(0.1)	0.6(0.1)	0.6(0.1)	8.2 (0.2)	8.2 (0.2)	8.6 (0.4)	8.6 (0.4)	5.0 (0.2)	5.0 (0.2)
	Age 60-61	0.6(0.1)	0.5 (0.1)	0.3 (0.1)	3.4 (0.2)	3.5 (0.2)	3.3 (0.2)	3.2 (0.2)	1.5 (0.1)	1.5 (0.1)
	Age 62-64	0.6(0.1)	0.4(0.1)	0.3 (0.1)	5.2 (0.2)	5.1 (0.2)	4.8 (0.3)	4.8 (0.3)	2.0 (0.1)	2.0 (0.1)
	Age 65-66	0.5 (0.1)	0.4 (0.1)	0.3 (0.1)	3.2 (0.2)	3.3 (0.2)	2.8 (0.2)	2.8 (0.2)	1.1 (0.1)	1.2 (0.1)
	Age 67-69	0.4(0.1)	0.4(0.1)	0.2(0.0)	4.0 (0.1)	4.0 (0.1)	3.4 (0.3)	3.4 (0.3)	1.2 (0.1)	1.2 (0.1)
	_Age 70-74	0.4 (0.0)	0.2 (0.0)	0.2(0.0)	5.1 (0.2)	5.3 (0.2)	4.9 (0.3)	4.9 (0.3)	2.1 (0.2)	2.0 (0.2)
	Age 75-79	0.3 (0.0)	0.2 (0.0)	0.1 (0.0)	3.8 (0.2)	3.7 (0.2)	4.2 (0.3)	4.2 (0.3)	1.1 (0.1)	1.1 (0.1)
	Age 80-84	0.3 (0.1)	0.2 (0.0)	0.1 (0.0)	2.8 (0.1)	2.8 (0.2)	3.1 (0.2)	3.1 (0.2)	0.8 (0.1)	0.8 (0.1)
	Age 85 +	0.1 (0.0)	0.1 (0.0)	0.0(0.0)	2.3 (0.2)	2.4 (0.2)	2.7 (0.2)	2.8 (0.2)	0.9 (0.1)	0.9 (0.1)
	L-Fold (Aggregate)	0.4 (0.0)	0.4 (0.0)	0.5 (0.0)						
Age Range Estimate	Age Range 0-14	1.5 (1.3)	4.6 (3.2)	5.3 (2.6)	8.9 (3.8)	10.4 (4.2)	9.5 (4.0)	8.0 (4.8)	15.4 (5.8)	12.6 (4.0)
Hispanic Origin	Not Hispanic	0.9 (0.2)	1.1 (0.4)	2.5 (0.4)	91.8 (0.6)	91.8 (0.6)	86.3 (1.1)	86.2 (1.1)	75.8 (1.3)	74.7 (1.2)
Hispanic Origin	Mexican	0.7 (0.2)	0.8 (0.3)	2.3 (0.5)	5.2 (0.6)	5.2 (0.6)	10.1 (1.1)	10.0 (1.1)	15.3 (0.9)	16.5 (1.0)

Appendix C: GDR Estimates By ACS Data Collection Mode (Mail, CATI, or CAPI)

A a l a		Mad	CATI	CADI	Ma	ıil	CA	TI	CA	PI
Analysis Topic	Analysis category	Mail GDR	CATI GDR	CAPI GDR	ACS	CRS	ACS	CRS	ACS	CRS
		GDK	GDK	GDK	percent	percent	percent	percent	percent	percent
Hispanic Origin	Puerto Rican	0.1 (0.0)	0.1 (0.0)	0.5 (0.1)	0.9 (0.2)	0.9 (0.2)	0.7 (0.2)	0.7 (0.2)	1.6 (0.3)	1.9 (0.3)
Hispanic Origin	Cuban	0.1 (0.0)	0.0 (0.0)	0.1 (0.1)	0.5 (0.2)	0.6 (0.2)	0.7 (0.2)	0.6 (0.2)	1.1 (0.3)	1.1 (0.3)
Hispanic Origin	Other Hispanic	0.7 (0.1)	0.8 (0.2)	2.3 (0.5)	1.9 (0.2)	1.8 (0.2)	2.4 (0.4)	2.6 (0.4)	6.5 (0.6)	6.4 (0.5)
Hispanic Origin	Hispanic Write-In Present	1.6 (0.3)	0.7 (0.2)	2.3 (0.5)	2.8 (0.4)	1.8 (0.2)	2.3 (0.4)	2.6 (0.4)	6.4 (0.6)	6.3 (0.5)
	Not Hispanic or Latino	0.8 (0.2)	1.0 (0.3)	2.3 (0.4)	91.9 (0.6)	91.8 (0.6)	86.3 (1.1)	86.3 (1.1)	76.1 (1.2)	74.8 (1.2)
	Mexican Alone	0.8 (0.2)	0.8 (0.3)	2.0 (0.4)	4.9 (0.6)	5.1 (0.6)	10.1 (1.1)	9.9 (1.1)	15.6 (1.0)	16.2 (1.0)
	Puerto Rican Alone	0.1 (0.0)	0.0(0.0)	0.4 (0.1)	0.8 (0.2)	0.8 (0.2)	0.7 (0.2)	0.6 (0.2)	1.4 (0.3)	1.8 (0.3)
Hispanic	Cuban Alone	0.1 (0.0)	0.0(0.0)	0.0(0.0)	0.4 (0.2)	0.5 (0.2)	0.6 (0.2)	0.6 (0.2)	1.1 (0.3)	1.1 (0.3)
Origin Aggregate	Other Hispanic or Latino (No Write-In, or One Write-In Alone)	0.6 (0.1)	0.8 (0.2)	1.2 (0.2)	1.5 (0.2)	1.5 (0.2)	2.1 (0.4)	2.4 (0.4)	5.3 (0.5)	5.5 (0.5)
	Multiple Responses (With At Least One Hispanic Response)	0.4 (0.1)	0.3 (0.1)	0.6 (0.2)	0.4 (0.1)	0.3 (0.1)	0.2 (0.1)	0.2 (0.1)	0.5 (0.2)	0.7 (0.2)
	L-Fold (Aggregate)	0.8 (0.2)	1.0 (0.3)	2.1 (0.3)						
Race	White	2.3 (0.3)	3.4 (0.5)	10.6 (0.8)	88.2 (0.7)	88.0 (0.7)	84.5 (1.2)	83.5 (1.3)	72.4 (1.3)	71.7 (1.3)
Race	Black	0.3 (0.1)	0.4 (0.2)	1.0 (0.2)	6.4 (0.6)	6.3 (0.6)	11.5 (1.2)	11.4 (1.1)	16.8 (1.1)	16.7 (1.1)
Race	American Indian or Alaska Native	1.2 (0.2)	1.1 (0.3)	2.8 (0.4)	1.1 (0.2)	1.6 (0.2)	1.9 (0.2)	2.3 (0.4)	2.1 (0.3)	3.3 (0.4)
Race	Asian Indian	0.3 (0.1)	0.1 (0.1)	0.3 (0.1)	1.2 (0.2)	1.2 (0.2)	1.1 (0.6)	1.2 (0.6)	1.2 (0.3)	1.3 (0.4)
Race	Chinese	0.1 (0.0)	0.1 (0.1)	0.3 (0.1)	1.3 (0.2)	1.3 (0.2)	0.6 (0.2)	0.6 (0.2)	0.6 (0.2)	0.5 (0.1)
Race	Filipino	0.2 (0.1)	0.0 (0.0)	0.1 (0.0)	1.1 (0.2)	1.0 (0.2)	0.6 (0.3)	0.6 (0.3)	1.0 (0.2)	1.0 (0.2)
Race	Japanese	0.1 (0.1)	0.0(0.0)	0.2 (0.1)	0.6 (0.1)	0.6 (0.1)	0.1 (0.0)	0.1 (0.0)	0.2 (0.1)	0.3 (0.1)
Race	Korean	0.0(0.0)	0.0(0.0)	0.0(0.0)	0.4 (0.1)	0.4 (0.1)	0.0(0.0)	0.0(0.0)	0.2 (0.1)	0.3 (0.1)
Race	Vietnamese	0.0(0.0)	0.2 (0.2)	0.0(0.0)	0.3 (0.1)	0.3 (0.1)	0.2 (0.1)	0.4 (0.2)	0.3 (0.1)	0.3 (0.1)
Race	Other Asian	0.4 (0.1)	0.1 (0.1)	0.6 (0.2)	0.7 (0.2)	0.4 (0.1)	0.3 (0.1)	0.3 (0.1)	0.8 (0.3)	0.8 (0.2)
Race	Native Hawaiian	0.0 (0.0)	0.1 (0.0)	0.0 (0.0)	0.2 (0.1)	0.2 (0.1)	0.0 (0.0)	0.0 (0.0)	0.1 (0.0)	0.1 (0.0)

Appendix C: GDR Estimates By ACS Data Collection Mode (Mail, CATI, or CAPI)

A a l aia		Mail	CATI	CADI	Ma	ıil	CA	TI	CA	PI
Analysis Topic	Analysis category	Mail GDR	CATI GDR	CAPI GDR	ACS	CRS	ACS	CRS	ACS	CRS
		GDK	GDK	GDK	percent	percent	percent	percent	percent	percent
Race	Guamanian or Chamorro, Samoan, or Other Pacific Islander	0.1 (0.0)	0.0 (0.0)	0.2 (0.1)	0.2 (0.1)	0.1 (0.1)	0.2 (0.1)	0.2 (0.1)	0.3 (0.1)	0.5 (0.2)
Race	Some Other Race	3.4 (0.4)	3.5 (0.5)	10.3 (0.9)	2.1 (0.3)	2.7 (0.4)	2.3 (0.4)	3.3 (0.6)	8.0 (0.7)	8.8 (0.9)
Race	Race Write-In 1 Present	1.3 (0.3)	0.9 (0.2)	1.9 (0.3)	1.3 (0.3)	1.2 (0.2)	1.5 (0.2)	1.9 (0.4)	1.6 (0.3)	2.2 (0.3)
Race	Race Write-In 2 Present	3.0 (0.4)	3.5 (0.5)	9.8 (0.8)	1.6 (0.2)	2.6 (0.4)	2.1 (0.4)	3.0 (0.6)	7.7 (0.7)	8.1 (0.9)
Race	Race Write-In 3 Present	1.3 (0.3)	0.2 (0.1)	0.7 (0.2)	1.5 (0.3)	0.4 (0.1)	0.5 (0.2)	0.6 (0.2)	0.9 (0.2)	1.2 (0.3)
	White Alone	3.7 (0.4)	4.3 (0.6)	11.5 (0.8)	85.6 (0.7)	85.0 (0.8)	82.0 (1.3)	80.5 (1.4)	69.4 (1.4)	68.0 (1.3)
	Black Alone	0.5 (0.1)	0.6 (0.2)	1.5 (0.3)	5.5 (0.5)	5.3 (0.5)	10.5 (1.1)	10.0 (1.0)	15.3 (1.0)	15.2 (1.0)
	American Indian or Alaska Native Alone	0.4 (0.1)	0.3 (0.1)	0.9 (0.2)	0.5 (0.1)	0.4 (0.1)	0.4 (0.1)	0.5 (0.1)	0.9 (0.2)	1.1 (0.2)
Race	Asian Alone	0.4 (0.1)	0.2 (0.1)	0.9 (0.2)	4.1 (0.4)	4.1 (0.3)	2.4 (0.7)	2.4 (0.7)	3.5 (0.5)	3.3 (0.5)
Aggregate	Native Hawaiian or Other Pacific Islander Alone	0.0 (0.0)	0.0 (0.0)	0.1 (0.0)	0.0 (0.0)	0.0 (0.0)	0.2 (0.1)	0.2 (0.1)	0.3 (0.1)	0.3 (0.1)
	Some Other Race Alone	1.9 (0.3)	2.9 (0.5)	8.8 (0.8)	1.1 (0.2)	1.5 (0.2)	1.7 (0.3)	2.9 (0.6)	6.7 (0.6)	6.9 (0.8)
	Multiple Races	2.9 (0.3)	2.2 (0.4)	5.4 (0.5)	3.1 (0.3)	3.7 (0.4)	2.9 (0.4)	3.5 (0.5)	3.9 (0.5)	5.2 (0.6)
	L-Fold (Aggregate)	3.3 (0.4)	3.6 (0.5)	8.9 (0.6)	_					

Appendix C: GDR Estimates By ACS Data Collection Mode (Mail, CATI, or CAPI)

		3.4.1	CATE	CADI	Ma	nil	CA	TI	CA	PI
Analysis Tonic	Analysis category	Mail GDR	CATI GDR	CAPI GDR	ACS	CRS	ACS	CRS	ACS	CRS
Topic		GDK	GDK	GDK	percent	percent	percent	percent	percent	percent
	Born in U.S., in State of Current	1.2 (0.2)	1.2 (0.3)	1.3 (0.2)	53.2 (0.9)	52.9 (0.9)	56.1 (1.3)	56.2 (1.3)	51.0 (1.2)	50.4 (1.2)
	Residence	1.2 (0.2)	1.2 (0.3)	1.5 (0.2)	33.2 (0.7)	32.7 (0.7)	30.1 (1.3)	30.2 (1.3)	31.0 (1.2)	30.4 (1.2)
	Born in U.S., Northeast Region,	0.4 (0.1)	0.2 (0.1)	0.3 (0.1)	8.6 (0.4)	8.7 (0.5)	7.6 (0.8)	7.6 (0.9)	5.3 (0.5)	5.4 (0.5)
	not State of Current Residence		0.2 (0.1)							
	Born in U.S., Midwest Region,	0.5 (0.2)	0.4 (0.1)	0.5 (0.2)	11.3 (0.7)	11.2 (0.6)	8.1 (0.6)	8.0 (0.6)	6.5 (0.5)	6.7 (0.6)
	not State of Current Residence						. ,			
	Born in U.S., South Region, not	0.5 (0.1)	1.0(0.2)	0.9 (0.2)	10.4 (0.6)	10.6 (0.6)	9.6 (0.8)	9.5 (0.8)	9.3 (0.7)	9.5 (0.7)
	State of Current Residence									
	Born in U.S., West Region, not State of Current Residence	0.3 (0.1)	0.5 (0.2)	0.8 (0.3)	5.2 (0.3)	5.3 (0.4)	4.3 (0.5)	4.3 (0.5)	5.6 (0.6)	5.6 (0.5)
	Puerto Rico and U.S. Island and									
	Outlying Areas	0.0(0.0)	0.0(0.0)	0.0(0.0)	0.4 (0.1)	0.4 (0.1)	0.2 (0.1)	0.2 (0.1)	0.7 (0.2)	0.7 (0.2)
	Mexico	0.0 (0.0)	0.1 (0.1)	0.1 (0.0)	1.9 (0.4)	1.9 (0.4)	6.3 (0.9)	6.4 (0.9)	9.1 (0.8)	9.2 (0.8)
	El Salvador	0.0 (0.0)	0.0 (0.0)	0.1 (0.1)	0.1 (0.0)	0.1 (0.0)	0.2 (0.1)	0.2 (0.1)	0.6 (0.1)	0.7 (0.2)
Place of Birth	Cuba	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.3 (0.1)	0.3 (0.1)	0.5 (0.2)	0.5 (0.2)	0.8 (0.2)	0.8 (0.2)
Thee of Birth	Dominican Republic	0.0 (0.0)	0.0 (0.0)	0.1 (0.1)	0.1 (0.1)	0.1 (0.1)	0.1 (0.0)	0.1 (0.1)	0.6 (0.2)	0.5 (0.2)
	Guatemala	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.1 (0.0)	0.1 (0.0)	0.3 (0.2)	0.3 (0.2)	0.8 (0.2)	0.8 (0.2)
	All Other Latin America	0.0 (0.0)	0.0 (0.0)	0.2 (0.1)	1.3 (0.3)	1.3 (0.3)	1.8 (0.4)	1.7 (0.4)	3.2 (0.7)	3.3 (0.7)
	Northern America	0.0 (0.0)	0.1 (0.1)	0.1 (0.0)	0.3 (0.0)	0.3 (0.0)	0.3 (0.1)	0.3 (0.1)	0.3 (0.1)	0.3 (0.1)
	China	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.8 (0.2)	0.8 (0.2)	0.0 (0.0)	0.0 (0.0)	0.5 (0.2)	0.4 (0.2)
	India	0.0 (0.0)	0.0 (0.0)	0.1 (0.1)	0.9 (0.1)	0.9 (0.1)	0.6 (0.3)	0.6 (0.3)	0.8 (0.2)	0.8 (0.3)
	Philippines	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.8 (0.2)	0.8 (0.2)	0.5 (0.3)	0.5 (0.3)	0.5 (0.2)	0.5 (0.2)
	Vietnam	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.3 (0.1)	0.3 (0.1)	0.1 (0.1)	0.1 (0.1)	0.2 (0.1)	0.2 (0.1)
	Korea	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.2 (0.0)	0.2 (0.0)	0.1 (0.0)	0.1 (0.0)	0.1 (0.0)	0.1 (0.0)
	All Other Asia	0.1 (0.1)	0.0(0.0)	0.1 (0.1)	1.2 (0.2)	1.1 (0.2)	0.9 (0.3)	0.9 (0.3)	1.7 (0.4)	1.7 (0.4)
	Europe	0.1 (0.0)	0.1 (0.0)	0.1 (0.0)	2.2 (0.2)	2.2 (0.2)	1.9 (0.4)	1.9 (0.4)	1.8 (0.3)	1.9 (0.3)
	Africa	0.0(0.0)	0.0(0.0)	0.0(0.0)	0.4 (0.1)	0.4 (0.1)	0.3 (0.1)	0.3 (0.1)	0.5 (0.2)	0.5 (0.2)
	Oceania	0.0(0.0)	0.0(0.0)	0.1 (0.1)	0.1 (0.0)	0.1 (0.0)	0.2 (0.1)	0.2 (0.1)	0.1 (0.1)	0.2 (0.1)
	L-Fold (Aggregate)	0.8 (0.2)	0.8 (0.2)	0.9 (0.1)						

Appendix C: GDR Estimates By ACS Data Collection Mode (Mail, CATI, or CAPI)

A a lai-a		Mail	CATI	CADI	Ma	il	CA	TI	CA	PI
Analysis Tonio	Analysis category	Mail GDR	GDR	CAPI GDR	ACS	CRS	ACS	CRS	ACS	CRS
Торіс		GDK	GDK	GDK	percent	percent	percent	percent	percent	percent
Place of Birth United States or not	Born in the U.S. (Including Puerto Rico and Outlying Areas)	0.2 (0.1)	0.3 (0.1)	0.4 (0.1)	89.1 (0.7)	89.1 (0.7)	86.0 (1.0)	85.8 (1.0)	78.4 (1.3)	78.2 (1.3)
	Born Outside the U.S.: Americas	0.1 (0.1)	0.0(0.0)	0.3 (0.3)	37.6 (3.8)	37.5 (3.8)	67.1 (4.4)	67.2 (4.4)	71.4 (2.5)	71.1 (2.5)
Place of Birth	Born Outside the U.S.: Asia	0.1 (0.0)	0.0(0.3)	0.4 (0.3)	37.5 (3.0)	37.5 (3.0)	15.7 (3.5)	15.7 (3.5)	17.4 (2.1)	17.6 (2.1)
Outside United	Born Outside the U.S.: Europe	0.1 (0.1)	0.0(0.0)	0.1 (0.1)	20.4 (2.1)	20.4 (2.1)	13.3 (2.6)	13.2 (2.6)	8.4 (1.5)	8.5 (1.5)
States 1	Born Outside the U.S.: Africa	0.0(0.1)	0.0 (0.3)	0.0(0.0)	3.9 (1.3)	3.9 (1.3)	2.4 (1.1)	2.4 (1.1)	2.2 (0.7)	2.2 (0.7)
States 1	Born Outside the U.S.: Oceania	0.0(0.0)	0.0 (0.3)	0.0 (0.0)	0.6 (0.2)	0.7 (0.2)	1.5 (0.9)	1.5 (0.9)	0.6 (0.3)	0.6 (0.3)
	L-Fold (Aggregate)	0.1 (0.0)	0.0 (0.0)	0.3 (0.3)						
	Born Outside the U.S.: Northern America	0.1 (0.1)	0.0 (0.0)	0.0 (0.0)	2.9 (0.4)	2.9 (0.4)	2.1 (0.8)	2.1 (0.8)	1.2 (0.5)	1.2 (0.5)
Place of Birth	Born Outside the U.S.: Latin America	0.0 (0.0)	0.0 (0.3)	0.3 (0.3)	34.7 (3.8)	34.7 (3.8)	65.0 (4.3)	65.0 (4.3)	70.2 (2.6)	69.9 (2.6)
Outside United	Born Outside the U.S.: Asia	0.1 (0.0)	0.0 (0.3)	0.4 (0.3)	37.5 (3.0)	37.5 (3.0)	15.7 (3.5)	15.7 (3.5)	17.4 (2.1)	17.6 (2.1)
States 2	Born Outside the U.S.: Europe	0.1 (0.1)	0.0 (0.0)	0.1 (0.1)	20.4 (2.1)	20.4 (2.1)	13.3 (2.6)	13.2 (2.6)	8.4 (1.5)	8.5 (1.5)
	Born Outside the U.S.: Africa	0.0 (0.1)	0.0 (0.3)	0.0 (0.0)	3.9 (1.3)	3.9 (1.3)	2.4 (1.1)	2.4 (1.1)	2.2 (0.7)	2.2 (0.7)
	Born Outside the U.S.: Oceania	0.0 (0.0)	0.0 (0.3)	0.0 (0.0)	0.6 (0.2)	0.7 (0.2)	1.5 (0.9)	1.5 (0.9)	0.6 (0.3)	0.6 (0.3)
	L-Fold (Aggregate)	0.0 (0.0)	0.0 (0.0)	0.3 (0.3)						
	U.S. Citizen, Born in U.S.	0.3 (0.1)	0.3 (0.1)	0.4 (0.1)	89.2 (0.7)	89.0 (0.7)	86.1 (1.0)	86.0 (1.0)	78.4 (1.2)	78.3 (1.2)
	U.S. Citizen, Born in Puerto Rico or U.S. Outlying Areas	0.1 (0.0)	0.0 (0.0)	0.0 (0.0)	0.4 (0.1)	0.4 (0.1)	0.2 (0.1)	0.2 (0.1)	0.7 (0.2)	0.6 (0.2)
Citizenship Status	U.S. Citizen, Born Abroad of American Parent(S)	0.3 (0.1)	0.5 (0.2)	0.6 (0.1)	0.6 (0.1)	0.8 (0.2)	0.6 (0.2)	0.4 (0.1)	1.0 (0.2)	1.1 (0.2)
	U.S. Citizen By Naturalization	0.6 (0.2)	0.8 (0.3)	1.0 (0.2)	5.9 (0.5)	5.9 (0.5)	6.0 (0.7)	6.4 (0.7)	5.9 (0.5)	6.2 (0.5)
	Not A U.S. Citizen	0.2 (0.1)	0.4 (0.2)	0.8 (0.2)	3.9 (0.4)	3.9 (0.4)	7.1 (0.8)	7.1 (0.8)	14.0 (1.1)	13.8 (1.1)
	L-Fold (Aggregate)	0.3 (0.1)	0.3 (0.1)	0.5 (0.1)						

Appendix C: GDR Estimates By ACS Data Collection Mode (Mail, CATI, or CAPI)

Amalyzaia		Mail	CATI	CAPI	Ma	il	CA	TI	CA	PI
Analysis Topic	Analysis category	GDR	GDR	GDR	ACS	CRS	ACS	CRS	ACS	CRS
		GDK	GDK	GDK	percent	percent	percent	percent	percent	percent
	Naturalized 2005 or Later	1.6 (0.6)	2.1 (1.1)	4.1 (2.6)	31.8 (5.2)	31.3 (5.1)	29.3 (7.9)	27.6 (7.9)	35.4 (4.9)	36.6 (5.1)
	Naturalized 2000 to 2004	2.8 (0.8)	4.0 (2.4)	11.3 (4.2)	12.9 (3.2)	14.0 (3.1)	16.8 (4.9)	16.0 (4.6)	12.3 (4.2)	12.9 (3.1)
	Naturalized 1995 to 1999	4.8 (1.6)	8.7 (4.3)	14.5 (4.5)	14.7 (2.3)	12.1 (2.0)	22.2 (5.1)	19.3 (5.2)	16.9 (4.2)	17.1 (4.7)
Year of	Naturalized 1990 to 1994	2.4 (0.7)	13.4 (5.0)	9.2 (3.2)	9.7 (3.9)	9.9 (3.9)	10.3 (4.1)	15.4 (5.4)	11.9 (3.6)	11.9 (4.0)
Naturalization	Naturalized 1985 to 1989	5.1 (1.7)	1.9 (1.1)	4.7 (1.8)	7.6 (1.6)	8.3 (2.1)	6.7 (4.8)	7.1 (4.8)	6.6 (1.7)	6.3 (2.1)
	Naturalized 1980 to 1984	3.9 (1.2)	2.4 (1.3)	5.5 (2.0)	6.0 (1.4)	4.7 (1.0)	2.5 (1.3)	3.7 (1.3)	9.4 (3.0)	6.5 (2.5)
	Naturalized Before 1980	4.0 (1.4)	2.7 (1.6)	2.5 (1.4)	17.4 (3.3)	19.7 (3.5)	12.3 (2.8)	10.8 (2.5)	7.5 (2.6)	8.6 (2.7)
	L-Fold (Aggregate)	3.2 (0.6)	5.7 (2.4)	7.9 (2.0)						
	Entered 2005 or Later	1.3 (0.4)	1.8 (1.4)	2.4 (0.7)	16.9 (2.4)	16.8 (2.3)	7.6 (2.2)	6.5 (1.8)	19.0 (2.3)	18.0 (2.3)
	Entered 2000 to 2004	2.7 (1.6)	3.1 (1.6)	3.3 (0.9)	12.6 (2.1)	13.8 (2.5)	13.2 (3.1)	13.5 (3.1)	15.3 (2.1)	17.2 (2.2)
	Entered 1995 to 1999	1.9 (0.5)	2.4 (1.2)	6.1 (1.3)	11.9 (1.8)	13.1 (1.8)	13.5 (3.0)	14.3 (3.0)	18.1 (2.1)	16.4 (2.1)
Year of Entry	Entered 1990 to 1994	2.2 (0.5)	3.4 (1.1)	3.4 (0.9)	7.8 (1.4)	7.4 (1.4)	18.7 (4.3)	20.2 (4.3)	11.4 (1.8)	11.3 (1.7)
rear or Entry	Entered 1985 to 1989	2.3 (0.6)	3.9 (1.3)	5.6 (1.2)	13.2 (2.8)	12.5 (2.7)	9.9 (2.1)	10.3 (2.3)	11.3 (1.8)	10.8 (1.7)
	Entered 1980 to 1984	2.6 (1.4)	3.1 (1.1)	3.7 (0.9)	8.2 (1.7)	7.2 (1.3)	12.2 (2.7)	10.1 (2.6)	9.3 (1.6)	8.5 (1.6)
	Entered Before 1980	0.6 (0.2)	1.9 (0.7)	3.0 (0.9)	29.3 (2.7)	29.1 (2.6)	24.9 (3.4)	25.2 (3.5)	15.5 (1.9)	17.7 (2.0)
	L-Fold (Aggregate)	1.7 (0.4)	2.8 (0.6)	3.9 (0.6)						
	Enrolled in Public School	2.4 (0.3)	1.4 (0.2)	4.6 (0.5)	9.1 (0.4)	8.6 (0.3)	10.3 (0.9)	10.2 (0.9)	19.3 (0.9)	18.3 (0.9)
School	Enrolled in Private School	1.0 (0.1)	1.0 (0.3)	1.9 (0.3)	2.4 (0.3)	2.3 (0.3)	2.5 (0.4)	2.2 (0.4)	2.5 (0.3)	2.7 (0.3)
Attendance	Not Enrolled in School	2.3 (0.3)	1.4 (0.3)	3.9 (0.5)	88.5 (0.5)	89.1 (0.4)	87.2 (1.0)	87.6 (1.0)	78.3 (1.0)	79.0 (0.9)
	L-Fold (Aggregate)	2.3 (0.3)	1.3 (0.2)	4.0 (0.4)						

Appendix C: GDR Estimates By ACS Data Collection Mode (Mail, CATI, or CAPI)

Amalrosia		Mail	CATI	CAPI	Ma	il	CA	TI	CA	PI
Analysis Topic	Analysis category	GDR	GDR	GDR	ACS	CRS	ACS	CRS	ACS	CRS
Topic		GDK	GDK	GDK	percent	percent	percent	percent	percent	percent
	Enrolled in Nursery School, Preschool	0.7 (0.3)	1.6 (0.9)	0.5 (0.3)	4.1 (0.7)	3.4 (0.5)	4.8 (1.6)	4.1 (1.5)	3.9 (1.0)	3.9 (1.0)
	Enrolled in Kindergarten	3.6 (1.7)	1.1 (0.7)	0.7 (0.3)	5.9 (1.7)	3.8 (0.7)	3.2 (1.9)	3.0 (1.9)	6.0 (1.3)	6.2 (1.3)
	Enrolled in Grade 1	4.2 (1.8)	0.1 (0.1)	0.3 (0.2)	2.5 (0.7)	5.4 (1.8)	4.6 (1.7)	4.7 (1.7)	2.6 (0.8)	2.3 (0.8)
	Enrolled in Grade 2	2.1 (0.8)	1.4 (0.9)	1.3 (0.6)	3.4 (0.9)	2.9 (0.5)	4.3 (1.6)	4.5 (1.7)	4.5 (1.2)	5.5 (1.3)
	Enrolled in Grade 3	1.4 (0.5)	1.8 (1.0)	1.9 (1.0)	3.5 (0.7)	3.4 (0.8)	5.9 (1.8)	5.7 (1.8)	6.2 (1.4)	6.4 (1.5)
	Enrolled in Grade 4	1.6 (0.5)	1.0(0.7)	2.1 (0.9)	4.5 (0.9)	4.1 (0.9)	1.8 (0.7)	2.4 (1.0)	3.9 (1.1)	3.8 (1.0)
	Enrolled in Grade 5	2.9 (0.7)	0.4 (0.4)	2.8 (1.1)	5.5 (0.9)	4.6 (1.0)	3.3 (1.5)	3.0 (1.4)	5.2 (1.2)	2.8 (0.8)
School Grade	Enrolled in Grade 6	3.0 (0.9)	0.5 (0.4)	2.8 (1.2)	4.6 (1.1)	5.0 (1.0)	6.1 (2.3)	6.5 (2.2)	4.5 (0.9)	5.7 (1.3)
Level	Enrolled in Grade 7	2.1 (0.8)	1.5 (1.2)	1.8 (0.7)	3.4 (1.0)	4.1 (1.2)	9.8 (3.9)	9.6 (4.0)	4.6 (1.1)	4.9 (1.2)
Level	Enrolled in Grade 8	1.8 (0.6)	3.7 (1.9)	1.6 (0.6)	4.6 (0.8)	4.7 (0.7)	7.5 (2.3)	7.5 (2.0)	3.4 (1.1)	3.6 (1.1)
	Enrolled in Grade 9	2.1 (0.7)	2.8 (1.5)	1.2 (0.6)	4.2 (1.1)	3.6 (1.0)	4.4 (2.0)	5.3 (2.2)	4.6 (1.2)	5.1 (1.3)
	Enrolled in Grade 10	2.0 (0.6)	1.0(0.7)	1.5 (0.8)	5.0 (1.2)	5.3 (1.3)	4.6 (1.6)	4.3 (1.6)	6.9 (1.4)	6.1 (1.3)
	Enrolled in Grade 11	2.0 (0.5)	0.6(0.4)	1.8 (0.9)	4.3 (0.7)	4.1 (0.7)	8.0 (2.1)	7.7 (2.0)	5.1 (1.2)	6.1 (1.4)
	Enrolled in Grade 12	1.6 (0.5)	3.1 (1.9)	1.5 (0.6)	2.8 (0.6)	3.8 (0.8)	4.9 (2.3)	2.7 (0.9)	5.7 (1.1)	5.7 (1.3)
	Enrolled in College, Undergraduate Years	2.6 (0.5)	5.0 (2.1)	2.8 (0.8)	28.9 (2.5)	29.4 (2.5)	22.8 (3.8)	24.6 (3.8)	27.9 (2.6)	26.4 (2.5)
	Graduate or Professional School	2.1 (0.4)	1.9 (0.7)	1.0 (0.4)	12.7 (1.4)	12.4 (1.4)	4.0 (1.1)	4.4 (1.1)	5.1 (0.9)	5.5 (0.9)
	L-Fold (Aggregate)	2.4 (0.3)	2.4 (0.8)	1.9 (0.3)						

Appendix C: GDR Estimates By ACS Data Collection Mode (Mail, CATI, or CAPI)

A 1		Mail	CATT	CADI	Ma	il	CA	TI	CA	PI
Analysis Topic	Analysis category	Mall GDR	CATI GDR	CAPI GDR	ACS	CRS	ACS	CRS	ACS	CRS
Торіс		GDK	GDK	GDK	percent	percent	percent	percent	percent	percent
	No Schooling Completed	1.9 (0.3)	0.5 (0.2)	1.0 (0.2)	2.1 (0.3)	0.7 (0.1)	1.4 (0.4)	1.2 (0.4)	2.5 (0.4)	2.3 (0.3)
	Nursery School	0.3 (0.1)	0.3 (0.1)	0.8(0.2)	0.5 (0.1)	0.5 (0.1)	0.5 (0.3)	0.6(0.3)	1.2 (0.2)	1.3 (0.3)
	Kindergarten	0.3 (0.1)	0.0(0.0)	0.3 (0.1)	0.6(0.2)	0.7 (0.2)	0.6(0.2)	0.6 (0.2)	0.5 (0.1)	0.6 (0.2)
	1st Grade	0.1(0.1)	0.2(0.1)	0.3 (0.1)	0.3 (0.1)	0.3 (0.1)	0.5 (0.2)	0.6 (0.2)	0.8 (0.2)	1.0 (0.3)
	2nd Grade	0.1 (0.0)	0.3 (0.1)	0.6(0.2)	0.4(0.1)	0.4 (0.1)	0.7 (0.2)	0.7 (0.2)	1.5 (0.3)	1.4 (0.3)
	3rd Grade	0.5 (0.2)	0.5 (0.2)	0.5 (0.2)	0.5 (0.1)	0.8 (0.3)	0.6(0.2)	0.9 (0.3)	1.2 (0.3)	1.1 (0.3)
	4th Grade	0.6(0.3)	0.5(0.2)	0.6(0.1)	0.9(0.3)	0.6(0.1)	0.9(0.3)	0.5(0.2)	1.2 (0.2)	1.1 (0.2)
	5th Grade	0.4(0.1)	0.5 (0.1)	0.9(0.2)	0.6 (0.1)	0.6(0.1)	1.5 (0.5)	1.5 (0.5)	1.7 (0.3)	1.4 (0.3)
	6th Grade	0.5 (0.1)	0.9(0.3)	1.5 (0.3)	1.0 (0.2)	0.9 (0.2)	3.1 (0.6)	3.5 (0.7)	3.0 (0.4)	3.0 (0.4)
	7th Grade	0.5 (0.1)	1.0(0.3)	0.9(0.2)	0.6 (0.1)	0.8(0.1)	1.5 (0.3)	1.5 (0.3)	1.2 (0.2)	1.5 (0.3)
	8th Grade	1.0 (0.3)	1.8 (0.4)	1.3 (0.3)	1.1 (0.2)	1.4 (0.3)	2.2 (0.3)	2.3 (0.4)	2.6 (0.4)	2.3 (0.4)
	9th Grade	1.0 (0.3)	1.7 (0.3)	2.1 (0.4)	1.4 (0.2)	1.7 (0.3)	2.6 (0.4)	2.6 (0.4)	3.7 (0.5)	3.8 (0.4)
Educational	10th Grade	1.3 (0.1)	1.5 (0.2)	1.7 (0.3)	1.6 (0.2)	1.8 (0.2)	3.1 (0.4)	2.9 (0.4)	2.9 (0.3)	2.9 (0.4)
Attainment	11th Grade	1.8 (0.3)	1.3 (0.2)	1.8 (0.3)	2.1 (0.4)	2.3 (0.3)	3.0 (0.5)	3.1 (0.4)	3.5 (0.3)	3.9 (0.4)
	12th Grade, No Diploma	1.5 (0.2)	1.0 (0.2)	0.9 (0.2)	1.3 (0.2)	0.6 (0.1)	0.8 (0.2)	0.5 (0.1)	0.7 (0.2)	0.6 (0.1)
	Regular High School Diploma	7.0 (0.5)	6.6 (0.5)	8.4 (0.5)	20.5 (0.7)	22.0 (0.8)	25.1 (1.3)	25.0 (1.4)	21.5 (1.0)	21.0 (1.0)
	Ged, or Alternative Credential	2.1 (0.3)	2.1 (0.4)	1.8 (0.2)	3.9 (0.4)	2.7 (0.2)	2.8 (0.4)	3.0 (0.4)	2.7 (0.4)	3.3 (0.4)
	Some College, Less than 1 Year	7.0 (0.5)	5.0 (0.5)	5.3 (0.6)	7.5 (0.6)	4.6 (0.3)	4.4 (0.5)	4.4 (0.5)	3.5 (0.4)	4.9 (0.5)
	Some College, 1 or More Years, No Degree	8.4 (0.7)	6.8 (0.6)	9.0 (0.7)	12.2 (0.5)	14.9 (0.6)	13.7 (1.0)	13.5 (1.0)	18.1 (0.9)	16.8 (0.8)
	Associate's Degree	2.5 (0.2)	3.2 (0.5)	4.2 (0.4)	6.9 (0.4)	7.1 (0.4)	5.9 (0.5)	6.3 (0.6)	6.7 (0.6)	6.4 (0.6)
	Bachelor's Degree	1.9 (0.2)	2.4 (0.4)	3.6 (0.4)	21.0 (0.7)	21.5 (0.6)	15.4 (1.0)	15.2 (0.9)	12.0 (0.6)	12.4 (0.6)
	Master's Degree	1.7 (0.3)	1.0 (0.2)	1.3 (0.3)	8.3 (0.4)	9.0 (0.4)	7.0 (0.6)	7.2 (0.6)	5.0 (0.8)	5.1 (0.8)
	Professional School Degree	1.7 (0.3)	1.1 (0.3)	1.1 (0.2)	3.0 (0.3)	1.8 (0.3)	1.4 (0.3)	0.9 (0.2)	1.4 (0.3)	0.9 (0.2)
	Doctorate Degree	0.9 (0.2)	0.8 (0.2)	0.6 (0.1)	1.7 (0.2)	2.2 (0.2)	1.2 (0.3)	1.4 (0.3)	0.6 (0.1)	0.9 (0.2)
	L-Fold (Aggregate)	4.2 (0.2)	3.8 (0.2)	4.8 (0.2)	-			-	-	

Appendix C: GDR Estimates By ACS Data Collection Mode (Mail, CATI, or CAPI)

