



**UNITED STATES DEPARTMENT OF COMMERCE**  
**Economics and Statistics Administration**  
**U.S. Census Bureau**  
Washington, DC 20233-0001

February 2, 2010

**ACSO Research and Evaluation Memorandum Series**

**No.** ACS-R&E -10-02

**MEMORANDUM FOR** Distribution List

**From:** Susan Schechter **{signed 2/18/2010}**  
Chief, American Community Survey Office

**Subject:** Final Results – Evaluation Studying the Effects from Changes Made to the Criteria for Assigning Sufficient Partial and Complete Outcome Codes to Group Quarters Interviews

**Contact Person:** Sandra L.Clark  
Special Studies Staff, American Community Survey Office

Attached are the final results of an evaluation studying the effects from changes made to the criteria for assigning sufficient partial and complete outcome codes to group quarters interviews. Over the years, modifications have been made to the criteria for assigning the outcome codes without an assessment of the effect that the changes had on the data. This report is the first attempt to review the criteria changes and see the effects that these changes had on the data. The criteria changes studied in this report include those made in 2006 to the sufficient partial criteria and those made in 2008 to both the sufficient partial and complete interview criteria.

Attachments: GQ Final paper.doc / Tables 2 & 5 Appendices.xls.

Distribution List:

Daniel H. Weinberg (DIR)  
ACS Division Chiefs Forum List  
ACSO All Staff Meeting List

# Evaluation Studying the Effects from Changes Made to the Criteria for Assigning Sufficient Partial and Complete Outcome Codes to Group Quarters Interviews

FINAL REPORT



**Evaluation Studying the Effects from Changes Made to  
the Criteria for Assigning Sufficient Partial and  
Complete Outcome Codes to Group Quarters  
Interviews**

**Sandra Lockett Clark  
US Census Bureau**

**February 1, 2010**

## **Introduction**

In 2006, the American Community Survey (ACS) began collecting data from the population living in group quarters (GQs). During the first few years of GQ data collection, the data were captured entirely through the use of paper questionnaires. Field representatives held face-to-face interviews with sample residents to collect data on paper questionnaires. When it was impossible for the FR to conduct a face-to-face interview, alternative procedures were necessary, such as telephone interviews; face-to-face proxy interviews (with a relative, legal guardian, or GQ contact person); or self-administered interviews (questionnaires were left with the sampled resident or GQ contact person for completion and then were pickup by the FR within 2 days). For more information on GQ data collection, see U.S. Census Bureau (2009).

It is impossible to conduct a survey of this magnitude without the hard work of the FRs. The quality of the data produced is a direct result of the data obtained by the FRs. Therefore, it is important for the FRs to collect answers to as many items on the form as possible.

After the data is collected, the FRs conduct an edit review of the questionnaires. They verify that the responses are legible and that the entries are appropriate according to the skip patterns on the questionnaire. They also assign an outcome code to the questionnaire to indicate whether the questionnaire is complete, incomplete, or sufficient partial. Sufficient partial is when a small set of basic demographic questions have been answered, while additional criteria must be met in order for an interview to be classified as complete. An incomplete is when the answers do not meet either the sufficient partial or complete criteria.

Over the years, modifications have been made to the criteria for assigning the outcome codes without an assessment of the effect that the changes had on the data. This report is the first attempt to review the criteria changes and see the effects that these changes had on the data. The criteria changes studied in this report include those made in 2006 to the sufficient partial criteria and those made in 2008 to both the sufficient partial and complete interview criteria.

### **Criteria for Assigning Sufficient Partial and Complete Interview Outcome Codes**

All tables mentioned in this report are located at the end of this report. Table 1 displays the criteria used to classify a GQ interview as sufficient partial or complete, and shows the changes that were made to the criteria over time (changes shown in red)<sup>1</sup>.

The analysis for this report was conducted in two parts. The first part evaluated the change made in July 2006, to the sufficient partial portion of the criteria. Prior to July 2006, interviews were classified as sufficient partial under the following conditions:

---

<sup>1</sup> The criteria shown in table 1 only apply to GQ interviews. Different criteria are used for housing unit interviews, which are not discussed in this report.

- 1) There was a valid response to either the *age* or *date of birth* items.
- 2) There were valid responses to two of the following items: *name*, *sex*, *marital status*, *Hispanic origin*, or *race*.
- 3) There was a valid response to the *worked last week* item.

An answer of “Don’t know” or “Refused” did NOT qualify as a valid response for any of the items included in the criteria. For certain types of GQs, it is often difficult for FRs to conduct a face-to-face interview, or even to leave the questionnaire for a self-administered interview. FRs must often rely on administrative records to obtain responses for many of their sample residents. Since administrative records cannot supply the answer for the *worked last week* question, FRs occasionally get penalized for not meeting the criteria for a complete interview. Therefore, beginning July 2006, the third part of the criteria was modified to allow responses of “Don’t know”, or “Refused” to be considered valid for the *worked last week* item.

The second part of the analysis studied the impact of the modifications made in November 2008, which included changes to the criteria for both sufficient partial and complete interviews. Based on research completed by the GQ Branch in the American Community Survey Office (ACSO) and discussions they had with subject matter analysts, it was decided that the *worked last week* and *marital status* items were not critical items to have included in the sufficient partial criteria. Therefore, beginning with the November 2008 panel, ACSO revised the criteria and FRs were instructed to remove these two items from the sufficient partial criteria.

In addition, the criteria for classifying an interview as complete became stricter. From January to October 2008, a complete interview outcome code was assigned when the sufficient partial criteria were met, PLUS there was a valid response to at least one additional item (i.e., sufficient partial plus one). In November 2008, this was changed to “sufficient partial” PLUS valid responses for ALL other applicable items. Responses of “Don’t know” or “Refused” were classified as valid responses for most items, except those used to determine a sufficient partial interview.

## **Datasets**

The analysis used data from the 2006 and 2008 GQ Data Capture Files (DCF). The data in these files are basically raw data captured before the edit and imputation process.

The 2006 and 2008 GQ weight files were appended to the DCF files in order to create weighted estimates. Analysts from the Decennial Statistical Studies Division (DSSD) were consulted, and it was determined that the best weight to use for this analysis was the initial base weights (these weights account for the sampling probabilities only). Replicate weights were used to create the margin of errors used for statistical testing, which was conducted using a 90% confidence level.

To study the changes, the data were separated into four treatments (two for each part of the analysis). The treatments were determined based on when the criteria changes were

made; the months included within each treatment used the same criteria for assigning the outcome codes. Treatment 1 (for both parts of the analysis) included data from the panels collected prior to the criteria changes, and both of the second treatments included data from the panels collected after the criteria changes were implemented.

For the first part of the analysis, Treatment 1 consisted of data collected from the February to June 2006 panels (58,935 unweighted sample cases), and Treatment 2 consisted of data collected from the July to December 2006 panels (74,659 unweighted sample cases). For the second part of the analysis, Treatment 1 consisted of data collected from the January 2008 to October 2008 panels (121,537 unweighted cases), and Treatment 2 consisted of data collected from the November to December 2008 panels (25,082 unweighted cases).

## **Methodology**

The hypothesis was that the criteria changes would have an effect on the amount of missing data that we received. Therefore, we used item nonresponse rates to study the impact of the changes. We defined the item nonresponse rate as the ratio of the number of missing responses (responses of “Don’t know” or “Refused” counted as missing<sup>2</sup>) to the number of questions requiring a response. Unique skip patterns were taken into account in order to determine if a response was required. Because we used unedited data, critical information needed to define a universe was sometimes missing. We decided to only include instances that required a response, which may have depressed the true missing data rate.

While the main focus of the analysis was on the item nonresponse rates for all GQs as a whole, we decided to also look at the rates for institutional and noninstitutional GQ types independently<sup>3</sup>. We wanted to see if our modifications might have affected these types of GQs differently.

## **Limitations**

There were several limitations we faced when conducting this analysis. First, the exact date that the modifications were implemented is somewhat unclear, and could have been interpreted slightly different by each FR. The first modification studied was relayed to the

---

<sup>2</sup> For some items, responses of “Don’t know” or “Refused” are accepted for the purpose of assigning outcome codes, however without a “Yes” or “No” response we must assign or allocate data for those item. Therefore, when studying the quality of the data we consider responses of “Don’t know” or “Refused” nonresponses for the purpose of calculating item nonresponse rates.