Analysis		Mail	CATI	CAPI	Ma	ıil	CA	TI	CA	PI
Analysis Topic	Analysis category	GDR	GDR	GDR	ACS	CRS	ACS	CRS	ACS	CRS
Торіс		GDK	GDK	GDK	percent	percent	percent	percent	percent	percent
	Computers, Mathematics, and Statistics	1.5 (0.5)	1.3 (0.5)	1.8 (0.7)	4.6 (0.4)	5.1 (0.7)	5.1 (1.1)	5.9 (1.1)	5.7 (1.3)	6.0 (1.3)
	Biological, Agricultural, and Environmental Sciences	1.2 (0.2)	1.0 (0.4)	1.4 (0.4)	7.0 (0.4)	6.8 (0.5)	4.9 (1.0)	4.8 (1.0)	5.4 (0.8)	5.4 (0.8)
	Physical and Related Sciences	2.2 (0.2)	3.3 (0.9)	2.6 (0.6)	3.8 (0.5)	5.1 (0.5)	5.5 (1.3)	3.8 (0.9)	2.7 (0.5)	2.8 (0.7)
	Psychology	1.0 (0.2)	1.6 (0.5)	1.1 (0.4)	5.8 (0.6)	5.4 (0.6)	4.7 (0.9)	5.6 (1.0)	5.2 (0.9)	5.1 (0.9)
	Social Sciences	2.8 (0.4)	2.3 (0.5)	3.5 (1.0)	10.6 (0.8)	9.5 (0.8)	8.9 (1.5)	9.3 (1.5)	8.0 (1.3)	10.1 (1.6)
Field of	Engineering	0.9 (0.2)	1.2(0.7)	1.9 (0.7)	7.3 (0.4)	7.2 (0.4)	7.5 (1.5)	8.5 (1.6)	6.3 (1.0)	6.5 (1.0)
Bachelor's	Multidisciplinary Studies	0.5 (0.1)	1.3 (0.5)	1.0 (0.4)	0.9 (0.2)	0.7 (0.2)	1.1 (0.4)	0.8 (0.4)	1.5 (0.8)	2.1 (0.8)
Degree	Science and Engineering Related	2.6 (0.3)	2.6 (0.6)	1.6 (0.4)	9.7 (0.7)	9.1 (0.7)	9.4 (1.5)	9.6 (1.5)	7.2 (1.3)	7.2 (1.3)
	Business	2.5 (0.2)	1.8 (0.6)	4.9 (0.9)	20.5 (0.9)	20.1 (0.9)	17.9 (1.8)	17.4 (1.9)	24.0 (2.3)	24.2 (2.4)
	Education	3.5 (0.4)	3.8 (0.9)	3.7 (1.1)	14.9 (0.7)	13.5 (0.7)	13.6 (1.6)	14.0 (1.8)	13.5 (1.5)	11.7 (1.3)
	Literature and Languages	1.5 (0.2)	1.5 (0.6)	2.2 (0.6)	4.8 (0.4)	5.4 (0.4)	4.9 (0.9)	5.2 (1.0)	3.9 (0.9)	4.4 (1.1)
	Liberal Arts and History	3.2 (0.4)	2.6 (0.7)	3.1 (0.7)	5.1 (0.4)	6.2 (0.4)	7.8 (1.4)	8.5 (1.4)	5.9 (1.1)	4.9 (1.0)
	Visual and Performing Arts	1.3 (0.3)	2.5 (0.6)	2.2 (0.8)	4.1 (0.4)	4.3 (0.4)	4.8 (0.9)	5.6 (1.1)	5.1 (0.9)	6.2 (1.3)
	Communications	0.9 (0.2)	1.6 (0.5)	0.8 (0.3)	4.3 (0.5)	4.3 (0.5)	4.6 (0.9)	3.5 (0.8)	4.2 (0.8)	4.2 (0.8)
	Other Bachelor Degree Field	1.6 (0.2)	2.7 (0.7)	2.2 (0.6)	5.2 (0.5)	4.9 (0.4)	5.5 (0.9)	5.2 (1.0)	7.2 (1.0)	6.3 (1.0)

Appendix C: GDR Estimates By ACS Data Collection Mode (Mail, CATI, or CAPI)

A 1		N.T 21	CATT	CADI	Ma	il	CA	TI	CA	PI
Analysis	Analysis category	Mail	CATI	CAPI	ACS	CRS	ACS	CRS	ACS	CRS
Topic		GDR	GDR	GDR	percent	percent	percent	percent	percent	percent
	American	8.3 (0.6)	4.7 (0.6)	5.6 (0.7)	8.6 (0.6)	3.4 (0.4)	3.6 (0.5)	3.0 (0.6)	5.4 (0.7)	2.2 (0.3)
	Arab	0.1 (0.0)	0.0 (0.0)	0.2 (0.1)	0.4 (0.1)	0.4 (0.1)	0.6 (0.2)	0.6 (0.2)	0.6 (0.2)	0.7 (0.2)
	British	1.0 (0.3)	0.5 (0.2)	0.2 (0.1)	0.8 (0.2)	0.7 (0.1)	0.4 (0.1)	0.3 (0.1)	0.2 (0.1)	0.3 (0.1)
	Czech	0.7 (0.1)	0.5 (0.1)	0.3 (0.1)	0.6 (0.1)	0.8 (0.1)	0.7 (0.3)	0.7 (0.3)	0.7 (0.2)	0.5 (0.2)
	Danish	0.5 (0.1)	0.2 (0.1)	0.1 (0.1)	1.0 (0.2)	1.1 (0.2)	0.6 (0.2)	0.6 (0.1)	0.5 (0.2)	0.4 (0.2)
	Dutch	1.4 (0.1)	1.7 (0.3)	1.1 (0.2)	2.5 (0.3)	2.7 (0.2)	2.1 (0.4)	1.8 (0.3)	1.0 (0.2)	1.4 (0.3)
	English	9.7 (0.6)	8.7 (0.8)	5.1 (0.5)	13.0 (0.5)	15.5 (0.8)	13.4 (1.1)	13.0 (0.9)	7.3 (0.6)	7.4 (0.7)
	European	2.3 (0.2)	1.4 (0.3)	1.1 (0.2)	1.7 (0.2)	1.7 (0.2)	0.7 (0.1)	1.3 (0.3)	0.6 (0.2)	0.7 (0.2)
	French (Except Basque)	3.9 (0.5)	2.9 (0.4)	2.4 (0.4)	3.9 (0.3)	5.4 (0.5)	3.9 (0.5)	5.3 (0.5)	3.2 (0.4)	3.4 (0.4)
	French Canadian	0.9 (0.1)	1.0 (0.3)	0.5 (0.1)	1.2 (0.2)	0.9 (0.1)	1.3 (0.4)	1.4 (0.4)	0.3 (0.1)	0.5 (0.1)
	German	10.0 (0.6)	6.1 (0.6)	6.5 (0.5)	22.5 (0.7)	25.5 (0.9)	21.6 (1.2)	21.5 (1.1)	13.9 (0.8)	14.7 (0.8)
	Greek	0.1 (0.0)	0.1 (0.1)	0.1 (0.1)	0.4 (0.1)	0.5 (0.1)	0.6 (0.3)	0.5 (0.3)	0.6 (0.1)	0.6 (0.2)
	Hungarian	0.4 (0.1)	0.2 (0.1)	0.4 (0.2)	0.9 (0.1)	1.0 (0.2)	0.3 (0.1)	0.3 (0.1)	0.2 (0.1)	0.5 (0.2)
	Irish	8.9 (0.5)	7.9 (0.6)	6.9 (0.6)	15.3 (0.8)	17.0 (0.7)	14.3 (0.9)	14.4 (0.8)	12.1 (0.9)	13.5 (0.8)
Amazaturi	Italian	1.7 (0.2)	1.0 (0.3)	2.1 (0.3)	7.6 (0.5)	7.5 (0.5)	6.7 (0.7)	6.5 (0.7)	4.7 (0.5)	5.1 (0.5)
Ancestry	Lithuanian	0.4 (0.2)	0.2 (0.2)	0.3 (0.2)	0.6 (0.2)	0.5 (0.1)	0.4 (0.2)	0.2 (0.1)	0.4 (0.2)	0.3 (0.1)
	Norwegian	1.2 (0.2)	0.8 (0.2)	0.5 (0.1)	1.9 (0.2)	2.1 (0.3)	2.6 (0.5)	2.6 (0.4)	1.4 (0.3)	1.3 (0.3)
	Polish	1.9 (0.2)	1.3 (0.3)	1.5 (0.3)	4.9 (0.4)	5.0 (0.4)	4.2 (0.6)	4.7 (0.7)	2.8 (0.5)	3.1 (0.6)
	Portuguese	0.1 (0.0)	0.1 (0.1)	0.1 (0.0)	0.4 (0.1)	0.4 (0.1)	0.4 (0.2)	0.4 (0.2)	0.6 (0.2)	0.6 (0.2)
	Russian	1.0 (0.2)	0.5 (0.2)	0.3 (0.1)	1.6 (0.2)	1.6 (0.2)	1.2 (0.3)	1.1 (0.3)	0.6 (0.2)	0.7 (0.2)
	Scotch-Irish	1.9 (0.2)	1.9 (0.3)	1.1 (0.2)	1.6 (0.2)	2.1 (0.2)	1.9 (0.4)	2.6 (0.4)	0.8 (0.2)	0.9 (0.2)
	Scottish	2.1 (0.2)	3.4 (0.6)	1.5 (0.3)	2.5 (0.2)	2.7 (0.2)	3.2 (0.6)	2.8 (0.4)	2.0 (0.4)	1.8 (0.3)
	Slovak	0.2 (0.0)	0.1 (0.1)	0.0 (0.0)	0.4 (0.1)	0.3 (0.1)	0.2 (0.1)	0.1 (0.1)	0.2 (0.1)	0.2 (0.1)
	Sub-Saharan African	0.3 (0.1)	0.7 (0.2)	1.3 (0.2)	0.5 (0.1)	0.5 (0.1)	0.9 (0.3)	0.4 (0.2)	1.0 (0.2)	0.8 (0.2)
	Swedish	1.3 (0.1)	0.7 (0.2)	0.8 (0.2)	2.1 (0.3)	2.0 (0.2)	2.1 (0.4)	2.1 (0.3)	1.3 (0.2)	1.4 (0.3)
	Swiss	0.3 (0.1)	0.4 (0.3)	0.2 (0.1)	0.5 (0.1)	0.6 (0.1)	0.6 (0.3)	0.4 (0.2)	0.2 (0.1)	0.2 (0.1)
	Ukrainian	0.3 (0.1)	0.0 (0.0)	0.0 (0.0)	0.4 (0.1)	0.4 (0.1)	0.1 (0.1)	0.1 (0.1)	0.3 (0.1)	0.4 (0.1)
	Welsh	1.3 (0.4)	0.9 (0.3)	0.4 (0.1)	1.3 (0.4)	0.9 (0.1)	0.9 (0.2)	1.1 (0.3)	0.7 (0.2)	0.7 (0.2)
	West Indian (Except Hispanic Groups)	0.5 (0.3)	0.3 (0.2)	0.8 (0.2)	0.6 (0.3)	0.8 (0.4)	0.9 (0.3)	0.7 (0.3)	1.5 (0.6)	1.4 (0.6)
	Other Groups	12.4 (0.7)	9.9 (0.9)	10.2 (0.8)	33.8 (1.0)	32.0 (1.1)	39.8 (1.7)	40.5 (1.9)	56.7 (1.3)	57.3 (1.3)

Appendix C: GDR Estimates By ACS Data Collection Mode (Mail, CATI, or CAPI)

A a lai-a		Mall	CATI	CADI	Ma	ıil	CA	TI	CA	PI
Analysis Topic	Analysis category	Mail GDR	CATI GDR	CAPI GDR	ACS	CRS	ACS	CRS	ACS	CRS
Topic		GDK	GDK	GDK	percent	percent	percent	percent	percent	percent
Language		-		,				_		
Other than										
English	Yes	3.9 (0.4)	2.6 (0.4)	5.2 (0.5)	13.8 (0.9)	12.6 (0.8)	18.1 (1.4)	17.9 (1.4)	27.1 (1.3)	27.8 (1.3)
Spoken At										
Home										

Appendix C: GDR Estimates By ACS Data Collection Mode (Mail, CATI, or CAPI)

A a level a		Mail	CATI	CAPI	Ma	il	CA	TI	CA	PI
Analysis Tonio	Analysis category	Man GDR	GDR	GDR	ACS	CRS	ACS	CRS	ACS	CRS
Торіс		GDK	GDK	GDK	percent	percent	percent	percent	percent	percent
	Spanish	1.5 (0.6)	0.6 (0.6)	0.2 (0.2)	47.3 (3.4)	47.2 (3.4)	70.2 (4.3)	69.6 (4.2)	78.7 (2.4)	78.6 (2.4)
	French	0.3 (0.1)	0.5(0.3)	0.6(0.4)	3.2 (0.9)	3.4 (0.9)	1.8 (0.8)	2.1 (0.8)	0.8(0.5)	1.3 (0.6)
	Italian	0.5(0.4)	0.0(0.3)	0.2(0.2)	1.4 (0.5)	1.8 (0.6)	0.8(0.4)	0.8(0.4)	0.3(0.2)	0.4 (0.2)
	Portuguese	0.1 (0.1)	0.1(0.1)	0.0(0.0)	1.4 (0.4)	1.4 (0.4)	0.4(0.2)	0.2 (0.1)	0.5 (0.4)	0.5 (0.4)
	German	0.5 (0.2)	0.8(0.8)	0.1 (0.1)	2.3 (0.6)	2.1 (0.6)	1.7 (0.6)	2.5 (1.0)	0.4 (0.2)	0.3 (0.2)
	Russian	0.1 (0.1)	0.0(0.3)	0.0(0.0)	1.7 (0.5)	1.8 (0.5)	0.0(0.3)	0.0(0.3)	0.7 (0.3)	0.7 (0.3)
	Polish, Serbo-Croatian, and Other Slavic	0.1 (0.1)	0.0 (0.3)	0.1 (0.1)	1.8 (0.4)	1.8 (0.4)	1.9 (1.1)	1.9 (1.1)	1.9 (1.0)	1.8 (1.0)
	Gujarati	0.2 (0.1)	0.0 (0.3)	0.4 (0.4)	1.7 (0.6)	1.6 (0.6)	3.3 (2.9)	3.3 (2.9)	0.8 (0.5)	1.2 (0.6)
	Hindi	1.4 (0.8)	0.0 (0.3)	0.3 (0.3)	2.7 (1.0)	1.5 (0.4)	1.0 (0.8)	1.0 (0.8)	0.7 (0.3)	0.4 (0.2)
	Urdu and Other Indic	1.1 (0.8)	0.1 (0.1)	0.7 (0.5)	2.4 (0.7)	3.5 (1.1)	0.5 (0.4)	0.5 (0.4)	2.1 (0.9)	1.9 (0.8)
	French Creole, Yiddish, Other W.									
Specific Language	Germanic, Scandinavian, Greek, Armenian, Persian, and Other	0.2 (0.1)	1.1 (0.8)	0.6 (0.4)	6.9 (2.3)	7.0 (2.3)	5.3 (2.1)	4.4 (2.0)	3.0 (0.9)	2.3 (0.8)
Spoken	Indo-European									
Брокен	Chinese	0.2(0.1)	0.0(0.3)	0.0(0.0)	7.1 (1.8)	7.3 (1.8)	1.6 (0.9)	1.6 (0.9)	2.0 (0.7)	2.0 (0.7)
	Korean	0.0(0.1)	0.0(0.3)	0.1 (0.1)	1.4 (0.4)	1.4 (0.4)	0.0(0.3)	0.0(0.3)	0.5 (0.2)	0.6 (0.3)
	Arabic	0.1 (0.1)	0.1(0.1)	0.3 (0.3)	1.5 (0.9)	1.6 (0.9)	2.4 (1.2)	2.3 (1.2)	2.1 (0.8)	1.8 (0.8)
	Vietnamese	0.1 (0.1)	0.0(0.3)	0.0(0.0)	2.7 (0.8)	2.7 (0.8)	0.9(0.6)	0.9(0.6)	1.0(0.5)	1.0 (0.5)
	Japanese, Mon-Khmer,									
	Cambodian, Hmong, thai,	0.3 (0.1)	0.0(0.3)	0.0(0.0)	4.9 (1.1)	4.8 (1.1)	3.4 (1.4)	3.4 (1.4)	1.8 (0.9)	1.8 (0.9)
	Laotian, and Other Asian									
	Tagalog and Other Pacific Island	0.2 (0.2)	0.3 (0.3)	0.0(0.0)	6.4 (2.2)	6.3 (2.2)	3.1 (1.8)	3.4 (1.8)	1.4 (0.7)	1.4 (0.7)
	African Languages	0.2 (0.1)	0.0 (0.3)	0.0(0.0)	2.1 (1.1)	2.1 (1.1)	0.8(0.6)	0.8 (0.6)	0.6(0.4)	0.6 (0.4)
	Navajo, Other Native American,									
	Hungarian, Hebrew, and All	0.9(0.3)	0.9(0.7)	0.4 (0.3)	0.9(0.3)	0.7(0.2)	1.0(0.5)	1.2 (0.7)	0.7(0.3)	1.1 (0.4)
	Others									
	L-Fold (Aggregate)	0.9 (0.3)	0.5 (0.4)	0.2 (0.1)						

Appendix C: GDR Estimates By ACS Data Collection Mode (Mail, CATI, or CAPI)

Amalwaia		Most	CATI	CADI	Ma	il	CA	TI	CA	PI
Analysis Topic	Analysis category	Mail GDR	CATI GDR	CAPI GDR	ACS	CRS	ACS	CRS	ACS	CRS
Topic		GDK			percent	percent	percent	percent	percent	percent
	Very Well	15.7 (2.1)	11.8 (2.1)	13.3 (1.4)	54.4 (2.8)	53.7 (2.9)	43.7 (4.0)	42.5 (3.9)	48.5 (2.2)	39.4 (2.4)
English	Well	18.4 (2.3)	16.0 (2.2)	22.4 (2.1)	26.6 (3.1)	29.1 (3.2)	18.2 (2.9)	22.0 (3.1)	18.9 (1.5)	24.0 (2.3)
Speaking	Not Well	9.6 (1.8)	11.2 (2.0)	18.9 (1.9)	15.5 (3.0)	11.7 (2.9)	22.6 (3.5)	19.2 (3.3)	20.2 (1.6)	20.7 (1.5)
Ability	Not At All	2.2 (0.8)	5.7 (1.2)	9.0 (1.3)	3.5 (1.4)	5.5 (1.7)	15.5 (2.9)	16.3 (2.9)	12.3 (1.5)	15.9 (1.9)
	L-Fold (Aggregate)	15.0 (1.7)	11.7 (1.6)	16.2 (1.2)						
	Same House 1 Year Ago	2.1 (0.2)	2.1 (0.4)	7.7 (0.8)	90.9 (0.5)	91.8 (0.5)	95.1 (0.6)	96.0 (0.5)	79.0 (1.1)	81.0 (1.0)
	Moved Within Same County	1.5 (0.2)	1.3 (0.3)	5.8 (0.7)	5.1 (0.4)	4.7 (0.4)	3.0 (0.5)	2.2 (0.4)	13.9 (1.0)	11.7 (0.8)
Geographical Mobility in	Moved from Different County Within State	0.6 (0.1)	0.5 (0.2)	1.6 (0.3)	1.9 (0.2)	1.8 (0.3)	1.0 (0.2)	1.1 (0.3)	3.6 (0.5)	3.5 (0.5)
Past Year	Moved from Different State	0.5 (0.1)	0.4(0.1)	1.2 (0.2)	1.7 (0.2)	1.5 (0.2)	0.7 (0.2)	0.5 (0.2)	2.9 (0.4)	3.0 (0.5)
	Moved from Outside U.S.	0.2 (0.0)	0.1 (0.1)	0.5 (0.2)	0.4 (0.1)	0.2 (0.0)	0.3 (0.2)	0.2 (0.2)	0.7 (0.2)	0.7 (0.2)
	L-Fold (Aggregate)	2.0 (0.2)	2.1 (0.4)	6.9 (0.7)						
Health Insurance	Yes, through employer	7.2 (0.4)	7.0 (0.6)	8.3 (0.7)	62.2 (1.0)	64.7 (1.1)	58.5 (1.4)	58.1 (1.3)	47.6 (1.5)	47.2 (1.4)
Health Insurance	Yes, purchased directly	12.5 (0.5)	12.0 (0.7)	9.3 (0.5)	14.1 (0.6)	17.3 (0.6)	17.7 (1.0)	16.9 (0.9)	7.8 (0.7)	11.1 (0.6)
Health Insurance	Yes, Medicare	2.4 (0.2)	3.2 (0.5)	3.0 (0.3)	22.7 (0.7)	23.8 (0.8)	24.9 (0.9)	25.3 (0.9)	9.4 (0.6)	10.3 (0.6)
Health Insurance	Yes, Medicaid	2.6 (0.3)	4.1 (0.5)	6.5 (0.6)	8.5 (0.6)	8.8 (0.7)	11.6 (1.1)	10.9 (1.1)	18.4 (1.0)	18.7 (1.0)
Health Insurance	Yes, Military	0.6 (0.1)	0.7 (0.3)	1.0 (0.2)	3.2 (0.2)	3.4 (0.3)	3.3 (0.6)	3.2 (0.5)	2.5 (0.4)	2.8 (0.4)
Health Insurance	Yes, Veterans Administration	1.5 (0.2)	1.7 (0.3)	1.1 (0.2)	2.8 (0.3)	3.6 (0.3)	3.5 (0.5)	3.3 (0.4)	1.8 (0.3)	2.2 (0.3)
Health Insurance	Yes, Indian Health Service	0.1 (0.1)	0.1 (0.1)	0.4 (0.1)	0.2 (0.1)	0.3 (0.1)	0.6 (0.2)	0.5 (0.2)	0.9 (0.2)	1.0 (0.2)

Appendix C: GDR Estimates By ACS Data Collection Mode (Mail, CATI, or CAPI)

A 1 ·		3.6 11	CATET	CADI	Ma	il	CA	TI	CA	PI
Analysis Topic	Analysis category	Mail GDR	CATI GDR	CAPI GDR	ACS percent	CRS percent	ACS percent	CRS percent	ACS percent	CRS percent
	With Private Health Insurance Coverage Only	3.8 (0.3)	4.7 (0.6)	6.6 (0.5)	60.8 (1.0)	59.6 (1.1)	54.3 (1.1)	53.7 (1.1)	49.2 (1.5)	47.2 (1.5)
Health Insurance	With Public Health Coverage Only	6.9 (0.6)	6.9 (0.5)	7.9 (0.7)	14.8 (0.7)	12.5 (0.8)	15.9 (1.1)	16.0 (0.9)	22.4 (1.2)	20.7 (1.0)
Aggregate	With Both Private and Public Health Coverage	8.0 (0.5)	7.2 (0.7)	4.9 (0.4)	15.5 (0.6)	18.8 (0.7)	18.2 (0.8)	17.8 (0.8)	5.5 (0.5)	7.4 (0.5)
	No Health Insurance Coverage	2.4 (0.3)	3.2 (0.4)	6.8 (0.6)	8.9 (0.7)	9.1 (0.7)	11.6 (0.9)	12.5 (0.9)	22.9 (1.2)	24.7 (1.2)
	L-Fold (Aggregate)	5.0 (0.3)	5.4 (0.4)	6.8 (0.4)						
Difficulty Hearing	Yes	3.4 (0.3)	3.2 (0.3)	3.1 (0.4)	4.3 (0.3)	5.2 (0.4)	5.8 (0.5)	5.3 (0.5)	2.9 (0.3)	3.3 (0.3)
Difficulty Vision	Yes	2.0 (0.3)	3.2 (0.4)	3.0 (0.3)	1.7 (0.2)	2.4 (0.4)	4.6 (0.5)	3.8 (0.5)	2.2 (0.2)	3.0 (0.3)
Difficulty Cognitive	Yes	3.2 (0.3)	4.4 (0.6)	4.8 (0.4)	4.2 (0.4)	4.6 (0.4)	6.9 (0.6)	6.4 (0.6)	3.9 (0.4)	5.3 (0.5)
Difficulty Ambulatory	Yes	4.7 (0.4)	5.5 (0.5)	4.9 (0.4)	7.4 (0.4)	8.9 (0.5)	12.1 (0.8)	11.0 (0.7)	6.1 (0.5)	7.0 (0.6)
Difficulty Self Care	Yes	2.3 (0.3)	2.8 (0.3)	2.1 (0.3)	2.4 (0.2)	3.2 (0.4)	4.8 (0.5)	4.1 (0.5)	1.9 (0.2)	2.3 (0.3)
Difficulty Independent Living	Yes	3.3 (0.4)	4.3 (0.4)	3.9 (0.4)	5.7 (0.5)	5.7 (0.5)	8.7 (0.7)	7.6 (0.7)	3.4 (0.4)	4.7 (0.4)
	Now Married	2.1 (0.5)	2.0 (0.6)	3.0 (0.5)	4.6 (0.6)	4.2 (0.6)	6.3 (1.3)	5.8 (1.3)	7.0 (1.0)	6.5 (0.9)
	Widowed	1.0 (0.2)	1.7 (0.4)	1.0 (0.2)	18.0 (0.7)	18.1 (0.7)	27.0 (1.5)	27.2 (1.6)	7.2 (0.6)	7.3 (0.6)
Marital Status	Divorced	2.7 (0.5)	3.2 (0.7)	4.0 (0.6)	29.5 (1.1)	29.8 (1.0)	25.6 (1.6)	25.5 (1.6)	22.6 (1.2)	23.3 (1.1)
Maritar Status	Separated	1.6 (0.3)	2.7 (0.7)	2.7 (0.5)	2.9 (0.4)	2.5 (0.3)	3.4 (0.6)	3.7 (0.8)	5.1 (0.6)	5.4 (0.6)
	Never Married	2.0 (0.6)	1.0 (0.3)	3.4 (0.6)	45.0 (1.1)	45.4 (1.1)	37.7 (2.1)	37.7 (2.1)	58.0 (1.4)	57.5 (1.4)
	L-Fold (Aggregate)	2.0 (0.4)	1.9 (0.3)	3.3 (0.4)						
Married in Past Year	Yes	2.1 (0.4)	0.2 (0.1)	1.6 (0.4)	3.7 (0.4)	1.8 (0.2)	0.8 (0.2)	0.9 (0.2)	4.0 (0.7)	4.6 (0.8)

Appendix C: GDR Estimates By ACS Data Collection Mode (Mail, CATI, or CAPI)

A 1		M-21	CATT	CARI	Ma	ıil	CA	TI	CA	PI
Analysis Tonio	Analysis category	Mail	CATI	CAPI	ACS	CRS	ACS	CRS	ACS	CRS
Торіс		GDR	GDR	GDR	percent	percent	percent	percent	percent	percent
Widowed in Past Year	Yes	0.5 (0.1)	0.8 (0.2)	0.7 (0.2)	0.9 (0.1)	0.8 (0.1)	1.2 (0.2)	1.2 (0.2)	1.0 (0.3)	0.8 (0.2)
Divorced in Past Year	Yes	0.4 (0.1)	0.2 (0.1)	2.0 (0.5)	1.0 (0.2)	0.9 (0.1)	0.5 (0.1)	0.2 (0.1)	2.5 (0.5)	1.8 (0.3)
	Once Married	1.2 (0.2)	1.9 (0.3)	5.4 (0.5)	74.4 (0.8)	74.4 (0.7)	73.7 (1.1)	74.2 (1.1)	74.0 (1.3)	72.3 (1.2)
Number of	Twice Married	1.8 (0.3)	2.5 (0.3)	6.1 (0.6)	19.6 (0.7)	19.5 (0.6)	21.2 (1.1)	20.4 (1.1)	21.1 (1.1)	22.1 (1.1)
Times Married	Married Three or More Times	0.8 (0.1)	0.9 (0.2)	1.6 (0.4)	6.0 (0.3)	6.0 (0.3)	5.1 (0.5)	5.4 (0.5)	4.9 (0.5)	5.6 (0.6)
	L-Fold (Aggregate)	1.3 (0.2)	1.9 (0.3)	5.3 (0.5)						
	Before 2000	0.7 (0.2)	1.5 (0.6)	2.4 (0.5)	77.0 (0.9)	77.0 (0.9)	81.6 (1.1)	80.7 (1.0)	61.0 (1.7)	60.3 (1.8)
	2000 to 2004	0.7 (0.1)	1.7 (0.5)	2.9 (0.5)	9.1 (0.5)	8.9 (0.5)	9.5 (1.0)	10.6 (1.0)	13.6 (1.2)	13.4 (1.3)
Year Last	2005 to 2009	0.6 (0.2)	1.4 (0.4)	3.1 (0.6)	9.5 (0.6)	9.7 (0.6)	6.7 (0.9)	6.5 (0.8)	15.9 (1.1)	16.1 (1.1)
Married	2010	0.2 (0.1)	0.6 (0.3)	1.6 (0.3)	2.2 (0.3)	2.1 (0.3)	0.9 (0.3)	1.0 (0.4)	3.9 (0.7)	4.1 (0.7)
Manneu	2011	0.1 (0.0)	0.2 (0.2)	1.2 (0.3)	1.6 (0.2)	1.7 (0.2)	1.2 (0.3)	1.1 (0.3)	4.0 (0.7)	4.5 (0.8)
	2012	0.1 (0.0)	0.0 (0.1)	0.3 (0.2)	0.6 (0.2)	0.6 (0.1)	0.2 (0.1)	0.2 (0.1)	1.7 (0.4)	1.6 (0.4)
	L-Fold (Aggregate)	0.7 (0.1)	1.5 (0.5)	2.5 (0.4)						
Birth in Past Year	Yes	1.8 (0.3)	0.5 (0.2)	1.1 (0.3)	6.0 (0.7)	5.1 (0.7)	2.1 (0.6)	2.5 (0.6)	5.6 (0.7)	5.2 (0.7)
Grandparents Living With Own Grandchildren	Yes	0.7 (0.2)	1.5 (0.4)	1.6 (0.3)	3.4 (0.6)	2.9 (0.6)	5.7 (0.9)	5.8 (0.9)	2.7 (0.4)	3.2 (0.5)
Grandparents Responsible for Grandchildren	Yes	15.2 (8.8)	14.8 (4.8)	17.4 (4.9)	44.4 (11.0)	57.8 (9.5)	45.2 (7.5)	48.0 (7.6)	54.6 (8.1)	59.9 (8.4)

Appendix C: GDR Estimates By ACS Data Collection Mode (Mail, CATI, or CAPI)

Amalwaia		Mail	CATI	CAPI	Ma	il	CA	TI	CA	PI
Analysis Topic	Analysis category	GDR	GDR	GDR	ACS	CRS	ACS	CRS	ACS	CRS
Topic		GDK	GDK	GDK	percent	percent	percent	percent	percent	percent
	Less than 1 Year	12.7 (6.3)	0.0 (2.9)	10.8 (5.2)	22.8 (12.1)	21.3	7.4 (5.5)	7.4 (5.5)	28.9 (14.8)	30.2
Grandparents		(****)	010 (=17)			(12.3)	(0.0)	(0.10)		(14.2)
Time	1 to 2 Years	26.3	3.1 (2.2)	20.5 (9.3)	19.3 (7.3)	32.0	19.3 (5.3)	22.4 (5.6)	26.7 (9.8)	10.4 (4.6)
Responsible	1 to 2 Tours	(11.8)	3.1 (2.2)	20.5 (7.5)	19.5 (7.5)	(11.8)	15.5 (5.5)	22.1 (3.0)	20.7 (7.0)	10.1 (1.0)
for	3 or 4 Years	3.8 (1.7)	15.4 (8.3)	7.2 (5.3)	13.2 (8.9)	15.8 (9.1)	41.0 (9.9)	25.6 (8.6)	6.0 (3.5)	13.2 (6.3)
Grandchildren	5 or More Years	15.9	15 2 (9 2)	162(60)	44.7 (12.7)	30.8	32.2 (7.8)	115 (97)	38.4 (13.0)	46.3
Grandellidiell	J OI MOTE TEATS	(11.2)	15.3 (8.3)	16.2 (6.9)	44.7 (12.7)	(10.0)	32.2 (7.8)	44.5 (8.7)	36.4 (13.0)	(12.4)
	L-Fold (Aggregate)	16.8 (8.5)	12.0 (6.7)	14.8 (5.6)		•				

Appendix C: GDR Estimates By ACS Data Collection Mode (Mail, CATI, or CAPI)

Analysis		Mail	CATI	CAPI	Ma	il	CA	TI	CA	PI
Analysis Topic	Analysis category	GDR	GDR	GDR	ACS	CRS	ACS	CRS	ACS	CRS
		GDK	GDK		percent	percent	percent	percent	percent	percent
	Now On Active Duty	0.2 (0.0)	0.1 (0.1)	0.3 (0.1)	0.5 (0.1)	0.3 (0.0)	0.2 (0.1)	0.2 (0.1)	0.7 (0.1)	0.6 (0.1)
	On Active Duty During the Last	0.5 (0.1)	0.9 (0.1)	0.5 (0.1)	0.1 (0.0)	0.5 (0.1)	0.5 (0.1)	0.4 (0.1)	0.2 (0.1)	0.3 (0.1)
	12 Months but not Now	0.3 (0.1)	0.9 (0.1)	0.5 (0.1)	0.1 (0.0)	0.5 (0.1)	0.5 (0.1)	0.4 (0.1)	0.2 (0.1)	0.3 (0.1)
Military	On Active Duty in the Past, but	1.6 (0.1)	2.0 (0.2)	1.5 (0.2)	11.1 (0.3)	11.0 (0.3)	10.3 (0.5)	10.4 (0.4)	6.8 (0.3)	6.6 (0.3)
Service	not in Last 12 Months	1.0 (0.1)	2.0 (0.2)	1.5 (0.2)	11.1 (0.5)	11.0 (0.3)	10.5 (0.5)	10.4 (0.4)	0.0 (0.3)	0.0 (0.3)
Scrvice	Training in Reserves or National	1.2 (0.1)	1.0 (0.2)	0.6 (0.1)	1.5 (0.1)	1.3 (0.1)	1.3 (0.2)	1.1 (0.1)	0.4 (0.1)	0.6 (0.1)
	Guard Only	1.2 (0.1)	1.0 (0.2)	0.0 (0.1)	1.5 (0.1)	1.5 (0.1)	1.5 (0.2)	1.1 (0.1)	0.4 (0.1)	0.0 (0.1)
	Never in the Military	1.0 (0.1)	0.7 (0.1)	0.8 (0.1)	86.7 (0.3)	87.0 (0.3)	87.7 (0.5)	87.9 (0.4)	91.9 (0.3)	91.9 (0.3)
	L-Fold (Aggregate)	1.1 (0.1)	0.9 (0.1)	0.8 (0.1)						

Appendix C: GDR Estimates By ACS Data Collection Mode (Mail, CATI, or CAPI)

A 1		N/L-21	CATT	CADI	Ma	il	CA	TI	CA	PI
Analysis Topic	Analysis category	Mail GDR	CATI GDR	CAPI GDR	ACS	CRS	ACS	CRS	ACS	CRS
Торіс		GDK	GDK	GDK	percent	percent	percent	percent	percent	percent
	Between Gulf War I and Vietnam	2.8 (0.4)	3.6 (0.7)	6.8 (1.4)	9.1 (0.8)	8.8 (0.7)	7.4 (1.4)	7.6 (1.4)	18.3 (2.1)	16.1 (2.1)
	Era Only	2.0 (0.4)	3.0 (0.7)	0.0 (1.4)	7.1 (0.0)	0.0 (0.7)	7.4 (1.4)	7.0 (1.4)	10.5 (2.1)	10.1 (2.1)
	Between Korean War and World	0.6 (0.1)	0.3 (0.2)	0.2 (0.2)	0.5 (0.1)	0.5 (0.1)	0.4 (0.3)	0.5 (0.3)	0.6 (0.6)	0.8 (0.6)
	War II Only	0.0 (0.1)	0.5 (0.2)	0.2 (0.2)	0.5 (0.1)	0.5 (0.1)	0.1 (0.3)	0.5 (0.5)	0.0 (0.0)	
	Between Vietnam Era and Korean	4.8 (0.6)	3.6 (0.8)	2.0 (0.6)	13.3 (0.9)	11.2 (0.7)	9.3 (1.2)	9.2 (1.3)	5.8 (0.9)	5.8 (0.9)
	War Only	· · · ·							<u> </u>	
	Gulf War I and Vietnam Era	1.3 (0.4)	1.1 (0.3)	1.1 (0.5)	1.3 (0.2)	1.9 (0.4)	1.7 (0.5)	2.0 (0.5)	1.0 (0.5)	0.9 (0.5)
	Gulf War I, No Vietnam Era	2.1 (0.3)	3.7 (1.1)	6.2 (1.4)	7.5 (0.9)	7.8 (0.9)	8.7 (1.7)	7.6 (1.3)	15.7 (1.8)	15.5 (1.8)
	Gulf War II and Gulf War I, and	2.6 (0.4)	4.3 (1.3)	5.8 (1.3)	4.5 (0.5)	4.5 (0.5)	3.6 (1.1)	6.2 (1.5)	10.5 (2.1)	12.1 (2.0)
	Vietnam Era / or No Vietnam Era				. ,	. ,			. ,	
Period of	Gulf War II, No Gulf War I, No	2.0(0.3)	2.0 (0.7)	5.4 (1.3)	5.2 (0.5)	4.5 (0.3)	3.8 (1.1)	2.7 (0.9)	15.6 (1.9)	15.7 (1.7)
	Vietnam Era Korean War and World War II,									
Military Service	No Vietnam Era	0.3 (0.2)	0.0(0.3)	0.2(0.2)	0.6(0.2)	0.5(0.1)	0.1 (0.1)	0.1(0.1)	0.3 (0.2)	0.1(0.1)
Scrvicc	Korean War, No Vietnam Era, No									
	World War II	1.8 (0.3)	2.1 (0.5)	2.6 (0.8)	12.8 (1.0)	13.2 (1.0)	13.2 (1.9)	13.5 (1.9)	4.9 (0.9)	3.3 (0.6)
	Pre-World War II Only or World									
	War II, No Korean War, No	0.6 (0.2)	0.2 (0.1)	0.8 (0.5)	6.6 (0.8)	6.6 (0.8)	10.1 (1.5)	10.1 (1.5)	4.1 (1.2)	4.6 (1.3)
	Vietnam Era	0.0 (0.2)	0.2 (0.1)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	10.1 (1.0)	10.1 (1.5)	(1.2)	1.0 (1.3)
	Vietnam Era and Korean War,									
	and World War II / or No World	0.7 (0.3)	0.9(0.4)	1.1 (0.5)	1.3 (0.3)	1.8 (0.4)	2.4 (0.7)	2.4 (0.7)	1.3 (0.6)	1.7 (0.7)
	War II	()	()	()	(/	, ,	(211)	(3.17)	()	(311)
	Vietnam Era, No Korean War, No	6.2 (0.0)	4.6.(0.0)	5 1 (1 1)	27.2 (1.1)	20.7 (1.1)	20.1 (2.2)	20.2 (2.4)	21.0 (2.0)	22.4 (2.0)
	World War II	6.2 (0.8)	4.6 (0.8)	5.1 (1.1)	37.3 (1.1)	38.7 (1.1)	39.1 (2.2)	38.2 (2.4)	21.8 (2.0)	23.4 (2.0)
	L-Fold (Aggregate)	3.8 (0.4)	3.3 (0.4)	5.1 (0.6)						
Service										
Connected	Yes	2.2 (0.4)	2.8 (0.6)	3.1 (0.7)	14.4 (0.9)	14.0 (0.9)	15.8 (1.4)	15.1 (1.4)	19.9 (1.9)	20.5 (2.0)
Disability	103	2.2 (0.4)	2.0 (0.0)	3.1 (0.7)	14.4 (0.9)	14.0 (0.9)	13.0 (1.4)	13.1 (1.4)	19.9 (1.9)	20.3 (2.0)
Status										

Appendix C: GDR Estimates By ACS Data Collection Mode (Mail, CATI, or CAPI)

A 1		N/L-21	CATT	CADI	Ma	il	CA	TI	CA	PI
Analysis Tonia	Analysis category	Mail GDR	CATI GDR	CAPI GDR	ACS	CRS	ACS	CRS	ACS	CRS
Торіс		GDK	GDK	GDK	percent	percent	percent	percent	percent	percent
	0 Percent	1.8 (1.0)	0.7 (0.5)	1.9 (1.9)	4.0 (1.3)	2.9 (0.8)	3.0 (2.0)	3.1 (2.0)	0.0 (0.4)	1.9 (1.9)
Service	10 or 20 Percent	5.1 (1.5)	4.1 (1.8)	6.7 (3.1)	40.3 (3.6)	36.3 (3.5)	24.8 (4.7)	24.8 (4.6)	38.6 (6.8)	34.2 (7.0)
Connected	30 or 40 Percent	7.0 (2.5)	0.2(0.2)	6.4 (3.1)	17.9 (2.3)	20.1 (2.8)	21.7 (4.6)	21.5 (4.6)	19.0 (4.5)	13.7 (3.4)
Disability	50 or 60 Percent	2.0 (0.7)	2.9 (2.8)	2.0 (1.6)	10.9 (2.1)	10.1 (2.0)	12.2 (3.8)	9.3 (2.6)	11.0 (3.1)	9.8 (2.5)
Level	70 Percent or Higher	2.9 (1.0)	6.4 (3.7)	6.3 (2.8)	22.1 (2.6)	23.2 (2.8)	28.8 (4.7)	31.7 (4.2)	21.7 (4.1)	25.2 (4.6)
Level	No Rating Reported	8.2 (2.2)	8.2 (3.1)	8.1 (3.4)	4.7 (2.1)	7.5 (1.8)	9.6 (3.3)	9.7 (3.5)	9.8 (4.0)	15.2 (5.3)
	L-Fold (Aggregate)	4.8 (1.1)	4.3 (1.8)	6.2 (1.9)						
Work Last Week	Yes	4.7 (0.3)	4.5 (0.4)	6.4 (0.5)	55.1 (0.9)	54.7 (0.8)	50.7 (1.2)	51.2 (1.2)	59.5 (1.1)	58.2 (1.1)
Any Work Last Week	Yes	1.7 (0.2)	1.5 (0.4)	1.6 (0.3)	1.3 (0.2)	0.7 (0.1)	0.8 (0.2)	0.8 (0.3)	0.2 (0.1)	1.4 (0.3)
	Worked in State of Residence, in County of Residence	4.1 (0.5)	3.9 (0.8)	5.3 (0.6)	70.0 (0.9)	69.9 (0.8)	73.2 (1.3)	74.0 (1.3)	73.5 (1.3)	72.5 (1.3)
Place of Work	Worked in State of Residence, Outside County of Residence	3.7 (0.5)	3.9 (0.8)	4.5 (0.5)	25.6 (0.8)	25.6 (0.8)	23.3 (1.3)	22.0 (1.4)	23.5 (1.4)	24.4 (1.4)
	Worked Outside State of Residence	1.0 (0.2)	1.4 (0.5)	1.1 (0.3)	4.4 (0.5)	4.4 (0.5)	3.5 (0.6)	4.0 (0.8)	3.0 (0.5)	3.1 (0.5)
	L-Fold (Aggregate)	3.9 (0.5)	3.8 (0.7)	5.0 (0.6)						
	Car, Truck, or Van	4.4 (0.4)	4.9 (0.8)	5.9 (0.7)	87.7 (0.7)	86.4 (0.7)	88.5 (1.1)	87.8 (1.1)	85.8 (0.8)	85.6 (0.9)
	Public Transportation	0.7 (0.1)	1.8 (0.5)	2.0 (0.4)	3.6 (0.3)	3.6 (0.3)	3.2 (0.7)	2.9 (0.7)	4.9 (0.6)	4.6 (0.5)
Commute	Taxicab, Motorcycle, Bicycle, or Other Method	1.6 (0.4)	1.2 (0.5)	2.2 (0.4)	1.8 (0.3)	1.4 (0.3)	1.4 (0.4)	1.2 (0.4)	1.9 (0.3)	1.7 (0.3)
Transportation	Walked	1.3 (0.3)	1.0 (0.3)	2.3 (0.4)	2.0 (0.2)	2.0 (0.3)	1.2 (0.3)	1.3 (0.4)	4.0 (0.5)	3.7 (0.5)
	Worked At Home	2.9 (0.3)	2.8 (0.5)	2.5 (0.4)	4.9 (0.4)	6.6 (0.4)	5.7 (0.7)	6.8 (0.8)	3.4 (0.5)	4.3 (0.6)
	L-Fold (Aggregate)	4.0 (0.4)	4.5 (0.7)	5.3 (0.6)						