<sup>3</sup> Institutional group quarters includes facilities for people under formally authorized, supervised care or custody at the time of interview, such as correctional facilities, nursing facilities/skilled nursing facilities, in-patient hospice facilities, mental (psychiatric) hospitals, group homes for juveniles, and residential treatment centers for juveniles. Noninstitutional Group Quarters includes facilities that are not classified as institutional group quarters, such as college/university housing, group homes intended for adults, residential treatment facilities for adults, workers’ group living quarters and Job Corps centers, and religious group quarters. A complete description of the types of group quarters included in the 2008 ACS is located on the U.S. Census Bureau’s Internet site at [www.census.gov/acs/www/UseData/GQ/def.htm](http://www.census.gov/acs/www/UseData/GQ/def.htm).

field in the July 2006 Field Representative Memo (Monaghan (2006)), which was sent out on June 15, 2006. A specific date for the criteria change was not stated; however the FRs could have assumed that this change was to go into effect beginning on July 1, 2006. The interview period for a panel is 6 weeks long. Therefore, the panel does not always correspond with the month the interview is conducted. For example, during the first 2 weeks of July, FRs may have conducted interviews sampled with the June panel. So, for the purposes of the first part of this analysis, cases from the June panel that were conducted in July were recoded to be included in the July panel.

The modifications made in 2008, which is the focus of the second part of this analysis, were relayed to FRs in an ACS Field Representative memo dated October 17, 2008 (Monaghan (2008)). The memo stated that the criteria changes would be effective beginning with the November 2008 panel. For this part of the study, it was not necessary to make modifications to the panels.

Second, in order to minimize the number of external constraints that could have impacted our results, we chose to compare only periods that fell within the same year. We believed that this would limit the effect of constraints such as year-to-year differences, and differences in collection procedures (for example the implementation of the Computer-Assisted-Personal-Interviewing instrument in 2009). Therefore, our treatments include only a few months of sample cases. It is important to understand that the datasets are fairly small and include far less sample cases than the normal annual sample. In particular, one dataset used to study the modifications made in 2008 includes data collected for only 2 months of the year. Very small sample sizes could affect the item nonresponse rates, especially for rare characteristics (i.e., there may be instances where there are two cases in the universe for an item in one treatment and no cases for the other treatment). The weights and margins of error are designed to account for this limitation.

In some cases, however, the weights assigned to some records impact item nonresponse rates. The size of our sample depends on the size of the GQ. Occasionally, the number of residents increases or decreases after our sample is drawn. When this occurs, we assign smaller or larger weights to the sampled residents of that GQ. Therefore, item nonresponse rates could be inflated or deflated depending on the weight assigned to the sample resident.

The final limitation only applies to the second part of the analysis. In 2008, we did not capture responses of “Don’t know”, or “Refused” on our datasets. The Key-From Image (KFI) technology was implemented in 2008, and the scanners did not pick up these responses. The keyers who reviewed and processed the images were instructed to leave the entry as missing for the “Don’t know” and “Refused” responses. Therefore, we are not able to distinguish these responses from a missing response.



## Results

### Part 1

The first part of the analysis researched the effects caused by the modification made to the sufficient partial criteria in July 2006. The criteria were modified to allow responses of “Don’t know” and “Refused” to count as valid values for the *worked last week* item. The hypothesis was that this change would result in more of these responses, leading to a higher item nonresponse rate for the *worked last week* item. We also believed that subsequent items whose universes relied on answers to the *worked last week* item would be affected.

To study this hypothesis, item nonresponse rates were calculated for two periods: February to June 2006 (Treatment 1) and July to December 2006 (Treatment 2). Treatment 1 was before the modification and Treatment 2 was after the modification. The item nonresponse rates are shown in Table 2.

There were several significant differences between the rates for Treatment 1 and Treatment 2. As we expected, the item nonresponse rate for the *worked last week* item was much higher in treatment 2 (0.8% and 7.2%, respectively). We separated the missing responses into their true response of “missing,” “Don’t know,” or “Refused,” and found that the majority of the difference was due to more responses of “Don’t know” for the item.

Several of the items that relied on a response of “Yes” or “No” to the *worked last week* item also had higher rates in Treatment 2 (all four *journey to work* items; *looking from work*; *when last worked*; *weeks worked*; *usual hours worked*; and the *industry and occupation* items). While these rates were higher in Treatment 2, there were some rates also related to the *worked last week* item that were not statistically different and a couple that were lower. Small sample sizes may have contributed to this finding.

Table 2 also shows that the rates for many items not associated with the *worked last week* item were different between treatments. The majority of these rates were significantly higher in Treatment 2. We did not expect to see these results, however there are a couple of possible explanations. First, Treatment 2 occurs during the last 6 months of the year and includes summer and winter months--when we know it is more difficult to obtain complete interviews. We reviewed the item nonresponse rates by panel and found that the rates for many items were higher for some months, particularly for the months of August and December (which fall in Treatment 2).

Secondly, the *worked last week* item may have been an item that the FRs had to frequently come back a second time to collect, since it is not easily attainable from a proxy respondent or administrative records. When the FR returned for the second time, they could have retrieved answers for additional missing items. Once the criteria changed, FRs may have been satisfied with a response of “Don’t know” for the *worked last week* item, and therefore chose not to come back for a “Yes” or “No” answer. By not

returning, they may have missed an opportunity to get answers for other missing items. As the criteria became more lenient, the FRs could have become more lenient and not tried as hard to obtain complete interviews.

In addition to looking at the item nonresponse rates for the entire GQ population as a whole, we decided to look at the rates for each of the major institutionalized GQs independently. Table 3 displays the differences in item nonresponse rates by GQ type. The GQ types shown are: Total institutional, Total noninstitutional, College/university housing, Military quarters, and Other noninstitutional (statistically significant differences are shown in bold). A breakout of the institutional GQs is not shown because the *worked last week* and other related items do not apply to institutional GQs. Sampled residents in institutional GQs are not included in the universe for these items.

It is interesting to see that many item nonresponse rates increased for institutional GQs even though the criteria change did not apply to them. We believe that the reference period differences and seasonal differences mentioned above could explain these findings.

Notice in Table 3 that the largest differences appear in the College/university housing column. The item nonresponse rate for the *worked last week* item was 10.2 percentage points higher in Treatment 2. Most of the other rates were also significantly higher. Again, seasonality factors could explain this difference, since it can be difficult for FRs to track down college students during the summer and winter months, when many students are temporarily away for breaks. To justify this hypothesis, we calculated item nonresponse rates by panel for college GQs and the rates were higher during the summer and winter months.

The percentage of FR conducted college GQ interviews using a proxy respondent was significantly higher for Treatment 2. The vast majority (approximately 92 percent in 2006) of proxy interviews for college GQs used administrative records as their source to obtain the data. Administrative records cannot be used to obtain responses for the *worked last week* item, or for many other items on the forms. More proxy interviews in Treatment 2 could have lead to higher item nonresponse rates.

The rates for military quarters were also interesting. Unlike the pattern shown for most of the other GQ types, the majority of the rates for military quarters were lower in Treatment 2. When broken out by panel, we learned that the item nonresponse rates for military quarters did not appear to be impacted by seasonality factors in the same way as the other GQs. For example, we did not see higher item nonresponse rates for the summer and winter months. For military GQs, the month with the highest item nonresponse rates was April, which falls in Treatment 1. We cannot explain this finding, however there were more FR conducted proxy interviews in April than self-administered interviews, which are typically more prevalent in military quarters. This could have contributed to the higher rates in Treatment 1.

We also reviewed the distribution of outcome codes for each treatment and the distribution of complete and sufficient partial interviews was virtually the same between treatments.

## Part 2

The second part of the analysis researched the effects caused by the modification made to the sufficient partial and complete criteria in November 2008. These changes included removing the *marital status* and *worked last week* items from the sufficient partial criteria, and changing the complete criteria from requiring only one additional item to requiring responses to all applicable items on the form. The hypotheses were that the sufficient partial criteria change would increase the item nonresponse rate for the *marital status* and *worked last week* items, and the complete criteria change would decrease the item nonresponse rate for the other items on the questionnaire<sup>4</sup>.