Appendix C: GDR Estimates By ACS Data Collection Mode (Mail, CATI, or CAPI)

A a laia		Mall	CATI	CADI	Ma	ıil	CA	TI	CA	PI
Analysis Tania	Analysis category	Mail GDR	CATI GDR	CAPI GDR	ACS	CRS	ACS	CRS	ACS	CRS
Topic		GDK	GDK	GDK	percent	percent	percent	percent	percent	percent
	Drove Alone	5.7 (0.6)	6.0 (1.0)	7.6 (0.7)	91.0 (0.7)	93.1 (0.6)	89.7 (1.3)	90.5 (1.2)	89.1 (1.0)	85.8 (1.2)
Commute	2 Riders	4.8 (0.6)	5.9 (1.0)	7.5 (0.8)	6.4 (0.6)	5.0 (0.5)	8.7 (1.2)	7.6 (1.1)	8.7 (0.9)	10.5 (1.0)
Number of	3 Riders	1.6 (0.4)	1.6 (0.5)	1.9 (0.5)	1.4 (0.3)	1.3 (0.4)	0.9 (0.3)	0.9 (0.4)	1.3 (0.4)	2.4 (0.6)
Riders	4 Riders	0.6 (0.2)	0.3 (0.2)	0.8 (0.2)	0.6 (0.2)	0.2 (0.1)	0.2 (0.1)	0.5 (0.2)	0.8 (0.3)	0.9 (0.3)
Kidels	5 or More Riders	0.5 (0.3)	0.6(0.2)	0.4 (0.2)	0.7 (0.3)	0.4 (0.1)	0.5 (0.3)	0.5 (0.3)	0.1 (0.1)	0.4 (0.2)
	L-Fold (Aggregate)	5.5 (0.6)	5.9 (1.0)	7.4 (0.7)						
	12:00 A.M. to 4:59 A.M.	1.9 (0.3)	2.3 (0.6)	3.7 (0.6)	3.5 (0.4)	3.7 (0.4)	4.6 (0.7)	4.3 (0.7)	5.5 (0.7)	4.9 (0.7)
	5:00 A.M. to 6:59 A.M.	7.9 (0.6)	8.0 (1.1)	10.1 (0.7)	28.9 (1.0)	28.8 (0.9)	32.0 (1.6)	33.8 (1.7)	30.1 (1.3)	30.6 (1.4)
Commute	7:00 A.M. to 8:59 A.M.	9.7 (0.7)	9.2 (1.0)	12.0 (1.0)	49.7 (1.0)	49.5 (1.0)	44.8 (1.9)	43.3 (1.7)	41.0 (1.3)	42.3 (1.5)
Departure	9:00 A.M. to 11:59 A.M.	4.2 (0.4)	4.2 (0.6)	4.9 (0.5)	8.3 (0.6)	7.9 (0.5)	7.1 (0.8)	7.9 (0.9)	9.7 (1.0)	8.3 (0.9)
Time	12:00 P.M. to 3:59 P.M.	2.1 (0.3)	2.2 (0.5)	4.0 (0.5)	4.5 (0.3)	4.5 (0.4)	5.0 (0.8)	4.4 (0.8)	6.4 (0.8)	6.8 (0.7)
	4:00 P.M. to 11:59 P.M.	2.4 (0.5)	2.2 (0.6)	3.4 (0.5)	5.1 (0.5)	5.6 (0.6)	6.5 (0.9)	6.3 (0.9)	7.3 (0.8)	7.1 (0.9)
	L-Fold (Aggregate)	7.6 (0.5)	7.2 (0.7)	9.1 (0.6)						
	Less than 5 Minutes	4.3 (0.4)	2.6 (0.6)	3.3 (0.5)	4.3 (0.5)	3.9 (0.4)	4.6 (0.7)	4.2 (0.6)	3.9 (0.5)	4.2 (0.5)
	5 to 9 Minutes	9.6 (0.8)	7.0 (0.9)	9.4 (0.9)	10.3 (0.9)	12.0 (0.9)	11.0 (1.2)	11.4 (1.3)	11.3 (1.0)	9.4 (0.8)
	10 to 14 Minutes	12.6 (0.9)	11.5 (1.1)	12.2 (1.0)	14.0 (0.8)	14.5 (1.0)	12.4 (1.0)	13.3 (1.0)	14.1 (1.1)	14.9 (1.1)
	15 to 19 Minutes	14.0 (0.9)	12.4 (1.2)	15.0 (1.0)	14.4 (0.8)	14.7 (0.8)	17.4 (1.6)	17.1 (1.4)	15.3 (1.0)	17.3 (1.0)
	20 to 24 Minutes	15.4 (0.9)	14.1 (1.4)	14.5 (1.1)	15.2 (0.7)	14.2 (0.8)	15.5 (1.2)	15.3 (1.3)	13.7 (1.1)	13.9 (1.1)
Commute	25 to 29 Minutes	9.0 (0.7)	7.9 (0.9)	8.3 (0.8)	6.9 (0.7)	7.3 (0.7)	7.4 (1.0)	6.5 (0.9)	6.3 (0.7)	6.2 (0.6)
Minutes	30 to 34 Minutes	11.9 (0.6)	11.4 (1.3)	14.3 (1.2)	13.4 (0.7)	12.4 (0.6)	12.0 (1.3)	11.2 (1.0)	14.3 (1.1)	13.1 (1.0)
Millutes	35 to 39 Minutes	3.8 (0.5)	2.8 (0.5)	3.5 (0.5)	3.0 (0.5)	3.5 (0.4)	1.2 (0.4)	2.8 (0.5)	2.6 (0.5)	2.3 (0.3)
	40 to 44 Minutes	5.0 (0.4)	4.2 (0.7)	4.8 (0.5)	3.4 (0.3)	3.9 (0.4)	3.5 (0.5)	3.1 (0.6)	3.3 (0.5)	4.1 (0.6)
	45 to 59 Minutes	6.6 (0.5)	5.4 (1.0)	6.7 (0.7)	7.6 (0.5)	7.5 (0.5)	7.6 (1.0)	7.5 (1.1)	7.6 (0.8)	7.1 (0.6)
	60 to 89 Minutes	3.7 (0.4)	3.3 (0.7)	4.9 (0.6)	5.4 (0.5)	4.5 (0.4)	5.0 (0.8)	5.2 (0.8)	5.6 (0.6)	6.3 (0.7)
	90 or More Minutes	1.7 (0.2)	0.9 (0.2)	1.7 (0.3)	2.0 (0.2)	1.7 (0.2)	2.3 (0.5)	2.4 (0.5)	1.9 (0.3)	1.3 (0.3)
	L-Fold (Aggregate)	10.5 (0.3)	9.4 (0.5)	10.8 (0.4)						
Not Working Layoff	Yes	2.9 (0.5)	2.4 (0.6)	5.9 (0.9)	4.1 (0.6)	3.7 (0.7)	2.8 (0.6)	3.3 (0.5)	5.0 (0.9)	7.3 (1.1)
Not Working Absent	Yes	2.7 (0.5)	3.6 (0.8)	3.0 (0.8)	2.9 (0.5)	3.0 (0.3)	3.2 (0.7)	2.9 (0.6)	3.1 (0.7)	3.3 (0.6)

Appendix C: GDR Estimates By ACS Data Collection Mode (Mail, CATI, or CAPI)

A a l ai a		Mail	CATI	CADI	Ma	ıil	CA	TI	CA	PI
Analysis Topic	Analysis category	Mail GDR	GDR	CAPI GDR	ACS percent	CRS percent	ACS percent	CRS percent	ACS percent	CRS percent
Not Working Informed of Recall	Yes	18.5 (10.9)	5.4 (4.0)	29.4 (14.2)	14.0 (3.6)	23.7 (10.4)	9.0 (4.9)	5.4 (3.2)	21.4 (7.2)	41.1 (13.0)
Not Working Looking for Work	Yes	4.8 (0.7)	3.9 (0.6)	11.7 (1.1)	10.1 (0.7)	10.1 (0.9)	9.6 (1.0)	9.6 (0.9)	16.2 (1.3)	21.9 (1.5)
Not Working Available to Work	Yes	14.5 (4.0)	8.9 (3.3)	5.7 (1.9)	85.1 (4.1)	97.0 (0.9)	93.4 (2.6)	96.9 (1.9)	98.3 (1.0)	95.2 (1.8)
	Within the Past 12 Months	4.9 (0.5)	4.9 (0.9)	8.3 (1.0)	15.8 (0.8)	14.4 (0.8)	14.9 (1.2)	12.5 (0.9)	19.7 (1.3)	23.6 (1.4)
When Last	1-5 Years Ago	10.5 (0.7)	9.8 (1.1)	16.9 (1.2)	21.2 (0.8)	21.3 (0.9)	18.2 (1.3)	20.5 (1.5)	18.3 (1.0)	22.8 (1.3)
Worked	Over 5 Years Ago or Never Worked	8.5 (0.6)	8.2 (1.0)	19.1 (1.5)	63.1 (1.0)	64.3 (0.9)	67.0 (1.5)	67.0 (1.6)	62.1 (1.6)	53.5 (1.7)
	L-Fold (Aggregate)	8.4 (0.5)	8.1 (0.9)	16.3 (1.2)						
Worked 50 Weeks or More	Yes	11.5 (0.6)	12.0 (1.0)	14.4 (1.0)	75.8 (0.9)	77.4 (0.9)	78.4 (1.3)	79.1 (1.1)	77.0 (1.2)	74.4 (1.1)
	50 to 52 Weeks Worked During Past 12 Months	8.1 (2.0)	1.4 (0.8)	3.5 (1.1)	7.6 (2.0)	1.0 (0.2)	1.0 (0.7)	0.4 (0.4)	1.0 (0.6)	2.5 (0.9)
	48 to 49 Weeks Worked During Past 12 Months	8.3 (1.1)	6.7 (2.0)	6.3 (1.3)	6.8 (1.1)	4.4 (0.6)	6.2 (1.8)	4.5 (1.5)	5.9 (1.3)	2.1 (0.7)
Weeks	40 to 47 Weeks Worked During Past 12 Months	21.7 (1.9)	19.3 (2.7)	19.3 (2.4)	21.5 (1.3)	21.8 (2.0)	15.8 (3.1)	19.1 (3.3)	16.4 (2.2)	20.3 (2.6)
Worked	27 to 39 Weeks Worked During Past 12 Months	24.9 (2.2)	21.7 (3.6)	23.6 (2.6)	24.4 (1.8)	27.4 (2.1)	21.8 (3.8)	20.2 (2.8)	22.9 (2.4)	19.7 (1.9)
	14 to 26 Weeks Worked During Past 12 Months	21.4 (1.9)	20.2 (2.9)	29.1 (3.0)	17.3 (1.6)	24.7 (2.0)	27.0 (3.8)	22.8 (4.1)	27.1 (3.0)	27.2 (2.7)
	13 Weeks or Less Worked During Past 12 Months	14.9 (1.5)	17.3 (3.0)	20.2 (2.7)	22.4 (1.7)	20.7 (1.4)	28.3 (3.5)	32.9 (4.2)	26.7 (2.3)	28.1 (2.7)
	L-Fold (Aggregate)	19.5 (0.9)	18.6 (1.7)	22.2 (1.5)						

Appendix C: GDR Estimates By ACS Data Collection Mode (Mail, CATI, or CAPI)

		3.7.11	CATE	CADI	Ma	il	CA	TI	CA	PI
Analysis	Analysis category	Mail	CATI	CAPI	ACS	CRS	ACS	CRS	ACS	CRS
Topic		GDR	GDR	GDR	percent	percent	percent	percent	percent	percent
	Usually Worked 35 or More Hours Per Week	5.8 (0.5)	5.0 (0.6)	8.5 (0.7)	78.0 (0.7)	78.3 (0.8)	77.3 (1.4)	78.3 (1.4)	81.6 (1.0)	78.9 (1.1)
Usual Hours Worked Per	Usually Worked 15-34 Hours Per Week	7.8 (0.5)	7.4 (0.8)	9.2 (0.8)	16.8 (0.7)	17.0 (0.7)	18.6 (1.3)	17.0 (1.3)	15.3 (0.9)	17.2 (1.1)
Week	Usually Worked 1-14 Hours Per Week	3.4 (0.5)	3.4 (0.6)	2.7 (0.4)	5.2 (0.4)	4.7 (0.3)	4.1 (0.6)	4.7 (0.6)	3.1 (0.4)	3.9 (0.5)
	L-Fold (Aggregate)	6.0 (0.4)	5.4 (0.6)	8.4 (0.7)						
	Employee of A Private for-Profit Company or Business	13.0 (1.1)	13.3 (1.5)	13.4 (1.2)	58.1 (1.5)	59.1 (1.4)	53.5 (2.6)	57.9 (2.4)	68.4 (1.7)	67.6 (1.5)
	Employee of A Private not-For- Profit Organization	6.1 (0.6)	7.3 (1.1)	6.7 (0.9)	9.1 (0.7)	7.5 (0.7)	9.5 (1.4)	7.3 (1.1)	6.4 (0.9)	6.3 (0.9)
	A Local Government Employee	5.7 (0.7)	6.0 (0.7)	4.4 (0.8)	11.1 (0.8)	13.8 (1.0)	12.3 (1.4)	15.2 (1.5)	11.1 (1.2)	10.8 (1.2)
	A State Government Employee	5.2 (0.8)	6.8 (0.9)	3.6 (0.6)	8.0 (0.7)	8.7 (1.0)	9.9 (1.3)	6.6 (0.9)	4.7 (0.7)	5.2 (0.7)
	A Federal Government Employee	1.0 (0.2)	1.5 (0.4)	1.2 (0.4)	4.1 (0.4)	4.5 (0.5)	3.6 (0.8)	4.0 (0.8)	2.2 (0.5)	3.3 (0.6)
Class of Worker	Self-Employed in Own not Incorporated Business,	2.5 (0.4)	4.7 (1.0)	4.6 (0.7)	5.7 (0.5)	4.0 (0.3)	7.3 (1.0)	7.2 (1.2)	6.4 (0.0)	5.2 (0.7)
WOIKEI	Professional Practice, or Farm	3.5 (0.4)	4.7 (1.0)	4.0 (0.7)	5.7 (0.5)	4.0 (0.3)	7.3 (1.0)	7.2 (1.2)	6.4 (0.9)	5.2 (0.7)
	Self-Employed in Own Incorporated Business, Professional Practice, or Farm	2.5 (0.4)	2.3 (0.6)	1.3 (0.4)	3.7 (0.7)	2.0 (0.7)	3.6 (0.8)	1.5 (0.4)	0.8 (0.2)	0.8 (0.4)
	Working Without Pay in A Family Business or Farm	0.5 (0.2)	0.8 (0.4)	0.8 (0.3)	0.1 (0.0)	0.4 (0.2)	0.4 (0.4)	0.4 (0.2)	0.0 (0.0)	0.8 (0.3)
	L-Fold (Aggregate)	9.2 (0.7)	9.5 (0.8)	10.1 (0.9)						

Appendix C: GDR Estimates By ACS Data Collection Mode (Mail, CATI, or CAPI)

A 1		N/L-21	CATT	CADI	Ma	il	CA	TI	CA	PI
Analysis Topic	Analysis category	Mail GDR	CATI GDR	CAPI GDR	ACS	CRS	ACS	CRS	ACS	CRS
Topic		GDK	GDK	GDK	percent	percent	percent	percent	percent	percent
	Agriculture, forestry, Fishing and Hunting, and Mining	0.8 (0.2)	1.3 (0.3)	1.3 (0.2)	2.0 (0.3)	1.6 (0.3)	3.2 (0.5)	3.1 (0.5)	2.2 (0.3)	1.8 (0.3)
	Construction	2.2 (0.4)	3.1 (0.6)	2.7 (0.4)	5.1 (0.4)	5.8 (0.6)	8.2 (1.1)	7.7 (1.0)	7.8 (0.6)	8.3 (0.6)
	Manufacturing	4.4 (0.4)	4.5 (0.6)	4.0 (0.4)	11.3 (0.5)	11.5 (0.6)	10.8 (0.8)	11.4 (0.9)	9.8 (0.7)	9.9 (0.7)
	Wholesale Trade	2.8 (0.5)	3.1 (0.5)	2.6 (0.3)	3.2 (0.4)	3.1 (0.4)	2.6 (0.5)	2.6 (0.5)	2.6 (0.4)	3.0 (0.4)
	Retail Trade	3.6 (0.4)	4.9 (0.7)	4.1 (0.4)	10.7 (0.6)	10.2 (0.6)	10.9 (1.0)	10.8 (0.9)	12.1 (0.9)	11.1 (0.9)
	Utilities, and Transportation and Warehousing	1.2 (0.1)	1.6 (0.3)	2.2 (0.4)	4.3 (0.3)	4.6 (0.3)	6.0 (0.7)	5.7 (0.7)	5.4 (0.6)	4.8 (0.5)
	Information	1.1 (0.2)	1.2 (0.3)	1.2 (0.3)	2.3 (0.3)	2.4 (0.3)	2.4 (0.5)	2.2 (0.4)	2.3 (0.3)	2.1 (0.3)
	Finance and Insurance, and Real Estate and Rental and Leasing	1.4 (0.2)	1.1 (0.3)	2.0 (0.3)	6.8 (0.4)	6.8 (0.4)	5.4 (0.6)	5.6 (0.6)	5.4 (0.4)	6.0 (0.5)
Industry	Professional, Scientific, and Management, and Administrative and Waste Management Services	6.4 (0.4)	5.0 (0.6)	5.8 (0.6)	11.9 (0.6)	11.6 (0.6)	8.6 (0.7)	9.4 (0.8)	9.5 (0.8)	10.7 (1.0)
	Educational Services, and Health Care and Social Assistance	3.5 (0.3)	3.6 (0.4)	4.3 (0.6)	25.2 (0.7)	25.6 (0.7)	25.8 (1.2)	25.2 (1.2)	22.7 (1.0)	22.0 (1.1)
	Arts, Entertainment, and Recreation, and Accomadation and Food Services	1.7 (0.2)	1.5 (0.3)	2.2 (0.4)	6.4 (0.4)	6.2 (0.4)	5.8 (0.7)	5.9 (0.7)	10.4 (0.8)	10.5 (0.8)
	Other Services, Except Public Administration	2.1 (0.2)	3.4 (0.5)	2.8 (0.4)	4.7 (0.4)	4.6 (0.4)	4.7 (0.6)	4.7 (0.6)	5.3 (0.5)	5.2 (0.4)
	Public Administration	2.2 (0.2)	2.3 (0.4)	2.1 (0.4)	5.6 (0.4)	5.7 (0.4)	5.6 (0.6)	5.7 (0.6)	4.1 (0.5)	4.1 (0.5)
	Military	0.3 (0.1)	0.1 (0.1)	0.4 (0.1)	0.5 (0.1)	0.3 (0.0)	0.0 (0.1)	0.1 (0.1)	0.5 (0.2)	0.4 (0.1)
	L-Fold (Aggregate)	3.3 (0.1)	3.3 (0.2)	3.4 (0.2)						

Appendix C: GDR Estimates By ACS Data Collection Mode (Mail, CATI, or CAPI)

Amalwaia		Mod	CATI	CAPI	Ma	ıil	CA	TI	CAPI	
Analysis Topic	Analysis category	Mail GDR	GDR	GDR	ACS	CRS	ACS	CRS	ACS	CRS
Topic		GDK	GDK	GDK	percent	percent	percent	percent	percent	percent
	Manufacturing	3.8 (0.3)	6.3 (0.8)	6.3 (0.7)	11.2 (0.5)	11.3 (0.5)	10.1 (0.9)	10.9 (0.9)	8.3 (0.7)	9.8 (0.8)
	Wholesale Trade	3.2 (0.4)	3.6 (0.6)	4.1 (0.5)	3.4 (0.4)	3.5 (0.4)	3.2 (0.6)	3.1 (0.5)	2.2 (0.3)	3.3 (0.4)
Industry Tyma	Retail Trade	8.5 (0.5)	10.3 (1.0)	12.8 (0.8)	15.3 (0.7)	15.4 (0.7)	15.6 (1.0)	16.0 (1.1)	14.5 (0.9)	16.7 (1.1)
Industry Type	Other (Agriculture, Construction,	0.9 (0.5)	117(10)	15 9 (1 0)	70.1 (0.0)	60.9 (0.0)	71.1 (1.2)	70.0 (1.2)	75.0 (1.2)	70.1 (1.2)
	Service, Government, Etc.)	9.8 (0.5)	11.7 (1.0)	15.8 (1.0)	70.1 (0.9)	69.8 (0.9)	71.1 (1.3)	70.0 (1.3)	75.0 (1.2)	70.1 (1.3)
	L-Fold (Aggregate)	8.6 (0.4)	10.5 (0.8)	13.8 (0.8)						

Appendix C: GDR Estimates By ACS Data Collection Mode (Mail, CATI, or CAPI)

A a leveia		Mail	CATI	CADI	Ma	ıil	CA	TI	CA	PI
Analysis Topic	Analysis category	Man GDR	GDR	CAPI GDR	ACS	CRS	ACS	CRS	ACS	CRS
		<u> </u>	- GDR	9211	percent	percent	percent	percent	percent	percent
	Management, Business and Financial Occupations	11.0 (0.5)	9.6 (0.8)	9.0 (0.7)	18.0 (0.6)	19.1 (0.7)	14.9 (1.1)	13.7 (1.0)	13.5 (0.9)	13.8 (0.8)
	Computer, Engineering, and Science Occupations	3.2 (0.4)	2.6 (0.5)	2.3 (0.3)	7.1 (0.5)	7.1 (0.5)	3.7 (0.4)	4.0 (0.5)	3.9 (0.5)	4.2 (0.5)
	Education, Legal, Community Service, Arts, and Media Occupations	3.8 (0.3)	2.9 (0.4)	2.9 (0.4)	13.3 (0.6)	12.8 (0.6)	11.2 (0.8)	11.4 (0.8)	8.9 (0.6)	7.9 (0.6)
	Healthcare Practitioners and Technical Occupations	1.9 (0.2)	1.9 (0.3)	2.0 (0.4)	6.3 (0.4)	5.7 (0.4)	6.3 (0.8)	5.8 (0.8)	5.1 (0.6)	4.9 (0.7)
	Healthcare Support Occupations	1.5 (0.2)	1.6 (0.3)	2.5 (0.4)	2.0 (0.2)	2.3 (0.2)	2.1 (0.4)	2.7 (0.4)	3.5 (0.4)	3.2 (0.4)
	Protective Service Occupations	0.8 (0.2)	0.7 (0.2)	0.4(0.1)	2.2 (0.3)	2.5 (0.3)	2.3 (0.4)	1.8 (0.4)	2.1 (0.4)	2.0 (0.3)
	Food Preparation and Serving Related Occupations	0.9 (0.2)	1.4 (0.3)	2.4 (0.4)	2.9 (0.3)	2.7 (0.2)	3.5 (0.6)	3.4 (0.5)	7.1 (0.6)	7.2 (0.6)
0	Building and Grounds Cleaning and Maintenance Occupations	1.4 (0.2)	1.9 (0.5)	2.0 (0.3)	2.8 (0.3)	2.8 (0.3)	4.1 (0.5)	4.6 (0.6)	4.9 (0.5)	4.9 (0.5)
Occupation	Personal Care and Service Occupations	1.3 (0.2)	2.0 (0.4)	3.0 (0.4)	2.9 (0.4)	3.0 (0.4)	3.1 (0.5)	3.0 (0.4)	4.2 (0.5)	4.8 (0.5)
	Sales and Related Occupations	5.5 (0.3)	5.4 (0.7)	5.3 (0.5)	9.5 (0.5)	9.4 (0.4)	9.4 (0.9)	9.8 (0.9)	11.0 (0.8)	10.4 (0.7)
	Office and Administrative Support Occupations	9.2 (0.6)	7.2 (0.7)	6.7 (0.6)	15.4 (0.7)	15.3 (0.8)	13.2 (0.9)	14.3 (0.8)	10.7 (0.7)	11.5 (0.7)
	Farming, Fishing, and forestry Occupations	0.3 (0.1)	1.0 (0.2)	0.8 (0.2)	0.5 (0.2)	0.6 (0.2)	1.3 (0.4)	1.3 (0.4)	1.1 (0.2)	0.9 (0.2)
	Construction and Extraction Occupations	2.1 (0.3)	2.3 (0.3)	3.1 (0.4)	3.9 (0.4)	3.8 (0.4)	6.3 (0.8)	6.3 (0.8)	7.3 (0.6)	6.7 (0.6)
	Installation, Maintenance, and Repair Occupations	1.8 (0.2)	2.4 (0.4)	2.3 (0.3)	2.7 (0.3)	2.7 (0.2)	3.3 (0.6)	3.3 (0.5)	3.8 (0.4)	3.7 (0.4)
	Production Occupations	3.0 (0.4)	4.2 (0.6)	3.6 (0.4)	5.3 (0.5)	4.8 (0.4)	7.4 (0.9)	7.6 (0.8)	6.2 (0.6)	6.6 (0.6)
	Transportation Occupations	1.0 (0.2)	1.6 (0.3)	2.0 (0.4)	3.0 (0.3)	3.0 (0.3)	5.0 (0.7)	4.4 (0.7)	3.9 (0.5)	4.3 (0.5)
	Material Moving Occupations	1.7 (0.2)	3.0 (0.5)	2.9 (0.5)	2.0 (0.2)	2.1 (0.3)	2.8 (0.4)	2.4 (0.4)	2.5 (0.3)	2.8 (0.5)
	Military Occupations	0.2 (0.0)	0.1 (0.1)	0.3(0.1)	0.3 (0.1)	0.2 (0.0)	0.1 (0.1)	0.0(0.0)	0.4 (0.1)	0.3 (0.1)

Appendix C: GDR Estimates By ACS Data Collection Mode (Mail, CATI, or CAPI)

A 1		N.C. 21	CATT	CADI	Ma	il	CA	TI	CAPI	
Analysis Topio	Analysis category	Mail GDR	CATI GDR	CAPI	ACS	CRS	ACS	CRS	ACS	CRS
Topic		GDK	GDK	GDR	percent	percent	percent	percent	percent	percent
	L-Fold (Aggregate)	5.4 (0.2)	4.5 (0.3)	4.2 (0.2)						
	Less than \$10,000	4.3 (0.6)	2.9 (0.5)	5.5 (0.7)	11.5 (0.7)	11.3 (0.7)	12.2 (1.3)	11.8 (1.3)	13.2 (1.1)	13.8 (1.2)
	\$10,000 to \$14,999	5.5 (0.6)	5.0 (0.8)	8.0 (0.8)	6.4 (0.6)	6.3 (0.6)	5.3 (0.7)	6.1 (0.8)	7.7 (0.9)	9.3 (0.9)
	\$15,000 to \$24,999	7.8 (0.6)	9.7 (1.2)	12.8 (1.0)	10.7 (0.7)	11.9 (0.9)	14.3 (1.5)	15.2 (1.4)	17.3 (1.2)	18.5 (1.4)
	\$25,000 to \$34,999	7.7 (0.6)	8.5 (1.1)	12.3 (0.9)	11.8 (0.8)	12.1 (0.6)	15.3 (1.5)	14.8 (1.5)	14.5 (1.1)	13.9 (1.0)
Wagas Incomo	\$35,000 to \$49,999	8.6 (0.6)	7.6 (1.1)	10.5 (1.1)	17.3 (0.7)	15.9 (0.6)	17.1 (1.4)	17.4 (1.3)	17.3 (1.1)	15.9 (1.3)
Wages Income Amount	\$50,000 to \$74,999	7.0 (0.4)	7.1 (1.2)	7.3 (1.0)	20.7 (1.0)	21.6 (1.2)	19.3 (1.5)	18.7 (1.5)	18.3 (1.4)	17.3 (1.3)
Amount	\$75,000 to \$99,999	3.6 (0.3)	5.0 (0.9)	2.9 (0.6)	9.7 (0.6)	9.2 (0.6)	9.7 (1.1)	9.0 (1.2)	6.3 (0.9)	6.2 (0.9)
	\$100,000 to \$149,999	2.8 (0.3)	2.6 (0.6)	2.2 (0.6)	7.5 (0.6)	7.3 (0.6)	4.9 (0.9)	5.1 (0.8)	4.0 (0.6)	3.5 (0.6)
	\$150,000 to \$199,999	1.3 (0.2)	0.1 (0.1)	0.7 (0.3)	2.1 (0.3)	2.5 (0.4)	1.1 (0.4)	1.0 (0.4)	1.0 (0.3)	1.1 (0.4)
	\$200,000 or More	0.5 (0.1)	0.0 (0.2)	0.2 (0.1)	2.2 (0.3)	2.0 (0.3)	0.9 (0.3)	0.9 (0.3)	0.3 (0.2)	0.4 (0.2)
	L-Fold (Aggregate)	6.2 (0.2)	6.7 (0.6)	8.9 (0.5)						
Wages Income Recipiency	Yes	7.4 (0.5)	8.6 (1.0)	7.6 (0.6)	81.4 (0.7)	80.3 (0.8)	80.0 (1.1)	78.5 (1.1)	86.6 (0.8)	85.2 (0.8)
	Loss or Broke Even	9.6 (4.1)	1.2 (1.0)	1.3 (1.2)	10.1 (4.1)	0.8 (0.4)	2.4 (1.4)	1.2 (1.0)	1.3 (1.2)	0.0 (0.5)
	Less than \$10,000	13.0 (2.0)	11.4 (4.3)	13.9 (6.2)	35.7 (3.4)	33.7 (3.4)	35.6 (5.4)	34.8 (5.7)	32.3 (5.3)	38.1 (6.5)
	\$10,000 to \$14,999	14.1 (4.0)	9.9 (3.1)	4.7 (1.5)	10.3 (1.9)	14.0 (4.6)	12.6 (3.4)	6.1 (2.5)	9.7 (3.1)	9.9 (2.9)
	\$15,000 to \$24,999	13.8 (3.0)	12.9 (3.5)	16.5 (6.8)	14.9 (2.5)	18.1 (3.1)	13.8 (3.6)	16.6 (3.8)	17.9 (6.7)	9.7 (3.3)
Self Employed	\$25,000 to \$34,999	8.6 (2.4)	8.7 (4.1)	16.1 (3.7)	8.2 (2.6)	7.1 (1.8)	5.2 (2.6)	11.4 (4.5)	16.6 (4.2)	16.9 (4.4)
Income	\$35,000 to \$49,999	9.1 (2.0)	13.4 (4.2)	9.5 (3.3)	7.2 (1.2)	9.5 (1.9)	7.9 (2.8)	11.8 (4.2)	6.5 (2.5)	11.6 (3.8)
Amount	\$50,000 to \$74,999	4.6 (0.9)	10.1 (3.5)	3.7 (2.2)	4.2 (1.0)	6.2 (1.3)	14.4 (4.5)	8.4 (2.8)	9.0 (3.5)	6.4 (3.0)
	\$75,000 to \$99,999	2.8 (0.8)	0.9 (0.7)	0.6 (0.6)	2.7 (0.7)	2.4 (0.6)	0.6 (0.6)	0.3 (0.3)	1.1 (0.5)	0.5 (0.4)
	\$100,000 to \$149,999	4.0 (1.2)	4.4 (2.6)	1.3 (1.1)	2.8 (0.9)	5.0 (1.4)	0.3 (0.3)	4.1 (2.5)	2.9 (1.8)	2.0 (1.4)
	\$150,000 or More	1.8 (1.0)	2.5 (1.9)	2.6 (1.7)	3.9 (1.0)	3.3 (0.6)	7.1 (2.9)	5.3 (2.2)	2.8 (1.6)	5.0 (2.4)
	L-Fold (Aggregate)	10.8 (1.1)	10.4 (1.9)	11.8 (3.2)						

Appendix C: GDR Estimates By ACS Data Collection Mode (Mail, CATI, or CAPI)

		3.6.11	CATE	CAR	Ma	ıil	CA	TI	CA	PI
Analysis Topic	Analysis category	Mail GDR	CATI GDR	CAPI GDR	ACS	CRS	ACS	CRS	ACS	CRS
Торіс		ODK	GDK	GDK	percent	percent	percent	percent	percent	percent
	Received A Positive Amount of Self-Employment Income	7.2 (0.6)	6.8 (0.8)	7.2 (0.5)	8.6 (0.5)	10.8 (0.6)	12.7 (1.1)	12.2 (0.9)	9.3 (0.6)	8.8 (0.7)
Self Employed Income	Did not Receive Self- Employment Income	7.1 (0.5)	6.8 (0.8)	7.2 (0.5)	89.7 (0.5)	89.2 (0.6)	87.2 (1.1)	87.8 (0.9)	90.6 (0.7)	91.2 (0.7)
Recipiency	Had A Net Loss or Broke Even for Self-Employment Income	1.8 (0.4)	0.0 (0.0)	0.1 (0.1)	1.8 (0.4)	0.0 (0.0)	0.1 (0.1)	0.1 (0.1)	0.1 (0.1)	0.0 (0.0)
	L-Fold (Aggregate)	7.0 (0.5)	6.8 (0.8)	7.2 (0.5)						
	Loss or Broke Even	3.1 (0.6)	0.0 (1.5)	0.0 (0.6)	2.6 (0.5)	0.7 (0.3)	0.0 (1.5)	0.0 (1.5)	0.0 (0.6)	0.0 (0.6)
	Positive, Less than \$100	7.3 (0.9)	5.1 (1.8)	5.2 (2.5)	13.3 (1.2)	14.7 (1.4)	12.1 (2.8)	14.0 (2.9)	13.4 (3.6)	15.5 (4.4)
D .	\$100 to \$999	21.3 (2.8)	14.7 (3.0)	18.2 (5.2)	26.6 (2.1)	26.9 (2.6)	27.5 (3.2)	25.4 (3.8)	22.2 (5.0)	17.6 (4.8)
Property Income	\$1,000 to \$4,999	21.5 (2.6)	14.4 (3.0)	12.5 (3.8)	25.2 (2.8)	23.1 (1.7)	17.8 (3.9)	21.3 (4.1)	15.5 (4.3)	18.1 (4.0)
Amount	\$5,000 to \$9,999	11.7 (1.1)	11.8 (2.4)	9.2 (3.2)	9.3 (0.9)	10.6 (1.1)	16.8 (3.2)	14.7 (3.0)	18.1 (6.5)	21.1 (8.5)
Alliount	\$10,000 to \$19,999	13.4 (1.5)	8.6 (2.3)	12.5 (4.6)	10.8 (1.3)	9.5 (1.1)	7.4 (2.3)	10.4 (2.4)	9.4 (3.9)	7.3 (3.1)
	\$20,000 or More	8.1 (1.2)	11.9 (3.0)	10.6 (3.4)	12.2 (1.4)	14.6 (1.5)	18.5 (3.1)	14.2 (3.3)	21.3 (6.7)	20.5 (6.7)
	L-Fold (Aggregate)	15.6 (1.5)	12.0 (1.6)	11.8 (2.5)						
D	Received A Positive Amount of Property Income	16.9 (0.7)	11.8 (0.8)	6.2 (0.5)	18.7 (0.6)	22.4 (0.8)	16.5 (0.9)	16.5 (1.0)	6.0 (0.5)	7.6 (0.5)
Property	Did not Receive Property Income	16.8 (0.7)	11.8 (0.8)	6.3 (0.5)	80.8 (0.6)	77.5 (0.8)	83.5 (0.9)	83.5 (1.0)	93.9 (0.5)	92.4 (0.5)
Income Recipiency	Had A Net Loss or Broke Even for Property Income	0.6 (0.1)	0.0 (0.1)	0.1 (0.1)	0.5 (0.1)	0.0 (0.0)	0.0 (0.1)	0.0 (0.1)	0.1 (0.1)	0.0 (0.0)
	L-Fold (Aggregate)	16.8 (0.7)	11.8 (0.8)	6.3 (0.5)						
	Less than \$1,000	1.8 (0.3)	0.5 (0.3)	1.0 (0.5)	1.7 (0.2)	0.3 (0.1)	0.5 (0.3)	0.4 (0.2)	1.7 (0.9)	1.1 (0.7)
Casial Casymiter	\$1,000 to \$4,999	6.0 (0.7)	5.1 (1.1)	5.6 (1.3)	9.6 (0.9)	6.7 (0.8)	8.1 (0.9)	8.9 (1.2)	10.0 (2.0)	10.6 (2.1)
Social Security Income	\$5,000 to \$9,999	8.2 (1.0)	9.2 (1.3)	8.2 (1.8)	22.3 (1.5)	24.4 (1.5)	29.9 (1.9)	28.5 (2.1)	28.3 (3.4)	26.9 (3.2)
Amount	\$10,000 to \$19,999	13.6 (1.1)	10.2 (1.3)	14.7 (2.4)	51.3 (1.7)	53.3 (1.6)	52.5 (2.0)	51.0 (2.2)	50.5 (3.8)	53.5 (3.7)
Amount	\$20,000 or More	6.0 (0.7)	4.7 (1.1)	6.9 (1.5)	15.2 (1.2)	15.3 (1.0)	9.0 (1.2)	11.2 (1.5)	9.5 (1.8)	7.9 (1.6)
	L-Fold (Aggregate)	10.3 (0.7)	8.8 (0.9)	10.9 (1.6)						
Social Security Income Recipiency	Yes	4.1 (0.4)	3.9 (0.4)	3.4 (0.3)	25.4 (0.7)	27.7 (0.7)	31.3 (1.4)	31.1 (1.3)	11.9 (0.7)	13.3 (0.8)

Appendix C: GDR Estimates By ACS Data Collection Mode (Mail, CATI, or CAPI)

A 1		Mall	CATI	CADI	Ma		CA	ATI	CA	PI
Analysis Topic	Analysis category	Mail GDR	GDR	CAPI GDR	ACS	CRS	ACS	CRS	ACS	CRS
Topic		GDK			percent	percent	percent	percent	percent	percent
	Less than \$1,000	12.4 (2.6)	0.0 (5.5)	8.5 (4.5)	21.5 (4.5)	9.7 (4.2)	0.9 (1.0)	0.9 (1.0)	12.4 (4.9)	4.0 (2.3)
Supplemental Security	\$1,000 to \$4,999	12.6 (3.7)	0.4 (0.4)	7.5 (3.7)	21.4 (4.5)	22.0 (4.9)	50.6 (13.1)	51.0 (13.0)	18.2 (5.8)	19.2 (6.4)
Income Amount	\$5,000 to \$9,999	16.0 (3.9)	0.4 (0.4)	15.1 (4.7)	47.8 (5.8)	56.9 (5.5)	40.4 (12.0)	40.0 (11.9)	60.1 (7.8)	68.0 (7.3)
Amount	\$10,000 or More	3.9 (1.1)	0.0 (5.5)	7.5 (3.7)	9.2 (2.3)	11.4 (2.4)	8.1 (4.9)	8.1 (4.9)	9.2 (3.9)	8.9 (3.8)
	L-Fold (Aggregate)	13.4 (2.9)	0.4 (0.4)	12.2 (3.3)						
Supplemental Security Income Recipiency	Yes	1.5 (0.2)	2.0 (0.3)	2.7 (0.3)	2.8 (0.3)	2.2 (0.3)	3.0 (0.4)	2.6 (0.4)	3.7 (0.4)	3.8 (0.4)
Public	Less than \$1,000	9.9 (4.5)	10.0 (10.1)	7.5 (4.9)	22.9 (10.1)	20.7 (9.7)	37.1 (14.7)	27.1 (12.7)	9.0 (5.3)	6.1 (4.1)
Assistance Income	\$1,000 to \$4,999	13.7 (5.0)	16.6 (11.8)	25.4 (8.7)	63.8 (12.9)	57.8 (12.1)	50.7 (15.3)	54.1 (15.4)	54.2 (10.5)	67.6 (9.0)
Amount	\$5,000 or More	8.2 (4.5)	6.6 (6.9)	19.6 (8.0)	13.3 (9.3)	21.5 (9.6)	12.2 (11.9)	18.8 (13.1)	36.8 (10.8)	26.3 (8.6)
	L-Fold (Aggregate)	11.8 (4.0)	12.9 (9.5)	21.9 (7.4)						
Public Assistance Income Recipiency	Yes	1.0 (0.2)	0.8 (0.3)	1.7 (0.3)	1.1 (0.2)	0.4 (0.1)	0.6 (0.1)	0.7 (0.3)	2.1 (0.3)	1.5 (0.2)
	Less than \$1,000	2.5 (0.5)	0.9 (0.8)	0.2 (0.2)	3.7 (0.6)	2.3 (0.5)	0.6 (0.3)	1.2 (0.8)	2.2 (1.1)	2.4 (1.0)
	\$1,000 to \$4,999	7.1 (0.9)	4.7 (1.3)	2.8 (1.6)	16.5 (1.8)	15.7 (1.7)	17.2 (2.4)	18.0 (2.6)	14.8 (3.9)	14.0 (3.8)
Retirement	\$5,000 to \$9,999	7.5 (1.0)	8.9 (2.0)	4.7 (2.4)	15.3 (1.7)	16.8 (1.7)	21.0 (3.6)	21.9 (3.2)	10.8 (3.2)	11.5 (3.4)
Income	\$10,000 to \$19,999	10.9 (1.2)	7.9 (2.0)	12.3 (3.7)	23.4 (1.8)	24.6 (1.8)	25.7 (3.3)	22.6 (2.7)	24.7 (4.8)	24.3 (4.8)
Amount	\$20,000 to \$49,999	9.9 (1.0)	8.8 (1.7)	11.1 (3.0)	32.1 (1.7)	32.1 (1.7)	30.3 (2.9)	31.6 (2.8)	44.0 (5.4)	42.7 (5.4)
mount	\$50,000 to \$74,999	4.2 (0.8)	2.6 (1.0)	1.6 (0.9)	6.9 (1.0)	6.1 (0.9)	4.0 (1.3)	2.7 (1.3)	3.1 (1.9)	4.7 (2.1)
	\$75,000 or More	1.1 (0.5)	1.2 (0.9)	0.8 (0.4)	2.1 (0.4)	2.4 (0.6)	1.3 (0.7)	2.0 (1.1)	0.5 (0.5)	0.3 (0.3)
	L-Fold (Aggregate)	8.4 (0.7)	7.4 (1.1)	8.9 (2.2)						

Appendix C: GDR Estimates By ACS Data Collection Mode (Mail, CATI, or CAPI)

A a l ai a		Mail	CATI	CADI	Ma	il	CA	TI	CA	PI
Analysis Topic	Analysis category	Mail GDR	GDR	CAPI GDR	ACS	CRS	ACS	CRS	ACS	CRS
Topic		GDK	GDK	GDK	percent	percent	percent	percent	percent	percent
Retirement										
Income	Yes	5.8 (0.4)	5.8 (0.5)	3.6 (0.3)	15.0 (0.4)	15.1 (0.5)	14.9 (0.8)	13.9 (0.8)	5.8 (0.4)	5.8 (0.4)
Recipiency										
	Less than \$1,000	4.5 (1.5)	1.2 (0.6)	4.2 (1.6)	7.4 (1.6)	5.3 (1.5)	1.3 (0.7)	1.5 (1.0)	4.1 (1.3)	6.3 (1.9)
	\$1,000 to \$2,499	14.4 (3.4)	7.1 (2.5)	15.4 (3.3)	13.3 (2.2)	16.8 (3.0)	20.8 (4.6)	22.7 (4.7)	20.9 (5.6)	23.6 (5.7)
Other Income	\$2,500 to \$4,999	16.3 (2.4)	11.1 (3.3)	14.5 (3.4)	21.8 (3.1)	20.5 (2.8)	18.1 (4.3)	15.6 (3.6)	22.4 (4.9)	18.8 (4.3)
Amount	\$5,000 to \$9,999	15.3 (3.1)	10.3 (3.5)	10.1 (2.3)	21.9 (3.2)	18.5 (2.5)	20.9 (4.8)	14.3 (4.0)	19.3 (3.5)	16.8 (3.7)
Amount	\$10,000 to \$19,999	14.9 (2.9)	18.7 (4.0)	15.2 (4.2)	23.4 (2.9)	25.0 (2.7)	26.0 (5.1)	27.4 (5.2)	23.6 (4.6)	25.6 (4.4)
	\$20,000 or More	7.3 (2.4)	9.1 (3.1)	3.6 (1.6)	12.3 (2.6)	13.8 (2.8)	12.9 (3.6)	18.4 (4.3)	9.8 (3.3)	8.7 (2.8)
	L-Fold (Aggregate)	13.6 (1.4)	11.8 (2.2)	12.6 (2.2)						
Other Income Recipiency	Yes	5.0 (0.3)	5.4 (0.5)	7.2 (0.5)	5.1 (0.3)	6.8 (0.4)	7.8 (0.6)	7.4 (0.6)	8.2 (0.5)	8.8 (0.6)
	Loss or Broke Even	5.4 (0.4)	4.1 (0.6)	5.4 (0.6)	12.1 (0.6)	10.1 (0.5)	12.8 (0.9)	13.2 (0.9)	18.5 (1.1)	17.8 (1.1)
	Less than \$10,000	7.1 (0.5)	6.9 (0.7)	9.6 (0.7)	12.2 (0.5)	13.5 (0.6)	16.3 (1.2)	16.0 (1.2)	16.0 (1.0)	16.8 (1.0)
	\$10,000 to \$14,999	6.4 (0.5)	7.2 (0.9)	8.0 (0.6)	7.6 (0.5)	7.5 (0.4)	9.1 (0.8)	9.0 (0.9)	8.7 (0.6)	9.6 (0.6)
	\$15,000 to \$24,999	9.0 (0.5)	9.0 (0.8)	10.7 (0.7)	13.2 (0.6)	13.9 (0.6)	13.9 (0.9)	14.9 (1.2)	13.9 (0.9)	14.9 (0.9)
	\$25,000 to \$34,999	8.9 (0.5)	8.6 (0.8)	9.3 (0.7)	10.8 (0.5)	11.4 (0.5)	12.0 (1.0)	11.7 (0.9)	10.4 (0.7)	10.2 (0.7)
Total Income	\$35,000 to \$49,999	9.2 (0.5)	7.8 (0.7)	8.3 (0.8)	14.2 (0.5)	13.4 (0.4)	12.2 (0.9)	12.9 (0.9)	12.2 (0.7)	11.4 (0.8)
Amount	\$50,000 to \$74,999	7.2 (0.4)	6.1 (0.7)	5.3 (0.7)	14.7 (0.6)	15.1 (0.8)	13.0 (0.9)	12.0 (0.8)	12.0 (1.0)	11.5 (0.9)
	\$75,000 to \$99,999	3.6 (0.2)	4.1 (0.5)	2.3 (0.3)	6.7 (0.4)	6.6 (0.4)	5.8 (0.6)	4.9 (0.6)	4.4 (0.5)	4.0 (0.5)
	\$100,000 to \$149,999	2.5 (0.2)	1.9 (0.3)	1.7 (0.4)	5.2 (0.4)	5.0 (0.4)	3.1 (0.5)	3.7 (0.5)	2.6 (0.4)	2.4 (0.3)
	\$150,000 to \$199,999	1.3 (0.2)	0.6 (0.2)	0.8 (0.2)	1.6 (0.2)	1.7 (0.3)	0.8 (0.2)	0.7 (0.2)	0.8 (0.2)	0.8 (0.2)
	\$200,000 or More	0.8 (0.1)	0.2 (0.1)	0.3 (0.1)	1.9 (0.2)	1.6 (0.2)	1.0 (0.2)	1.0 (0.3)	0.7 (0.2)	0.6 (0.2)
	L-Fold (Aggregate)	7.0 (0.2)	6.7 (0.3)	7.6 (0.3)						
	Yes, Received A Positive Amount of Income	5.5 (0.4)	4.4 (0.7)	5.6 (0.6)	87.8 (0.6)	89.8 (0.5)	87.3 (0.9)	86.6 (0.9)	81.4 (1.1)	82.2 (1.1)
Total Income	No, did not Receive Income	5.1 (0.4)	4.4 (0.7)	5.6 (0.6)	11.6 (0.6)	10.2 (0.5)	12.7 (0.9)	13.4 (0.9)	18.4 (1.1)	17.8 (1.1)
Recipiency	Had A Net Loss or Broke Even (Loss Box Checked)	0.7 (0.1)	0.0 (0.0)	0.1 (0.1)	0.7 (0.1)	0.0 (0.0)	0.0 (0.0)	0.0 (0.1)	0.1 (0.1)	0.0 (0.0)
	L-Fold (Aggregate)	5.4 (0.4)	4.4 (0.7)	5.6 (0.6)						

Appendix D: GDR Estimates By Hispanic Origin/Race Subgroup (Hispanic, White, Black, Asian, or Other)

Analysis Topic	Analysis category	Hispanic GDR	White GDR	Black GDR	Asian GDR	Other GDR
	Mobile home, Boat, RV, van, etc.	1.5 (0.5)	1.1 (0.2)	0.2 (0.1)	0.1 (0.1)	0.9 (0.4)
	Single unit, detached	5.7 (0.8)	2.7 (0.3)	4.0 (0.7)	2.3 (1.0)	3.1 (1.0)
	Single unit, attached	7.3 (1.0)	3.6 (0.3)	5.1 (0.8)	7.9 (2.5)	5.8 (2.0)
	Apartment building, 2 units	4.3 (0.7)	2.0 (0.2)	3.7 (0.8)	2.4 (1.2)	1.8 (1.2)
Duilding Type	Apartment building, 3 or 4 units	4.6 (0.8)	1.4 (0.2)	2.5 (0.5)	6.2 (2.2)	3.8 (1.6)
Building Type	Apartment building, 5 to 9 units	3.5 (0.8)	1.8 (0.2)	4.2 (1.0)	2.6 (0.9)	5.8 (2.0)
	Apartment building, 10 to 19 units	3.7 (0.8)	1.8 (0.2)	5.5 (1.2)	2.4 (0.6)	4.2 (1.6)
	Apartment building, 20 to 49 units	3.3 (0.7)	1.5 (0.2)	2.5 (0.7)	4.0 (1.5)	3.7 (1.6)
	Apartment building, 50 or more units	1.7 (0.5)	1.2 (0.2)	1.8 (0.5)	5.7 (1.9)	1.0 (0.4)
	L-Fold (Aggregate)	4.9 (0.5)	2.4 (0.2)	3.8 (0.5)	3.8 (0.9)	3.5 (0.8)
	Built 2010 or later	0.3 (0.3)	0.4 (0.1)	1.3 (0.9)	0.9 (0.7)	2.0 (1.9)
	Built 2000 to 2009	4.1 (1.2)	2.6 (0.2)	3.8 (1.1)	4.4 (2.0)	2.4 (1.9)
	Built 1990 to 1999	7.9 (1.7)	4.3 (0.3)	4.4 (1.1)	3.7 (1.2)	2.4 (0.8)
	Built 1980 to 1989	10.7 (2.0)	4.6 (0.3)	5.8 (1.3)	5.2 (2.4)	3.8 (1.5)
Year Built	Built 1970 to 1979	9.3 (1.3)	4.5 (0.3)	6.6 (1.2)	2.7 (0.7)	5.1 (1.2)
i ear built	Built 1960 to 1969	10.7 (1.6)	4.2 (0.3)	8.8 (1.5)	6.4 (2.4)	5.3 (2.3)
	Built 1950 to 1959	8.2 (1.5)	3.9 (0.3)	7.8 (1.4)	8.3 (2.7)	5.1 (2.1)
	Built 1940 to 1949	2.6 (0.7)	2.7 (0.2)	4.3 (1.5)	3.5 (1.7)	6.2 (2.6)
	Built 1939 or earlier	1.9 (0.5)	2.2 (0.3)	4.3 (1.2)	3.6 (1.6)	0.6 (0.3)
	L-Fold (Aggregate)	7.7 (0.8)	3.7 (0.2)	5.7 (0.6)	4.7 (1.1)	3.9 (0.9)
	Moved in 2012 or later	2.2 (0.5)	1.2 (0.2)	2.2 (0.7)	1.6 (0.7)	2.2 (1.2)
	Moved in 2011	6.4 (1.1)	2.7 (0.3)	5.0 (1.0)	3.5 (1.1)	6.7 (2.2)
V D 1 M 1	Moved in 2010	9.2 (1.3)	3.5 (0.3)	9.1 (1.1)	6.7 (1.4)	6.2 (2.1)
Year Person 1 Moved In	Moved in 2009	6.7 (1.0)	2.7 (0.2)	5.1 (1.0)	4.0 (1.3)	1.7 (1.0)
111	Moved in 2008	5.5 (1.0)	2.2 (0.2)	2.4 (0.7)	3.2 (1.4)	1.7 (0.7)
	Moved in 2007 or earlier	4.5 (0.9)	2.7 (0.2)	3.4 (0.9)	4.7 (1.6)	1.6 (0.7)
	L-Fold (Aggregate)	5.6 (0.6)	2.7 (0.2)	4.4 (0.6)	4.5 (0.9)	3.2 (0.9)

Appendix D: GDR Estimates By Hispanic Origin/Race Subgroup (Hispanic, White, Black, Asian, or Other)

Analysis Topic	Analysis category	Hispanic GDR	White GDR	Black GDR	Asian GDR	Other GDR
	Less than one acre	9.0 (1.4)	6.0 (0.4)	15.2 (2.4)	6.4 (2.1)	7.0 (2.3)
Lot Size	1 to 9.9 acres	7.8 (1.4)	6.4 (0.5)	14.6 (2.3)	6.5 (2.1)	8.7 (2.5)
Lot Size	10 or more acres	1.4 (0.5)	1.2 (0.1)	0.7 (0.5)	0.1 (0.1)	2.2 (1.0)
	L-Fold (Aggregate)	8.7 (1.4)	5.8 (0.4)	15.0 (2.3)	6.4 (2.1)	7.2 (2.3)
	None	3.7 (2.2)	3.5 (0.5)	1.1 (0.8)	23.9 (22.2)	0.4 (0.4)
	\$1 to \$999	0.2 (0.2)	2.3 (0.4)	0.7 (0.7)	23.9 (22.2)	0.5 (0.5)
	\$1,000 to \$2,499	0.0 (1.7)	0.7 (0.2)	0.4 (0.4)	0.0 (7.7)	0.0 (2.7)
Agricultural Sales	\$2,500 to \$4,999	0.6 (0.5)	0.6 (0.2)	0.0 (1.5)	0.0 (7.7)	0.4 (0.4)
	\$5,000 to \$9,999	1.8 (1.8)	0.7 (0.2)	0.0 (1.5)	0.0 (7.7)	0.9 (0.7)
	\$10,000 or more	1.2 (1.0)	0.9 (0.3)	0.0 (1.5)	0.0 (7.7)	0.4 (0.4)
	L-Fold (Aggregate)	3.6 (2.1)	3.3 (0.5)	1.1 (0.8)	23.9 (22.2)	0.4 (0.4)
Business On Property	Yes	1.7 (0.7)	1.9 (0.3)	1.9 (0.7)	3.3 (1.4)	2.0 (1.0)
	1 room	3.2 (0.6)	2.0 (0.2)	2.8 (0.6)	4.7 (1.4)	7.2 (2.8)
	2 rooms	5.2 (1.0)	2.4 (0.2)	2.6 (0.6)	6.4 (1.8)	4.5 (1.9)
	3 rooms	11.4 (1.4)	6.4 (0.4)	8.3 (1.3)	11.7 (2.5)	12.5 (2.9)
	4 rooms	18.3 (1.3)	11.2 (0.6)	16.3 (1.5)	16.3 (2.8)	18.5 (3.2)
Number Of Rooms	5 rooms	23.2 (1.8)	16.5 (0.6)	20.6 (2.3)	18.9 (2.4)	12.3 (2.1)
Number Of Rooms	6 rooms	20.2 (2.0)	18.3 (0.6)	16.1 (1.6)	16.4 (2.6)	10.5 (1.5)
	7 rooms	12.1 (1.6)	15.1 (0.5)	13.3 (2.0)	12.3 (2.7)	9.2 (2.1)
	8 rooms	4.4 (0.9)	11.6 (0.5)	6.9 (1.0)	8.3 (2.0)	6.5 (1.6)
	9 or more rooms	3.7 (0.8)	8.3 (0.4)	6.2 (1.0)	5.6 (1.6)	3.2 (1.1)
	L-Fold (Aggregate)	16.2 (0.9)	13.2 (0.2)	14.0 (0.9)	13.2 (1.1)	12.2 (1.3)

Appendix D: GDR Estimates By Hispanic Origin/Race Subgroup (Hispanic, White, Black, Asian, or Other)

Analysis Topic	Analysis category	Hispanic GDR	White GDR	Black GDR	Asian GDR	Other GDR
	No bedrooms	1.7 (0.5)	0.7 (0.1)	0.5 (0.2)	0.1 (0.1)	0.1 (0.1)
	1 bedroom	2.6 (0.5)	1.4 (0.2)	1.4 (0.5)	1.6 (0.9)	1.5 (1.1)
	2 bedrooms	5.6 (1.0)	4.3 (0.3)	4.3 (0.9)	2.3 (0.7)	3.5 (1.2)
Number Of Bedrooms	3 bedrooms	9.0 (1.3)	7.2 (0.4)	7.2 (1.2)	5.6 (1.6)	8.0 (2.2)
	4 bedrooms	7.1 (1.2)	5.1 (0.3)	5.3 (1.2)	6.9 (2.1)	6.6 (2.1)
	5 or more bedrooms	1.0 (0.4)	1.8 (0.2)	1.5 (0.4)	2.2 (0.8)	1.0 (0.7)
	L-Fold (Aggregate)	6.6 (0.8)	5.3 (0.2)	5.1 (0.8)	4.2 (1.0)	5.4 (1.3)
Running Water	Yes	0.8 (0.4)	0.2 (0.1)	0.4 (0.3)	0.0 (0.3)	0.8 (0.7)
Toilet	Yes	0.4 (0.2)	0.3 (0.1)	0.1 (0.1)	0.0 (0.3)	1.5 (1.0)
Bath Shower	Yes	0.3 (0.2)	0.2 (0.1)	0.3 (0.2)	0.5 (0.4)	1.5 (1.0)
Sink	Yes	0.8 (0.4)	0.4 (0.1)	0.4 (0.2)	0.5 (0.6)	1.5 (1.0)
Stove	Yes	1.1 (0.4)	0.7 (0.1)	0.6 (0.2)	1.2 (0.7)	1.7 (1.0)
Refrigerator	Yes	0.3 (0.2)	0.4 (0.1)	0.5 (0.2)	0.1 (0.1)	0.5 (0.3)
	No vehicle available	3.5 (0.7)	2.0 (0.2)	4.6 (0.9)	1.7 (0.6)	2.7 (1.3)
	1 vehicles available	9.4 (1.3)	6.3 (0.5)	11.2 (1.5)	6.9 (2.7)	11.7 (2.7)
	2 vehicles available	11.7 (1.2)	10.5 (0.5)	11.6 (1.4)	13.4 (3.3)	15.0 (3.3)
Number Of Vehicles	3 vehicles available	7.2 (1.0)	6.9 (0.4)	6.9 (1.3)	8.1 (2.5)	6.5 (2.0)
	4 vehicles available	3.7 (0.7)	3.2 (0.3)	2.5 (0.7)	2.6 (1.2)	2.5 (1.2)
	5 or more vehicles available	1.4 (0.5)	1.2 (0.2)	1.3 (0.6)	0.0 (0.3)	1.9 (1.1)
	L-Fold (Aggregate)	8.7 (0.7)	7.6 (0.4)	9.2 (1.0)	9.1 (2.3)	11.1 (2.4)

Appendix D: GDR Estimates By Hispanic Origin/Race Subgroup (Hispanic, White, Black, Asian, or Other)

Analysis Topic	Analysis category	Hispanic GDR	White GDR	Black GDR	Asian GDR	Other GDR
	Utility gas	16.5 (1.6)	7.0 (0.3)	12.1 (1.3)	24.3 (4.0)	13.6 (3.1)
	Bottled, tank, or LP gas	1.8 (0.5)	2.0 (0.2)	1.4 (0.5)	1.4 (0.9)	4.5 (1.6)
	Electricity	15.5 (1.5)	7.9 (0.4)	12.3 (1.5)	24.1 (4.0)	15.3 (3.0)
	Fuel oil, kerosene, etc.	2.9 (0.7)	0.9 (0.1)	1.5 (0.4)	2.1 (1.1)	2.1 (1.1)
Heating Fuel Used	Coal or coke	0.1 (0.1)	0.0 (0.0)	0.0 (0.1)	0.0 (0.3)	0.1 (0.1)
	Wood	0.7 (0.3)	1.0 (0.1)	0.5 (0.3)	0.1 (0.1)	1.4 (0.5)
	Solar energy or other fuel	1.2 (0.4)	0.9 (0.1)	0.9 (0.6)	2.6 (1.5)	1.1 (0.6)
	No fuel used	3.5 (0.8)	0.3 (0.1)	0.8 (0.5)	2.0 (1.0)	3.4 (1.2)
	L-Fold (Aggregate)	14.4 (1.3)	6.5 (0.3)	11.3 (1.2)	21.9 (3.5)	12.1 (2.5)
	Less than \$25	1.5 (0.4)	1.3 (0.2)	0.7 (0.3)	2.4 (0.8)	0.4 (0.3)
	\$25 to \$49	7.1 (0.9)	6.7 (0.4)	5.9 (0.8)	9.0 (1.5)	5.1 (1.6)
	\$50 to \$74	16.4 (1.6)	12.9 (0.4)	12.3 (1.6)	18.5 (2.5)	9.3 (1.9)
	\$75 to \$99	15.8 (1.6)	14.5 (0.5)	13.9 (1.5)	18.1 (2.5)	15.5 (3.5)
Monthly Electricity	\$100 to \$149	21.1 (1.9)	21.4 (0.7)	18.9 (1.8)	25.8 (3.0)	17.8 (3.2)
Cost	\$150 to \$199	12.5 (1.3)	15.8 (0.6)	13.7 (1.5)	12.2 (2.2)	16.0 (3.3)
	\$200 or more	9.4 (1.2)	11.0 (0.6)	11.7 (1.5)	9.9 (2.6)	12.5 (3.1)
	Included in rent or condominium fee	1.2 (0.4)	1.0 (0.2)	2.1 (0.6)	1.2 (1.0)	1.8 (1.0)
	No charge or electricity not used	1.0 (0.5)	0.9 (0.1)	0.9 (0.4)	1.7 (1.1)	1.7 (1.0)
	L-Fold (Aggregate)	13.7 (0.7)	14.2 (0.3)	12.7 (0.8)	16.4 (1.4)	12.6 (1.9)

Appendix D: GDR Estimates By Hispanic Origin/Race Subgroup (Hispanic, White, Black, Asian, or Other)

Analysis Topic	Analysis category	Hispanic GDR	White GDR	Black GDR	Asian GDR	Other GDR
-	Less than \$25	8.5 (1.1)	8.4 (0.4)	4.4 (0.9)	9.1 (1.8)	5.8 (1.4)
	\$25 to \$49	15.3 (1.6)	13.0 (0.5)	12.1 (1.5)	13.5 (2.8)	8.6 (1.9)
	\$50 to \$74	9.4 (1.3)	12.0 (0.6)	10.6 (1.6)	9.6 (2.2)	10.1 (2.3)
	\$75 to \$99	5.9 (1.1)	7.6 (0.5)	5.9 (0.9)	6.1 (1.5)	5.9 (1.8)
	\$100 to \$149	5.1 (1.0)	9.9 (0.6)	7.9 (1.4)	8.2 (2.0)	5.7 (1.5)
Monthly Gas Cost	\$150 to \$199	1.2 (0.3)	4.4 (0.3)	5.2 (1.0)	4.1 (1.5)	2.5 (1.1)
	\$200 or more	2.9 (0.7)	3.4 (0.2)	5.1 (0.9)	1.1 (0.3)	6.6 (2.2)
	Included in rent or condominium fee	4.1 (0.9)	2.6 (0.2)	4.4 (1.0)	3.6 (1.1)	4.5 (2.0)
	Included in electricity payment	7.7 (1.2)	6.9 (0.4)	7.6 (1.4)	10.5 (1.7)	9.8 (2.6)
	No charge or gas not used	6.4 (0.8)	6.6 (0.4)	7.4 (1.2)	7.3 (2.2)	11.3 (2.4)
	L-Fold (Aggregate)	8.4 (0.6)	8.4 (0.2)	7.7 (0.6)	8.9 (1.1)	8.7 (1.1)
	Less than \$120	6.0 (0.9)	9.0 (0.4)	10.1 (2.0)	7.2 (1.8)	5.1 (1.5)
	\$120 to \$299	5.2 (1.0)	8.2 (0.4)	8.6 (1.4)	9.9 (2.3)	4.0 (1.5)
	\$300 to \$599	11.4 (1.3)	16.1 (0.6)	15.5 (1.7)	14.5 (2.8)	15.0 (2.7)
	\$600 to \$899	16.0 (1.4)	14.8 (0.6)	16.1 (2.6)	15.1 (2.2)	13.5 (2.9)
	\$900 to \$1199	9.6 (1.3)	7.7 (0.4)	6.8 (1.2)	13.9 (2.7)	7.3 (2.0)
Annual Water Sewer	\$1200 to \$1799	9.3 (1.3)	5.9 (0.3)	8.3 (1.2)	9.6 (2.0)	3.8 (1.2)
Cost	\$1800 to \$2399	1.7 (0.5)	1.7 (0.2)	1.2 (0.4)	0.8 (0.3)	0.6 (0.3)
	\$2400 to \$3599	1.4 (0.5)	1.0 (0.2)	0.6 (0.3)	2.3 (1.0)	0.3 (0.2)
	\$3600 or more	0.3 (0.2)	0.4 (0.1)	0.7 (0.5)	1.9 (1.3)	0.2 (0.1)
	Included in rent or condominium fee	12.4 (1.5)	5.6 (0.4)	14.6 (1.8)	11.2 (2.5)	12.1 (3.0)
	No charge	11.2 (1.4)	5.1 (0.4)	12.8 (1.6)	6.1 (1.6)	10.9 (2.8)
	L-Fold (Aggregate)	11.3 (0.7)	9.9 (0.3)	12.8 (0.8)	11.5 (1.1)	11.0 (1.4)

Appendix D: GDR Estimates By Hispanic Origin/Race Subgroup (Hispanic, White, Black, Asian, or Other)

Analysis Topic		Hispanic	White	Black	Asian	Other
		GDR	GDR	GDR	GDR	GDR
	Less than \$300	1.1 (0.5)	2.7 (0.2)	3.0 (1.6)	1.2 (0.7)	2.9 (1.3)
	\$300 to \$599	0.6 (0.2)	1.9 (0.2)	0.4 (0.2)	0.4 (0.3)	2.0 (1.1)
	\$600 to \$899	0.3 (0.1)	1.5 (0.1)	0.9 (0.5)	0.0(0.3)	4.4 (2.2)
	\$900 to \$1199	0.4 (0.3)	1.4 (0.2)	0.3 (0.2)	0.3 (0.2)	0.9 (0.4)
Annual Other Fuel Cost	\$1200 to \$1799	0.5 (0.3)	2.1 (0.3)	0.4 (0.2)	0.2(0.1)	0.3 (0.2)
Annual Other Fuel Cost	\$1800 to \$2399	0.0(0.0)	1.4 (0.2)	0.4 (0.3)	0.7 (0.3)	1.7 (1.2)
	\$2400 or more	0.1 (0.0)	1.2 (0.1)	0.4 (0.3)	0.9 (0.7)	0.8 (0.6)
	Included in rent or condominium fee	1.9 (0.4)	2.2 (0.2)	1.4 (0.4)	4.9 (1.4)	1.8 (0.7)
	No charge	4.1 (0.7)	8.3 (0.4)	6.5 (1.9)	7.1 (1.7)	10.1 (2.8)
	L-Fold (Aggregate)	4.0 (0.7)	7.3 (0.3)	6.1 (1.7)	6.7 (1.6)	8.9 (2.3)
Food Stamp Recipiency	Yes	7.8 (0.9)	2.7 (0.2)	7.6 (0.7)	2.7 (0.8)	3.2 (1.2)
	Less than \$100 per month	18.4 (11.6)	4.3 (1.3)	3.4 (3.5)	17.5 (15.4)	14.1 (9.1)
	\$100 to \$149	0.7 (0.8)	3.2 (1.2)	0.0 (4.7)	0.0 (4.0)	2.6 (2.9)
	\$150 to \$199	0.7 (0.8)	4.8 (1.7)	3.4 (2.6)	0.0(4.0)	4.6 (3.9)
Condominium Fee	\$200 to \$299	18.9 (11.3)	4.2 (1.1)	5.6 (4.3)	14.3 (7.6)	8.7 (9.3)
	\$300 to \$499	2.2 (1.4)	6.2 (1.8)	1.2 (1.3)	12.5 (7.3)	3.5 (2.9)
	\$500 or more per month	0.0 (2.3)	3.0 (0.8)	0.0 (4.7)	19.3 (15.3)	0.0 (8.2)
	L-Fold (Aggregate)	10.7 (8.2)	4.6 (1.0)	2.6 (2.0)	14.1 (6.7)	5.7 (4.7)
Condominium Status	Yes	5.0 (1.1)	2.0 (0.2)	1.7 (0.4)	4.6 (1.5)	2.9 (1.3)
	Owned with a mortgage	5.5 (1.1)	3.9 (0.3)	4.0 (0.8)	5.4 (2.0)	3.2 (1.7)
	Owned without a mortgage	3.7 (0.9)	4.2 (0.3)	4.5 (1.0)	2.8 (1.3)	2.1 (0.9)
Tenure	Rented	4.5 (0.9)	1.3 (0.2)	2.6 (0.7)	3.5 (1.8)	2.1 (1.1)
	Occupied without payment of rent	2.6 (1.0)	1.3 (0.2)	2.0 (0.7)	1.3 (1.0)	0.9 (0.3)
	L-Fold (Aggregate)	4.7 (0.7)	3.2 (0.2)	3.3 (0.6)	4.1 (1.5)	2.5 (1.2)

Appendix D: GDR Estimates By Hispanic Origin/Race Subgroup (Hispanic, White, Black, Asian, or Other)

Analysis Topic	Analysis category	Hispanic GDR	White GDR	Black GDR	Asian GDR	Other GDR
	Less than \$100	0.3 (0.2)	0.5 (0.2)	0.7 (0.4)	0.0 (0.7)	0.1 (0.1)
	\$100 to \$149	0.9 (0.6)	0.6 (0.2)	1.5 (0.8)	0.0 (0.7)	0.0 (0.9)
	\$150 to \$199	0.5 (0.3)	0.8 (0.3)	1.4 (0.6)	0.1 (0.1)	0.4 (0.3)
	\$200 to \$249	1.0 (0.7)	0.6 (0.3)	1.0 (0.5)	0.3 (0.3)	0.9 (0.7)
	\$250 to \$299	1.3 (0.6)	0.9 (0.3)	0.1 (0.1)	0.3 (0.3)	0.8 (0.7)
	\$300 to \$349	0.5 (0.5)	0.9 (0.3)	1.5 (0.7)	0.1 (0.1)	0.5 (0.4)
	\$350 to \$399	1.6 (0.7)	1.6 (0.4)	1.6 (0.7)	0.0 (0.7)	0.0 (0.9)
	\$400 to \$449	1.7 (0.6)	0.9 (0.2)	1.2 (0.7)	0.0 (0.7)	0.4 (0.3)
	\$450 to \$499	1.4 (0.6)	1.5 (0.4)	1.8 (0.7)	0.3 (0.3)	0.3 (0.2)
	\$500 to \$549	3.3 (1.0)	1.4 (0.4)	2.2 (0.8)	1.7 (1.3)	0.3 (0.2)
Monthly Dont	\$550 to \$599	2.4 (0.8)	1.3 (0.4)	3.4 (1.3)	1.9 (1.4)	0.2 (0.1)
Monthly Rent	\$600 to \$649	1.4 (0.6)	1.9 (0.5)	3.7 (1.4)	1.0 (0.7)	4.4 (3.7)
	\$650 to \$699	0.6 (0.3)	1.6 (0.5)	3.1 (1.0)	3.9 (3.5)	4.9 (3.8)
	\$700 to \$749	1.9 (0.8)	1.3 (0.3)	2.9 (1.3)	7.4 (4.2)	0.3 (0.2)
	\$750 to \$799	1.8 (0.8)	1.6 (0.4)	1.4 (0.7)	4.7 (2.7)	5.3 (2.9)
	\$800 to \$899	3.2 (1.0)	2.6 (0.5)	1.6 (0.8)	5.3 (2.4)	7.5 (3.2)
	\$900 to \$999	2.2 (0.9)	1.2 (0.3)	2.8 (1.1)	4.3 (2.0)	3.1 (2.2)
	\$1,000 to \$1,249	3.0 (0.9)	1.5 (0.4)	1.6 (0.7)	2.4 (1.9)	4.1 (2.4)
	\$1,250 to \$1,499	2.6 (1.1)	1.3 (0.4)	1.7 (1.0)	3.2 (1.8)	0.4 (0.4)
	\$1,500 to \$1,999	3.4 (1.2)	1.0 (0.3)	1.2 (0.5)	5.7 (2.4)	1.5 (1.2)
	\$2,000 or more	0.7 (0.4)	0.3 (0.2)	0.5 (0.3)	1.8 (1.3)	0.0 (0.9)
	L-Fold (Aggregate)	2.2 (0.3)	1.4 (0.1)	2.0 (0.3)	3.9 (1.2)	2.7 (1.1)
Meals Included In Rent	Yes	1.4 (0.7)	1.0 (0.3)	1.8 (0.6)	0.6 (0.5)	0.7 (0.5)

Appendix D: GDR Estimates By Hispanic Origin/Race Subgroup (Hispanic, White, Black, Asian, or Other)

Analysis Topic	Analysis category	Hispanic GDR	White GDR	Black GDR	Asian GDR	Other GDR
	Less than \$50,000	2.5 (0.8)	2.5 (0.2)	5.9 (1.7)	0.8 (0.7)	9.3 (4.7)
	\$50,000 to \$99,999	5.6 (1.2)	4.7 (0.4)	8.0 (1.8)	2.4 (1.7)	8.2 (2.4)
	\$100,000 to \$149,999	9.8 (2.1)	8.2 (0.5)	11.8 (2.4)	5.4 (2.3)	16.3 (5.5)
	\$150,000 to \$199,999	11.3 (2.2)	8.1 (0.4)	9.7 (2.2)	7.7 (2.5)	12.4 (4.3)
Property Value	\$200,000 to \$299,999	8.2 (2.0)	7.6 (0.5)	5.1 (1.2)	10.0 (2.6)	11.0 (4.0)
	\$300,000 to \$499,999	5.6 (1.7)	5.3 (0.5)	5.2 (1.6)	8.8 (2.4)	4.8 (2.5)
	\$500,000 to \$999,999	0.5 (0.2)	2.1 (0.3)	1.1 (0.8)	4.6 (1.6)	0.4 (0.3)
	\$1,000,000 or more	0.2 (0.1)	0.4 (0.1)	0.0 (0.3)	0.9 (0.4)	0.2 (0.2)
	L-Fold (Aggregate)	7.3 (0.9)	6.2 (0.3)	7.7 (1.0)	6.8 (1.4)	10.6 (2.5)
	None	2.2 (1.1)	1.7 (0.3)	4.6 (1.7)	0.0 (0.7)	4.0 (2.2)
	\$1 to \$299	4.3 (1.5)	2.7 (0.4)	6.0 (1.4)	0.0(0.7)	7.5 (3.5)
	\$300 to \$599	5.0 (1.3)	3.7 (0.4)	8.0 (1.7)	0.0(0.7)	2.7 (1.5)
	\$600 to \$899	5.3 (1.4)	4.8 (0.4)	8.3 (2.0)	0.4 (0.3)	5.7 (2.3)
	\$900 to \$1199	6.4 (1.8)	6.0 (0.4)	6.3 (1.8)	3.0 (1.7)	4.0 (1.7)
	\$1,200 to \$1,499	9.4 (2.5)	7.7 (0.5)	13.9 (4.7)	4.3 (1.7)	6.2 (2.4)
Annual Property Tax	\$1,500 to \$1,799	6.1 (2.0)	6.3 (0.5)	7.9 (2.6)	4.4 (2.0)	3.3 (2.7)
Amount	\$1,800 to \$2,399	9.5 (1.9)	10.0 (0.7)	12.7 (4.6)	7.8 (2.5)	17.0 (6.0)
	\$2,400 to \$3,599	8.6 (1.8)	9.7 (0.5)	6.9 (2.3)	12.8 (3.8)	15.8 (5.3)
	\$3,600 to \$4,799	5.1 (1.2)	5.0 (0.3)	2.5 (1.0)	16.2 (4.4)	11.8 (4.3)
	\$4,800 to \$5,999	5.1 (1.5)	3.2 (0.3)	2.4 (1.2)	5.0 (2.2)	8.7 (3.4)
	\$6,000 to \$7,199	2.7 (0.8)	3.0 (0.3)	2.8 (1.6)	6.0 (1.9)	5.5 (2.1)
	\$7,200 or more	0.6 (0.3)	2.7 (0.3)	1.0 (0.4)	5.5 (1.8)	2.3 (1.4)
	L-Fold (Aggregate)	6.4 (0.8)	6.3 (0.2)	8.0 (1.5)	8.9 (1.9)	9.3 (2.3)

Appendix D: GDR Estimates By Hispanic Origin/Race Subgroup (Hispanic, White, Black, Asian, or Other)

Analysis Topic	Analysis category	Hispanic GDR	White GDR	Black GDR	Asian GDR	Other GDR
	None	5.6 (1.7)	5.8 (0.5)	8.8 (2.8)	4.3 (1.1)	2.2 (0.8)
	\$1 to \$119	1.7 (0.6)	1.4 (0.2)	4.4 (1.9)	4.4 (2.9)	0.0 (1.1)
	\$120 to \$299	2.9 (1.1)	3.9 (0.5)	4.7 (1.5)	10.1 (3.9)	0.7 (0.4)
	\$300 to \$599	9.7 (2.0)	13.5 (0.7)	11.7 (1.9)	11.4 (3.3)	14.4 (4.1)
	\$600 to \$899	14.3 (2.5)	16.5 (0.8)	12.9 (2.4)	11.3 (2.3)	15.4 (4.3)
Annual Property	\$900 to \$1,199	10.6 (2.3)	13.2 (0.7)	14.0 (3.0)	14.8 (3.3)	13.4 (5.3)
Insurance Amount	\$1,200 to \$1,799	12.1 (2.5)	12.6 (0.7)	18.9 (3.5)	15.2 (4.4)	15.5 (5.4)
	\$1,800 to \$2,399	3.9 (1.1)	6.0 (0.5)	10.4 (2.9)	4.5 (2.4)	5.0 (2.5)
	\$2,400 to \$3,599	5.9 (2.0)	3.3 (0.3)	3.9 (1.4)	6.3 (2.9)	3.3 (2.3)
	\$3,600 to \$4,799	0.9 (0.6)	0.7 (0.2)	2.6 (2.2)	2.1 (1.3)	2.9 (2.2)
	\$4,800 or more	2.5 (1.4)	1.1 (0.2)	0.4 (0.3)	1.5 (0.9)	0.3 (0.3)
	L-Fold (Aggregate)	9.7 (1.1)	12.0 (0.3)	12.0 (1.2)	11.0 (1.4)	12.3 (2.3)
	Owned with a mortgage	10.8 (2.2)	5.8 (0.4)	12.4 (4.5)	4.8 (1.9)	3.1 (1.0)
Mortgogo Status	Under contract to purchase	6.3 (2.1)	1.7 (0.3)	2.1 (0.8)	0.8 (0.4)	0.5 (0.4)
Mortgage Status	No mortgage	4.7 (1.5)	4.5 (0.3)	10.3 (4.2)	4.0 (1.8)	2.6 (1.0)
	L-Fold (Aggregate)	10.2 (2.0)	5.6 (0.4)	12.0 (4.3)	4.7 (1.8)	3.1 (1.0)