Item nonresponse rates were calculated for two periods: January to October 2008 (Treatment 1) and November to December 2008 (Treatment 2). Treatment 1 was before the modification and Treatment 2 was after the modification. Table 4 shows the item nonresponse rates.

The rates shown in the table suggest that the hypotheses were correct. Item nonresponse rates increased for both the *marital status* and *worked last week* items (with increases of 0.9 percentage points and 2.7 percentage points, respectively). With the exception of the age/date of birth and fertility items, all other significant differences showed decreases in item nonresponse rates.

We also looked at the item nonresponse rates by major GQ type. There was nothing particularly interesting in the rates for specific institutional or noninstitutional GQs, therefore for this report we chose to only mention the differences in the overall rates for the institutional and noninstitutional GQs. Table 5 displays the differences in item nonresponse rates for these two groups.

The findings shown in this table are particularly interesting. Most of the significant differences (shown in bold) are found in the institutional GQ column. This suggests that the criteria modifications had a larger impact on institutional GQs. In fact, there were few significant differences between treatments for noninstitutional GQs. We believe that the criteria changes would have a greater impact on personal interviews that were conducted by FRs, and have little impact on self-administered interviews since the respondent is not aware of our criteria for assigning outcome codes. Therefore, we would expect the criteria changes to have a larger impact on institutional GQs where FR conducted personal interviews are more prevalent. In 2008, 85 percent of the interviews conducted

---

<sup>4</sup> Responses of “Don’t know” or “Refused” are accepted for the purposes of assigning a questionnaire a complete outcome code. Ideally, it would be interesting to see if the number of these responses increased due to the criteria changed. However, a substantial limitation restricts us from doing this; our 2008 datasets do not include responses of “Don’t know” or “Refused”. These responses were coded as missing responses.

at institutional GQs were personal interviews, while only 50 percent of the interviews conducted at noninstitutional GQs were personal interviews.

It is also important to understand that seasonality factors could have also contributed to this finding. Treatment 2 included the month of December, which has higher item nonresponse rates for some noninstitutional GQs (particularly college/university housing). It is possible that higher item nonresponse occurring during the month of December offset any improvements that the criteria change made to the rates for this group. Since institutional GQs are not as affected by seasonality factors, the impact of the criteria change may be more apparent for these types of GQs.

In addition to looking at the item nonresponse rates, we reviewed the distribution of outcome codes for each treatment. Because the criteria for classifying an interview as complete were stricter in Treatment 2, we were afraid that we would see fewer complete interviews and more sufficient partial interviews for that treatment.

We found that the distribution was dramatically different between treatments. In Treatment 1, 98 percent of interviews were classified as complete interviews compared to only 77 percent in Treatment 2. This suggests that the stricter criteria made it more difficult for interviewers to assign a complete outcome code to an interview. While we may have received fewer complete interviews in Treatment 2, the lower item nonresponse rates indicate that the data that we did get was of better quality.

## **Conclusions**

In summary, the results of this research suggest that the modifications made in both 2006 and 2008 had an impact on item nonresponse rates. However, it is difficult to measure the magnitude of the impact due to several limitations and seasonal factors affecting the research. The results suggest that the criteria change in 2006 to the sufficient partial interviews resulted in significantly more responses of “Don’t know” for the *worked last week* item. This led to higher item nonresponse rates for this item, as well as, for related items (those that depend on a response of “Yes” or “No” for the *worked last week* item). The results also suggest that the 2006 change could have negatively impacted the item nonresponse rates for several other items, but to a lesser degree.

The 2008 changes that removed the *worked last week* and *marital status* items from the sufficient partial criteria proved to have a negative effect on item nonresponse rates for those two items. Fortunately, it looks like the change made in 2008 to the complete criteria had a positive effect on item nonresponse rates for many other items, specifically for items collected at institutional GQs.

Another conclusion that we can take away from this analysis is that outcome codes, while important measures for the field offices, should not be alone as a data quality measure. The main reason for this is because for many items answers of “Don’t know” and “Refused” are acceptable values for the purpose of assigning outcome codes, however for data quality purposes they are the same as a missing value.

This analysis proves that small changes can have significant effects on the data and possible implications should be carefully considered when making such changes.

## **References**

Monaghan, B. (2006). "July 2006 Updates for the American Community Survey (ACS) Group Quarters (GQ) GQFQ Instrument and Field Procedures," ACS GQ Field Representative Memorandum No. 06-08, June 15, 2006.

Monaghan, B. (2008). "Revised Sufficient Partial Interview (203) and Completed Interview (201) Criteria for the American Community Survey (ACS) Group Quarters (GQ) Data Collection," ACS GQ Field Representative Memorandum No. 08-08, October 17, 2008.

U.S. Census Bureau (2009). "Design and Methodology, American Community Survey," U.S. Government Printing Office, Washington, DC, April 2009.

**Table 1. Criteria for GQ Sufficient Partial and Complete Interviews**

(Modifications are shown in red font. Striked - out text indicate that the criteria was removed.)

Reference Period	Sufficient Partial	Complete
<p><b>Jan 2006</b> (also prior to Jan 2006)</p>	<p>1) Age or DOB                  2) Valid Values, excluding Ds and Rs for two of the following:                  NAME                  SEX                  MAR                  HIS                  RAC                  3) UWRK in (1,2)</p>	<p>1) Sufficient partial criteria meet  <b>PLUS</b>                  2) Valid values for all items</p>
<p><b>Feb 2006 to Jun 2006</b>   <i>note: some of the Jun 06 panel interviews will be conducted in Jul 06</i></p>	<p>1) Valid Values, excluding answers of "Don't know" or "Refused" for AGE or DATE OF BIRTH (DOB)                  2) Valid Values, excluding answers of "Don't know" or "Refused" for two of the following:                  NAME                  SEX                  MARITAL STATUS (MAR)                  HISPANIC ORIGIN (HIS)                  RACE (RAC)                  3) Value of "Yes" or "No" for the WORKED LAST WEEK (WRK) item</p>	<p>1) Sufficient partial criteria met  <b>PLUS</b>                  2) One or more additional items</p>
<p><b>Jul 2006 to Oct 2008</b>   <i>note: some of the Oct 08 panel interviews will be conducted in Nov 08</i></p>	<p>1) Valid Values, excluding answers of "Don't know" or "Refused" for AGE or DATE OF BIRTH (DOB)                  2) Valid Values, excluding answers of "Don't know" or "Refused" for two of the following:                  NAME                  SEX                  MARITAL STATUS (MAR)                  HISPANIC ORIGIN (HIS)                  RACE (RAC)                  3) Value of "Don't know", "Refused", "Yes" or "No" for the WORKED LAST WEEK (WRK) item</p>	<p>1) Sufficient partial criteria met  <b>PLUS</b>                  2) One or more additional items</p>
<p><b>Nov 2008 to Dec 2008</b> (also Dec 2008 to current)</p>	<p>1) Valid Values, excluding answers of "Don't know" or "Refused" for AGE or DATE OF BIRTH (DOB)                  2) Valid Values, excluding answers of "Don't know" or "Refused" for two of the following:                  NAME                  SEX  <del>MARITAL STATUS (MAR)</del>                  HISPANIC ORIGIN (HIS)                  RACE (RAC)                  3) Value of "Don't know", "Refused", "Yes" or "No" for the <del>WORKED LAST WEEK (WRK) item</del></p>	<p>1) Sufficient partial criteria met  <b>PLUS</b>                  2) Valid values (including "Don't know" and "Refused") for all required items</p>

**Table 2. Item Nonresponse Rates**  
*Feb.-Jun. 2006 vs Jul.-Dec. 2006*

Question			Difference	Margin
	Feb-Jun 2006	Jul-Dec 2006	(Jul-Dec minus Feb- Jun)	of Error (Difference)
	(%)	(%)	(%)	(+/-)
<b>Sufficient partial items</b>				
Sex	0.9	1.2	<b>0.35</b>	0.12
Age/Date of birth	0.1	0.1	<b>0.03</b>	0.03
Hispanic origin	1.7	2.4	<b>0.68</b>	0.11
Race	1.4	2.1	<b>0.75</b>	0.12
Marital status	2.8	3.4	<b>0.54</b>	0.15
Worked last week	0.8	7.2	<b>6.34</b>	0.64
<b>Other items</b>				
Place of birth	5.3	6.9	<b>1.61</b>	0.32
Citizenship	5.9	7.5	<b>1.61</b>	0.36
Year of entry	23.2	24.8	1.63	1.69
School enrollment	6.5	7.5	<b>0.96</b>	0.20
Grade enrolled	3.0	5.9	<b>2.87</b>	0.43
Educational attainment	4.2	5.2	<b>1.05</b>	0.17
Ancestry	21.7	24.5	<b>2.85</b>	0.45
Language at home	3.3	4.3	<b>1.03</b>	0.44
Type of language spoken	9.3	11.9	<b>2.68</b>	0.36
English proficiency	3.9	4.1	0.26	0.45
Migration	7.4	10.0	<b>2.67</b>	0.33
Migration – city	4.9	3.4	<b>-1.49</b>	0.43
Migration – county	11.7	9.8	<b>-1.98</b>	0.70
Migration – state	4.0	3.1	<b>-0.87</b>	0.31
Migration – zip code	19.8	19.9	0.16	0.82
Food stamps	8.9	8.8	-0.13	0.22
Disability – work	9.2	12.2	<b>3.03</b>	0.35
Disability – vision	8.9	11.4	<b>2.52</b>	0.32
Disability – mental	8.6	11.2	<b>2.57</b>	0.33
Disability – physical	8.9	11.6	<b>2.71</b>	0.31
Disability – self care	9.2	11.9	<b>2.75</b>	0.32
Disability – going out	8.8	11.7	<b>2.87</b>	0.35
Fertility	7.2	11.3	<b>4.10</b>	0.56
Grandchildren – living with	8.8	11.6	<b>2.75</b>	1.22
Grandchildren – responsible for	14.5	29.7	15.18	26.27
Grandchildren – how long responsible for	19.8	0.0	-19.80	26.13
Military service status	9.2	11.6	<b>2.38</b>	0.35
Military period of service	1.5	2.0	<b>0.55</b>	0.41
Years of military service	8.1	9.8	<b>1.77</b>	1.06
Place of work – address	8.8	8.8	0.03	0.65
Place of work – city	5.8	5.3	-0.45	0.52
Place of work – county	8.8	7.3	<b>-1.50</b>	0.67
Place of work - state	6.2	5.7	-0.52	0.56
Place of work – zip code	14.0	13.1	<b>-0.92</b>	0.90
Means of transportation to work	3.4	3.6	0.18	0.51

Question	Difference			Margin of Error (Difference)
	Feb-Jun 2006	Jul-Dec 2006	(Jul-Dec minus Feb- Jun)	
	(%)	(%)	(%)	(+/-)
Workers per car, truck, or van	1.4	2.1	0.72	1.20
Journey to work – hr	28.0	31.3	<b>3.35</b>	1.51
Journey to work – min	27.8	31.1	<b>3.28</b>	1.51
Journey to work – am/pm	28.0	31.4	<b>3.49</b>	1.52
Journey to work – minutes	26.1	29.8	<b>3.72</b>	1.50
Layoff from work	8.0	8.2	0.17	0.69
Absent from work	3.1	3.1	0.00	0.36
Recalled to work	6.5	12.1	5.58	6.13
Looking for work	1.2	1.9	<b>0.66</b>	0.28
Available to work	3.5	3.7	0.18	1.29
When last worked	11.6	13.4	<b>1.85</b>	0.30
Weeks worked	3.1	4.2	<b>1.08</b>	0.54
Usual hours worked	6.3	7.7	<b>1.44</b>	0.60
Class of worker	3.9	5.1	<b>1.25</b>	0.31
Employer	7.4	8.4	<b>0.97</b>	0.46
Kind of business	5.5	6.8	<b>1.30</b>	0.39
Occupation	5.7	6.7	<b>1.00</b>	0.38
Activities	6.8	8.0	<b>1.20</b>	0.39
Wages	14.4	19.1	<b>4.74</b>	0.43
Self employment income	13.1	17.5	<b>4.40</b>	0.41
Interest income	17.5	21.7	<b>4.21</b>	0.44
Social security income	24.0	27.8	<b>3.85</b>	0.44
Supplemental security income	16.8	21.0	<b>4.21</b>	0.44
Public assistance	15.9	19.9	<b>4.02</b>	0.43
Retirement income	17.4	21.6	<b>4.21</b>	0.46
Other income	16.4	20.7	<b>4.29</b>	0.44
Total income	27.4	32.4	<b>4.96</b>	0.49

\*Statistical significance tested at the 90 percent confidence level.

Bold estimates are significant differences.



**Table 3. Differences in Item Nonresponse Rates Between Periods by GQ Type**  
*Feb.-Jun. 2006 vs Jul.-Dec. 2006*

Question	Institutional		Non-Institutional		Other non-institutional
	Total	Total	College / university housing	Military quarters	
<b>Sufficient partial items</b>					
Sex	<b>0.35</b>	<b>0.34</b>	<b>0.24</b>	-0.25	<b>0.68</b>
Age/Date of birth	-0.01	<b>0.10</b>	<b>0.13</b>	-0.11	<b>0.11</b>
Hispanic origin	<b>0.39</b>	<b>1.12</b>	<b>1.47</b>	<b>-1.00</b>	<b>1.04</b>
Race	<b>0.49</b>	<b>1.14</b>	<b>1.81</b>	<b>-0.76</b>	<b>0.45</b>
Marital status	<b>0.60</b>	<b>0.45</b>	<b>0.89</b>	<b>-1.83</b>	<b>0.39</b>
Worked last week	NA	<b>6.34</b>	<b>10.21</b>	<b>0.26</b>	<b>0.58</b>
<b>Other items</b>					
Place of birth	0.08	<b>3.91</b>	<b>5.48</b>	<b>2.91</b>	<b>1.12</b>
Citizenship	<b>0.36</b>	<b>3.49</b>	<b>5.32</b>	-1.22	<b>1.48</b>
Year of entry	<b>-2.31</b>	<b>5.68</b>	1.38	<b>25.79</b>	<b>6.02</b>
School enrollment	<b>0.70</b>	<b>1.35</b>	<b>1.26</b>	-1.00	<b>2.75</b>
Grade enrolled	<b>3.55</b>	<b>2.76</b>	<b>2.61</b>	9.80	<b>3.18</b>
Educational attainment	<b>0.81</b>	<b>1.41</b>	<b>1.56</b>	<b>-2.06</b>	<b>2.48</b>
Ancestry	<b>2.10</b>	<b>3.98</b>	<b>5.78</b>	-0.02	<b>2.63</b>
Language at home	<b>1.01</b>	<b>1.07</b>	1.00	-0.31	<b>1.64</b>
Type of language spoken	<b>0.94</b>	<b>5.30</b>	<b>7.04</b>	1.99	<b>3.50</b>
English proficiency	0.13	0.34	0.74	-0.72	0.14
Migration	<b>1.74</b>	<b>4.07</b>	<b>5.96</b>	-1.07	<b>2.28</b>
Migration – city	<b>-1.66</b>	<b>-1.25</b>	<b>-1.76</b>	-2.24	0.72
Migration – county	<b>-2.64</b>	<b>-1.09</b>	-0.58	<b>-5.67</b>	0.34
Migration – state	<b>-2.03</b>	<b>0.68</b>	<b>1.78</b>	<b>-3.32</b>	-0.39
Migration – zip code	-0.17	0.88	-0.44	6.46	<b>2.64</b>
Food stamps	<b>-1.46</b>	<b>1.89</b>	<b>2.83</b>	<b>-2.18</b>	<b>1.82</b>
Disability – work	<b>2.14</b>	<b>4.35</b>	<b>6.36</b>	-0.91	<b>2.31</b>
Disability – vision	<b>1.38</b>	<b>4.24</b>	<b>6.31</b>	<b>-1.77</b>	<b>2.32</b>
Disability – mental	<b>1.47</b>	<b>4.22</b>	<b>6.33</b>	<b>-1.61</b>	<b>2.11</b>
Disability – physical	<b>1.68</b>	<b>4.28</b>	<b>6.36</b>	<b>-1.71</b>	<b>2.33</b>
Disability – self care	<b>1.73</b>	<b>4.28</b>	<b>6.31</b>	<b>-1.70</b>	<b>2.41</b>
Disability – going out	<b>1.86</b>	<b>4.36</b>	<b>6.42</b>	-0.94	<b>2.16</b>
Fertility	<b>2.38</b>	<b>4.62</b>	<b>4.94</b>	<b>-3.31</b>	<b>4.74</b>
Grandchildren – living with	NA	<b>2.75</b>	4.99	5.97	<b>2.50</b>
Grandchildren – responsible for	NA	15.18	--	--	15.18
Grandchildren – how long responsible for	NA	-19.80	--	--	-19.80
Military service status	<b>1.10</b>	<b>4.28</b>	<b>6.07</b>	<b>-0.95</b>	<b>2.54</b>
Military period of service	0.12	<b>0.96</b>	0.51	<b>1.55</b>	-0.55
Years of military service	<b>3.35</b>	-0.23	2.53	0.14	-2.01
Place of work – address	NA	0.03	<b>0.87</b>	<b>-1.95</b>	1.44
Place of work – city	NA	-0.45	0.30	<b>-2.02</b>	<b>2.18</b>
Place of work – county	NA	<b>-1.50</b>	0.12	<b>-5.03</b>	<b>3.29</b>
Place of work - state	NA	-0.52	-0.09	<b>-1.93</b>	<b>2.88</b>
Place of work – zip code	NA	<b>-0.92</b>	0.97	<b>-5.15</b>	<b>3.50</b>
Means of transportation to work	NA	0.18	<b>0.68</b>	<b>-1.88</b>	<b>1.29</b>
Workers per car, truck, or van	NA	0.72	0.01	2.82	0.02
Journey to work – min	NA	<b>3.35</b>	<b>2.41</b>	<b>9.87</b>	<b>-2.68</b>