Appendix D: GDR Estimates By Hispanic Origin/Race Subgroup (Hispanic, White, Black, Asian, or Other)

Analysis Topic	Analysis category	Hispanic GDR	White GDR	Black GDR	Asian GDR	Other GDR
	Less than \$200	1.7 (1.3)	0.3 (0.1)	1.2 (0.8)	0.0 (0.7)	0.0 (1.1)
	\$200 to \$249	0.0 (0.3)	0.6 (0.2)	0.5 (0.3)	0.0 (0.7)	0.4 (0.4)
	\$250 to \$299	0.3 (0.2)	0.5 (0.2)	1.5 (0.8)	1.9 (1.9)	0.9 (0.8)
	\$300 to \$349	0.3 (0.2)	0.7 (0.2)	0.2 (0.2)	2.4 (1.9)	0.3 (0.3)
	\$350 to \$399	2.2 (1.4)	0.9 (0.2)	1.3 (0.8)	2.9 (2.1)	1.2 (0.7)
	\$400 to \$449	2.5 (1.4)	1.3 (0.2)	1.9 (0.9)	0.4 (0.4)	0.8 (0.6)
	\$450 to \$499	1.0 (0.6)	1.3 (0.3)	2.3 (1.0)	0.4 (0.4)	0.5 (0.4)
Monthly Mortgage	\$500 to \$599	3.8 (1.3)	2.5 (0.4)	4.5 (2.1)	1.3 (1.0)	2.3 (1.4)
Payment	\$600 to \$699	2.6 (1.0)	3.7 (0.6)	2.2 (0.5)	4.5 (3.5)	6.1 (3.3)
	\$700 to \$799	3.9 (1.6)	3.2 (0.4)	3.5 (1.0)	3.7 (3.2)	2.5 (1.8)
	\$800 to \$999	5.7 (1.8)	4.0 (0.4)	5.4 (2.2)	4.9 (3.4)	9.2 (4.2)
	\$1,000 to \$1,249	5.8 (1.9)	6.7 (0.7)	2.2 (0.8)	5.1 (3.2)	9.4 (4.8)
	\$1,250 to \$1,499	4.3 (1.9)	3.9 (0.4)	4.4 (2.0)	4.1 (1.3)	12.8 (4.8)
	\$1,500 to \$1,999	5.5 (1.9)	4.5 (0.5)	4.8 (1.9)	8.3 (2.6)	13.4 (4.4)
	\$2,000 or more	1.0 (0.3)	2.7 (0.5)	3.9 (1.5)	8.1 (3.1)	3.5 (1.8)
	L-Fold (Aggregate)	4.2 (0.8)	3.8 (0.2)	3.6 (0.8)	6.0 (1.5)	7.7 (1.9)
Property Tax Included	Yes	5.7 (1.7)	6.7 (0.6)	10.6 (2.3)	15.7 (4.3)	9.8 (4.0)
Property Insurance Included	Yes	8.7 (2.0)	11.6 (0.8)	10.9 (1.8)	19.5 (4.6)	8.8 (2.9)
	Home equity loan	8.6 (2.2)	6.3 (0.4)	5.9 (1.7)	8.5 (2.8)	6.9 (3.1)
	Second mortgage	2.2 (0.9)	2.6 (0.3)	7.1 (1.8)	4.8 (2.1)	3.8 (2.5)
Second Mortgage Type	Second mortgage and home equity loan	1.4 (0.6)	1.3 (0.2)	1.1 (0.7)	2.4 (1.5)	3.6 (2.1)
	No second mortgage or home equity loan	8.1 (2.2)	5.8 (0.4)	8.2 (2.0)	10.7 (3.0)	6.5 (2.9)
	L-Fold (Aggregate)	7.8 (2.0)	5.6 (0.4)	7.8 (1.7)	9.8 (2.5)	6.3 (2.5)

Appendix D: GDR Estimates By Hispanic Origin/Race Subgroup (Hispanic, White, Black, Asian, or Other)

Analysis Topic	Analysis category	Hispanic GDR	White GDR	Black GDR	Asian GDR	Other GDR
	Less than \$100	0.0 (2.4)	5.3 (1.3)	2.1 (2.2)	0.0 (4.1)	3.2 (3.4)
	\$100 to \$199	5.3 (2.5)	12.3 (1.8)	6.5 (3.2)	6.5 (4.2)	6.7 (5.0)
	\$200 to \$249	17.3 (9.8)	10.4 (1.4)	21.3 (11.8)	9.6 (6.8)	12.7 (7.8)
	\$250 to \$299	12.4 (10.0)	4.7 (0.9)	9.6 (5.2)	5.2 (3.5)	11.9 (7.5)
	\$300 to \$349	5.0 (3.1)	6.8 (1.2)	7.8 (5.1)	0.0 (4.1)	4.9 (4.0)
	\$350 to \$399	1.1 (1.0)	4.3 (1.0)	0.4 (0.4)	3.4 (3.8)	0.0 (7.6)
C 1 M	\$400 to \$449	5.6 (3.4)	3.4 (0.6)	0.0 (2.8)	2.1 (1.8)	0.0 (7.6)
Second Mortgage Payment Amount	\$450 to \$499	1.1 (1.1)	2.2 (0.7)	1.1 (1.2)	2.4 (1.9)	0.0 (7.6)
r ayment Amount	\$500 to \$599	6.9 (4.8)	6.8 (1.3)	3.4 (2.0)	10.8 (7.1)	0.5 (0.7)
	\$600 to \$699	3.0 (1.7)	2.3 (0.6)	0.4 (0.4)	1.8 (1.9)	0.0 (7.6)
	\$700 to \$799	0.0 (2.4)	1.5 (0.4)	0.0 (2.8)	2.8 (2.3)	0.0 (7.6)
	\$800 to \$999	0.9 (0.9)	2.0 (0.4)	15.3 (12.0)	0.0 (4.1)	0.0 (7.6)
	\$1,000 to \$1,249	0.9 (0.9)	1.7 (0.5)	0.0 (2.8)	4.5 (3.3)	0.0 (7.6)
	\$1,250 or more	5.7 (4.7)	1.8 (0.5)	0.0 (2.8)	0.6 (0.6)	0.0 (7.6)
	L-Fold (Aggregate)	7.6 (4.5)	6.9 (0.7)	9.9 (5.5)	5.0 (2.4)	8.6 (5.2)
	Less than \$250	13.9 (10.8)	18.3 (4.9)	0.0 (22.6)	100.0 (47.4)	3.2 (5.1)
Annual Mobile Home	\$250 to \$2,499	23.3 (12.5)	24.8 (5.2)	0.0 (22.6)	0.0 (47.4)	3.2 (5.1)
Costs	\$2,500 or more	15.8 (9.5)	25.5 (6.3)	0.0 (22.6)	100.0 (47.4)	0.0 (14.7)
	L-Fold (Aggregate)	17.5 (8.8)	23.7 (4.7)	0.0 (22.6)	100.0 (47.4)	1.1 (3.4)

Appendix D: GDR Estimates By Hispanic Origin/Race Subgroup (Hispanic, White, Black, Asian, or Other)

Analysis Topic	Analysis category	Hispanic GDR	White GDR	Black GDR	Asian GDR	Other GDR
	Householder	0.0 (0.0)	0.0 (0.0)	0.2 (0.2)	0.0 (0.1)	0.0 (0.1)
	Husband or Wife	1.2 (0.2)	0.3 (0.1)	0.1 (0.1)	0.6 (0.3)	0.0 (0.0)
	Biological Son or Daughter	1.9 (0.3)	1.1 (0.1)	1.5 (0.4)	0.3 (0.2)	2.7 (0.8)
	Adopted Son or Daughter	1.0 (0.3)	0.2 (0.1)	0.3 (0.2)	0.0 (0.0)	1.2 (0.7)
	Stepson or Stepdaughter	0.9 (0.3)	0.4 (0.1)	0.4 (0.2)	0.1 (0.1)	1.3 (0.5)
	Brother or sister	0.4 (0.1)	0.2 (0.1)	0.5 (0.3)	0.0 (0.0)	0.2 (0.2)
	Father or mother	0.7 (0.1)	0.3 (0.1)	0.5 (0.2)	0.9 (0.5)	0.5 (0.2)
D 1 .: 1: T	Grandchild	0.3 (0.1)	0.2 (0.1)	0.5 (0.2)	0.0 (0.1)	0.2 (0.1)
Relationship To Householder	Parent-in-law	0.1 (0.1)	0.1 (0.0)	0.3 (0.2)	0.5 (0.4)	0.0 (0.1)
Householder	Son-in-law or daughter-in-law	0.2 (0.1)	0.1 (0.0)	0.2 (0.1)	0.1 (0.1)	0.1 (0.0)
	Other relative	1.3 (0.4)	0.4 (0.1)	0.8 (0.2)	0.9 (0.6)	0.9 (0.8)
	Roomer or boarder	0.8 (0.3)	0.7 (0.1)	0.3 (0.1)	0.7 (0.3)	0.4 (0.2)
	Housemate or roommate	1.8 (0.5)	1.2 (0.2)	1.1 (0.4)	1.9 (0.6)	0.6 (0.3)
	Unmarried partner	1.2 (0.2)	0.7 (0.1)	0.6 (0.2)	1.0 (0.5)	0.1 (0.1)
	Foster child	0.1 (0.1)	0.0 (0.0)	0.1 (0.1)	0.0 (0.1)	0.2 (0.2)
	Other nonrelative	2.3 (0.6)	1.5 (0.2)	1.1 (0.4)	1.5 (0.6)	1.7 (0.8)
	L-Fold (Aggregate)	1.1 (0.1)	0.4 (0.0)	0.7 (0.1)	0.4 (0.1)	1.3 (0.4)
Sex	Male	0.8 (0.2)	0.7 (0.1)	0.9 (0.2)	0.5 (0.4)	0.2 (0.1)

Appendix D: GDR Estimates By Hispanic Origin/Race Subgroup (Hispanic, White, Black, Asian, or Other)

Analysis Topic	Analysis category	Hispanic	White	Black	Asian	Other
Analysis Topic		GDR	GDR	GDR	GDR	GDR
	Age 0-4	0.4 (0.1)	0.2 (0.0)	0.2 (0.1)	0.1 (0.1)	0.3 (0.1)
	Age 5-9	0.7 (0.2)	0.2 (0.0)	0.3 (0.1)	0.2 (0.1)	0.5 (0.1)
	Age 10-14	0.7 (0.1)	0.2 (0.0)	0.3 (0.1)	0.2 (0.1)	0.6 (0.2)
	Age 15-17	0.5 (0.1)	0.2 (0.0)	0.3 (0.1)	0.2 (0.1)	0.4 (0.2)
	Age 18-19	0.5 (0.1)	0.3 (0.0)	0.4 (0.1)	0.6 (0.2)	0.6 (0.2)
	Age 20	0.4 (0.1)	0.3 (0.1)	0.5 (0.2)	0.5 (0.2)	0.5 (0.2)
	Age 21	0.4 (0.1)	0.3 (0.1)	0.5 (0.2)	0.4 (0.2)	0.3 (0.1)
	Age 22-24	0.8 (0.1)	0.4 (0.1)	0.8 (0.2)	0.6 (0.3)	0.5 (0.2)
	Age 25-29	1.3 (0.2)	0.4 (0.0)	0.9 (0.2)	0.6 (0.2)	0.3 (0.2)
	Age 30-34	0.9 (0.1)	0.4 (0.0)	0.7 (0.2)	0.8 (0.2)	0.4 (0.2)
	Age 35-39	0.9 (0.1)	0.4 (0.0)	0.7 (0.2)	0.9 (0.3)	0.4 (0.2)
A	Age 40-44	1.2 (0.2)	0.5 (0.1)	0.9 (0.2)	0.6 (0.2)	0.3 (0.1)
Age	Age 45-49	1.2 (0.2)	0.5 (0.1)	0.8 (0.2)	0.8 (0.3)	0.7 (0.2)
	Age 50-54	0.7 (0.1)	0.6 (0.1)	0.7 (0.1)	1.0 (0.3)	1.1 (0.4)
	Age 55-59	0.6 (0.1)	0.6 (0.1)	0.5 (0.1)	1.0 (0.4)	0.6 (0.2)
	Age 60-61	0.3 (0.1)	0.5 (0.1)	0.4 (0.1)	0.5 (0.2)	0.2 (0.1)
	Age 62-64	0.4 (0.1)	0.5 (0.1)	0.4 (0.2)	0.4 (0.2)	0.1 (0.0)
	Age 65-66	0.2 (0.1)	0.4 (0.0)	0.4 (0.1)	0.3 (0.2)	0.1 (0.0)
	Age 67-69	0.2 (0.1)	0.4 (0.0)	0.2 (0.1)	0.4 (0.2)	0.2 (0.2)
	Age 70-74	0.2 (0.1)	0.3 (0.0)	0.2 (0.1)	0.3 (0.1)	0.2 (0.2)
	Age 75-79	0.1 (0.0)	0.3 (0.0)	0.1 (0.0)	0.4 (0.2)	0.0 (0.0)
	Age 80-84	0.2 (0.1)	0.2 (0.0)	0.1 (0.1)	0.2 (0.2)	0.0 (0.0)
	Age 85 +	0.1 (0.1)	0.1 (0.0)	0.1 (0.1)	0.2 (0.1)	0.0 (0.1)
	L-Fold (Aggregate)	0.8 (0.0)	0.4 (0.0)	0.5 (0.0)	0.6 (0.1)	0.4 (0.1)
Age Range Estimate	Age Range 0-14	11.4 (6.1)	3.6 (2.0)	2.7 (2.8)	0.0 (5.0)	0.0 (15.5)
Not Hispanic	Not Hispanic	3.6 (0.6)	1.4 (0.3)	0.8 (0.3)	0.4 (0.2)	1.7 (0.6)
Hispanic Mexican	Mexican	5.0 (1.1)	0.9 (0.2)	0.0 (0.0)	0.0 (0.1)	1.0 (0.5)
Hispanic Puerto Rican	Puerto Rican	0.5 (0.2)	0.2 (0.1)	0.3 (0.2)	0.0 (0.1)	0.2 (0.2)

Appendix D: GDR Estimates By Hispanic Origin/Race Subgroup (Hispanic, White, Black, Asian, or Other)

Analysis Topic	Analysis category	Hispanic GDR	White GDR	Black GDR	Asian GDR	Other GDR
Hispanic Cuban	Cuban	0.4 (0.2)	0.0 (0.0)	0.0 (0.0)	0.0 (0.1)	0.0 (0.1)
Hispanic Other	Other Hispanic	6.7 (1.3)	0.3 (0.1)	0.5 (0.2)	0.4 (0.2)	0.6 (0.2)
Hispanic Write-in Present	Hispanic write-in present	7.4 (1.2)	0.4 (0.1)	2.2 (0.9)	3.1 (2.0)	0.8 (0.3)
	Not Hispanic or Latino	2.7 (0.5)	1.4 (0.3)	0.7 (0.3)	0.2 (0.1)	1.6 (0.6)
	Mexican alone	4.8 (0.7)	0.8 (0.2)	0.0 (0.0)	0.0 (0.1)	1.0 (0.5)
	Puerto Rican alone	0.5 (0.2)	0.2 (0.1)	0.3 (0.2)	0.0 (0.1)	0.2 (0.2)
	Cuban alone	0.2 (0.1)	0.0(0.0)	0.0(0.0)	0.0 (0.1)	0.0 (0.1)
Hispanic Aggregate	Other Hispanic or Latino (no write-in, or one write-in alone)	4.1 (0.7)	0.2 (0.1)	0.4 (0.2)	0.2 (0.1)	0.4 (0.2)
	Multiple responses (with at least one Hispanic response)	2.5 (0.5)	0.1 (0.1)	0.0 (0.0)	0.0 (0.1)	0.1 (0.1)
	L-Fold (Aggregate)	4.0 (0.6)	1.4 (0.3)	0.7 (0.3)	0.2 (0.1)	1.6 (0.6)
Race White	White	31.3 (2.0)	0.7 (0.2)	1.8 (0.4)	4.5 (2.5)	16.4 (3.3)
Race Black	Black	2.1 (0.5)	0.1 (0.0)	0.8 (0.3)	0.9 (0.6)	4.8 (1.4)
Race American Indian Alaska Native	American Indian or Alaska Native	3.4 (0.6)	1.2 (0.2)	1.3 (0.6)	0.3 (0.3)	14.6 (2.5)
Race Asian Indian	Asian Indian	0.1 (0.1)	0.0 (0.0)	0.1 (0.1)	3.9 (1.0)	2.2 (1.0)
Race Chinese	Chinese	0.1 (0.1)	0.0(0.0)	0.0(0.0)	3.4 (1.4)	0.8(0.4)
Race Filipino	Filipino	0.1 (0.0)	0.0 (0.0)	0.0 (0.0)	0.2 (0.2)	3.2 (1.1)
Race Japanese	Japanese	0.2 (0.2)	0.0(0.0)	0.0(0.0)	1.9 (1.3)	0.6 (0.3)
Race Korean	Korean	0.0(0.0)	0.0(0.0)	0.0(0.0)	0.7 (0.5)	0.2 (0.2)
Race Vietnamese	Vietnamese	0.0(0.0)	0.0(0.0)	0.0(0.0)	0.8(0.5)	0.1 (0.1)
Race Other Asian	Other Asian	0.2 (0.2)	0.1 (0.1)	0.0 (0.0)	6.6 (2.2)	4.4 (1.9)
Race Hawaiian	Native Hawaiian	0.0(0.0)	0.0(0.0)	0.0(0.0)	0.0 (0.1)	0.4 (0.4)
Race Guamanian Or Chamorro Or Samoan Or Other Pacific Islander	Guamanian or Chamorro, Samoan, or Other Pacific Islander	0.0 (0.0)	0.0 (0.0)	0.1 (0.1)	1.7 (1.1)	1.5 (0.8)

Appendix D: GDR Estimates By Hispanic Origin/Race Subgroup (Hispanic, White, Black, Asian, or Other)

Analysis Topic	Analysis category	Hispanic	White	Black	Asian	Other
		GDR	GDR	GDR	GDR	GDR
Race Other	Some other race	34.1 (2.2)	0.8 (0.2)	2.2 (0.7)	3.1 (0.9)	10.7 (2.2)
Race Write-in 1 Present	Race write-in 1 present	2.7 (0.5)	0.8 (0.1)	1.9 (0.8)	0.0(0.0)	13.5 (2.5)
Race Write-in 2 Present	Race write-in 2 present	32.3 (2.1)	0.8 (0.2)	2.0 (0.7)	2.4 (0.9)	9.0 (2.1)
Race Write-in 3 Present	Race write-in 3 present	1.9 (0.7)	0.1 (0.1)	0.2 (0.1)	8.2 (1.9)	7.3 (2.4)
	White alone	33.6 (2.1)	2.3 (0.2)	0.3 (0.1)	0.5 (0.3)	16.5 (3.5)
	Black alone	1.4 (0.3)	0.0(0.0)	5.2 (1.0)	0.1 (0.1)	6.4 (2.9)
	American Indian or Alaska Native alone	1.3 (0.4)	0.2 (0.1)	0.0(0.0)	0.3 (0.3)	6.9 (1.6)
	Asian alone	0.1 (0.1)	0.1 (0.0)	0.0(0.0)	10.3 (1.9)	5.1 (1.8)
Race Aggregate	Native Hawaiian or Other Pacific Islander	0.0 (0.0)	0.0 (0.0)	0.1 (0.1)	0.0 (0.1)	0.8 (0.4)
	alone					
	Some Other Race alone	30.8 (2.0)	0.3 (0.1)	0.4 (0.3)	0.8 (0.6)	1.3 (0.3)
	Multiple Races	7.4 (1.0)	1.6 (0.2)	4.4 (1.0)	9.0 (1.9)	32.4 (4.1)
	L-Fold (Aggregate)	30.2 (1.8)	2.2 (0.2)	5.1 (1.0)	10.0 (1.8)	22.6 (2.8)

Appendix D: GDR Estimates By Hispanic Origin/Race Subgroup (Hispanic, White, Black, Asian, or Other)

Analysis Topic	Analysis category	Hispanic GDR	White GDR	Black GDR	Asian GDR	Other GDR
	Born in U.S., in state of current residence	0.7 (0.3)	1.2 (0.2)	1.7 (0.6)	0.8 (0.5)	4.0 (1.7)
	Born in U.S., Northeast region, not state	0.4 (0.2)	0.4 (0.1)	0.3 (0.2)	0.0 (0.0)	0.4 (0.4)
	of current residence					
	Born in U.S., Midwest region, not state of	0.8 (0.5)	0.5 (0.2)	0.2 (0.1)	0.0(0.0)	0.0 (0.1)
	current residence					
	Born in U.S., South region, not state of	0.1 (0.1)	0.6 (0.1)	1.6 (0.7)	0.7 (0.5)	3.5 (1.7)
	current residence	0.0 (0.5)	0.5 (0.1)	0.7 (0.4)	0.0 (0.1)	0.2 (0.1)
	Born in U.S., West region, not state of current residence	0.9 (0.5)	0.5 (0.1)	0.7 (0.4)	0.0 (0.1)	0.2 (0.1)
	Puerto Rico and U.S. Island and Outlying	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.1)	0.4 (0.4)
	Areas	(,	(,	()	(,	(3.7)
	Mexico	0.2 (0.1)	0.0 (0.0)	0.0 (0.0)	0.0 (0.1)	0.1 (0.1)
	El Salvador	0.2 (0.2)	0.0 (0.0)	0.0 (0.0)	0.0 (0.1)	0.0 (0.1)
	Cuba	0.1 (0.1)	0.0 (0.0)	0.0 (0.0)	0.0 (0.1)	0.0 (0.1)
Place of Birth	Dominican Republic	0.3 (0.3)	0.0 (0.0)	0.0 (0.0)	0.0 (0.1)	0.0 (0.1)
	Guatemala	0.1 (0.1)	0.0 (0.0)	0.0 (0.0)	0.0 (0.1)	0.0 (0.1)
	All Other Latin America	0.4 (0.3)	0.0 (0.0)	0.1 (0.1)	0.0 (0.1)	1.1 (1.1)
	Northern America	0.0 (0.0)	0.1 (0.0)	0.0 (0.0)	0.0 (0.1)	0.0 (0.1)
	China	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.5 (0.3)	0.0 (0.1)
	India	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.8 (0.5)	1.2 (1.1)
	Philippines	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.2 (0.2)	0.0 (0.1)
	Vietnam	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.2 (0.2)	0.0 (0.1)
	Korea	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.1)	0.0 (0.1)
	All Other Asia	0.2 (0.2)	0.0 (0.0)	0.0 (0.0)	1.1 (0.6)	0.1 (0.1)
	Europe	0.1 (0.0)	0.1 (0.0)	0.1 (0.0)	0.0 (0.0)	0.0 (0.1)
	Africa	0.0 (0.0)	0.0 (0.0)	0.1 (0.1)	0.0 (0.1)	0.0 (0.1)
	Oceania	0.1 (0.1)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.5 (0.4)
	L-Fold (Aggregate)	0.4 (0.1)	0.9 (0.1)	1.3 (0.5)	0.6 (0.2)	2.8 (1.2)

Appendix D: GDR Estimates By Hispanic Origin/Race Subgroup (Hispanic, White, Black, Asian, or Other)

Analysis Topic	Analysis category	Hispanic GDR	White GDR	Black GDR	Asian GDR	Other GDR
Place of Birth US or Not	Born in the U.S. (including Puerto Rico and outlying areas)	0.9 (0.3)	0.2 (0.1)	0.3 (0.1)	0.6 (0.3)	0.6 (0.4)
	Born outside the U.S.: Americas	0.0(0.0)	0.1 (0.1)	0.0 (0.4)	0.0 (0.1)	10.1 (9.6)
	Born outside the U.S.: Asia	0.0(0.0)	0.3 (0.3)	0.0 (0.4)	0.1 (0.1)	10.1 (9.6)
Place Of Birth Outside	Born outside the U.S.: Europe	0.0(0.0)	0.4 (0.3)	0.0 (0.4)	0.0(0.0)	0.0 (1.4)
US 1	Born outside the U.S.: Africa	0.0 (0.0)	0.0 (0.1)	0.0 (0.4)	0.0 (0.1)	0.0 (1.4)
	Born outside the U.S.: Oceania	0.0(0.0)	0.0 (0.1)	0.0 (0.4)	0.0(0.0)	0.0 (1.4)
	L-Fold (Aggregate)	0.0 (0.0)	0.3 (0.2)	0.0 (0.4)	0.1 (0.1)	7.6 (7.8)
	Born outside the U.S.: Northern America	0.0(0.0)	0.1 (0.1)	0.0 (0.4)	0.0 (0.1)	0.0 (1.4)
	Born outside the U.S.: Latin America	0.0(0.0)	0.0 (0.1)	0.0 (0.4)	0.0 (0.1)	10.1 (9.6)
DL OCD' d. O 1	Born outside the U.S.: Asia	0.0(0.0)	0.3 (0.3)	0.0 (0.4)	0.1 (0.1)	10.1 (9.6)
Place Of Birth Outside US 2	Born outside the U.S.: Europe	0.0(0.0)	0.4 (0.3)	0.0 (0.4)	0.0(0.0)	0.0 (1.4)
US Z	Born outside the U.S.: Africa	0.0(0.0)	0.0 (0.1)	0.0 (0.4)	0.0 (0.1)	0.0 (1.4)
	Born outside the U.S.: Oceania	0.0(0.0)	0.0 (0.1)	0.0 (0.4)	0.0(0.0)	0.0 (1.4)
	L-Fold (Aggregate)	0.0 (0.0)	0.3 (0.2)	0.0 (0.4)	0.1 (0.1)	7.3 (7.5)
	U.S. citizen, born in U.S.	0.7 (0.3)	0.2 (0.1)	0.4 (0.2)	0.9 (0.6)	0.2 (0.1)
	U.S. citizen, born in Puerto Rico or U.S.	0.1 (0.1)	0.0(0.0)	0.0(0.0)	0.0 (0.1)	0.4 (0.4)
	outlying areas					
Citizenship Status	U.S. citizen, born abroad of American	0.8 (0.2)	0.2 (0.1)	0.3 (0.1)	3.3 (1.8)	0.5 (0.4)
Citizensinp Status	parent(s)	2 7 (0 7)	0.2 (0.0)	0.5 (0.2)	7 0 (2 0)	0.0 (0.1)
	U.S. citizen by naturalization	2.5 (0.5)	0.2 (0.0)	0.6 (0.3)	5.0 (2.0)	0.2 (0.1)
	Not a U.S. citizen	1.7 (0.4)	0.2 (0.1)	0.3 (0.2)	1.5 (1.0)	0.2 (0.1)
	L-Fold (Aggregate)	1.3 (0.3)	0.2 (0.1)	0.4 (0.2)	3.1 (1.2)	0.2 (0.1)

Appendix D: GDR Estimates By Hispanic Origin/Race Subgroup (Hispanic, White, Black, Asian, or Other)

Analysis Topic	Analysis category	Hispanic	White	Black	Asian	Other
Analysis Topic		GDR	GDR	GDR	GDR	GDR
	Naturalized 2005 or later	2.4 (0.9)	4.6 (3.8)	3.0 (2.5)	1.5 (0.7)	0.0 (4.4)
	Naturalized 2000 to 2004	2.8 (0.9)	9.2 (4.1)	14.8 (12.8)	6.8 (4.0)	0.0 (4.4)
	Naturalized 1995 to 1999	6.3 (2.5)	8.7 (4.4)	17.3 (12.9)	11.1 (4.5)	2.7 (4.4)
Year Of Naturalization	Naturalized 1990 to 1994	4.9 (1.5)	10.4 (4.6)	6.3 (3.7)	4.6 (2.2)	0.0 (4.4)
Tear Of Naturalization	Naturalized 1985 to 1989	6.7 (2.7)	3.0 (1.3)	1.1 (0.9)	5.1 (2.1)	0.0(4.4)
	Naturalized 1980 to 1984	6.4 (2.2)	3.2 (1.8)	0.0(0.9)	4.6 (1.9)	2.2 (2.6)
	Naturalized before 1980	4.0 (1.8)	4.7 (2.0)	0.3 (0.3)	1.9 (1.5)	4.9 (6.0)
	L-Fold (Aggregate)	4.1 (0.9)	6.5 (2.0)	8.3 (7.5)	5.3 (1.8)	1.3 (2.7)
	Entered 2005 or later	2.5 (0.7)	0.9 (0.4)	3.7 (3.2)	1.1 (0.5)	0.0 (1.6)
	Entered 2000 to 2004	4.0 (1.3)	4.0 (1.9)	0.5 (0.5)	0.9 (0.3)	0.0 (1.6)
	Entered 1995 to 1999	5.6 (1.3)	5.0 (2.0)	3.5 (3.2)	1.1 (0.5)	3.5 (3.5)
Year Of Entry	Entered 1990 to 1994	4.4 (0.9)	2.0 (0.7)	0.3 (0.2)	0.9 (0.3)	8.9 (5.8)
rear Of Entry	Entered 1985 to 1989	4.9 (1.1)	2.8 (0.8)	0.7 (0.6)	5.6 (2.0)	8.5 (5.7)
	Entered 1980 to 1984	3.9 (1.2)	1.7 (0.6)	0.2 (0.2)	4.5 (2.0)	3.8 (3.5)
	Entered before 1980	2.3 (0.8)	2.4 (1.1)	0.6 (0.6)	2.2 (1.3)	0.7 (0.8)
	L-Fold (Aggregate)	3.9 (0.6)	2.8 (0.8)	1.9 (1.6)	2.4 (0.8)	2.5 (2.4)
	Enrolled in Public School	5.7 (1.2)	2.5 (0.3)	5.0 (0.9)	1.4 (0.4)	6.2 (2.6)
Cabaal Attandanaa	Enrolled in Private School	1.3 (0.4)	1.2 (0.2)	1.9 (0.4)	1.1 (0.6)	4.5 (2.6)
School Attendance	Not enrolled in school	5.2 (1.1)	2.3 (0.2)	3.9 (0.9)	2.1 (0.6)	4.0 (1.3)
	L-Fold (Aggregate)	5.2 (1.1)	2.3 (0.2)	4.1 (0.9)	1.9 (0.6)	4.6 (1.4)

Appendix D: GDR Estimates By Hispanic Origin/Race Subgroup (Hispanic, White, Black, Asian, or Other)

Analysis Topic	Analysis category	Hispanic GDR	White GDR	Black GDR	Asian GDR	Other GDR
	Enrolled in nursery school, preschool	0.2 (0.2)	0.8 (0.3)	0.6 (0.5)	0.5 (0.5)	0.9 (0.9)
	Enrolled in kindergarten	4.4 (2.8)	1.3 (0.4)	0.6 (0.5)	0.5 (0.5)	0.0 (0.6)
	Enrolled in Grade 1	4.7 (2.8)	0.7 (0.4)	0.1 (0.1)	5.6 (5.4)	0.8 (0.8)
	Enrolled in Grade 2	1.2 (0.5)	0.6 (0.2)	4.0 (2.3)	5.6 (5.4)	1.7 (0.9)
	Enrolled in Grade 3	0.5 (0.3)	1.8 (0.8)	3.5 (2.2)	0.0 (0.6)	2.5 (2.5)
	Enrolled in Grade 4	1.9 (1.0)	1.7 (0.8)	1.0 (0.6)	2.9 (2.8)	5.4 (3.1)
	Enrolled in Grade 5	3.9 (1.3)	2.5 (1.1)	1.6 (1.3)	2.9 (2.8)	3.3 (1.9)
	Enrolled in Grade 6	4.6 (1.7)	2.7 (1.2)	1.4 (1.2)	0.0 (0.6)	1.1 (0.8)
School Grade Level	Enrolled in Grade 7	4.8 (1.9)	1.3 (0.5)	1.3 (0.8)	0.0 (0.6)	0.7 (0.7)
	Enrolled in Grade 8	4.6 (1.6)	1.2 (0.3)	1.3 (0.8)	0.0 (0.6)	1.2 (1.0)
	Enrolled in Grade 9	2.6 (1.1)	1.9 (0.8)	0.2 (0.2)	0.0 (0.6)	0.7 (0.6)
	Enrolled in Grade 10	2.0 (1.5)	2.0 (0.7)	0.3 (0.2)	0.0 (0.6)	1.5 (1.2)
	Enrolled in Grade 11	0.7 (0.5)	1.4 (0.5)	5.2 (2.6)	1.0 (1.0)	0.0 (0.6)
	Enrolled in Grade 12	4.2 (1.6)	1.1 (0.4)	0.5 (0.4)	1.0 (1.0)	2.7 (2.5)
	Enrolled in college, undergraduate years	2.1 (0.8)	2.1 (0.4)	6.7 (2.6)	1.0 (1.1)	4.2 (2.6)
	Graduate or professional school	0.5 (0.3)	1.7 (0.4)	2.0 (0.9)	1.0 (1.1)	1.6 (0.9)
	L-Fold (Aggregate)	2.9 (0.7)	1.7 (0.2)	3.1 (1.1)	1.4 (1.2)	2.3 (1.1)

Appendix D: GDR Estimates By Hispanic Origin/Race Subgroup (Hispanic, White, Black, Asian, or Other)

Analysis Topic	Analysis category	Hispanic GDR	White GDR	Black GDR	Asian GDR	Other GDR
-	No schooling completed	2.5 (0.7)	0.9 (0.2)	1.5 (0.5)	3.7 (1.6)	1.8 (0.6)
	Nursery school	0.8 (0.4)	0.4 (0.1)	0.9 (0.4)	0.6 (0.6)	1.0 (0.5)
	Kindergarten	0.4 (0.2)	0.2 (0.1)	0.3 (0.1)	1.0 (0.9)	0.3 (0.2)
	1st grade	0.3 (0.1)	0.0 (0.0)	0.7 (0.5)	1.0 (0.9)	0.3 (0.3)
	2nd grade	0.5 (0.2)	0.2 (0.1)	0.9 (0.5)	1.5 (1.3)	0.7 (0.7)
	3rd grade	1.9 (0.8)	0.2 (0.1)	0.4 (0.2)	0.4 (0.3)	0.7 (0.7)
	4th grade	2.8 (0.9)	0.2 (0.0)	0.3 (0.1)	0.1 (0.1)	0.7 (0.4)
	5th grade	1.9 (0.4)	0.3 (0.1)	0.5 (0.3)	1.1 (1.0)	0.5 (0.2)
	6th grade	4.6 (0.9)	0.3 (0.1)	0.7 (0.2)	0.1 (0.1)	0.3 (0.2)
	7th grade	2.1 (0.4)	0.3 (0.1)	1.2 (0.6)	0.3 (0.2)	1.0 (0.7)
	8th grade	2.9 (0.7)	0.7 (0.1)	2.2 (1.0)	0.5 (0.3)	2.7 (1.7)
	9th grade	4.2 (0.9)	0.9 (0.2)	1.5 (0.4)	1.2 (1.0)	2.9 (1.7)
Educational Attainment	10th grade	2.3 (0.6)	1.1 (0.1)	3.1 (0.7)	0.6 (0.3)	1.7 (1.0)
Educational Attainment	11th grade	3.3 (0.8)	1.2 (0.2)	3.6 (1.1)	1.6 (0.8)	1.9 (1.0)
	12th grade, no diploma	2.2 (0.5)	0.9 (0.1)	1.5 (0.4)	1.9 (0.6)	1.8 (1.0)
	Regular high school diploma	10.4 (1.2)	6.9 (0.4)	8.2 (1.1)	5.1 (1.2)	10.2 (2.5)
	GED, or alternative credential	2.5 (0.5)	1.7 (0.2)	2.6 (0.6)	1.2 (0.6)	6.6 (2.7)
	Some college, less than one year	4.7 (0.9)	6.6 (0.5)	5.7 (1.0)	3.2 (1.2)	6.1 (1.5)
	Some college, one or more years, no degree	9.4 (1.2)	8.1 (0.5)	11.5 (1.5)	4.9 (1.3)	11.3 (2.2)
	Associate's degree	3.8 (0.7)	2.9 (0.2)	4.5 (1.0)	5.9 (1.7)	4.1 (2.0)
	Bachelor's degree	3.6 (0.9)	2.2 (0.2)	2.4 (0.6)	7.0 (2.0)	4.0 (2.0)
	Master's degree	1.1 (0.6)	1.7 (0.3)	0.9 (0.4)	1.4 (0.5)	0.7 (0.3)
	Professional school degree	1.2 (0.5)	1.4 (0.2)	1.1 (0.4)	2.8 (1.1)	0.5 (0.2)
	Doctorate degree	1.0 (0.5)	0.8 (0.1)	0.3 (0.1)	1.6 (0.6)	0.6 (0.2)
	L-Fold (Aggregate)	5.2 (0.4)	4.2 (0.2)	5.5 (0.6)	4.1 (0.7)	5.7 (0.9)

Appendix D: GDR Estimates By Hispanic Origin/Race Subgroup (Hispanic, White, Black, Asian, or Other)

Analysis Topic	Analysis category	Hispanic GDR	White GDR	Black GDR	Asian GDR	Other GDR
	Computers, Mathematics, and Statistics	3.4 (3.0)	1.3 (0.4)	1.1 (0.7)	3.9 (1.3)	0.0 (1.2)
	Biological, Agricultural, and	0.4 (0.3)	1.4 (0.2)	0.3 (0.2)	0.4 (0.2)	0.6 (0.4)
	Environmental Sciences					
	Physical and Related Sciences	3.8 (1.5)	2.4 (0.3)	1.0 (0.7)	3.0 (1.0)	0.9 (0.8)
	Psychology	1.1 (0.5)	1.0 (0.2)	2.0 (0.9)	1.4 (1.2)	0.0 (1.2)
	Social Sciences	5.4 (2.5)	2.7 (0.4)	4.7 (2.4)	3.5 (1.9)	2.6 (1.3)
	Engineering	3.6 (1.7)	1.0 (0.2)	0.7 (0.5)	2.3 (0.7)	1.0 (0.8)
Field Of Bachelor's	Multidisciplinary Studies	1.2 (0.7)	0.6 (0.2)	0.3 (0.3)	1.9 (1.1)	0.3 (0.3)
Degree	Science and Engineering Related	3.7 (2.0)	2.3 (0.2)	1.4 (0.6)	2.5 (1.0)	0.9 (0.6)
	Business	2.9 (1.5)	3.0 (0.3)	3.6 (1.2)	4.6 (1.7)	4.3 (2.1)
	Education	3.2 (1.2)	3.9 (0.5)	2.2 (1.0)	0.8 (0.5)	3.7 (1.7)
	Literature and Languages	1.3 (0.5)	1.8 (0.3)	1.1 (0.7)	1.1 (0.9)	3.5 (1.5)
	Liberal Arts and History	3.2 (1.4)	3.1 (0.3)	3.9 (1.9)	2.9 (1.3)	4.6 (2.4)
	Visual and Performing Arts	5.0 (3.3)	1.5 (0.2)	0.7 (0.3)	2.9 (1.9)	0.0 (1.2)
	Communications	0.8 (0.4)	0.8 (0.1)	1.9 (0.9)	1.7 (1.1)	1.1 (0.8)
	Other Bachelor Degree Field	4.1 (1.6)	1.8 (0.2)	3.6 (1.4)	0.3 (0.2)	0.5 (0.5)

Appendix D: GDR Estimates By Hispanic Origin/Race Subgroup (Hispanic, White, Black, Asian, or Other)

Analysis Topic	Analysis category	Hispanic GDR	White GDR	Black GDR	Asian GDR	Other GDR
	American	1.1 (0.4)	8.9 (0.6)	5.3 (1.2)	1.7 (0.8)	6.6 (2.8)
	Arab	0.1 (0.1)	0.2 (0.1)	0.0 (0.0)	0.4 (0.4)	0.1 (0.1)
	British	0.0 (0.0)	0.9 (0.2)	0.0 (0.0)	0.4 (0.4)	0.7 (0.3)
	Czech	0.0 (0.0)	0.8 (0.1)	0.0 (0.0)	0.0 (0.1)	0.1 (0.1)
	Danish	0.0 (0.0)	0.5 (0.1)	0.0 (0.0)	0.0 (0.1)	0.3 (0.2)
	Dutch	0.2 (0.1)	1.8 (0.2)	0.1 (0.1)	0.0 (0.1)	1.5 (0.8)
	English	0.6 (0.3)	11.0 (0.5)	0.9 (0.4)	1.7 (1.5)	8.4 (3.0)
	European	0.1 (0.0)	2.5 (0.2)	0.1 (0.1)	0.1 (0.1)	0.9 (0.3)
	French (except Basque)	0.5 (0.2)	4.5 (0.4)	0.8 (0.4)	0.0 (0.1)	2.5 (0.8)
	French Canadian	0.0 (0.0)	1.1 (0.1)	0.0 (0.0)	0.0 (0.1)	0.6 (0.4)
	German	0.8 (0.2)	11.9 (0.5)	0.6 (0.3)	0.0 (0.1)	7.1 (2.3)
	Greek	0.1 (0.1)	0.1 (0.0)	0.2 (0.2)	0.0 (0.1)	0.0 (0.2)
	Hungarian	0.0 (0.0)	0.6 (0.1)	0.0 (0.0)	0.0 (0.1)	0.0 (0.2)
A	Irish	1.1 (0.3)	11.4 (0.5)	1.0 (0.6)	0.0 (0.0)	10.4 (3.2)
Ancestry	Italian	1.7 (0.6)	2.2 (0.2)	0.2 (0.1)	0.0 (0.1)	2.3 (1.2)
	Lithuanian	0.0 (0.0)	0.5 (0.2)	0.0 (0.0)	0.0 (0.1)	0.2 (0.2)
	Norwegian	0.0(0.0)	1.2 (0.2)	0.0(0.0)	0.0 (0.1)	0.7 (0.5)
	Polish	0.6 (0.3)	2.4 (0.3)	0.0 (0.0)	0.0 (0.1)	0.5 (0.2)
	Portuguese	0.3 (0.1)	0.1 (0.0)	0.0 (0.0)	0.0 (0.1)	0.0 (0.2)
	Russian	0.3 (0.2)	0.9 (0.2)	0.0 (0.0)	0.0 (0.1)	0.3 (0.3)
	Scotch-Irish	0.1 (0.0)	2.4 (0.2)	0.0 (0.0)	0.1 (0.1)	0.3 (0.2)
	Scottish	0.0 (0.0)	2.9 (0.3)	0.0 (0.0)	0.0 (0.1)	1.1 (0.5)
	Slovak	0.0 (0.0)	0.2 (0.0)	0.0 (0.0)	0.0 (0.1)	0.2 (0.1)
	Sub-Saharan African	0.1 (0.0)	0.0 (0.0)	5.9 (1.1)	0.5 (0.5)	3.2 (1.4)
	Swedish	0.2 (0.1)	1.4 (0.2)	0.0 (0.0)	0.0 (0.1)	1.9 (1.4)
	Swiss	0.1 (0.1)	0.4 (0.1)	0.0 (0.0)	0.0 (0.1)	0.0 (0.2)
	Ukrainian	0.0 (0.0)	0.2 (0.1)	0.0 (0.0)	0.0 (0.1)	0.0 (0.2)
	Welsh	0.0 (0.0)	1.3 (0.3)	0.0 (0.0)	0.0 (0.1)	0.5 (0.4)

Appendix D: GDR Estimates By Hispanic Origin/Race Subgroup (Hispanic, White, Black, Asian, or Other)

Analysis Topic	Analysis category	Hispanic GDR	White GDR	Black GDR	Asian GDR	Other GDR
A (West Indian (except Hispanic groups)	0.6(0.4)	0.0(0.0)	4.6 (1.5)	0.0 (0.1)	1.0 (0.8)
Ancestry (cont.)	Other groups	2.5 (0.6)	14.1 (0.6)	10.9 (1.3)	1.2 (0.7)	16.6 (3.5)
Language Other Than English Spoken At	Yes	8.5 (1.3)	3.2 (0.2)	3.8 (1.0)	8.4 (1.5)	7.6 (2.8)
Home						

Appendix D: GDR Estimates By Hispanic Origin/Race Subgroup (Hispanic, White, Black, Asian, or Other)

Analysis Topic	Analysis category	Hispanic	White	Black	Asian	Other
		GDR	GDR	GDR	GDR	GDR
	Spanish	0.6 (0.2)	1.3 (0.7)	0.0(0.8)	0.3 (0.3)	0.0 (1.4)
	French	0.0(0.0)	1.5 (0.8)	9.1 (6.5)	0.0 (0.1)	0.0 (1.4)
	Italian	0.2(0.2)	0.7(0.7)	0.0(0.8)	0.0(0.1)	0.0 (1.4)
	Portuguese	0.0(0.0)	0.1 (0.1)	0.0(0.8)	0.1 (0.1)	0.0 (1.4)
	German	0.1 (0.1)	1.6 (0.7)	0.0(0.8)	0.0 (0.1)	0.0 (1.4)
	Russian	0.0(0.0)	0.2 (0.1)	0.0(0.8)	0.0(0.0)	0.0 (1.4)
	Polish, Serbo-Croatian, and other Slavic	0.0(0.0)	0.5 (0.3)	0.0(0.8)	0.0 (0.1)	0.0 (1.4)
	Gujarati	0.0(0.0)	0.0 (0.2)	0.0(0.8)	2.2 (1.8)	0.0 (1.4)
	Hindi	0.0 (0.0)	1.2 (1.1)	0.0 (0.8)	2.7 (1.5)	0.0 (1.4)
	Urdu and other Indic	0.0 (0.0)	1.2 (1.1)	0.0 (0.8)	4.0 (2.3)	0.0 (1.4)
	French Creole, Yiddish, Other W.	0.0 (0.0)	2.1 (1.0)	8.9 (6.5)	0.0 (0.1)	0.0 (1.4)
Specific Language	Germanic, Scandinavian, Greek,					
Spoken	Armenian, Persian, and other Indo-					
1	European					
	Chinese	0.0(0.0)	0.1 (0.1)	0.0(0.8)	0.4 (0.3)	0.0 (1.4)
	Korean	0.0(0.0)	0.3 (0.3)	0.0(0.8)	0.0(0.1)	0.0 (1.4)
	Arabic	0.0(0.0)	1.3 (1.2)	0.0(0.8)	0.0 (0.1)	0.0 (1.4)
	Vietnamese	0.0 (0.0)	0.0 (0.2)	0.0 (0.8)	0.2 (0.1)	0.0 (1.4)
	Japanese, Mon-Khmer, Cambodian,	0.0 (0.0)	0.0 (0.2)	0.0 (0.8)	0.6 (0.3)	0.0 (1.4)
	Hmong, Thai, Laotian, and other Asian					
	Tagalog and other Pacific Island	0.0(0.0)	0.0 (0.2)	0.0(0.8)	0.5 (0.4)	0.0 (1.4)
	African languages	0.0 (0.0)	0.0 (0.2)	0.9 (0.7)	0.2 (0.2)	0.0 (1.4)
	Navajo, other Native American,	0.2 (0.1)	2.2 (1.4)	0.7 (0.6)	0.6 (0.3)	0.0 (1.4)
	Hungarian, Hebrew, and all others					
	L-Fold (Aggregate)	0.6 (0.2)	1.2 (0.4)	5.7 (4.1)	1.2 (0.6)	0.0 (1.4)

Appendix D: GDR Estimates By Hispanic Origin/Race Subgroup (Hispanic, White, Black, Asian, or Other)

Analysis Topic	Analysis category	Hispanic GDR	White GDR	Black GDR	Asian GDR	Other GDR
	Very well	12.7 (1.2)	15.0 (3.3)	18.5 (8.7)	17.3 (4.0)	14.7 (5.1)
	Well	21.1 (1.6)	18.1 (3.6)	22.9 (8.9)	21.4 (3.9)	12.8 (4.6)
English Speaking	Not well	19.9 (1.9)	4.6 (1.4)	5.4 (4.3)	9.7 (2.3)	4.1 (2.3)
Ability	Not at all	9.2 (1.2)	2.0 (1.1)	0.0 (0.8)	1.8 (0.8)	1.8 (1.9)
	L-Fold (Aggregate)	16.1 (1.0)	14.5 (3.1)	16.9 (8.4)	16.8 (3.3)	13.3 (4.5)
	Same house one year ago	7.3 (1.2)	3.3 (0.3)	8.3 (1.5)	7.2 (2.3)	4.7 (1.4)
	Moved within same county	6.2 (1.2)	2.3 (0.2)	7.0 (1.5)	3.5 (1.6)	3.2 (1.0)
Geographical Mobility	Moved from different county within state	0.9 (0.3)	0.9 (0.2)	2.2 (0.7)	1.0 (0.8)	1.4 (0.6)
In Past Year	Moved from different state	0.3 (0.1)	0.9 (0.1)	0.5 (0.2)	1.5 (0.9)	0.9 (0.5)
	Moved from outside U.S.	0.9 (0.4)	0.2 (0.0)	0.1 (0.1)	1.3 (0.9)	0.0 (0.0)
	L-Fold (Aggregate)	6.9 (1.1)	3.0 (0.2)	7.7 (1.4)	6.1 (1.9)	4.3 (1.2)
Health Insurance	Yes, Through Employer	7.4 (1.0)	7.2 (0.4)	10.3 (1.6)	11.3 (3.1)	4.7 (1.0)
Health Insurance	Yes, Purchased Directly	5.9 (0.9)	12.0 (0.4)	13.7 (1.6)	12.0 (2.2)	5.5 (1.4)
Health Insurance	Yes, Medicare	2.3 (0.5)	2.5 (0.2)	4.3 (0.8)	4.3 (2.1)	2.8 (1.8)
Health Insurance	Yes, Medicaid	8.2 (1.1)	3.4 (0.3)	7.5 (1.1)	1.3 (0.5)	4.3 (1.9)
Health Insurance	Yes, Military	0.6 (0.2)	0.8 (0.1)	0.8 (0.2)	0.0 (0.0)	1.2 (0.6)
Health Insurance	Yes, Veterans Administration	0.7 (0.3)	1.5 (0.1)	2.4 (0.6)	0.1 (0.1)	0.8 (0.5)
Health Insurance	Yes, Indian Health Service	0.4 (0.2)	0.2 (0.1)	0.0 (0.0)	0.0 (0.0)	2.6 (0.7)
	With private health insurance coverage	7.3 (1.0)	4.2 (0.3)	9.2 (1.3)	4.0 (1.0)	3.5 (0.9)
	only					
Health Insurance	With public health coverage only	8.5 (1.1)	6.8 (0.4)	11.1 (1.5)	5.2 (1.6)	4.3 (1.0)
Aggregate	With both private and public health	3.4 (0.6)	7.1 (0.3)	9.1 (1.5)	5.9 (2.3)	3.5 (0.8)
20 0	No. 1 141 :	9.2 (1.4)	2.8 (0.2)	8.2 (1.3)	5.1 (1.9)	2.5 (0.6)
	No health insurance coverage		` ′	, ,	. ,	
D'CC 1 II.	L-Fold (Aggregate)	8.2 (1.0)	4.9 (0.2)	9.6 (1.0)	4.4 (1.0)	3.6 (0.7)
Difficulty Hearing	Yes	1.8 (0.4)	3.8 (0.3)	2.3 (0.5)	0.8 (0.3)	4.8 (1.8)
Difficulty Vision	Yes	3.0 (0.6)	2.5 (0.2)	3.4 (0.6)	0.2 (0.1)	2.1 (0.8)
Difficulty Cognitive	Yes	4.9 (0.8)	3.8 (0.3)	5.0 (0.8)	0.6 (0.3)	5.0 (1.3)
Difficulty Ambulatory	Yes	4.0 (0.6)	5.0 (0.3)	6.2 (0.8)	2.7 (1.2)	3.9 (0.9)

Appendix D: GDR Estimates By Hispanic Origin/Race Subgroup (Hispanic, White, Black, Asian, or Other)

Analysis Topic	Analysis category	Hispanic GDR	White GDR	Black GDR	Asian GDR	Other GDR
Difficulty Self Care	Yes	2.2 (0.6)	2.4 (0.3)	2.6 (0.4)	0.7 (0.4)	1.4 (0.5)
Difficulty Independent Living	Yes	3.3 (0.7)	3.6 (0.3)	4.5 (0.6)	2.1 (1.0)	4.1 (1.2)
	Now married	7.0 (1.5)	1.9 (0.4)	0.7 (0.3)	4.0 (2.4)	0.6 (0.3)
	Widowed	1.2 (0.4)	1.2 (0.2)	0.5 (0.2)	0.8 (0.6)	0.2 (0.1)
Marital Status	Divorced	5.4 (1.2)	3.2 (0.5)	2.7 (1.0)	3.9 (2.5)	0.7 (0.3)
Maritai Status	Separated	4.2 (0.9)	1.9 (0.3)	2.5 (1.0)	0.4 (0.4)	0.5 (0.3)
	Never married	6.8 (1.3)	2.0 (0.5)	1.7 (0.5)	1.8 (1.1)	0.5 (0.2)
	L-Fold (Aggregate)	6.1 (1.0)	2.2 (0.3)	1.8 (0.4)	2.4 (1.1)	0.5 (0.2)
Married In Past Year	Yes	3.2 (0.7)	1.1 (0.2)	3.6 (2.4)	6.1 (1.9)	0.4 (0.3)
Widowed In Past Year	Yes	0.8 (0.4)	0.5 (0.1)	1.3 (0.5)	0.1 (0.1)	0.1 (0.1)
Divorced In Past Year	Yes	1.9 (0.5)	0.7 (0.1)	3.2 (2.0)	0.5 (0.4)	0.2 (0.1)
	Once married	6.1 (1.0)	2.0 (0.2)	3.8 (0.8)	4.7 (1.8)	2.4 (1.6)
Number Of Times	Twice married	6.5 (1.0)	2.7 (0.2)	5.3 (1.0)	4.7 (1.8)	2.7 (1.7)
Married	Married three or more times	0.5 (0.2)	1.0 (0.1)	2.2 (0.9)	0.0 (0.2)	3.4 (2.2)
	L-Fold (Aggregate)	5.9 (1.0)	2.1 (0.2)	4.1 (0.7)	4.7 (1.8)	2.5 (1.4)
	Before 2000	4.0 (1.0)	0.9(0.2)	2.6 (1.3)	1.3 (0.9)	1.4 (0.7)
	2000 to 2004	4.0 (1.1)	1.0 (0.2)	2.9 (1.3)	3.1 (1.8)	1.7 (0.6)
	2005 to 2009	4.7 (1.2)	1.0 (0.2)	1.8 (0.6)	2.5 (1.7)	2.0 (0.9)
Year Last Married	2010	2.0 (0.7)	0.6 (0.2)	0.0 (0.1)	0.6(0.6)	0.2 (0.1)
	2011	1.1 (0.4)	0.4 (0.1)	0.3 (0.3)	0.0 (0.2)	0.2 (0.2)
	2012	0.5 (0.3)	0.1 (0.1)	0.0 (0.1)	0.0 (0.2)	0.2 (0.2)
	L-Fold (Aggregate)	3.8 (0.8)	0.9 (0.2)	2.4 (1.1)	1.7 (1.0)	1.5 (0.6)
Birth In Past Year	Yes	0.8 (0.4)	1.5 (0.2)	1.7 (1.1)	1.6 (0.8)	0.0 (0.7)
Grandparents Living		2.4 (0.6)	0.8 (0.1)	1.6 (0.5)	0.1 (0.1)	3.7 (2.3)
With Own Grandchildren	Yes					

Appendix D: GDR Estimates By Hispanic Origin/Race Subgroup (Hispanic, White, Black, Asian, or Other)

Analysis Topic	Analysis category	Hispanic GDR	White GDR	Black GDR	Asian GDR	Other GDR
Grandparents		10.3 (4.5)	20.1 (7.5)	9.0 (4.3)	0.0 (5.5)	41.4 (20.0)
Responsible For	Yes					
Grandchildren						
	Less than one year	6.0 (4.9)	15.6 (6.1)	0.4(0.4)	0.0(8.7)	0.0 (30.0)
Grandparents Time	1 to 2 years	10.8 (7.3)	31.9 (10.0)	2.3 (1.9)	0.0(8.7)	0.0 (30.0)
Responsible For	3 or 4 years	8.4 (7.1)	7.2 (3.6)	4.6 (3.4)	0.0 (8.7)	0.0 (30.0)
Grandchildren	5 or more years	10.4 (7.8)	22.1 (9.6)	6.6 (4.2)	0.0 (8.7)	0.0 (30.0)
	L-Fold (Aggregate)	7.7 (5.5)	23.0 (7.3)	5.6 (3.3)	0.0 (8.7)	0.0 (30.0)
	Now on active duty	0.1 (0.0)	0.2 (0.0)	0.5 (0.2)	0.0(0.0)	0.2 (0.1)
	On active duty during the last 12 months	0.1 (0.1)	0.6 (0.1)	0.8 (0.3)	0.4 (0.3)	0.3 (0.1)
	but not now					
	On active duty in the past, but not in last	0.6(0.2)	1.8 (0.1)	2.1 (0.4)	0.4(0.2)	1.3 (0.5)
Military Service	12 months					
	Training in Reserves or National Guard	0.3 (0.1)	1.1 (0.1)	0.7 (0.2)	0.4(0.2)	0.6(0.4)
	only					
	Never in the military	0.5 (0.2)	0.9 (0.1)	1.3 (0.3)	0.6 (0.3)	1.6 (0.6)
	L-Fold (Aggregate)	0.5 (0.2)	1.0 (0.1)	1.3 (0.3)	0.6 (0.3)	1.5 (0.6)

Appendix D: GDR Estimates By Hispanic Origin/Race Subgroup (Hispanic, White, Black, Asian, or Other)

Analysis Topic	Analysis category	Hispanic GDR	White GDR	Black GDR	Asian GDR	Other GDR
	Between Gulf War I and Vietnam era	8.8 (4.8)	3.5 (0.5)	6.7 (2.4)	8.3 (7.0)	3.4 (1.5)
	only					
	Between Korean War and World War II	0.3 (0.3)	0.5 (0.1)	0.1 (0.1)	0.0 (3.6)	0.0 (1.3)
	only					
	Between Vietnam Era and Korean War only	0.8 (0.5)	4.2 (0.6)	3.1 (1.6)	4.0 (4.3)	0.3 (0.2)
	Gulf War I and Vietnam era	0.3 (0.3)	1.3 (0.3)	0.8 (0.4)	0.5 (0.6)	0.0 (1.3)
	Gulf War I, no Vietnam era	3.5 (1.6)	3.2 (0.5)	5.3 (2.1)	13.2 (8.4)	3.4 (1.4)
	Gulf War II and Gulf War I, and Vietnam	3.2 (1.3)	3.6 (0.5)	5.4 (2.1)	11.0 (7.2)	1.7 (1.1)
	era / or no Vietnam era					
Period Of Military	Gulf War II, no Gulf War I, no Vietnam	2.8 (1.5)	3.0 (0.5)	3.5 (1.3)	5.3 (4.8)	1.9 (1.1)
Service	Era					
Bervice	Korean War and World War II, no	0.2(0.2)	0.3 (0.1)	0.0(0.3)	0.0 (3.6)	0.0 (1.3)
	Vietnam Era					
	Korean War, no Vietnam Era, no World	0.3 (0.3)	2.3 (0.4)	1.4 (0.8)	0.0 (3.6)	0.3 (0.2)
	War II					
	Pre-World War II only or World War II,	0.2 (0.2)	0.7 (0.2)	0.0(0.3)	0.0 (3.6)	0.0 (1.3)
	no Korean War, no Vietnam Era					
	Vietnam Era and Korean War, and World	0.4 (0.3)	1.0 (0.3)	0.0(0.3)	0.0 (3.6)	0.0 (1.3)
	War II / or no World War II					
	Vietnam Era, no Korean War, no World	7.2 (4.6)	5.7 (0.6)	6.6 (2.1)	5.3 (4.5)	0.2 (0.2)
	War II		• • • • •			
	L-Fold (Aggregate)	4.7 (2.2)	3.8 (0.3)	5.2 (1.1)	7.6 (4.2)	1.4 (0.5)
Service Connected Disability Status	Yes	6.2 (2.5)	2.2 (0.4)	3.8 (1.2)	0.8 (0.8)	2.8 (1.3)

Appendix D: GDR Estimates By Hispanic Origin/Race Subgroup (Hispanic, White, Black, Asian, or Other)

Analysis Topic	Analysis category	Hispanic GDR	White GDR	Black GDR	Asian GDR	Other GDR
	0 percent	0.0 (2.2)	2.3 (1.2)	0.6 (0.6)	0.0 (12.9)	0.0 (5.5)
	10 or 20 percent	6.4 (5.1)	6.7 (1.8)	0.6 (0.6)	0.0 (12.9)	2.5 (2.7)
	30 or 40 percent	19.9 (10.8)	6.2 (2.0)	1.0 (0.7)	0.0 (12.9)	0.0 (5.5)
Service Connected	50 or 60 percent	2.3 (2.5)	1.8 (0.6)	0.0 (1.2)	0.0 (12.9)	20.4 (17.6)
Disability Level	70 percent or higher	2.8 (2.6)	4.1 (1.4)	1.5 (1.1)	27.0 (18.3)	24.1 (17.6)
	No rating reported	13.0 (10.3)	8.7 (2.1)	1.6 (1.2)	27.0 (18.3)	6.3 (3.5)
	L-Fold (Aggregate)	8.4 (5.8)	5.6 (1.1)	0.9 (0.5)	12.8 (14.4)	15.2 (12.5)
Work Last Week	Yes	7.3 (1.0)	5.0 (0.3)	6.3 (1.1)	4.0 (0.9)	4.7 (1.3)
Any Work Last Week	Yes	2.1 (0.6)	1.6 (0.2)	1.4 (0.5)	1.3 (0.9)	0.3 (0.2)
	Worked in state of residence, in county of residence	6.7 (1.4)	4.4 (0.4)	3.7 (1.0)	5.8 (2.8)	1.6 (0.6)
Place Of Work	Worked in state of residence, outside county of residence	5.5 (1.4)	3.8 (0.4)	3.5 (0.9)	5.6 (2.8)	1.4 (0.6)
	Worked outside state of residence	1.5 (0.5)	1.0 (0.2)	1.3 (0.6)	0.5 (0.3)	0.2 (0.1)
	L-Fold (Aggregate)	6.3 (1.3)	4.1 (0.4)	3.5 (0.9)	5.6 (2.7)	1.5 (0.6)
	Car, truck, or van	5.1 (0.9)	4.9 (0.4)	6.2 (1.2)	6.4 (2.4)	4.5 (1.9)
	Public transportation	2.4 (0.5)	0.8 (0.2)	3.3 (0.9)	2.2 (1.0)	0.5 (0.4)
Commute	Taxicab, motorcycle, bicycle, or other method	2.4 (0.7)	1.5 (0.3)	1.9 (0.7)	3.9 (2.4)	2.0 (1.8)
Transportation	Walked	2.1 (0.5)	1.5 (0.3)	1.2 (0.5)	4.7 (2.7)	0.3 (0.2)
	Worked at Home	1.4 (0.3)	3.2 (0.3)	1.1 (0.5)	2.5 (0.9)	1.9 (0.7)
	L-Fold (Aggregate)	4.6 (0.7)	4.5 (0.4)	5.6 (1.0)	5.6 (1.9)	3.8 (1.5)
	Drove alone	12.6 (1.8)	5.0 (0.4)	8.7 (2.6)	7.7 (2.2)	2.8 (1.1)
	2 riders	13.6 (2.0)	4.2 (0.4)	8.7 (2.7)	7.0 (2.0)	2.2 (0.9)
Commute Number Of	3 riders	4.1 (1.4)	1.5 (0.3)	0.6 (0.3)	1.0 (0.5)	0.7 (0.5)
Riders	4 riders	1.7 (0.7)	0.4 (0.1)	1.1 (0.6)	0.8 (0.8)	0.6 (0.6)
	5 or more riders	0.8 (0.3)	0.3 (0.2)	0.9 (0.6)	0.0 (0.2)	0.6 (0.5)
	L-Fold (Aggregate)	12.1 (1.6)	4.9 (0.4)	8.3 (2.5)	7.4 (2.1)	2.7 (1.0)

Appendix D: GDR Estimates By Hispanic Origin/Race Subgroup (Hispanic, White, Black, Asian, or Other)

Analysis Topic	Analysis category	Hispanic GDR	White GDR	Black GDR	Asian GDR	Other GDR
	12:00 a.m. to 4:59 a.m.	4.3 (1.2)	2.2 (0.3)	5.0 (1.8)	2.4 (1.6)	0.7 (0.4)
	5:00 a.m. to 6:59 a.m.	11.9 (1.5)	8.0 (0.6)	11.9 (2.1)	6.8 (2.3)	9.0 (3.2)
G	7:00 a.m. to 8:59 a.m.	12.9 (1.9)	10.1 (0.6)	11.7 (1.9)	10.8 (1.8)	12.2 (3.3)
Commute Departure Time	9:00 a.m. to 11:59 a.m.	4.5 (0.8)	4.3 (0.4)	4.2 (1.0)	7.7 (1.8)	3.0 (1.4)
Time	12:00 p.m. to 3:59 p.m.	4.4 (1.1)	2.5 (0.3)	4.1 (1.1)	2.5 (1.1)	1.0 (0.6)
	4:00 p.m. to 11:59 p.m.	3.5 (0.9)	2.5 (0.3)	5.3 (1.3)	2.6 (1.3)	0.9 (0.8)
	L-Fold (Aggregate)	10.0 (1.2)	7.8 (0.4)	9.4 (1.3)	7.8 (1.3)	8.7 (2.5)
	Less than 5 minutes	2.9 (0.8)	4.3 (0.4)	3.0 (1.0)	1.2 (0.7)	0.7 (0.4)
	5 to 9 minutes	9.5 (1.4)	9.5 (0.6)	9.1 (2.1)	8.7 (2.7)	4.2 (1.5)
	10 to 14 minutes	13.6 (1.6)	11.8 (0.7)	14.8 (2.0)	14.6 (3.2)	8.9 (2.0)
	15 to 19 minutes	18.5 (2.0)	13.3 (0.7)	15.2 (1.8)	14.2 (2.9)	16.4 (3.7)
	20 to 24 minutes	17.9 (1.9)	14.1 (0.8)	16.8 (2.4)	12.7 (2.6)	14.6 (3.2)
	25 to 29 minutes	8.8 (1.3)	8.9 (0.6)	8.1 (1.6)	6.6 (1.5)	2.9 (1.0)
Commute Minutes	30 to 34 minutes	16.8 (1.7)	12.0 (0.7)	15.0 (2.6)	10.1 (2.5)	11.5 (3.1)
	35 to 39 minutes	2.7 (0.8)	4.2 (0.4)	1.8 (0.6)	1.2 (0.6)	2.5 (1.3)
	40 to 44 minutes	5.0 (0.8)	4.8 (0.4)	5.9 (1.4)	4.5 (1.1)	3.9 (1.5)
	45 to 59 minutes	7.3 (1.5)	6.1 (0.4)	9.3 (1.9)	3.8 (1.5)	10.7 (3.5)
	60 to 89 minutes	5.5 (1.2)	3.4 (0.3)	9.4 (2.4)	1.6 (0.5)	6.8 (2.7)
	90 or more minutes	1.7 (0.6)	1.4 (0.2)	3.4 (1.0)	1.2 (0.5)	3.5 (1.4)
	L-Fold (Aggregate)	12.9 (0.8)	10.0 (0.3)	12.1 (0.8)	10.5 (1.4)	10.4 (1.6)
Not Working Layoff	Yes	6.2 (1.8)	3.6 (0.5)	4.6 (1.0)	5.2 (3.3)	3.7 (2.4)
Not Working Absent	Yes	2.8 (1.0)	2.8 (0.7)	2.4 (0.7)	5.1 (2.5)	5.4 (3.1)
Not Working Informed Of Recall	Yes	6.7 (7.5)	16.0 (8.7)	56.7 (21.9)	0.0 (19.9)	59.8 (23.2)
Not Working Looking For Work	Yes	12.0 (2.1)	5.6 (0.7)	12.0 (2.0)	8.5 (2.8)	13.6 (3.3)
Not Working Available To Work	Yes	14.4 (5.3)	10.6 (3.2)	2.5 (1.4)	5.4 (3.4)	23.6 (10.4)

Appendix D: GDR Estimates By Hispanic Origin/Race Subgroup (Hispanic, White, Black, Asian, or Other)

Analysis Topic	Analysis category	Hispanic GDR	White GDR	Black GDR	Asian GDR	Other GDR
	Within the past 12 months	8.9 (1.7)	5.6 (0.5)	7.5 (1.5)	5.2 (2.8)	6.0 (2.1)
XX X . XX 1 1	1-5 years ago	14.0 (1.7)	12.7 (0.7)	14.4 (2.1)	9.5 (2.7)	11.6 (2.7)
When Last Worked	Over 5 years ago or never worked	15.0 (2.4)	11.9 (0.7)	15.1 (2.2)	11.1 (2.7)	9.2 (2.5)
	L-Fold (Aggregate)	13.6 (1.9)	11.0 (0.6)	13.5 (1.7)	9.4 (2.2)	9.2 (2.1)
Worked 50 Weeks Or More	Yes		11.4 (0.6)	16.7 (2.1)	15.7 (2.6)	14.5 (3.3)
	50 to 52 weeks worked during past 12 months	4.8 (2.0)	5.7 (1.4)	2.3 (1.2)	13.5 (10.7)	16.5 (10.8)
	48 to 49 weeks worked during past 12 months	7.9 (3.0)	7.7 (0.9)	6.4 (2.8)	5.5 (3.1)	1.2 (0.8)
	40 to 47 weeks worked during past 12 months	17.8 (3.2)	22.4 (1.6)	14.1 (4.4)	18.1 (7.6)	12.3 (6.7)
Weeks Worked	27 to 39 weeks worked during past 12 months	28.3 (4.5)	24.1 (1.9)	20.0 (4.3)	19.2 (7.6)	26.2 (8.3)
	14 to 26 weeks worked during past 12 months	24.4 (4.7)	23.5 (1.7)	34.8 (8.8)	21.7 (10.5)	25.4 (9.4)
	13 weeks or less worked during past 12 months	15.2 (4.1)	16.4 (1.5)	28.2 (8.8)	6.6 (3.4)	34.0 (11.7)
	L-Fold (Aggregate)	20.5 (2.7)	20.2 (0.8)	25.9 (5.7)	17.5 (3.9)	25.2 (5.0)
	Usually worked 35 or more hours per week	11.4 (1.4)	6.0 (0.5)	8.3 (1.6)	5.5 (1.6)	7.4 (2.2)
Usual Hours Worked	Usually worked 15-34 hours per week	12.2 (1.6)	7.6 (0.5)	8.9 (1.7)	8.4 (2.4)	8.3 (2.3)
Per Week	Usually worked 1-14 hours per week	3.9 (1.1)	2.9 (0.3)	2.9 (0.6)	4.4 (1.9)	1.8 (0.7)
	L-Fold (Aggregate)	11.1 (1.3)	6.1 (0.5)	8.2 (1.6)	6.0 (1.6)	7.4 (2.1)

Appendix D: GDR Estimates By Hispanic Origin/Race Subgroup (Hispanic, White, Black, Asian, or Other)

Analysis Topic	Analysis category	Hispanic GDR	White GDR	Black GDR	Asian GDR	Other GDR
	Employee of a private for-profit company	10.7 (1.7)	12.6 (1.0)	19.9 (3.9)	17.5 (5.2)	10.7 (3.0)
	or business					
	Employee of a private not-for-profit	5.9 (1.3)	6.0 (0.5)	11.6 (2.7)	5.1 (1.5)	7.4 (2.4)
	organization					
	A local government employee	3.2 (0.8)	5.2 (0.6)	6.8 (1.8)	7.2 (4.8)	5.3 (1.7)
	A state government employee	3.6 (1.0)	4.6 (0.5)	7.0 (1.5)	5.3 (2.4)	2.9 (1.2)
Class Of Worker	A Federal government employee	1.4 (0.8)	1.0 (0.2)	1.4 (0.6)	2.5 (2.2)	1.2 (0.8)
Class Of Worker	Self-employed in own not incorporated	5.0 (1.3)	4.1 (0.4)	2.3 (0.9)	4.5 (2.3)	3.2 (1.7)
	business, professional practice, or farm					
	Self-employed in own incorporated	1.4 (0.5)	2.4 (0.4)	0.7 (0.4)	0.3 (0.3)	1.1 (0.6)
	business, professional practice, or farm					
	Working without pay in a family business	0.2 (0.1)	0.6 (0.2)	1.1 (0.5)	1.4 (1.3)	0.5 (0.5)
	or farm					
	L-Fold (Aggregate)	8.5 (1.2)	9.1 (0.6)	14.3 (2.7)	13.6 (3.7)	8.4 (2.1)

Appendix D: GDR Estimates By Hispanic Origin/Race Subgroup (Hispanic, White, Black, Asian, or Other)

Analysis Topic	Analysis category	Hispanic GDR	White GDR	Black GDR	Asian GDR	Other GDR
	Agriculture, forestry, fishing and hunting, and mining	1.6 (0.4)	1.1 (0.2)	0.2 (0.1)	0.9 (0.7)	0.8 (0.4)
	Construction	4.0 (0.9)	2.4 (0.3)	1.8 (0.7)	0.8 (0.5)	2.3 (1.0)
	Manufacturing	4.7 (0.8)	4.1 (0.3)	3.4 (0.9)	6.8 (2.3)	3.9 (1.7)
	Wholesale trade	4.5 (1.0)	2.8 (0.3)	1.2 (0.4)	1.9 (0.9)	0.6 (0.3)
	Retail trade	6.3 (1.1)	3.5 (0.3)	3.2 (1.0)	2.8 (0.9)	4.5 (1.5)
	Utilities, and transportation and warehousing	2.1 (0.4)	1.5 (0.2)	2.9 (0.9)	1.2 (0.5)	0.4 (0.2)
	Information	1.0 (0.3)	1.1 (0.2)	1.4 (0.7)	2.1 (0.8)	0.6 (0.4)
	Finance and insurance, and real estate and rental and leasing	1.4 (0.4)	1.6 (0.2)	2.1 (0.6)	2.2 (0.7)	1.7 (0.9)
Industry	Professional, scientific, and management, and administrative and waste management services	7.3 (1.1)	5.6 (0.4)	6.3 (1.4)	9.2 (2.2)	5.6 (2.2)
	Educational services, and health care and social assistance	2.9 (0.6)	3.4 (0.3)	8.0 (1.6)	6.5 (1.8)	3.2 (1.0)
	Arts, entertainment, and recreation, and accommodation and food services	2.2 (0.5)	1.9 (0.2)	2.3 (0.6)	1.4 (0.7)	1.2 (0.6)
	Other services, except public administration	4.7 (0.8)	2.1 (0.2)	2.1 (0.5)	0.6 (0.3)	3.4 (1.6)
	Public administration	1.6 (0.4)	2.1 (0.2)	2.8 (0.7)	2.1 (0.9)	3.9 (1.7)
	Military	0.1 (0.1)	0.4 (0.1)	0.3 (0.1)	0.0(0.0)	1.2 (1.0)
	L-Fold (Aggregate)	4.1 (0.4)	3.1 (0.1)	4.7 (0.6)	5.5 (1.1)	3.2 (0.6)
	Manufacturing	7.7 (1.3)	4.5 (0.3)	5.2 (1.0)	6.0 (1.7)	5.5 (2.2)
	Wholesale trade	6.1 (1.2)	3.3 (0.3)	2.8 (1.0)	4.1 (1.9)	1.8 (0.8)
Industry Type	Retail trade	14.4 (1.6)	10.0 (0.5)	9.5 (1.3)	7.1 (1.5)	10.6 (2.7)
industry Type	Other (agriculture, construction, service, government, etc.)	18.3 (1.9)	11.4 (0.5)	10.5 (1.6)	14.5 (3.0)	14.9 (3.5)
	L-Fold (Aggregate)	15.5 (1.4)	10.1 (0.4)	9.8 (1.3)	12.0 (2.2)	13.1 (2.9)

Appendix D: GDR Estimates By Hispanic Origin/Race Subgroup (Hispanic, White, Black, Asian, or Other)

Analysis Topic	Analysis category	Hispanic GDR	White GDR	Black GDR	Asian GDR	Other GDR
	Management, business and financial occupations	6.6 (1.0)	10.8 (0.5)	8.5 (1.5)	11.5 (1.8)	10.0 (2.2)
	Computer, engineering, and science occupations	1.3 (0.4)	3.0 (0.2)	2.5 (1.2)	4.4 (0.9)	4.2 (1.7)
	Education, legal, community service, arts, and media occupations	2.7 (0.7)	3.3 (0.2)	3.5 (0.8)	3.7 (1.4)	5.9 (1.7)
	Healthcare practitioners and technical occupations	1.2 (0.5)	1.9 (0.2)	3.9 (1.1)	1.6 (0.7)	2.0 (0.8)
	Healthcare support occupations	1.6 (0.4)	1.7 (0.2)	3.5 (0.8)	1.6 (1.0)	6.1 (3.2)
	Protective service occupations	0.2 (0.1)	0.7 (0.2)	0.8 (0.5)	0.1 (0.1)	0.8 (0.4)
	Food preparation and serving related occupations	1.8 (0.5)	1.4 (0.2)	2.3 (0.6)	2.4 (1.5)	1.5 (1.0)
	Building and grounds cleaning and maintenance occupations	4.0 (1.0)	1.3 (0.2)	1.4 (0.4)	1.5 (1.1)	0.3 (0.2)
Occupation	Personal care and service occupations	2.0 (0.5)	1.5 (0.2)	5.2 (1.3)	1.5 (1.0)	7.3 (3.2)
	Sales and related occupations	5.0 (0.9)	5.7 (0.3)	3.5 (0.8)	7.4 (2.2)	2.7 (1.1)
	Office and administrative support occupations	7.8 (1.3)	7.9 (0.5)	8.5 (1.5)	7.5 (2.3)	8.9 (2.5)
	Farming, fishing, and forestry occupations	1.2 (0.3)	0.5 (0.1)	0.0 (0.1)	0.0 (0.2)	0.1 (0.1)
	Construction and extraction occupations	4.6 (1.0)	2.4 (0.2)	1.4 (0.6)	1.4 (0.7)	1.1 (0.4)
	Installation, maintenance, and repair occupations	1.3 (0.3)	2.3 (0.2)	2.2 (0.7)	0.7 (0.5)	1.0 (0.5)
	Production occupations	6.5 (1.1)	2.6 (0.3)	3.4 (0.7)	4.5 (2.2)	4.0 (1.8)
	Transportation occupations	2.4 (0.7)	1.3 (0.2)	2.4 (1.1)	0.1 (0.1)	0.7 (0.3)
	Material moving occupations	4.8 (1.0)	1.8 (0.3)	2.4 (0.7)	1.6 (0.7)	1.5 (1.2)
	Military occupations	0.0 (0.0)	0.3 (0.1)	0.3 (0.2)	0.1 (0.1)	1.0 (0.9)
	L-Fold (Aggregate)	4.5 (0.4)	5.0 (0.2)	4.5 (0.5)	5.7 (1.0)	5.4 (0.8)

Appendix D: GDR Estimates By Hispanic Origin/Race Subgroup (Hispanic, White, Black, Asian, or Other)