Journey to work – hr	NA	<b>3.28</b>	<b>2.61</b>	<b>9.63</b>	<b>-3.14</b>
Journey to work – am/pm	NA	<b>3.49</b>	<b>2.53</b>	<b>10.01</b>	<b>-2.62</b>
Journey to work – minutes	NA	<b>3.72</b>	<b>3.08</b>	<b>9.79</b>	<b>-2.57</b>
Layoff from work	NA	0.17	<b>-2.07</b>	13.06	<b>3.68</b>
Absent from work	NA	0.00	-0.01	2.06	0.01
Recalled to work	NA	5.58	10.60	0.00	0.75
Looking for work	NA	<b>0.66</b>	<b>0.71</b>	-1.47	<b>0.61</b>
Available to work	NA	0.18	0.75	-4.70	-1.95
When last worked	<b>2.49</b>	0.39	<b>-1.48</b>	9.93	<b>3.35</b>
Weeks worked	<b>1.36</b>	<b>0.91</b>	<b>1.13</b>	-1.02	<b>2.00</b>
Usual hours worked	<b>3.06</b>	0.62	0.82	-2.29	<b>4.09</b>
Class of worker	<b>2.41</b>	0.37	<b>0.63</b>	<b>-2.40</b>	<b>1.62</b>
Employer	<b>2.83</b>	<b>-0.53</b>	0.01	<b>-3.35</b>	0.48
Kind of business	<b>3.03</b>	-0.02	0.05	<b>-1.65</b>	<b>1.58</b>
Occupation	<b>2.47</b>	-0.11	0.05	<b>-4.13</b>	<b>2.13</b>
Activities	<b>3.09</b>	-0.24	0.20	<b>-4.17</b>	1.18
Wages	<b>3.25</b>	<b>6.94</b>	<b>9.55</b>	<b>6.01</b>	<b>2.62</b>
Self employment income	<b>2.60</b>	<b>7.04</b>	<b>9.08</b>	<b>7.30</b>	<b>3.60</b>
Interest income	<b>2.04</b>	<b>7.43</b>	<b>9.09</b>	<b>7.41</b>	<b>4.92</b>
Social security income	<b>0.91</b>	<b>8.16</b>	<b>9.05</b>	<b>5.64</b>	<b>8.16</b>
Supplemental security income	<b>2.02</b>	<b>7.47</b>	<b>9.10</b>	<b>5.30</b>	<b>5.76</b>
Public assistance	<b>1.93</b>	<b>7.10</b>	<b>9.13</b>	<b>5.22</b>	<b>4.38</b>
Retirement income	<b>2.04</b>	<b>7.42</b>	<b>9.20</b>	<b>6.69</b>	<b>4.90</b>
Other income	<b>2.36</b>	<b>7.14</b>	<b>9.16</b>	<b>5.85</b>	<b>4.27</b>
Total income	<b>2.31</b>	<b>8.85</b>	<b>9.68</b>	<b>6.45</b>	<b>8.91</b>

\*Statistical significance tested at the 90 percent confidence level. Bold estimates are significant differences.

**Table 4. Item Nonresponse Rates**  
*Jan.-Oct. 2008 vs Nov.-Dec. 2008*

Question			Difference	Margin
	Jan-Oct 2008 (%)	Nov-Dec 2008 (%)	(Nov-Dec minus Jan- Oct) (%)	of Error (Difference) (+/-)
<b>Sufficient partial items</b>				
Sex	1.3	1.6	0.24	0.38
Age/Date of birth	0.2	0.3	<b>0.16</b>	0.10
Hispanic origin	3.2	3.1	-0.11	0.66
Race	2.5	3.0	0.47	0.59
Marital status	7.2	8.1	<b>0.88</b>	0.82
Worked last week	8.1	10.8	<b>2.71</b>	1.81
<b>Other items</b>				
Place of birth	6.8	7.7	0.85	2.88
Citizenship	7.1	7.7	0.67	2.96
Year of naturalization	52.1	52.4	0.29	5.54
Year of entry	30.0	30.8	0.78	4.00
School enrollment	8.9	7.4	<b>-1.45</b>	1.33
Grade enrolled	7.1	5.9	-1.27	1.35
Educational attainment	15.5	14.0	-1.51	2.95
Ancestry	30.0	28.3	-1.67	2.88
Language at home	7.1	6.3	-0.72	1.65
Type of language spoken	13.0	13.9	0.94	3.13
English proficiency	6.9	7.5	0.58	1.78
Migration	11.6	12.8	1.26	3.14
Migration - address	20.7	18.1	<b>-2.61</b>	2.06
Migration – city	8.9	7.5	-1.37	1.65
Migration – county	21.5	18.5	<b>-3.04</b>	2.02
Migration – state	7.4	5.9	<b>-1.46</b>	1.36
Migration – zip code	22.9	20.4	<b>-2.48</b>	2.16
Food stamps	12.9	14.0	1.04	3.31
Health insurance – all types combined	12.3	12.0	-0.30	3.00
Health insurance - employer	16.2	14.6	-1.56	2.92
Health insurance – insurance company	17.1	15.5	-1.51	2.92
Health insurance - Medicare	15.6	14.5	-1.10	2.99
Health insurance – Medicaid	15.9	14.5	-1.36	3.00
Health insurance – TRICARE	17.1	15.5	-1.56	2.91
Health insurance – VA	17.3	15.6	-1.71	2.91
Health insurance – Indian Health Service	17.3	15.5	-1.77	2.91
Health insurance – other	16.9	15.5	-1.40	2.96
Disability – hearing	11.3	11.5	0.26	3.06
Disability – vision	11.4	11.7	0.34	3.08
Disability – mental	11.4	12.0	0.55	3.10
Disability – physical	11.9	12.6	0.72	3.23
Disability – self care	11.8	12.6	0.85	3.22
Disability – going out	11.8	13.3	1.50	3.19
Marital event – married	14.7	13.1	-1.59	1.68
Marital event – widowed	16.2	14.3	<b>-1.94</b>	1.51
Marital event - divorced	15.9	14.0	<b>-1.90</b>	1.52
Number of marriages	22.4	22.2	-0.13	2.05
Year of last marriage	45.8	45.6	-0.17	2.72