Analysis Topic	Analysis category	Hispanic GDR	White GDR	Black GDR	Asian GDR	Other GDR
	Less than \$10,000	6.7 (1.7)	4.0 (0.4)	7.4 (3.0)	5.4 (2.1)	3.5 (1.2)
	\$10,000 to \$14,999	12.0 (2.0)	5.2 (0.4)	7.1 (1.7)	6.4 (2.5)	8.5 (4.9)
	\$15,000 to \$24,999	17.6 (2.1)	7.5 (0.5)	16.7 (4.0)	10.1 (3.2)	12.8 (5.0)
	\$25,000 to \$34,999	11.4 (1.6)	8.9 (0.6)	10.3 (1.9)	11.6 (2.9)	13.5 (3.1)
	\$35,000 to \$49,999	9.0 (1.3)	9.3 (0.5)	8.6 (2.5)	11.9 (3.5)	9.1 (3.1)
Wages Income Amount	\$50,000 to \$74,999	4.2 (1.0)	7.5 (0.5)	8.0 (2.7)	8.3 (2.0)	7.8 (3.0)
	\$75,000 to \$99,999	1.6 (0.5)	3.6 (0.3)	3.9 (1.6)	4.9 (1.2)	4.5 (2.5)
	\$100,000 to \$149,999	0.7 (0.2)	2.7 (0.3)	2.4 (1.5)	6.1 (1.8)	2.3 (1.6)
	\$150,000 to \$199,999	0.2 (0.1)	1.2 (0.2)	0.2 (0.1)	1.7 (0.6)	1.0 (1.0)
	\$200,000 or more	0.1 (0.1)	0.4 (0.1)	0.0 (0.2)	0.2 (0.1)	0.0 (0.5)
	L-Fold (Aggregate)	10.6 (1.1)	6.6 (0.3)	9.6 (1.6)	8.3 (1.2)	8.9 (1.8)
Wages Income Recipiency	Yes	9.8 (1.0)	6.8 (0.4)	9.4 (1.6)	6.5 (1.8)	9.0 (2.7)
•	Loss or broke even	0.6 (0.6)	7.2 (3.2)	3.0 (2.5)	2.4 (2.0)	3.5 (3.5)
	Less than \$10,000	31.3 (14.1)	11.0 (1.8)	14.5 (6.9)	0.0 (4.6)	0.0 (9.3)
	\$10,000 to \$14,999	8.4 (3.9)	11.6 (2.9)	8.1 (6.5)	1.2 (1.3)	2.5 (3.0)
	\$15,000 to \$24,999	28.0 (14.6)	12.5 (2.4)	11.1 (7.0)	26.6 (17.0)	8.4 (7.7)
C-1CF11-1	\$25,000 to \$34,999	12.3 (6.8)	10.3 (2.1)	14.5 (7.2)	26.6 (17.0)	6.4 (6.2)
Self Employed Income Amount	\$35,000 to \$49,999	9.5 (6.4)	9.8 (1.6)	13.4 (11.7)	2.7 (2.2)	0.0 (9.3)
Amount	\$50,000 to \$74,999	3.4 (2.7)	4.5 (0.8)	13.3 (11.8)	1.6 (1.7)	4.4 (5.0)
	\$75,000 to \$99,999	0.0 (1.3)	2.4 (0.6)	0.0 (3.0)	0.0 (4.6)	1.3 (1.6)
	\$100,000 to \$149,999	0.0 (1.3)	3.9 (1.0)	0.0 (3.0)	0.0 (4.6)	0.0 (9.3)
	\$150,000 or more	0.0 (1.3)	2.7 (1.0)	0.0 (3.0)	0.0 (4.6)	0.0 (9.3)
	L-Fold (Aggregate)	22.4 (10.3)	9.7 (0.9)	12.7 (4.6)	17.1 (13.8)	3.6 (3.6)

Appendix D: GDR Estimates By Hispanic Origin/Race Subgroup (Hispanic, White, Black, Asian, or Other)

Analysis Topic	Analysis category	Hispanic GDR	White GDR	Black GDR	Asian GDR	Other GDR
	Received a positive amount of self-	7.2 (0.8)	7.5 (0.5)	4.5 (0.8)	8.1 (2.2)	4.4 (1.4)
	employment income					
Self Employed Income	Did not receive self-employment income	7.3 (0.9)	7.5 (0.4)	4.6 (0.8)	8.1 (2.2)	4.1 (1.4)
Recipiency	Had a net loss or broke even for self-	0.0(0.0)	1.3 (0.3)	0.2 (0.1)	0.3 (0.1)	0.3 (0.2)
	employment income					
	L-Fold (Aggregate)	7.3 (0.9)	7.4 (0.4)	4.6 (0.8)	8.1 (2.2)	4.1 (1.4)
	Loss or broke even	4.6 (3.3)	2.2 (0.4)	0.0 (3.0)	2.1 (1.4)	12.5 (10.3)
	Positive, less than \$100	4.6 (2.6)	6.7 (0.8)	6.3 (4.4)	8.3 (4.0)	8.3 (6.3)
	\$100 to \$999	8.8 (4.1)	19.6 (2.1)	55.9 (20.0)	19.0 (5.8)	17.7 (10.5)
Property Income	\$1,000 to \$4,999	9.3 (4.4)	19.1 (1.7)	49.1 (23.0)	16.8 (5.0)	19.9 (11.2)
Amount	\$5,000 to \$9,999	3.8 (2.6)	12.1 (1.2)	0.9 (0.9)	11.1 (4.0)	5.6 (3.7)
	\$10,000 to \$19,999	14.3 (8.9)	13.7 (1.6)	3.7 (3.0)	5.5 (2.4)	11.7 (8.0)
	\$20,000 or more	12.1 (9.0)	8.9 (1.2)	2.7 (2.3)	3.4 (1.7)	16.0 (6.7)
	L-Fold (Aggregate)	9.1 (3.8)	14.5 (0.9)	42.5 (20.9)	13.6 (3.4)	15.6 (5.3)
	Received a positive amount of property income	3.6 (0.8)	14.8 (0.6)	4.4 (0.8)	11.8 (1.6)	7.2 (1.4)
Property Income	Did not receive property income	3.6 (0.8)	14.8 (0.6)	4.5 (0.8)	12.0 (1.6)	6.8 (1.3)
Recipiency	Had a net loss or broke even for property income	0.0 (0.0)	0.3 (0.1)	0.1 (0.1)	0.3 (0.2)	1.1 (0.7)
	L-Fold (Aggregate)	3.6 (0.8)	14.7 (0.6)	4.5 (0.8)	11.9 (1.6)	6.8 (1.3)
	Less than \$1,000	1.7 (0.5)	1.4 (0.2)	3.0 (1.4)	2.7 (2.1)	0.2 (0.2)
	\$1,000 to \$4,999	4.7 (1.5)	5.2 (0.5)	14.0 (4.4)	1.6 (1.6)	12.1 (8.5)
Social Security Income	\$5,000 to \$9,999	12.8 (4.8)	7.1 (0.7)	15.1 (4.9)	13.1 (10.8)	16.5 (8.4)
Amount	\$10,000 to \$19,999	13.2 (4.7)	13.6 (1.0)	13.9 (4.1)	14.8 (10.7)	9.0 (3.3)
	\$20,000 or more	2.4 (1.0)	6.7 (0.7)	4.5 (1.8)	0.5 (0.4)	4.5 (2.2)
	L-Fold (Aggregate)	10.8 (3.8)	10.1 (0.6)	13.6 (3.3)	11.2 (8.8)	11.9 (4.9)
Social Security Income Recipiency	Yes	2.4 (0.5)	4.0 (0.3)	5.6 (1.0)	1.4 (0.5)	3.4 (1.5)

Appendix D: GDR Estimates By Hispanic Origin/Race Subgroup (Hispanic, White, Black, Asian, or Other)

Analysis Topic	Analysis category	Hispanic GDR	White GDR	Black GDR	Asian GDR	Other GDR
	Less than \$1,000	8.8 (5.5)	7.0 (3.0)	15.3 (6.2)	0.0 (9.6)	17.1 (12.5)
9 1 19 19	\$1,000 to \$4,999	4.4 (2.7)	7.0 (2.4)	14.1 (6.5)	0.0 (9.6)	32.2 (16.8)
Supplemental Security Income Amount	\$5,000 to \$9,999	7.0 (4.9)	12.8 (3.5)	23.4 (7.1)	0.0 (9.6)	19.5 (16.2)
mcome Amount	\$10,000 or more	1.9 (1.4)	5.4 (2.2)	8.6 (5.3)	0.0 (9.6)	4.4 (4.5)
	L-Fold (Aggregate)	6.3 (3.8)	9.9 (2.5)	19.4 (5.1)	0.0 (9.6)	22.2 (11.9)
Supplemental Security Income Recipiency	Yes	2.0 (0.4)	1.9 (0.2)	3.7 (0.6)	0.8 (0.4)	2.2 (0.8)
	Less than \$1,000	0.0 (5.1)	9.7 (5.6)	11.3 (8.5)	0.0 (159.2)	0.0 (53.1)
Public Assistance	\$1,000 to \$4,999	5.5 (5.2)	24.7 (11.4)	29.1 (12.1)	0.0 (159.2)	39.0 (33.5)
Income Amount	\$5,000 or more	5.5 (5.2)	18.2 (11.0)	20.4 (10.2)	0.0 (159.2)	39.0 (33.5)
	L-Fold (Aggregate)	5.5 (5.2)	19.6 (9.2)	25.5 (9.7)	0.0 (159.2)	21.9 (32.4)
Public Assistance Income Recipiency	Yes	1.8 (0.4)	1.0 (0.2)	1.7 (0.4)	1.6 (1.2)	4.0 (2.1)
	Less than \$1,000	3.1 (1.8)	2.0 (0.4)	2.2 (1.1)	0.0 (4.6)	1.7 (1.8)
	\$1,000 to \$4,999	9.1 (3.7)	6.5 (0.8)	3.7 (1.4)	2.8 (2.3)	1.8 (1.9)
	\$5,000 to \$9,999	6.2 (2.7)	7.6 (1.0)	5.3 (1.8)	0.0 (4.6)	1.8 (1.9)
Retirement Income	\$10,000 to \$19,999	6.8 (4.2)	11.2 (1.2)	4.2 (1.5)	26.0 (18.4)	8.2 (5.5)
Amount	\$20,000 to \$49,999	7.5 (4.5)	9.9 (1.0)	6.4 (2.2)	28.9 (18.0)	11.7 (6.3)
	\$50,000 to \$74,999	1.8 (1.4)	3.7 (0.7)	3.3 (1.9)	1.9 (2.1)	5.2 (3.7)
	\$75,000 or more	0.9 (1.0)	1.1 (0.5)	2.3 (1.6)	0.0 (4.6)	0.0 (4.2)
	L-Fold (Aggregate)	7.1 (2.5)	8.5 (0.7)	5.0 (1.3)	22.3 (15.9)	8.0 (4.1)
Retirement Income Recipiency	Yes	1.7 (0.3)	5.6 (0.3)	5.2 (0.8)	3.3 (1.1)	4.7 (1.6)

Appendix D: GDR Estimates By Hispanic Origin/Race Subgroup (Hispanic, White, Black, Asian, or Other)

Analysis Topic	Analysis category	Hispanic GDR	White GDR	Black GDR	Asian GDR	Other GDR
	Less than \$1,000	3.7 (2.5)	3.6 (0.9)	0.5 (0.4)	29.3 (24.2)	12.6 (11.9)
	\$1,000 to \$2,499	10.5 (4.9)	16.5 (3.0)	6.8 (4.1)	0.0 (8.9)	13.6 (12.0)
	\$2,500 to \$4,999	14.2 (5.1)	16.1 (2.0)	4.4 (2.1)	29.3 (24.2)	21.2 (18.3)
Other Income Amount	\$5,000 to \$9,999	14.1 (4.6)	12.8 (2.0)	13.4 (6.4)	0.0 (8.9)	5.5 (4.7)
	\$10,000 to \$19,999	6.9 (3.4)	14.4 (2.6)	24.3 (8.5)	3.9 (4.1)	25.7 (17.9)
	\$20,000 or more	1.0 (0.7)	7.0 (1.9)	4.4 (3.5)	3.9 (4.1)	0.0 (2.6)
	L-Fold (Aggregate)	10.7 (3.0)	13.4 (1.3)	14.1 (6.3)	17.4 (18.5)	18.0 (12.3)
Other Income Recipiency	Yes	6.3 (0.9)	5.9 (0.3)	7.1 (1.3)	5.0 (1.5)	3.7 (1.0)
	Loss or broke even	6.5 (1.1)	4.9 (0.4)	5.5 (1.1)	5.8 (1.4)	7.4 (3.1)
	Less than \$10,000	8.4 (1.0)	7.2 (0.4)	13.0 (1.9)	10.1 (2.3)	8.9 (2.5)
	\$10,000 to \$14,999	10.4 (1.3)	6.3 (0.5)	9.2 (1.5)	6.3 (2.0)	4.4 (1.3)
	\$15,000 to \$24,999	14.2 (1.4)	8.8 (0.4)	10.3 (2.3)	6.0 (1.6)	10.2 (3.4)
	\$25,000 to \$34,999	8.3 (1.1)	9.1 (0.4)	8.7 (1.3)	9.6 (2.1)	10.8 (2.7)
Tatal Income Amount	\$35,000 to \$49,999	6.0 (0.8)	9.6 (0.5)	7.2 (1.8)	8.4 (2.1)	8.6 (2.4)
Total Income Amount	\$50,000 to \$74,999	2.7 (0.6)	7.1 (0.4)	6.3 (1.9)	8.0 (2.0)	5.3 (1.7)
	\$75,000 to \$99,999	1.1 (0.3)	3.6 (0.3)	2.4 (0.8)	3.8 (0.8)	1.8 (1.0)
	\$100,000 to \$149,999	0.9 (0.3)	2.4 (0.2)	1.8 (0.8)	3.5 (1.1)	1.6 (1.0)
	\$150,000 to \$199,999	0.6 (0.3)	1.2 (0.2)	0.5 (0.4)	1.0 (0.4)	0.7 (0.7)
	\$200,000 or more	0.1 (0.1)	0.8 (0.1)	0.1 (0.1)	0.4 (0.2)	0.0 (0.3)
	L-Fold (Aggregate)	8.4 (0.6)	7.0 (0.2)	8.6 (0.9)	7.0 (0.7)	7.6 (1.3)
	Yes, received a positive amount of income	6.6 (1.1)	5.1 (0.4)	5.5 (1.1)	5.9 (1.4)	7.4 (3.1)
Total Income	No, did not receive income	6.6 (1.1)	4.7 (0.4)	5.9 (1.2)	5.6 (1.4)	6.9 (3.1)
Recipiency	Had a net loss or broke even (loss box checked)	0.1 (0.1)	0.5 (0.1)	0.5 (0.4)	0.3 (0.2)	0.4 (0.3)
-	L-Fold (Aggregate)	6.6 (1.1)	5.1 (0.4)	5.6 (1.1)	5.8 (1.4)	7.2 (3.0)

Image of Question from 2012 ACS Mail form

CRS Analysis Topics and Analysis categories

Analysis Topic Name: RELATIONSHIP TO HOUSEHOLDER

Analysis categories --

- 1. Householder
- 2. Husband or wife
- 3. Biological son or daughter
- 4. Adopted son or daughter
- 5. Stepson or stepdaughter
- 6. Brother or sister
- 7. Father or mother
- 8. Grandchild
- 9. Parent-in-law
- 10. Son-in-law or daughter-in-law
- 11. Other relative
- 12. Roomer or boarder
- 13. Housemate or roommate
- 14. Unmarried partner
- 15. Foster child
- 16. Other nonrelative

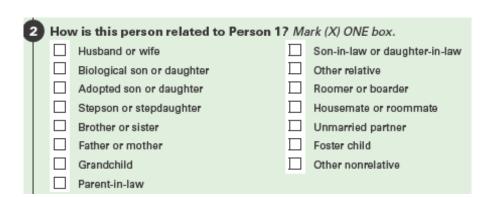


Image of Question from 2012 ACS Mail form

What is Person 2's sex? Mark (X) ONE box.

Female

CRS Analysis Topics and Analysis categories

Analysis Topic Name: SEX

Analysis categories --

- 1. Male
- 2. Female

•	What is Person 2's a Please report babies a	age and what is Person 2's date of birth as age 0 when the child is less than 1 year of	? ld.
		Print numbers in boxes.	
	Age (in years)	Month Day Year of birth	

QUESTION: Person's Age and Date of Birth

We derived two analysis topics from this question. AGE RANGE is derived from a question asked in CATI/CAP, if the respondent is unsure of the exact age of another person in the household. The responses possible are "0 to 2", "3 or 4", "5 to 14", and "15 or older". Because of small sample sizes, we collapsed the first three into one analysis category. In addition, if the response for a person in either ACS or CRS was an AGE RANGE response, we converted the "other" response to an age range category if it was not already.

(image repeated from previous page)

(What is Person 2's a Please report babies a	What is Person 2's age and what is Person 2's date of birth? Please report babies as age 0 when the child is less than 1 year old.					
		Print nu	ımbers ir	n boxes.			
	Age (in years)	Month	Day	Year of birth			

CRS Analysis Topics and Analysis categories

Analysis Topic Name: AGE

Analysis categories --

- 1. Under 5 years
- 2. 5 to 9 years
- 3. 10 to 14 years
- 4. 15 to 17 years
- 5. 18 to 19 years
- 6. 20 years
- 7. 21 years
- 8. 22 to 24 years
- 9. 25 to 29 years
- 10. 30 to 34 years
- 11. 35 to 39 years
- 12. 40 to 44 years
- 13. 45 to 49 years
- 14. 50 to 54 years
- 15. 55 to 59 years
- 16. 60 and 61 years
- 17. 62 to 64 years
- 18. 65 to 66 years
- 19. 67 to 69 years
- 20. 70 to 74 years
- 21. 75 to 79 years
- 22. 80 to 84 years
- 23.85 + years

Analysis Topic Name: AGE

RANGE

- 1. 0 to 14 years old
- 2. 15 + years old

| S Person 2 of Hispanic, Latino, or Spanish origin? | No, not of Hispanic, Latino, or Spanish origin | Yes, Mexican, Mexican Am., Chicano | Yes, Puerto Rican | Yes, Cuban | Yes, Cuban | Yes, another Hispanic, Latino, or Spanish origin – Print origin, for example, Argentinean, Colombian, Dominican, Nicaraguan, Salvadoran, Spaniard, and so on.

CRS Analysis Topics and Analysis categories

QUESTION: Person's Hispanic Origin

We derived seven CRS Analysis Topics from this question.

Six analysis topics with "Yes" or "No" analysis categories

- 1. Not Hispanic
- 2. Hispanic -- Mexican
- 3. Hispanic -- Puerto Rican
- 4. Hispanic -- Cuban
- 5. Hispanic -- Other
- 6. Hispanic Write-In Present

7th Analysis Topic: Hispanic Analysis Aggregate

- 1. Not Hispanic or Latino
- 2. Mexican alone
- 3. Puerto Rican alone
- 4. Cuban alone
- 5. Other Hispanic or Latino (no write-in, or one write-in alone)
- 6. Multiple responses (with at least one Hispanic response)

6	Wha	nt is Person 2's race?	Mari	k (X) one or m	ore l	boxes.			
Γ		White							
		Black, African Am., or Negro							
		American Indian or Alask	American Indian or Alaska Native — Print name of enrolled or principal tribe.						
		Asian Indian		Japanese		Native Hawaiian			
		Chinese		Korean		Guamanian or Chamorro			
		Filipino		Vietnamese		Samoan			
		Other Asian – Print race, for example, Hmong, Print race, for example, Laotian, Thai, Pakistani, Cambodian, and so on.							
		Some other race – Print race.							
				-					

CRS Analysis Topics and Analysis categories

QUESTION: Person's Race

1. Race -- White

We derived 17 Analysis Topics from the Race question. Twelve of these correspond to checkboxes, and we collapsed another three checkboxes for a 13th analysis topic. (We collapsed checkboxes 12-14 due to small sample sizes.) Three more analysis topics are "presence of write-in" checks corresponding to the three write-in lines. We derived the 17th analysis topic by defining mutually exclusive categories based on combinations of checkbox and write-in responses.

Note that if a write-in response indicates a race corresponding to one of the checkboxes, but that checkbox is not selected, we edit that checkbox response to be a "Yes". We also use these edited checkbox responses when determining each person's aggregate race category (see next page).

Sixteen analysis topics with "Yes" or "No" analysis categories

9. Race -- Vietnamese

- Race -- Black
 Race -- Other Asian
 Race -- Other Asian
 Race -- Native Hawaiian
 Race -- Guamanian Or Chamorro

 (AIAN)
 Race -- Asian Indian
 Race -- Chinese
 Race -- Some Other Race

 Race -- Write-In 1 Present
- 7. Race -- Japanese 15. Race -- Write-In 2 Present
- 8. Race -- Korean 16. Race -- Write-In 3 Present

(image repeated from previous page)

6	Wha	at is Person 2's race?	Mar	k (X) one or m	ore	boxes.			
Γ		White							
		Black, African Am., or Ne	Black, African Am., or Negro						
		American Indian or Alask	a Na	tive — Print na	me o	f enrolled or principal tribe.∡			
						ĺ			
		Asian Indian		Japanese		Native Hawaiian			
		Chinese		Korean		Guamanian or Chamorro			
		Filipino		Vietnamese		Samoan			
		Other Asian – Print race, for example, Hmong, Laotian, Thai, Pakistani, Cambodian, and so on.							
		Some other race – Print race. 📈							

CRS Analysis Topics and Analysis categories

17th Analysis Topic: RACE AGGREGATE

- 1. White alone
- 2. Black alone
- 3. AIAN alone
- 4. Asian alone
- 5. Native Hawaiian or Other Pacific Islander alone
- 6. Some Other Race alone
- 7. Multiple races

0	ich best describes this building? ude all apartments, flats, etc., even if ant.
	A mobile home
	A one-family house detached from any other house
	A one-family house attached to one or more houses
	A building with 2 apartments
	A building with 3 or 4 apartments
ı	A building with 5 to 9 apartments
П	A building with 10 to 19 apartments
П	A building with 20 to 49 apartments
П	A building with 50 or more apartments
	Boat, RV, van, etc.

CRS Analysis Topics and Analysis categories

Analysis Topic Name: BUILDING TYPE

We collapsed the first and last responses for this question to create one analysis category. This was necessary because of small sample sizes.

- 1. Mobile home, Boat, RV, van, etc.
- 2. Single unit, detached
- 3. Single unit, attached
- 4. Apartment building, 2 units
- 5. Apartment building, 3 or 4 units
- 6. Apartment building, 5 to 9 units
- 7. Apartment building, 10 to 19 units
- 8. Apartment building, 20 to 49 units
- 9. Apartment building, 50 or more units

E)	Abo	out when was this building first built?
			2000 or later - Specify year
			1990 to 1999
			1980 to 1989
			1970 to 1979
			1960 to 1969
			1950 to 1959
			1940 to 1949
			1939 or earlier

CRS Analysis Topics and Analysis categories

Analysis Topic Name: YEAR BUILT

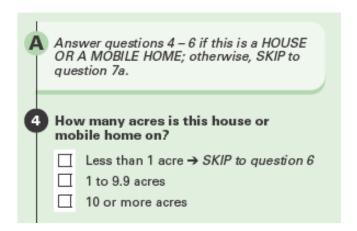
- 1. Built 2012 or later
- 2. Built 2011
- 3. Built 2010
- 4. Built 2000 to 2009
- 5. Built 1990 to 1999
- 6. Built 1980 to 1989
- 7. Built 1970 to 1979
- 8. Built 1960 to 1969
- 9. Built 1950 to 1959
- 10. Built 1940 to 1949
- 11. Built 1939 or earlier

When did PERSON 1 (listed on page 2 move into this house, apartment, or mobile home?					
	Month	Year			

CRS Analysis Topics and Analysis categories

Analysis Topic Name: YEAR PERSON 1 MOVED IN

- 1. Moved in 2012 or later
- 2. Moved in 2011
- 3. Moved in 2010
- 4. Moved in 2009
- 5. Moved in 2008
- 6. Moved in 2007 or earlier



CRS Analysis Topics and Analysis categories

Analysis Topic Name: LOT SIZE

- 1. Less than one acre
- 2. 1 to 9.9 acres
- 3. 10 acres or more

5 IN THE PAST 12 MONTHS, what were the actual sales of all agricultural products from this property? None \$1 to \$999 \$1,000 to \$2,499 \$2,500 to \$4,999 \$5,000 to \$9,999 \$10,000 or more

CRS	Analysis	Topics	and	Anal	vsis	cated	ories
	1 XII CILY DID	TOPICS	anu	LAHA	LYBIB	carce	OLICS

Analysis Topic Name: AGRICULTURAL SALES

Analysis categories --

- 1. None
- 2. \$1 to \$999
- 3. \$1,000 to \$2,499
- 4. \$2,500 to \$4,999
- 5. \$5,000 to \$9,999
- 6. \$10,000 or more

(bar	here a business (such as a store or ber shop) or a medical office on s property?
		Yes
		No

Analysis Topic Name: BUSINESS ON PROPERTY

Analysis categories --

Yes or No

•	a. How many separate rooms are in this house, apartment, or mobile home? Rooms must be separated by built-in archways or walls that extend out at least 6 inches and go from floor to ceiling.
	 INCLUDE bedrooms, kitchens, etc. EXCLUDE bathrooms, porches, balconies, foyers, halls, or unfinished basements.
	Number of rooms

b. How many of these rooms are bedrooms? Count as bedrooms those rooms you would list if this house, apartment, or mobile home were for sale or rent. If this is an efficiency/studio apartment, print "0".

Number of bedrooms

CRS Analysis Topics and Analysis categories

Analysis Topic Name: ROOMS

Analysis categories --

- 1. 1 room
- 2. 2 rooms
- 3. 3 rooms
- 4. 4 rooms
- 5. 5 rooms
- 6. 6 rooms
- 7. 7 rooms
- 8. 8 rooms
- 9. 9 or more rooms

Analysis Topic Name: BEDROOMS

- 1. No bedroom
- 2. 1 bedroom
- 3. 2 bedrooms
- 4. 3 bedrooms
- 5. 4 bedrooms
- 6. 5 or more bedrooms

Image of Question from 2012 ACS Mail form	CRS Analysis Topics and Analysis categories
	Analysis Topic Name: RUNNING WATER PRESENT
8 Does this house, apartment, or mobile home have –	Analysis categories
Yes No a. hot and cold running water?	Yes or No
	Analysis Topic Name: FLUSH TOILET PRESENT
	Analysis categories
b. a flush toilet?	Yes or No
	Analysis Topic Name: BATHTUB OR SHOWER PRESENT
	Analysis categories
c. a bathtub or shower?	Yes or No
	Analysis Topic Name: SINK PRESENT
	Analysis categories
d. a sink with a faucet?	Yes or No

Image of Question from 2012 ACS Mail form	CRS Analysis Topics and Analysis categories
e. a stove or range?	Analysis Topic Name: STOVE OR RANGE PRESENT Analysis categories Yes or No Analysis Topic Name: REFRIGERATOR PRESENT Analysis categories Yes or No Analysis Topic Name: VEHICLES AVAILABLE
How many automobiles, vans, and trucks of one-ton capacity or less are kept at home for use by members of this household? None 1 2 3 4 5 6 or more	Analysis categories 1. No vehicle available 2. 1 vehicle available 3. 2 vehicles available 4. 3 vehicles available 5. 4 vehicles available 6. 5 or more vehicles available

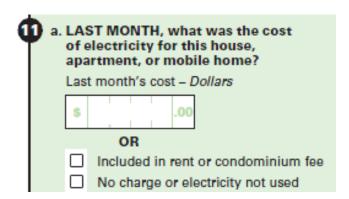
1	Which FUEL is used MOST for heating this house, apartment, or mobile home?				
		Gas: from underground pipes serving the neighborhood			
		Gas: bottled, tank, or LP			
		Electricity			
		Fuel oil, kerosene, etc.			
		Coal or coke			
		Wood			
		Solar energy			
		Other fuel			
		No fuel used			

CRS Analysis Topics and Analysis categories

We collapsed "Solar energy" and "Other fuel" into one category because of small sample sizes.

Analysis Topic Name: HOUSE HEATING FUEL

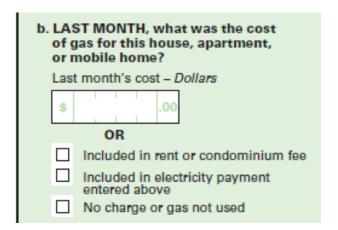
- 1. Utility gas
- 2. Bottled, tank, or LP gas
- 3. Electricity
- 4. Fuel oil, kerosene, etc.
- 5. Coal or coke
- 6. Wood
- 7. Solar energy or other fuel
- 8. No fuel used



CRS Analysis Topics and Analysis categories

Analysis Topic Name: MONTHLY ELECTRICITY COST

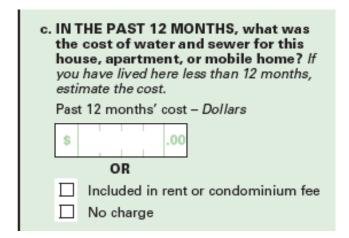
- 1. Less than \$25
- 2. \$25 to \$49
- 3. \$50 to \$74
- 4. \$75 to \$99
- 5. \$100 to \$149
- 6. \$150 to \$199
- 7. \$200 or more
- 8. Included in rent or condominium fee
- 9. No charge or electricity not used



CRS Analysis Topics and Analysis categories

Analysis Topic Name: MONTHLY GAS COST

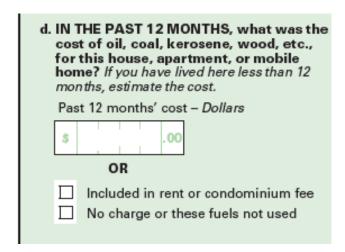
- 1. Less than \$25
- 2. \$25 to \$49
- 3. \$50 to \$74
- 4. \$75 to \$99
- 5. \$100 to \$149
- 6. \$150 to \$199
- 7. \$200 or more
- 8. Included in rent or condominium fee
- 9. Included in electricity payment
- 10. No charge or gas not used



CRS Analysis Topics and Analysis categories

Analysis Topic Name: ANNUAL WATER AND SEWER COSTS

- 1. Less than \$120
- 2. \$120 to \$299
- 3. \$300 to \$599
- 4. \$600 to \$899
- 5. \$900 to \$1199
- 6. \$1200 to \$1799
- 7. \$1800 to \$2399
- 8. \$2400 to \$3599
- 9. \$3600 to \$4799
- 10. \$4800 or more
- 11. Included in rent or condominium fee
- 12. No charge



CRS Analysis Topics and Analysis categories

Analysis Topic Name: ANNUAL OTHER FUELS COSTS

- 1. Less than \$300
- 2. \$300 to \$599
- 3. \$600 to \$899
- 4. \$900 to \$1199
- 5. \$1200 to \$1799
- 6. \$1800 to \$2399
- 7. \$2400 or more
- 8. Included in rent or condominium fee
- 9. No charge

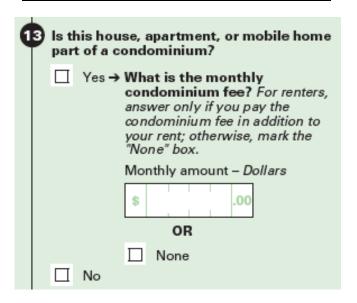
•	ti a g N D	THE PAST 12 MONTHS, did anyone in is household receive Food Stamps or Food Stamp benefit card? Include overnment benefits from the Supplemental attrition Assistance Program (SNAP). O NOT include WIC or the National School anch Program.
		Yes No

CRS Analysis Topics and Analysis categories

Analysis Topic Name: FOOD STAMP RECIPIENCY

Analysis categories --

Yes or No



CRS Analysis Topics and Analysis categories

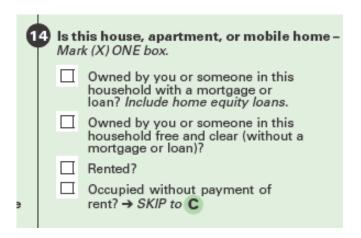
Analysis Topic Name: CONDOMINIUM STATUS

Analysis categories --

Yes or No

Analysis Topic Name: MONTHLY CONDOMINIUM FEE

- 1. Less than \$100 per month
- 2. \$100 to \$149
- 3. \$150 to \$199
- 4. \$200 to \$299
- 5. \$300 to \$499
- 6. \$500 or more per month



CRS Analysis Topics and Analysis categories

Analysis Topic Name: TENURE

- 1. Owned with a mortgage
- 2. Owned without a mortgage
- 3. Rented
- 4. Occupied without payment of rent

Answer questions 15a and b if this house, apartment, or mobile home is RENTED. Otherwise, SKIP to question 16. a. What is the monthly rent for this house, apartment, or mobile home? Monthly amount – Dollars

CRS Analysis Topics and Analysis categories

Analysis Topic Name: MONTHLY RENT

- 1. Less than \$100
- 2. \$100 to \$149
- 3. \$150 to \$199
- 4. \$200 to \$249
- 5. \$250 to \$299
- 6. \$300 to \$349
- 7. \$350 to \$399
- 8. \$400 to \$449
- 9. \$450 to \$499
- 10. \$500 to \$549
- 11. \$550 to \$599
- 12. \$600 to \$649
- 13. \$650 to \$699
- 14. \$700 to \$749
- 15. \$750 to \$799
- 16. \$800 to \$899
- 17. \$900 to \$999
- 18. \$1,000 to \$1,249
- 19. \$1,250 to \$1,499
- 20. \$1,500 to \$1,999
- 21. \$2,000 or more

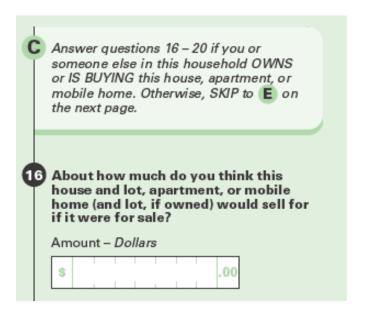
es the monthly rent include any als?
Yes No

CRS Analysis Topics and Analysis categories

Analysis Topic Name: MEALS INCLUDED IN RENT

Analysis categories --

Yes or No



CRS Analysis Topics and Analysis categories

Analysis Topic Name: PROPERTY VALUE

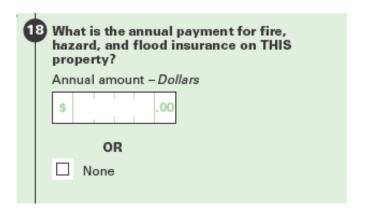
- 1. Less than \$50,000
- 2. \$50,000 to \$99,999
- 3. \$100,000 to \$149,999
- 4. \$150,000 to \$199,999
- 5. \$200,000 to \$299,999
- 6. \$300,000 to \$499,999
- 7. \$500,000 to \$999,999
- 8. \$1,000,000 or more

What are the annual real estate taxes on THIS property? Annual amount – Dollars S OR None

CRS Analysis Topics and Analysis categories

Analysis Topic Name: ANNUAL REAL ESTATE TAXES

- 1. None
- 2. \$1 to \$299
- 3. \$300 to \$599
- 4. \$600 to \$899
- 5. \$900 to \$1199
- 6. \$1200 to \$1499
- 7. \$1500 to \$1799
- 8. \$1800 to \$2399
- 9. \$2400 to \$3599
- 10. \$3600 to \$4799
- 11. \$4800 to \$5999
- 12. \$6000 to \$7199
- 13. \$ 7200 or more



CRS Analysis Topics and Analysis categories

Analysis Topic Name: ANNUAL PROPERTY INSURANCE AMOUNT

- 1. None
- 2. \$1 to \$119
- 3. \$120 to \$299
- 4. \$300 to \$599
- 5. \$600 to \$899
- 6. \$900 to \$1199
- 7. \$1200 to \$1799
- 8. \$1800 to \$2399
- 9. \$2400 to \$3599
- 10. \$3600 to \$4799
- 11. \$4800 or more

household have a m		you or any member of this usehold have a mortgage, deed of st, contract to purchase, or similar ot on THIS property?
		Yes, mortgage, deed of trust, or similar debt
		Yes, contract to purchase No → SKIP to question 20a

CRS Analysis Topics and Analysis categories

Analysis Topic Name: MORTGAGE STATUS

- 1. Owned with a mortgage
- 2. Under contract to purchase
- 3. No mortgage

b. How much is the regular monthly mortgage payment on THIS property? Include payment only on FIRST mortgage or contract to purchase. Monthly amount – Dollars \$.00 OR No regular payment required → SKIP to question 20a

CRS Analysis Topics and Analysis categories

Analysis Topic Name: MONTHLY MORTGAGE PAYMENT

- 1. Less than \$200
- 2. \$200 to \$249
- 3. \$250 to \$299
- 4. \$300 to \$349
- 5. \$350 to \$399
- 6. \$400 to \$449
- 7. \$450 to \$499
- 8. \$500 to \$599
- 9. \$600 to \$699
- 10. \$700 to \$799
- 11. \$800 to \$999
- 12. \$1,000 to \$1,249
- 13. \$1,250 to \$1,499
- 14. \$1,500 to \$1,999
- 15. \$2,000 or more

CRS Analysis Topics and Analysis categories

c. Does the regular monthly mortgage payment include payments for real estate taxes on THIS property?

Yes, taxes included in mortgage payment

 No, taxes paid separately or taxes not required Analysis Topic Name: REAL ESTATE TAXES INCLUDED

Analysis categories --

Yes or No

d. Does the regular monthly mortgage payment include payments for fire, hazard, or flood insurance on THIS property?

Yes, insurance included in mortgage payment

No, insurance paid separately or no insurance

Analysis Topic Name: HOMEOWNER'S INSURANCE INCLUDED

Analysis categories --

Yes or No

20	hou or a	you or any member of this sehold have a second mortgage home equity loan on THIS perty?
	_	Yes, home equity loan Yes, second mortgage Yes, second mortgage and home equity loan No → SKIP to D

CRS Analysis Topics and Analysis categories

Analysis Topic Name: SECOND MORTGAGE TYPE

- 1. Home equity loan
- 2. Second mortgage
- 3. Second mortgage and home equity loan
- 4. No second mortgage or home equity loan

b. How much is the regular monthly payment on all second or junior mortgages and all home equity loans on THIS property? Monthly amount – Dollars S OR No regular payment required

CRS Analysis Topics and Analysis categories

Analysis Topic Name: SECOND MORTGAGE PAYMENT AMOUNT

- 1. Less than \$100
- 2. \$100 to \$199
- 3. \$200 to \$249
- 4. \$250 to \$299
- 5. \$300 to \$349
- 6. \$350 to \$399
- 7. \$400 to \$449
- 8. \$450 to \$499
- 9. \$500 to \$599
- 10. \$600 to \$699
- 11. \$700 to \$799
- 12. \$800 to \$999
- 13. \$1,000 to \$1,249
- 14. \$1,250 or more

2	D	What are the total annual costs for personal property taxes, site rent, registration fees, and license fees on THIS mobile home and its site? Exclude real estate taxes.
		Annual costs - Dollars
		\$.00

CRS Analysis Topics and Analysis categories

Analysis Topic Name: ANNUAL MOBILE HOME COSTS

- 1. Less than \$250
- 2. \$250 to \$2,499
- 3. \$2,500 or more

É)	Whe	re was this person born?
1			In the United States - Print name of state.
			Outside the United States - Print name of foreign country, or Puerto Rico, Guam, etc.

QUESTION: Person's Place of Birth

In addition to the primary analysis topic, we also defined three Place of Birth analysis topics at different levels of aggregation.

Analysis Topic Name: PLACE OF BIRTH

Analysis categories --

(U.S. Categories)

- 1. Born in U.S., in state of current residence
- 2. Born in U.S. Northeast region, not current residence state
- 3. Born in U.S. Midwest region, not current residence state
- 4. Born in U.S. South region, not current residence state
- 5. Born in U.S. West region, not current residence state
- 6. Born in Puerto Rico or U.S. Island or Outlying Areas (Outside the U.S. Categories)

7. Mexico	15. India
8. El Salvador	Philippines
9. Cuba	17. Vietnam
10. Dominican Republic	18. Korea
11. Guatemala	19. All other Asia
12. All other Latin America	20. Europe
13. Northern America	21. Africa

Appendix E: CRS Analysis Topics and Analysis Categories Derived from Each ACS Question

Image of Question from 2012 ACS Mail form

CRS Analysis Topics and Analysis categories

(image repeated from previous page)

Ø	Whe	re was this person born?
Т		In the United States - Print name of state.
		Outside the United States – Print name of foreign country, or Puerto Rico, Guam, etc.

Analysis Topic Name: PLACE OF BIRTH -- U.S. or not

Analysis categories --

- 1. Born in the U.S. (including Puerto Rico and U.S. Outlying Areas)
- 2. Not born in the U.S.

Analysis Topic Name: PLACE OF BIRTH -- Outside the U.S. aggregate 1

Analysis categories --

- 1. Born outside the U.S.: Americas
- 2. Born outside the U.S.: Asia
- 3. Born outside the U.S.: Europe
- 4. Born outside the U.S.: Africa
- 5. Born outside the U.S.: Oceania

Analysis Topic Name: PLACE OF BIRTH -- Outside the U.S. aggregate 2

- 1. Born outside the U.S.: Northern America
- 2. Born outside the U.S.: Latin America
- 3. Born outside the U.S.: Asia
- 4. Born outside the U.S.: Europe
- 5. Born outside the U.S.: Africa
- 6. Born outside the U.S.: Oceania

Appendix E: CRS Analysis Topics and Analysis Categories Derived from Each ACS Question

Image of Question from 2012 ACS Mail form

CRS Analysis Topics and Analysis categories

Analysis Topic Name: CITIZENSHIP STATUS

- 1. U.S. citizen, born in the United States
- 2. U.S. citizen, born in Puerto Rico or U.S. Outlying areas
- 3. U.S. citizen, born abroad of American parent(s)
- 4. U.S. citizen by naturalization
- 5. Not a U.S. citizen

(•	ls th	is person a citizen of the United States?
1			Yes, born in the United States → SKIP to 10a
			Yes, born in Puerto Rico, Guam, the U.S. Virgin Islands, or Northern Marianas
			Yes, born abroad of U.S. citizen parent or parents
			Yes, U.S. citizen by naturalization – Print year of naturalization
			No, not a U.S. citizen

CRS Analysis Topics and Analysis categories

Analysis Topic Name: YEAR OF NATURALIZATION

Analysis categories --

- 1. 2005 or later
- 2. 2000 to 2004
- 3. 1995 to 1999
- 4. 1990 to 1994
- 5. 1985 to 1989
- 6. 1980 to 1984
- 7. before 1980

Analysis Topic Name: YEAR OF ENTRY

Analysis categories --

- 1. Entered 2005 or later
- 2. Entered 2000 to 2004
- 3. Entered 1995 to 1999
- 4. Entered 1990 to 1994
- 5. Entered 1985 to 1989
- 6. Entered 1980 to 1984
- 7. Entered before 1980

When did this person come to live in the United States? Print numbers in boxes. Year

Φ	a.	pers only elen	iny time IN THE LAST 3 MONTHS, has this son attended school or college? Include includ
			No, has not attended in the last 3 months → SKIP to question 11
			Yes, public school, public college
			Yes, private school, private college, home school

CRS Analysis Topics and Analysis categories

Analysis Topic Name: SCHOOL ATTENDANCE

- 1. Enrolled in public school
- 2. Enrolled in private school
- 3. Not enrolled in school

b. What grade or level was this person attending: Mark (X) ONE box.
Nursery school, preschool
Kindergarten
Grade 1 through 12 - Specify grade 1 - 12 -
grade 7 - 129
College undergraduate years (freshman to senior)
Graduate or professional school beyond a bachelor's degree (for example: MA or PhD program, or medical or law school)

CRS Analysis Topics and Analysis categories

Analysis Topic Name: SCHOOL GRADE LEVEL

- 1. Enrolled in nursery school, preschool
- 2. Enrolled in kindergarten
- 3. Enrolled in grade 1
- 4. Enrolled in grade 2
- 5. Enrolled in grade 3
- 6. Enrolled in grade 4
- 7. Enrolled in grade 5
- 8. Enrolled in grade 6
- 9. Enrolled in grade 7
- 10. Enrolled in grade 8
- 11. Enrolled in grade 9
- 12. Enrolled in grade 10
- 13. Enrolled in grade 11
- 14. Enrolled in grade 12
- 15. Enrolled in college, undergraduate years
- 16. Graduate or professional school

1	lf cu	nt is the highest degree or level of school person has COMPLETED? Mark (X) ONE box. rrently enrolled, mark the previous grade or est degree received.
	NO S	SCHOOLING COMPLETED
		No schooling completed
	NUR	SERY OR PRESCHOOL THROUGH GRADE 12
		Nursery school
		Kindergarten
		Grade 1 through 11 - Specify grade 1 - 11 7
		12th grade - NO DIPLOMA
	HIGI	H SCHOOL GRADUATE
		Regular high school diploma
		GED or alternative credential
	COL	LEGE OR SOME COLLEGE
	П	Some college credit, but less than 1 year of college credit
		1 or more years of college credit, no degree
		Associate's degree (for example: AA, AS)
		Bachelor's degree (for example: BA, BS)
	AFT	ER BACHELOR'S DEGREE
	П	Master's degree (for example: MA, MS, MEng, MEd, MSW, MBA)
		Professional degree beyond a bachelor's degree (for example: MD, DDS, DVM, LLB, JD)
		Doctorate degree (for example: PhD, EdD)

Analysis Topic Name: EDUCATIONAL ATTAINMENT

- 1. No schooling completed
- 2. Nursery school
- 3. Kindergarten
- 4. 1st grade
- 5. 2nd grade
- 6. 3rd grade
- 7. 4th grade
- 8. 5th grade
- 9. 6th grade
- 10. 7th grade
- 11. 8th grade
- 12. 9th grade
- 13. 10th grade
- 14. 11th grade
- 15. 12th grade, no diploma
- 16. Regular high school diploma
- 17. GED, or alternative credential
- 18. Some college, less than one year
- 19. Some college, one or more years, no degree
- 20. Associate's degree
- 21. Bachelor's degree
- 22. Master's degree
- 23. Professional school degree
- 24. Doctorate degree

CRS Analysis Topics and Analysis categories

This question focuses on this person's BACHELOR'S DEGREE. Please print below the specific major(s) of any BACHELOR'S DEGREES this person has received. (For example: chemical engineering, elementary teacher education, organizational psychology)

Analysis Topic Name: FIELD OF BACHELOR'S DEGREE

- 1. Computers, Mathematics and Statistics
- 2. Biological, Agricultural, and Environmental Sciences
- 3. Physical and Related Sciences
- 4. Psychology
- 5. Social Sciences
- 6. Engineering
- 7. Multidisciplinary Studies
- 8. Science and Engineering Related
- 9. Business
- 10. Education
- 11. Literature and Languages
- 12. Liberal Arts and History
- 13. Visual and Performing Arts
- 14. Communications
- 15. Other

What is this person's ancestry or ethnic origin? (For example: Italian, Jamaican, African Am., Cambodian, Cape Verdean, Norwegian, Dominican, French Canadian, Haitian, Korean, Lebanese, Polish, Nigerian, Mexican, Taiwanese, Ukrainian, and so on.)

CRS Analysis Topics and Analysis categories

Analysis Topic Name: ANCESTRY

Analysis categories --

13. Hungarian

14. Irish

15. Italian

- American
 Arab
 British
 Czech
 Danish
 Dutch
 English
 Norwegian
 Polish
 Portuguese
 Russian
 Scotch-Irish
 Scottish
 Slovak
 Sub-Saharan African
- 8. European

 9. French (except Basque)

 10. French Canadian

 11. German

 12. Greek

 24. Sub-Sanatan A

 25. Swedish

 26. Swiss

 27. Ukrainian

 28. Welsh
 - 29. West Indian (except Hispanic groups)30. Other groups

16. Lithuanian

a. Does this person speak a language other than English at home? ☐ Yes ☐ No → SKIP to question 15a

CRS Analysis Topics and Analysis categories

Analysis Topic Name: LANGUAGE OTHER THAN ENGLISH SPOKEN AT HOME

Analysis categories --

Yes or No

b. What is this language? For example: Korean, Italian, Spanish, Vietnamese

CRS Analysis Topics and Analysis categories

Analysis Topic Name: SPECIFIC LANGUAGE SPOKEN

- 1. Spanish
- 2. French
- 3. Italian
- 4. Portuguese
- 5. German
- 6. Russian
- 7. Polish, Serbo-Croatian, and other Slavic
- 8. Gujarati
- 9. Hindi
- 10. Urdu and other Indic
- 11. French Creole, Yiddish, Other W. Germanic, Scandinavian, Greek, Armenian, Persian, and other Indo-European
- 12. Chinese
- 13. Korean
- 14. Arabic
- 15. Vietnamese
- 16. Japanese, Mon-Khmer, Cambodian, Hmong, Thai, Laotian, and other Asian
- 17. Tagalog and other Pacific Island
- 18. African languages
- 19. Navajo, other Native American, Hungarian, Hebrew, and all others

c. How well does this person speak English? Very well Well Not well Not at all

CRS Analysis Topics and Analysis categories

Analysis Topic Name: ENGLISH SPEAKING ABILITY

- 1. Very well
- 2. Well
- 3. Not well
- 4. Not at all

ø	a.	Did t	this person live in this house or apartment ar ago?
			Person is under 1 year old → SKIP to question 16
			Yes, this house → SKIP to question 16
			No, outside the United States and Puerto Rico – Print name of foreign country, or U.S. Virgin Islands, Guam, etc., below, then SKIP to question 16
			No, different house in the United States or Puerto Rico
	b.	Whe	re did this person live 1 year ago?
		Add	ress (Number and street name)
		Nam	e of city, town, or post office
			e of U.S. county or icipio in Puerto Rico
			e of U.S. state or to Rico ZIP Code

Analysis Topic Name: GEOGRAPHICAL MOBILITY IN THE PAST YEAR

- 1. Same house one year ago
- 2. Moved within same county
- 3. Moved from different county within same state
- 4. Moved from different state
- 5. Moved from abroad

16	Is this person CURRENTLY covered by following types of health insurance of coverage plans? Mark "Yes" or "No" for of coverage in items a – h.	r hea	lth
П	a Insurance through a current or	Yes	No
	 Insurance through a current or former employer or union (of this person or another family member) 		
	 Insurance purchased directly from an insurance company (by this person or another family member) 	П	
	 Medicare, for people 65 and older, or people with certain disabilities 		
ı	d. Medicaid, Medical Assistance, or		
	any kind of government-assistance plan for those with low incomes or a disability		
ı	e. TRICARE or other military health care		
ı	f. VA (including those who have ever used or enrolled for VA health care)		
ı	g. Indian Health Service		
	h. Any other type of health insurance or health coverage plan – Specify		

CRS Analysis Topics and Analysis categories

Analysis Topic Name: I Analysis categories Yes or No	HEALTH INSURANCE EMPLOYER
Analysis Topic Name: I Analysis categories Yes or No	HEALTH INSURANCE DIRECT
Analysis Topic Name: I Analysis categories Yes or No	HEALTH INSURANCE MEDICARE
Analysis Topic Name: I Analysis categories Yes or No	HEALTH INSURANCE MEDICAID
Analysis Topic Name: I Analysis categories Yes or No	HEALTH INSURANCE MILITARY
Analysis Topic Name: I Analysis categories Yes or No	HEALTH INSURANCE VA
Analysis Topic Name: I Analysis categories Yes or No	HEALTH INSURANCE INDIAN HEALTH SERVICE
Analysis Topic Name: I Analysis categories With private health insur With public health cover With both private and pu No health insurance cov	rage only ublic health coverage

Image of Question from 2012 ACS Mail form	CRS Analysis Topics and Analysis categories
a. Is this person deaf or does he/she have serious difficulty hearing? Yes No	Analysis Topic Name: DIFFICULTY HEARING Analysis categories Yes or No
	Analysis Topic Name: DIFFICULTY VISION
b. Is this person blind or does he/she have serious difficulty seeing even when wearing glasses? Yes No	Analysis categories Yes or No
	Analysis Topic Name: DIFFICULTY COGNITIVE
a. Because of a physical, mental, or emotional condition, does this person have serious difficulty concentrating, remembering, or making decisions? Yes No	Analysis categories Yes or No

Image of Question from 2012 ACS Mail form	CRS Analysis Topics and Analysis categories	
	Analysis Topic Name: DIFFICULTY AMBULATORY	
b. Does this person have serious difficulty walking or climbing stairs?	Analysis categories	
☐ Yes ☐ No	Yes or No	
	Analysis Topic Name: DIFFICULTY SELF CARE	
c. Does this person have difficulty dressing or bathing?	Analysis categories	
☐ Yes	Yes or No	
☐ No		

CRS Analysis Topics and Analysis categories

1	Because of a physical, mental, or emotional condition, does this person have difficulty doing errands alone such as visiting a doctor's office or shopping?		
		Yes	
		No	

Analysis Topic Name: DIFFICULTY INDEPENDENT LIVING

Analysis categories --

Yes or No

What is this person's marital status?

Now married
Widowed
Divorced
Separated
Never married → SKIP to

Analysis Topic Name: MARITAL STATUS

- 1. Now married
- 2. Widowed
- 3. Divorced
- 4. Separated
- 5. Never married

Image of Question from 2012 ACS Mail form	CRS Analysis Topics and Analysis categories
	Analysis Topic Name: MARRIED IN PAST YEAR <u>Analysis categories</u> Yes or No
In the PAST 12 MONTHS did this person get - Yes No a. Married? b. Widowed? c. Divorced?	Analysis Topic Name: WIDOWED IN PAST YEAR Analysis categories Yes or No
	Analysis Topic Name: DIVORCED IN PAST YEAR Analysis categories Yes or No

How many times has this person been married? Once Two times Three or more times

2	3	In what year did this person last get married?			
		Year			

CRS Analysis Topics and Analysis categories

Analysis Topic Name: NUMBER OF TIMES MARRIED

Analysis categories --

- 1. Once married
- 2. Twice married
- 3. Married three or more times

Analysis Topic Name: YEAR LAST MARRIED

- 1. Before 2000
- 2. 2000 to 2004
- 3. 2005 to 2009
- 4. 2010
- 5. 2011
- 6. 2012

Has this person given birth to any children in the past 12 months?

a. Does this person have any of his/her own grandchildren under the age of 18 living in this house or apartment?

Yes

No → SKIP to question 26

CRS Analysis Topics and Analysis categories

Analysis Topic Name: BIRTH IN PAST YEAR

Analysis categories --

Yes or No

Analysis Topic Name: GRANDPARENTS LIVING WITH OWN GRANDCHILDREN

Analysis categories --

Yes or No

b. Is this grandparent currently responsible for most of the basic needs of any grandchildren under the age of 18 who lives in this house or apartment?
 Yes
 No → SKIP to question 26

c. How long has this grandparent been responsible for these grandchildren?

If the grandparent is financially responsible for more than one grandchild, answer the question for the grandchild for whom the grandparent has been responsible for the longest period of time.

Less than 6 months

6 to 11 months

1 or 2 years
3 or 4 years
5 or more years

CRS Analysis Topics and Analysis categories

Analysis Topic Name: GRANDPARENTS RESPONSIBLE FOR GRANDCHILDREN

Analysis categories --

Yes or No

We collapsed the first two responses into one category.

Analysis Topic Name: GRANDPARENTS TIME RESPONSIBLE FOR GRANDCHILDREN

- 1. Less than one year
- 2. 1 to 2 years
- 3. 3 or 4 years
- 4. 5 or more years

2	U.S. Gua Rese	this person ever served on active duty in the . Armed Forces, military Reserves, or National ard? Active duty does not include training for the erves or National Guard, but DOES include vation, for example, for the Persian Gulf War.
		Yes, now on active duty
		Yes, on active duty during the last 12 months, but not now
		Yes, on active duty in the past, but not during the last 12 months
		No, training for Reserves or National Guard only → SKIP to question 28a
		No, never served in the military → SKIP to question 29a

CRS Analysis Topics and Analysis categories

Analysis Topic Name: MILITARY SERVICE

- 1. Now on active duty
- 2. On active duty during the last 12 months but not now
- 3. On active duty in the past, but not in last 12 months
- 4. Training in Reserves or National Guard only
- 5. Never in the military

2	D	U.S.	n did this person serve on active duty in the Armed Forces? Mark (X) a box for EACH period hich this person served, even if just for part of the od.
			September 2001 or later
			August 1990 to August 2001 (including Persian Gulf War)
			September 1980 to July 1990
			May 1975 to August 1980
			Vietnam era (August 1964 to April 1975)
			March 1961 to July 1964
			February 1955 to February 1961
			Korean War (July 1950 to January 1955)
			January 1947 to June 1950
			World War II (December 1941 to December 1946)
			November 1941 or earlier

CRS Analysis Topics and Analysis categories

Analysis Topic Name: PERIOD OF MILITARY SERVICE

- 1. Between Gulf War I and Vietnam era only
- 2. Between Korean War and World War II only
- 3. Between Vietnam Era and Korean War only
- 4. Gulf War I and Vietnam era
- 5. Gulf War I, no Vietnam era
- 6. Gulf War II and Gulf War I, and Vietnam era / or no Vietnam era
- 7. Gulf War II, no Gulf War I, no Vietnam Era
- 8. Korean War and World War II, no Vietnam Era
- 9. Korean War, no Vietnam Era, no World War II
- 10. Pre-World War II only or World War II, no Korean War, no Vietnam Era
- 11. Vietnam Era and Korean War, and World War II / or no World War II
- 12. Vietnam Era, no Korean War, no World War II

a. Does this person have a VA service-connected disability rating? ☐ Yes (such as 0%, 10%, 20%, ..., 100%) ☐ No → SKIP to question 29a

 b. What is this person's service-connected disability rating? 			
	0 percent		
	10 or 20 percent		
	30 or 40 percent		
	50 or 60 percent		
	70 percent or higher		

CRS Analysis Topics and Analysis categories

Analysis Topic Name: SERVICE-CONNECTED DISABILITY RATING STATUS

Analysis categories --

Yes or No

Analysis Topic Name: SERVICE-CONNECTED DISABILITY RATING LEVEL

- 1. 0 percent
- 2. 10 or 20 percent
- 3. 30 or 40 percent
- 4. 50 or 60 percent
- 5. 70 percent or higher
- 6. No rating reported

a. LAST WEEK, did this person work for pay at a job (or business)?

☐ Yes → SKIP to question 30
☐ No - Did not work (or retired)

b. LAST WEEK, did this person do ANY work for pay, even for as little as one hour?

☐ Yes
☐ No → SKIP to question 35a

CRS Analysis Topics and Analysis categories

Analysis Topic Name: WORK LAST WEEK

Analysis categories --

Yes or No

Analysis Topic Name: ANY WORK LAST WEEK

Analysis categories --

Yes or No

3	loi las	t what location did this person work LAST EEK? If this person worked at more than one cation, print where he or she worked most st week.
	a.	Address (Number and street name)
		If the exact address is not known, give a description of the location such as the building name or the nearest street or intersection.
	b.	Name of city, town, or post office
	c.	Is the work location inside the limits of that city or town?
		☐ Yes☐ No, outside the city/town limits
	a	Name of county
	u.	realite of country
	е.	Name of U.S. state or foreign country
	f.	ZIP Code

Analysis Topic Name: PLACE OF WORK

- 1. Worked in state of residence, in county of residence
- 2. Worked in state of residence, outside county of residence
- 3. Worked outside state of residence

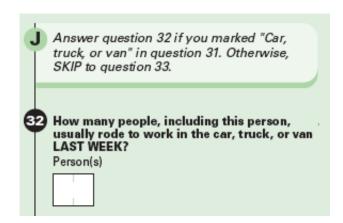
3	þ	WEE met	v did this person usually u EK? If this person usually u hod of transportation durin box of the one used for mo	sed i g the	more than one trip, mark (X)
			Car, truck, or van		Motorcycle
			Bus or trolley bus		Bicycle
			Streetcar or trolley car		Walked
			Subway or elevated		Worked at
			Railroad		home → SKIP to question 39a
			Ferryboat		Other method
			Taxicab		

CRS Analysis Topics and Analysis categories

We collapsed these responses to form five categories.

Analysis Topic Name: COMMUTE TRANSPORTATION

- 1. Car, truck, or van
- 2. Public transportation
- 3. Taxicab, motorcycle, bicycle, or other method
- 4. Walked
- 5. Worked at Home



3	What time did this p	person usually leave home FWEEK?
	Hour Minute	□ a.m. □ p.m.

CRS Analysis Topics and Analysis categories

Analysis Topic Name: COMMUTE NUMBER OF RIDERS

Analysis categories --

- 1. Drove alone
- 2. 2 riders
- 3. 3 riders
- 4. 4 riders
- 5. 5 or more riders

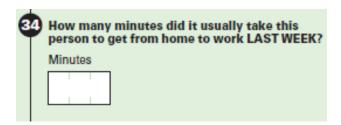
Analysis Topic Name: COMMUTE DEPARTURE TIME

- 1. 12:00 a.m. to 4:59 a.m.
- 2. 5:00 a.m. to 6:59 a.m.
- 3. 7:00 a.m. to 8:59 a.m.
- 4. 9:00 a.m. to 11:59 a.m.
- 5. 12:00 p.m. to 3:59 p.m.
- 6. 4:00 p.m. to 11:59 p.m.

CRS Analysis Topics and Analysis categories

Analysis Topic Name: COMMUTE MINUTES

- 1. Less than 5 minutes
- 2. 5 to 9 minutes
- 3. 10 to 14 minutes
- 4. 15 to 19 minutes
- 5. 20 to 24 minutes
- 6. 25 to 29 minutes
- 7. 30 to 34 minutes
- 8. 35 to 39 minutes
- 9. 40 to 44 minutes
- 10. 45 to 59 minutes
- 11. 60 to 89 minutes
- 12. 90 or more minutes



Answer questions 35 – 38 if this person did NOT work last week. Otherwise, SKIP to question 39a. 35 a. LAST WEEK, was this person on layoff from a job? ☐ Yes → SKIP to question 35c ☐ No

CRS Analysis Topics and Analysis categories

Analysis Topic Name: NOT WORKING LAYOFF

Analysis categories --

Yes or No

b. LAST WEEK, was this person TEMPORARILY absent from a job or business?

- Yes, on vacation, temporary illness, maternity leave, other family/personal reasons, bad weather, etc. → SKIP to question 38
- No → SKIP to question 36

Analysis Topic Name: NOT WORKING ABSENT

Analysis categories --

Yes or No

CRS Analysis Topics and Analysis categories

c. Has this person been informed that he or she will be recalled to work within the next 6 months OR been given a date to return to work?

Yes → SKIP to question 37

☐ No

Analysis Topic Name: NOT WORKING INFORMED OF RECALL

Analysis categories --

Yes or No

During the LAST 4 WEEKS, has this person been ACTIVELY looking for work?

___Yes

No → SKIP to question 38

Analysis Topic Name: NOT WORKING LOOKING FOR WORK

Analysis categories --

Yes or No

LAST WEEK, could this person have started a job if offered one, or returned to work if recalled? Yes, could have gone to work No, because of own temporary illness No, because of all other reasons (in school, etc.)

(Whe	en did this person last work, even for a few s?
		Within the past 12 months
		1 to 5 years ago → SKIP to L
		Over 5 years ago or never worked → SKIP to
		question 47

CRS Analysis Topics and Analysis categories

We collapsed the two "No" answers into one category.

Analysis Topic Name: NOT WORKING AVAILABLE TO WORK

Analysis categories --

Yes or No

Analysis Topic Name: WHEN LAST WORKED

- 1. Within the past 12 months
- 2. 1-5 years ago
- 3. Over 5 years ago or never worked

a. During the PAST 12 MONTHS (52 weeks), did this person work 50 or more weeks? Count paid time off as work.

☐ Yes → SKIP to question 40
☐ No

b. How many weeks DID this person work, even for a few hours, including paid vacation, paid sick leave, and military service?

50 to 52 weeks
48 to 49 weeks
40 to 47 weeks
27 to 39 weeks
14 to 26 weeks

CRS Analysis Topics and Analysis categories

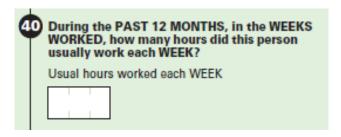
Analysis Topic Name: WORKED 50 OR MORE WEEKS

Analysis categories --

Yes or No

Analysis Topic Name: WEEKS WORKED

- 1. 50 to 52 weeks worked during past 12 months
- 2. 48 to 49 weeks worked during past 12 months
- 3. 40 to 47 weeks worked during past 12 months
- 4. 27 to 39 weeks worked during past 12 months
- 5. 14 to 26 weeks worked during past 12 months
- 6. 13 weeks or less than worked during past 12 months



CRS Analysis Topics and Analysis categories

Analysis Topic Name: USUAL HOURS WORKED PER WEEK

- 1. Usually worked 35 or more hours per week
- 2. Usually worked 15-34 hours per week
- 3. Usually worked 1-14 hours per week

0		wor	wer questions 41 – 46 if this person ked in the past 5 years. Otherwise, P to question 47.	
		job a had whice pers	46 CURRENT OR MOST RECENT JOB (IVITY. Describe clearly this person's chief activity or business last week. If this person more than one job, describe the one at chithis person worked the most hours. If this con had no job or business last week, give armation for his/her last job or business.	
4	D	Was Mari	this person – k (X) ONE box.	(
			an employee of a PRIVATE FOR-PROFIT company or business, or of an individual, for wages, salary, or commissions?	
			an employee of a PRIVATE NOT-FOR-PROFIT, tax-exempt, or charitable organization?	
			a local GOVERNMENT employee (city, county, etc.)?	
			a state GOVERNMENT employee?	
			a Federal GOVERNMENT employee?	
			SELF-EMPLOYED in own NOT INCORPORATED business, professional practice, or farm?	
			SELF-EMPLOYED in own INCORPORATED business, professional practice, or farm?	
			working WITHOUT PAY in family business or farm?	

Analysis Topic Name: CLASS OF WORKER

- 1. Employee of a private for-profit company or business
- 2. Employee of a private not-for-profit organization
- 3. A local government employee
- 4. A state government employee
- 5. A Federal government employee
- 6. Self-employed in own not incorporated business, professional practice, or farm
- 7. Self-employed in own incorporated business, professional practice, or farm
- 8. Working without pay in a family business or farm

43	What kind of business or industry was this? Describe the activity at the location where employed. (For example: hospital, newspaper publishing, mail order house, auto engine manufacturing, bank)

CRS Analysis Topics and Analysis categories

Analysis Topic Name: INDUSTRY

- 1. Agriculture, forestry, fishing and hunting, and mining
- 2. Construction
- 3. Manufacturing
- 4. Wholesale trade
- 5. Retail trade
- 6. Transportation and warehousing, and utilities
- 7. Information
- 8. Finance and insurance, and real estate and rental and leasing
- 9. Professional, scientific, and management, and administrative and waste management services
- 10. Educational services, and health care and social assistance
- 11. Arts, entertainment, and recreation, and accommodation and food services
- 12. Other services, except public administration
- 13. Public administration
- 14. Military

44) Is	th	is mainly – Mark (X) ONE box.
1			manufacturing?
1			wholesale trade?
1			retail trade?
1			other (agriculture, construction, service, government, etc.)?
-1			government, etc./:

CRS Analysis Topics and Analysis categories

Analysis Topic Name: INDUSTRY CLASS

- 1. Manufacturing
- 2. Wholesale trade
- 3. Retail trade
- 4. Other (agriculture, construction, service, government, etc.)

4 5	What kind of work was this person doing? (For example: registered nurse, personnel manager, supervisor of order department, secretary, accountant)

46	What were this person's most important activities or duties? (For example: patient care, directing hiring policies, supervising order derks, typing and filing, reconciling financial records)

Analysis Topic Name: OCCUPATION

- 1. Management, business and financial occupations
- 2. Computer, engineering, and science occupations
- 3. Education, legal, community service, arts, and media occupations
- 4. Healthcare practitioners and technical occupations
- 5. Healthcare support occupations
- 6. Protective service occupations
- 7. Food preparation and serving related occupations
- 8. Building and grounds cleaning and maintenance occupations
- 9. Personal care and service occupations
- 10. Sales and related occupations
- 11. Office and administrative support occupations
- 12. Farming, fishing, and forestry occupations
- 13. Construction and extraction occupations
- 14. Installation, maintenance, and repair occupations
- 15. Production occupations
- 16. Transportation occupations
- 17. Material moving occupations
- 18. Military occupations

Appendix E: CRS Analysis Topics and Analysis Categories Derived from Each ACS Question

Image of Question from 2012 ACS Mail form

CRS Analysis Topics and Analysis categories

47) INCOME IN THE PAST 12 MONTHS Mark (X) the "Yes" box for each type of income this person received, and give your best estimate of the TOTAL AMOUNT during the PAST 12 MONTHS. (NOTE: The "past 12 months" is the period from today's date one year ago up through today.) Mark (X) the "No" box to show types of income NOT received. If net income was a loss, mark the "Loss" box to the right of the dollar amount. For income received jointly, report the appropriate share for each person - or, if that's not possible, report the whole amount for only one person and mark the "No" box for the other person. a. Wages, salary, commissions, bonuses, or tips from all jobs. Report amount before deductions for taxes, bonds, dues, or other items. Yes → Nο TOTAL AMOUNT for past 12 months

CRS Analysis Topics and Analysis categories

Analysis Topic Name: WAGES RECIPIENCY

Analysis categories --

Yes or No

Analysis Topic Name: WAGES AMOUNT

- 1. Less than \$10,000
- 2. \$10,000 to \$14,999
- 3. \$15,000 to \$24,999
- 4. \$25,000 to \$34,999
- 5. \$35,000 to \$49,999
- 6. \$50,000 to \$74,999
- 7. \$75,000 to \$99,999
- 8. \$100,000 to \$149,999
- 9. \$150,000 to \$199,999
- 10. \$200,000 or more

CRS Analysis Topics and Analysis categories

Analysis Topic Name: SELF-EMPLOYMENT INCOME RECIPIENCY

Analysis categories --

- 1. Received a positive amount of self-employment income
- 2. Did not receive self-employment income
- 3. Had a net loss or broke even for self-employment income

b. Self-employment income from own nonfarm businesses or farm businesses, including proprietorships and partnerships. Report NET income after business expenses.

□ Yes → S □ □ □
□ No TOTAL AMOUNT for past Loss 12 months

Analysis Topic Name: SELF-EMPLOYMENT INCOME AMOUNT

- 1. Loss or broke even
- 2. Less than \$10,000
- 3. \$10,000 to \$14,999
- 4. \$15,000 to \$24,999
- 5. \$25,000 to \$34,999
- 6. \$35,000 to \$49,999
- 7. \$50,000 to \$74,999
- 8. \$75,000 to \$99,999
- 9. \$100,000 to \$149,999
- 10. \$150,000 or more

CRS Analysis Topics and Analysis categories

Analysis Topic Name: PROPERTY INCOME RECIPIENCY

Analysis categories --

- 1. Received a positive amount of property income
- 2. Did not receive property income
- 3. Had a net loss or broke even for property income

Analysis Topic Name: PROPERTY INCOME AMOUNT

- 1. Loss or broke even
- 2. Positive, less than \$100
- 3. \$100 to \$999
- 4. \$1,000 to \$4,999
- 5. \$5,000 to \$9,999
- 6. \$10,000 to \$19,999
- 7. \$20,000 or more

CRS Analysis Topics and Analysis categories

Analysis Topic Name: SOCIAL SECURITY INCOME

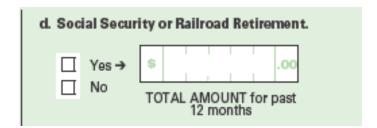
RECIPIENCY

Analysis categories --

Yes or No

Analysis Topic Name: SOCIAL SECURITY INCOME AMOUNT

- 1. Less than \$1,000
- 2. \$1,000 to \$4,999
- 3. \$5,000 to \$9,999
- 4. \$10,000 to \$19,999
- 5. \$20,000 or more



CRS Analysis Topics and Analysis categories

Analysis Topic Name: SUPPLEMENTAL SECURITY INCOME RECIPIENCY

Analysis categories --

Yes or No

Analysis Topic Name: SUPPLEMENTAL SECURITY INCOME AMOUNT

- 1. Less than \$1,000
- 2. \$1,000 to \$4,999
- 3. \$5,000 to \$9,999
- 4. \$10,000 or more





CRS Analysis Topics and Analysis categories

Analysis Topic Name: PUBLIC ASSISTANCE INCOME RECIPIENCY

Analysis categories --

Yes or No

Analysis Topic Name: PUBLIC ASSISTANCE INCOME AMOUNT

- 1. Less than \$1,000
- 2. \$1,000 to \$4,999
- 3. \$5,000 or more

CRS Analysis Topics and Analysis categories

Analysis Topic Name: OTHER INCOME RECIPIENCY

Analysis categories --

Yes or No

h. Any other sources of income received regularly such as Veterans' (VA) payments, unemployment compensation, child support or alimony. Do NOT include lump sum payments such as money from an inheritance or the sale of a home.

Yes →
No
TOTAL AMOUNT for past 12 months

Analysis Topic Name: OTHER INCOME AMOUNT

- 1. Less than \$1,000
- 2. \$1,000 to \$2,499
- 3. \$2,500 to \$4,999
- 4. \$5,000 to \$9,999
- 5. \$10,000 to \$19,999
- 6. \$20,000 or more

CRS Analysis Topics and Analysis categories

Analysis Topic Name: TOTAL INCOME RECIPIENCY

Analysis categories --

- 1. Yes, received a positive amount of income
- 2. No, did not receive income
- 3. Had a net loss or broke even (loss box checked)

What was this person's total income during the PAST 12 MONTHS? Add entries in questions 47a to 47h; subtract any losses. If net income was a loss, enter the amount and mark (X) the "Loss" box next to the dollar amount.

| None OR | .00 | Loss | TOTAL AMOUNT for past 12 months

Analysis Topic Name: TOTAL INCOME AMOUNT

- 1. Loss or broke even
- 2. Less than \$10,000
- 3. \$10,000 to \$14,999
- 4. \$15,000 to \$24,999
- 5. \$25,000 to \$34,999
- 6. \$35,000 to \$49,999
- 7. \$50,000 to \$74,999
- 8. \$75,000 to \$99,999
- 9. \$100,000 to \$149,999
- 10. \$150,000 to \$199,999
- 11. \$200,000 or more

Module 1 (Housing)		Module 2 (Person – 1 st Half)		Module 3 (Person – 2 nd Half)	
ID	Analysis Topic (Descriptive Name)	ID	Analysis Topic (Descriptive Name)	ID	Analysis Topic (Descriptive Name)
H1	Building Type	P2	Relationship	P4	Age & Date of Birth (whole household)
H2	Year Structure Built	P3	Sex	H12	Food Stamps
Н3	Move in Month and Year	P4	Age & Date of Birth	P26	Veteran Status
H4	Number of Acres	P5	Hispanic Origin	P27	Period of Service
Н5	Amount of Agricultural Sales	P6	Race	P28a	Service-Connected Disability Rating
Н6	Business on Property	P7	Place of Birth	P28b	What is Service-Connected Disability Rating
Н7а	Rooms	P8	Citizenship	P29a	Work for Pay at Job
H7b	Bedrooms	P9	Year Came to Live in U.S.	P29b	Any Work for Pay
Н8а	Hot and Cold Running Water	P10a	School Attendance	P30	Where Work
H8b	Flush Toilet	P10b	Grade Level Attended	P30a	Address (Number and Street Name)

Module 1 (Housing)		Module 2 (Person – 1 st Half)		Module 3 (Person – 2 nd Half)	
ID	Analysis Topic (Descriptive Name)	ID	Analysis Topic (Descriptive Name)	ID	Analysis Topic (Descriptive Name)
Н8с	Bathtub or Shower	P11	Educational Attainment	P30b	Name of City, Town, or Post Office
H8d	Sink with a Faucet	P12	Field of Degree	P30c	Inside Limits of City or Town
H8e	Stove or Range	P13	Ancestry/Ethnic Origin	P30d	Name of County
H8f	Refrigerator	P14a	Language Spoken	P30e	Name of U.S. State or Foreign Country
Н9	Vehicles Available	P14b	Name of Language	P30f	Zip Code
H10	Heating Fuel Type	P14c	How Well Speak English	P31	Transportation to Work
H11a	Electricity Cost	P15a	Live Here One Year Ago	P32	Number of People in Vehicle to Work
H11b	Gas Cost	P15b	Residence One Year Ago	P33	Time Leave Home to Go to Work
H11c	Water and Sewer Cost	P15b	Address (Number and Street Name)	P34	Number of Minutes to Get to Work
H11d	Oil, Coal, Kerosene, Wood Cost	P16a	Health Insurance employer	P35a	Layoff from Job

Module 1 (Housing)		Module 2 (Person – 1 st Half)		Module 3 (Person – 2 nd Half)	
ID	Analysis Topic (Descriptive Name)	ID	Analysis Topic (Descriptive Name)	ID	Analysis Topic (Descriptive Name)
H12	Food Stamps	P16b	Health Insurance direct	P35b	Temporarily Absent from Job
H13	Condominium	P16c	Health Insurance Medicare	P35c	Recalled to Work in Next 6 Months
H14	Tenure	P16d	Health Insurance Medicaid	P36	Actively Looked for Work
H15a	Monthly Rent	P16e	Health Insurance TRICARE	P37	Could have started Job if offered
H15b	Rent Include Meals	P16f	Health Insurance VA	P38	When Last Worked
H16	Selling Price	P16g	Health Insurance Indian	P39a	Worked 50 or More Weeks
H17	Annual Real Estate Taxes	P16h	Health Insurance other	P39b	Number of Weeks Worked
H18	Annual Fire, Hazard, Flood Insurance	P17a	Deaf	P40	Number of Hours Worked Per Week
H19a	Mortgage	P17b	Blind	P41	Type of Employee
H19b	Mortgage Payment	P18a	Difficulty Concentrating	P42	Name of Company, Business

Module 1 (Housing)		Module 2 (Person – 1 st Half)		Module 3 (Person – 2 nd Half)	
ID	Analysis Topic (Descriptive Name)	ID	Analysis Topic (Descriptive Name)	ID	Analysis Topic (Descriptive Name)
H19c	Include Real Estate Taxes	P18b	Difficulty Walking	P43	Type of Business
H19d	Include Fire, Hazard, Flood Insurance	P18c	Difficulty Dressing	P44	Main Type of Business
H20a	Second Mortgage	P19	Difficulty Doing Errands	P45	Type of Work
H20b	Monthly Second Mortgage Payment	P20	Marital Status	P46	Most Important Work Activities
H21	Annual Mobile Home Costs and Fees	P21	Recently Married/Widowed/Divorced	P47a	Wages, Salaries, Tips
		P22	Times Married	P47b	Self-employment Income
		P23	Year Last Married	P47c	Interest, Dividends, Trusts Income
		P24	Fertility	P47d	Social Security Income
		P25a	Live-in Grandchildren	P47e	Supplemental Security Income

Appendix F: ACS Questions Included In Each CRS Module

Module 1 (Housing)		Module 2 (Person – 1 st Half)		Module 3 (Person – 2 nd Half)	
ID	Analysis Topic (Descriptive Name)	ID	Analysis Topic (Descriptive Name)	ID	Analysis Topic (Descriptive Name)
		P25b	Responsible for Live-in Grandchildren	P47f	Public Assistance or Welfare Payments
		P25c	How Long Responsible for Grandchildren	P47g	Retirement, Survivor, Disability Pensions
		P26	Veteran Status	P47h	Other Regular Income
		P27	Period of Service	P48	Total Income
		P28a	Service-Connected Disability Rating		
		P28b	What is Service-Connected Disability Rating		

WRITE-UP ON THE DIFFICULTY OF HISPANICS REPORTING RACE (WITH REFERENCES)

Census Bureau studies have demonstrated over the past couple decades (Alberti 2006; Martin 2007; U.S. Census Bureau 1997) that when presented with separate race and Hispanic origin questions, Hispanics have great difficulty responding to the race question. The 2010 Census Race and Hispanic Origin Alternative Questionnaire Experiment (AQE) focused on testing a number of different questionnaire design strategies to better understand and improve the reporting of race and Hispanic origin.

The major 2010 AQE research findings regarding item nonresponse rates echo what previous research has shown, that on separate race and Hispanic origin questions Hispanics overwhelmingly had more difficulty responding to the race question compared with non-Hispanics. Earlier qualitative research found that many Hispanics leave the race question blank because they do not identify with the OMB race categories (Gerber and Crowley 2005). The 2010 Census AQE Focus Group research echoed these results, as many Hispanic respondents advised that they did not find a category that described their identity in the separate question format, but when presented with a combined question format they easily found that they identify as "Hispanic" and provide detailed responses. For Hispanics, item nonresponse to the separate AQE race question ranged from 19.2 percent to 32.8 percent. In stark contrast, item nonresponse to the race question by non-Hispanic respondents was about 1 percent (Compton et al., 2012). The research also found that many Hispanics did not identify with the Office of Management and Budget race categories and felt the note stating that Hispanic origins were not races prevented them from self-identifying their race.

The 2010 AQE research demonstrates that a combined question on race and Hispanic origin has the overall impact of gaining success in both Hispanics and non-Hispanics alike finding a place to identify and report their race and/or origin. The validity of these responses was further confirmed through the AQE reinterview results, which showed that when asked a series of follow-up questions about respondent identification with any of the possible response categories, overall consistency between combined question responses and reinterview "truth" were much greater than separate question responses and reinterview "truth." The greater illustrator of this pattern was that "Hispanics" who reported they were "White" in the separate race question did not identify as "White" (only "Hispanic") in the reinterview; while "Hispanics" who identified as "White" and "Hispanic" in the combined question also confirmed this identity in the reinterview (Compton et al., 2012).

References

Alberti, N. (2006). 2005 National Census Test: Analysis of the Race and Ethnicity Questions.

DSSD 2005 Census Test Evaluations Memorandum Series #E-8, U.S. Census Bureau.

- Compton, E., M. Bentley, S. Rastogi, and S. Ennis. (2012) 2010 Census Race and Hispanic Origin Alternative Questionnaire Experiment. DSSD 2010 CPEX Memorandum Series #B-05-R, 2010 Census Planning Memoranda Series #211, U.S. Census Bureau.
- Gerber, E., and M. Crowley (2005). Report on Cognitive Testing of a Shortened Sequence of Hispanic Origin, Race, and Modified Ancestry Questions: Content Development for the 2005 National Content Test. U.S. Census Bureau Internal Document.
- Martin, E. (2007). Questionnaire Effects on Reporting of Race and Hispanic Origin: Results of a Replication of the 1990 Mail Short Form in Census 2000 (With Supplemental Analyses 1 and 2). Directorate for Methodology and Standards, U.S. Census Bureau.
- U.S. Census Bureau (1997). Results of the 1996 Race and Ethnic Targeted Test, Population Division Working Paper No. 18.