Fertility	13.4	17.2	<b>3.85</b>	3.56
Grandchildren – living with	14.7	25.8	11.07	21.49
Grandchildren – responsible for	13.8	13.8	-0.02	22.98
Grandchildren – how long responsible for	17.8	0.0	-17.80	26.15
Military service status	11.9	12.8	0.97	3.35
Military period of service	9.7	8.3	-1.39	2.12
Service-connected disability status	14.1	10.8	<b>-3.34</b>	2.59
Service-connected disability rating	23.3	21.4	-1.85	8.86
Place of work – address	13.9	10.0	-3.88	4.06
Place of work – city	8.2	4.0	<b>-4.10</b>	1.58
Place of work – county	10.4	8.2	-2.18	5.33
Place of work - state	7.6	3.9	<b>-3.68</b>	1.64
Place of work – zip code	13.8	10.4	<b>-3.35</b>	3.25
Means of transportation to work	9.3	6.4	-2.95	3.15
Workers per car, truck, or van	2.1	1.3	-0.79	1.08
Journey to work – hr	31.7	37.3	5.61	10.30
Journey to work – min	31.4	37.2	5.80	10.30
Journey to work – am/pm	31.6	37.0	5.42	10.39
Journey to work – minutes	29.3	36.7	7.34	9.76
Layoff from work	7.5	5.1	<b>-2.45</b>	1.55
Absent from work	1.5	1.0	-0.46	0.56
Recalled to work	18.1	15.0	-3.09	10.31
Looking for work	2.0	1.3	<b>-0.68</b>	0.56
Available to work	3.5	3.9	0.40	1.71
When last worked	14.2	12.4	-1.80	2.34
Weeks worked	7.6	5.6	<b>-1.98</b>	1.49
Usual hours worked	8.4	6.4	<b>-1.98</b>	1.54
Class of worker	10.8	9.1	<b>-1.68</b>	1.21
Employer	12.3	9.8	<b>-2.46</b>	1.12
Kind of business	10.3	8.1	<b>-2.17</b>	1.40
Occupation	10.4	7.9	<b>-2.48</b>	1.16
Activities	12.4	9.5	<b>-2.94</b>	1.35
Wages	22.5	23.1	0.60	2.98
Self employment income	20.4	20.5	0.04	3.11
Interest income	24.5	24.2	-0.32	2.98
Social security income	31.9	30.0	-1.94	2.91
Supplemental security income	23.6	23.3	-0.21	3.05
Public assistance	22.2	22.2	-0.06	3.06
Retirement income	24.8	24.7	-0.07	2.98
Other income	23.1	23.3	0.27	2.99
Total income	37.1	34.6	-2.54	2.66

---

\*Statistical significance tested at the 90 percent confidence level

Bold estimates are significantly different.

**Table 5. Differences in Item Nonresponse Rates Between Periods by GQ Type**  
*Jan.-Oct. 2008 vs Nov.-Dec. 2008*

<b>Question</b>	<b>Institutional Total</b>	<b>Non-Institutional Total</b>
<b>Sufficient partial items</b>		
Sex	0.15	0.39
Age/Date of birth	<b>0.17</b>	<b>0.15</b>
Hispanic origin	<b>-0.83</b>	0.36
Race	-0.43	1.06
Marital status	-0.23	<b>2.11</b>
Worked last week	NA	<b>2.71</b>
<b>Other items</b>		
Place of birth	<b>-2.39</b>	4.42
Citizenship	<b>-2.27</b>	4.03
Year of naturalization	3.85	1.16
Year of entry	1.65	0.10
School enrollment	-1.04	<b>-1.43</b>
Grade enrolled	<b>-6.33</b>	0.12
Educational attainment	<b>-3.62</b>	2.35
Ancestry	<b>-3.68</b>	2.09
Language at home	-0.31	-1.31
Type of language spoken	-1.54	4.08
English proficiency	0.98	0.30
Migration	-1.61	4.57
Migration - address	-1.81	-2.24
Migration – city	-1.16	-1.51
Migration – county	<b>-3.30</b>	<b>-3.06</b>
Migration – state	<b>-2.14</b>	-0.67
Migration – zip code	0.04	<b>-3.60</b>
Food stamps	-1.43	4.08
Health insurance – all types combined	<b>-3.76</b>	3.61
Health insurance - employer	<b>-4.70</b>	1.78
Health insurance – insurance company	<b>-4.68</b>	1.57
Health insurance - Medicare	<b>-3.85</b>	1.10
Health insurance – Medicaid	<b>-4.62</b>	1.60
Health insurance – TRICARE	<b>-4.71</b>	1.44
Health insurance – VA	<b>-4.92</b>	1.22
Health insurance – Indian Health Service	<b>-4.81</b>	0.95
Health insurance – other	<b>-4.50</b>	1.34
Disability – hearing	<b>-3.67</b>	5.11
Disability – vision	<b>-3.50</b>	5.10
Disability – mental	<b>-3.40</b>	5.36
Disability – physical	<b>-2.96</b>	5.29
Disability – self care	<b>-2.75</b>	5.33
Disability – going out	<b>-1.59</b>	5.31
Marital event – married	-1.17	-4.15
Marital event – widowed	-1.48	-4.74
Marital event - divorced	-1.25	<b>-5.82</b>
Number of marriages	0.19	-2.06
Year of last marriage	0.23	-2.52

Fertility	-4.14	<b>5.55</b>
Grandchildren – living with	NA	11.07
Grandchildren – responsible for	NA	-0.02
Grandchildren – how long responsible for	NA	-17.80
Military service status	-1.64	4.49
Military period of service	-1.27	0.59
Service-connected disability status	-1.54	-2.40
Service-connected disability rating	-6.02	8.72
Place of work – address	NA	-3.88
Place of work – city	NA	<b>-4.10</b>
Place of work – county	NA	-2.18
Place of work - state	NA	<b>-3.68</b>
Place of work – zip code	NA	<b>-3.35</b>
Means of transportation to work	NA	-2.95
Workers per car, truck, or van	NA	-0.79
Journey to work – hr	NA	5.61
Journey to work – min	NA	5.80
Journey to work – am/pm	NA	5.42
Journey to work – minutes	NA	7.34
Layoff from work	NA	<b>-2.45</b>
Absent from work	NA	-0.46
Recalled to work	NA	-3.09
Looking for work	NA	<b>-0.68</b>
Available to work	NA	0.40
When last worked	-1.61	-1.46
Weeks worked	<b>-2.99</b>	-1.22
Usual hours worked	<b>-2.27</b>	-1.40
Class of worker	-0.75	<b>-1.63</b>
Employer	<b>-2.12</b>	<b>-1.70</b>
Kind of business	<b>-2.48</b>	-1.58
Occupation	<b>-2.92</b>	<b>-1.99</b>
Activities	<b>-3.82</b>	<b>-2.04</b>
Wages	-2.35	3.95
Self employment income	-2.22	3.21
Interest income	-2.35	3.17
Social security income	<b>-3.25</b>	2.13
Supplemental security income	-2.08	2.79
Public assistance	-2.43	3.58
Retirement income	-1.38	2.86
Other income	-1.78	3.66
Total income	<b>-4.06</b>	1.30

\*Statistical significance tested at the 90 percent confidence level.

Bold estimates are significant differences.

**Appendix 1. Item Nonresponse Rates by GQ type**

*Feb.-Jun. 2006 vs Jul.-Dec. 2006*

Question	Total institutional				Total non-institutional			
	Feb-Jun	Jul-Dec	Difference	Margin	Feb-Jun	Jul-Dec	Difference	Margin
	2006	2006	(Jul-Dec minus Feb- Jun)	of Error (Difference)	2006	2006	(Jul-Dec minus Feb- Jun)	of Error (Difference)
	(%)	(%)	(%)	(+/-)	(%)	(%)	(%)	(+/-)
<b>Sufficient partial items</b>								
Sex	1.0	1.4	<b>0.35</b>	0.18	0.7	1.0	<b>0.34</b>	0.14
Age/Date of birth	0.1	0.1	-0.01	0.05	0.1	0.2	<b>0.10</b>	0.04
Hispanic origin	1.5	1.9	<b>0.39</b>	0.14	2.1	3.2	<b>1.12</b>	0.19
Race	1.0	1.5	<b>0.49</b>	0.14	2.0	3.2	<b>1.14</b>	0.21
Marital status	3.5	4.1	<b>0.60</b>	0.20	1.8	2.2	<b>0.45</b>	0.21
Worked last week	NA	NA	NA	NA	0.8	7.2	<b>6.34</b>	0.64
<b>Other items</b>								
Place of birth	5.6	5.7	0.08	0.20	4.9	8.8	<b>3.91</b>	0.69
Citizenship	6.3	6.7	<b>0.36</b>	0.32	5.4	8.9	<b>3.49</b>	0.73
Year of entry	32.1	29.8	<b>-2.31</b>	2.30	12.3	18.0	<b>5.68</b>	2.71
School enrollment	8.1	8.8	<b>0.70</b>	0.27	4.1	5.4	<b>1.35</b>	0.27
Grade enrolled	6.6	10.1	<b>3.55</b>	1.15	2.3	5.1	<b>2.76</b>	0.48
Educational attainment	4.8	5.6	<b>0.81</b>	0.21	3.3	4.7	<b>1.41</b>	0.25
Ancestry	25.4	27.5	<b>2.10</b>	0.45	16.0	20.0	<b>3.98</b>	0.93
Language at home	3.2	4.2	<b>1.01</b>	0.56	3.3	4.4	<b>1.07</b>	0.87
Type of language spoken	10.9	11.9	<b>0.94</b>	0.26	6.7	12.0	<b>5.30</b>	0.83
English proficiency	4.7	4.8	0.13	0.63	2.6	3.0	0.34	0.60
Migration	7.8	9.5	<b>1.74</b>	0.29	6.8	10.8	<b>4.07</b>	0.73
Migration – city	5.3	3.6	<b>-1.66</b>	0.42	4.4	3.2	<b>-1.25</b>	0.81
Migration – county	12.3	9.7	<b>-2.64</b>	0.94	10.9	9.8	<b>-1.09</b>	0.85
Migration – state	4.9	2.9	<b>-2.03</b>	0.34	2.7	3.4	<b>0.68</b>	0.57
Migration – zip code	24.5	24.3	-0.17	1.04	13.4	14.2	0.88	1.31
Food stamps	10.6	9.2	<b>-1.46</b>	0.30	6.3	8.2	<b>1.89</b>	0.31
Disability – work	10.6	12.8	<b>2.14</b>	0.28	7.0	11.3	<b>4.35</b>	0.70
Disability – vision	10.1	11.5	<b>1.38</b>	0.27	7.0	11.3	<b>4.24</b>	0.70
Disability – mental	9.7	11.2	<b>1.47</b>	0.27	7.0	11.2	<b>4.22</b>	0.70
Disability – physical	10.0	11.6	<b>1.68</b>	0.28	7.2	11.5	<b>4.28</b>	0.69
Disability – self care	10.6	12.3	<b>1.73</b>	0.29	7.1	11.4	<b>4.28</b>	0.69
Disability – going out	10.3	12.2	<b>1.86</b>	0.28	6.7	11.0	<b>4.36</b>	0.70
Fertility	9.1	11.5	<b>2.38</b>	1.69	6.6	11.2	<b>4.62</b>	0.58
Grandchildren – living with	NA	NA	NA	NA	8.8	11.6	<b>2.75</b>	1.22
Grandchildren – responsible for	NA	NA	NA	NA	14.5	29.7	15.18	26.27

Question	Total institutional				Total non-institutional			
	Feb-Jun	Jul-Dec	Difference	Margin	Feb-Jun	Jul-Dec	Difference	Margin
	2006	2006	(Jul-Dec minus Feb- Jun)	of Error (Difference)	2006	2006	(Jul-Dec minus Feb- Jun)	of Error (Difference)
(%)	(%)	(%)	(+/-)	(%)	(%)	(%)	(+/-)	
Grandchildren – how long responsible for	NA	NA	NA	NA	19.8	0.0	-19.80	26.45
Military service status	11.1	12.2	<b>1.10</b>	0.30	6.4	10.6	<b>4.28</b>	0.70
Military period of service	1.9	2.0	0.12	0.68	1.1	2.0	<b>0.96</b>	0.56
Years of military service	12.0	15.3	<b>3.35</b>	1.71	4.3	4.1	-0.23	1.14
Place of work – address	NA	NA	NA	NA	8.8	8.8	0.03	0.65
Place of work – city	NA	NA	NA	NA	5.8	5.3	-0.45	0.52
Place of work – county	NA	NA	NA	NA	8.8	7.3	<b>-1.50</b>	0.67
Place of work - state	NA	NA	NA	NA	6.2	5.7	-0.52	0.56
Place of work – zip code	NA	NA	NA	NA	14.0	13.1	<b>-0.92</b>	0.90
Means of transportation to work	NA	NA	NA	NA	3.4	3.6	0.18	0.51
Workers per car, truck, or van	NA	NA	NA	NA	1.4	2.1	0.72	1.20
Journey to work – hr	NA	NA	NA	NA	28.0	31.3	<b>3.35</b>	1.51
Journey to work – min	NA	NA	NA	NA	27.8	31.1	<b>3.28</b>	1.51
Journey to work – am/pm	NA	NA	NA	NA	28.0	31.4	<b>3.49</b>	1.52
Journey to work – minutes	NA	NA	NA	NA	26.1	29.8	<b>3.72</b>	1.50
Layoff from work	NA	NA	NA	NA	8.0	8.2	0.17	0.69
Absent from work	NA	NA	NA	NA	3.1	3.1	0.00	0.36
Recalled to work	NA	NA	NA	NA	6.5	12.1	5.58	6.13
Looking for work	NA	NA	NA	NA	1.2	1.9	<b>0.66</b>	0.28
Available to work	NA	NA	NA	NA	3.5	3.7	0.18	1.29
When last worked	12.6	15.1	<b>2.49</b>	0.31	9.1	9.5	0.39	0.54
Weeks worked	4.1	5.4	<b>1.36</b>	0.82	2.7	3.6	<b>0.91</b>	0.66
Usual hours worked	7.4	10.4	<b>3.06</b>	0.81	5.8	6.4	0.62	0.79
Class of worker	3.9	6.3	<b>2.41</b>	0.50	3.9	4.2	0.37	0.40
Employer	8.8	11.6	<b>2.83</b>	0.74	6.5	5.9	<b>-0.53</b>	0.53
Kind of business	5.4	8.4	<b>3.03</b>	0.68	5.6	5.6	-0.02	0.47
Occupation	5.3	7.8	<b>2.47</b>	0.64	5.9	5.8	-0.11	0.45
Activities	6.5	9.6	<b>3.09</b>	0.68	7.0	6.7	-0.24	0.48
Wages	15.2	18.4	<b>3.25</b>	0.38	13.2	20.1	<b>6.94</b>	0.87
Self employment income	15.6	18.2	<b>2.60</b>	0.39	9.4	16.4	<b>7.04</b>	0.81
Interest income	21.9	23.9	<b>2.04</b>	0.41	11.1	18.5	<b>7.43</b>	0.87
Social security income	31.8	32.7	<b>0.91</b>	0.45	12.4	20.6	<b>8.16</b>	0.87
Supplemental security income	20.3	22.4	<b>2.02</b>	0.39	11.5	19.0	<b>7.47</b>	0.85
Question	Total institutional				Total non-institutional			
	Feb-Jun	Jul-Dec	Difference	Margin	Feb-Jun	Jul-Dec	Difference	Margin
	2006	2006	(Jul-Dec minus Feb- Jun)	of Error (Difference)	2006	2006	(Jul-Dec minus Feb- Jun)	of Error (Difference)
(%)	(%)	(%)	(+/-)	(%)	(%)	(%)	(+/-)	
Public assistance	19.8	21.7	<b>1.93</b>	0.39	10.1	17.2	<b>7.10</b>	0.85
Retirement income	22.3	24.4	<b>2.04</b>	0.42	10.1	17.5	<b>7.42</b>	0.86
Other income	20.4	22.8	<b>2.36</b>	0.42	10.4	17.5	<b>7.14</b>	0.85
Total income	34.4	36.7	<b>2.31</b>	0.51	17.0	25.9	<b>8.85</b>	0.91

\*Statistical significance tested at the 90 percent confidence level.



Question	College/university housing				Military quarters			
	Feb-Jun	Jul-Dec	Difference	Margin	Feb-Jun	Jul-Dec	Difference	Margin
	2006	2006	(Jul-Dec	of Error	2006	2006	(Jul-Dec	of Error
	(%)	(%)	minus Feb-	(Difference)	(%)	(%)	minus Feb-	(Difference)
		Jun)	(+/-)			Jun)	(+/-)	
		(%)				(%)		
<b>Sufficient partial items</b>								
Sex	0.7	0.9	<b>0.24</b>	0.19	0.6	0.3	-0.25	0.49
Age/Date of birth	0.1	0.2	<b>0.13</b>	0.05	0.1	0.0	-0.11	0.12
Hispanic origin	2.6	4.0	<b>1.47</b>	0.24	1.8	0.8	<b>-1.00</b>	0.63
Race	2.5	4.3	<b>1.81</b>	0.27	1.6	0.8	<b>-0.76</b>	0.65
Marital status	1.7	2.6	<b>0.89</b>	0.23	2.2	0.4	<b>-1.83</b>	1.14
Worked last week	1.1	11.3	<b>10.21</b>	1.04	0.1	0.3	<b>0.26</b>	0.24
<b>Other items</b>								
Place of birth	4.9	10.3	<b>5.48</b>	1.05	2.7	5.6	<b>2.91</b>	1.26
Citizenship	4.8	10.2	<b>5.32</b>	1.09	6.8	5.6	-1.22	1.25
Year of entry	8.0	9.4	1.38	2.35	4.1	29.9	<b>25.79</b>	16.63
School enrollment	2.3	3.6	<b>1.26</b>	0.28	7.2	6.2	-1.00	1.35
Grade enrolled	2.1	4.7	<b>2.61</b>	0.29	2.4	12.2	9.80	15.15
Educational attainment	2.4	3.9	<b>1.56</b>	0.24	5.7	3.6	<b>-2.06</b>	1.20
Ancestry	11.5	17.3	<b>5.78</b>	1.21	13.6	13.5	-0.02	3.81
Language at home	2.6	3.6	1.00	1.02	2.3	2.0	-0.31	2.08
Type of language spoken	6.2	13.2	<b>7.04</b>	1.15	8.5	10.5	1.99	4.11
English proficiency	2.2	2.9	0.74	0.88	2.7	2.0	-0.72	2.01
Migration	6.0	12.0	<b>5.96</b>	1.08	9.7	8.6	-1.07	2.74
Migration – city	4.3	2.6	<b>-1.76</b>	1.04	4.0	1.8	-2.24	2.78
Migration – county	9.7	9.1	-0.58	1.08	15.5	9.8	<b>-5.67</b>	4.08
Migration – state	1.4	3.2	<b>1.78</b>	0.63	5.3	2.0	<b>-3.32</b>	3.17
Question	College/university housing				Military quarters			
	Feb-Jun	Jul-Dec	Difference	Margin	Feb-Jun	Jul-Dec	Difference	Margin
	2006	2006	(Jul-Dec	of Error	2006	2006	(Jul-Dec	of Error
	(%)	(%)	minus Feb-	(Difference)	(%)	(%)	minus Feb-	(Difference)
			Jun)	(+/-)			Jun)	(+/-)
			(%)				(%)	
Migration – zip code	8.5	8.0	-0.44	1.10	18.3	24.8	6.46	8.18
Food stamps	5.7	8.5	<b>2.83</b>	0.39	6.8	4.6	<b>-2.18</b>	1.31
Disability – work	6.6	13.0	<b>6.36</b>	1.08	6.7	5.8	-0.91	1.19
Disability – vision	6.5	12.8	<b>6.31</b>	1.10	7.4	5.7	<b>-1.77</b>	1.35
Disability – mental	6.6	12.9	<b>6.33</b>	1.11	7.4	5.8	<b>-1.61</b>	1.34
Disability – physical	6.7	13.0	<b>6.36</b>	1.07	7.6	5.9	<b>-1.71</b>	1.34
Disability – self care	6.7	13.0	<b>6.31</b>	1.10	7.5	5.8	<b>-1.70</b>	1.35
Disability – going out	6.4	12.8	<b>6.42</b>	1.09	6.5	5.5	-0.94	1.12
Fertility	6.5	11.5	<b>4.94</b>	0.67	7.3	4.0	<b>-3.31</b>	2.95
Grandchildren – living with	2.4	7.4	4.99	5.07	10.4	16.4	5.97	15.21
Grandchildren – responsible for	--	--	--	**	--	--	--	**
Grandchildren – how long responsible for	--	--	--	**	--	--	--	**
Military service status	5.9	11.9	<b>6.07</b>	1.09	4.6	3.6	<b>-0.95</b>	0.77
Military period of service	1.7	2.2	0.51	4.69	0.8	2.3	<b>1.55</b>	0.61
Years of military service	1.7	4.3	2.53	4.75	3.3	3.4	0.14	1.30
Place of work – address	6.3	7.2	<b>0.87</b>	0.79	11.6	9.6	<b>-1.95</b>	1.75
Place of work – city	3.9	4.2	0.30	0.54	7.5	5.5	<b>-2.02</b>	1.34
Place of work – county	7.0	7.1	0.12	0.72	11.4	6.4	<b>-5.03</b>	1.96
Place of work - state	4.7	4.6	-0.09	0.61	8.0	6.0	<b>-1.93</b>	1.40
Place of work – zip code	11.9	12.8	0.97	1.15	12.5	7.3	<b>-5.15</b>	1.92
Means of transportation to work								
	2.1	2.8	<b>0.68</b>	0.45	6.6	4.7	<b>-1.88</b>	1.47
Workers per car, truck, or van	1.0	1.0	0.01	0.51	1.4	4.2	2.82	5.42
Journey to work – hr	19.4	21.9	<b>2.41</b>	1.62	36.8	46.6	<b>9.87</b>	3.96
Journey to work – min	19.2	21.8	<b>2.61</b>	1.60	36.8	46.4	<b>9.63</b>	3.96

Journey to work – am/pm	19.3	21.9	<b>2.53</b>	1.60	36.9	46.9	<b>10.01</b>	3.96
Journey to work – minutes	16.1	19.1	<b>3.08</b>	1.60	36.8	46.6	<b>9.79</b>	3.92
Layoff from work	8.1	6.0	<b>-2.07</b>	0.89	19.9	32.9	13.06	21.60
Absent from work	2.9	2.8	-0.01	0.47	1.6	3.7	2.06	2.74
Recalled to work	8.0	18.6	10.60	12.62	--	--	--	**
Looking for work	1.4	2.1	<b>0.71</b>	0.43	2.2	0.7	-1.47	2.94
Available to work	3.2	4.0	0.75	1.53	4.7	0.0	-4.70	26.60
When last worked	8.9	7.4	<b>-1.48</b>	0.57	21.0	30.9	9.93	22.07
Weeks worked	1.7	2.8	<b>1.13</b>	0.91	6.0	4.9	-1.02	1.19

Question	College/university housing				Military quarters			
	Feb-Jun 2006 (%)	Jul-Dec 2006 (%)	Difference	Margin	Feb-Jun 2006 (%)	Jul-Dec 2006 (%)	Difference	Margin
			(Jul-Dec	of Error			(Jul-Dec	of Error
			minus Feb- Jun) (%)	(Difference) (+/-)			minus Feb- Jun) (%)	(Difference) (+/-)
Usual hours worked	3.6	4.4	0.82	0.97	11.4	9.1	-2.29	2.51
Class of worker	3.0	3.7	<b>0.63</b>	0.49	7.1	4.7	<b>-2.40</b>	1.12
Employer	4.7	4.7	0.01	0.59	8.2	4.9	<b>-3.35</b>	1.42
Kind of business	4.1	4.1	0.05	0.50	8.4	6.8	<b>-1.65</b>	1.37
Occupation	4.1	4.1	0.05	0.50	11.7	7.6	<b>-4.13</b>	1.67
Activities	4.7	4.9	0.20	0.55	13.4	9.2	<b>-4.17</b>	1.97
Wages	12.4	21.9	<b>9.55</b>	1.05	13.1	19.1	<b>6.01</b>	4.10
Self employment income	8.5	17.6	<b>9.08</b>	1.06	9.1	16.4	<b>7.30</b>	4.16
Interest income	9.7	18.8	<b>9.09</b>	1.11	9.6	17.0	<b>7.41</b>	4.18
Social security income	8.6	17.7	<b>9.05</b>	1.12	9.5	15.1	<b>5.64</b>	4.82
Supplemental security income	8.4	17.5	<b>9.10</b>	1.08	9.6	14.9	<b>5.30</b>	4.82
Public assistance	8.1	17.3	<b>9.13</b>	1.09	9.2	14.5	<b>5.22</b>	4.76
Retirement income	8.2	17.4	<b>9.20</b>	1.09	9.3	16.0	<b>6.69</b>	4.11
Other income	8.7	17.9	<b>9.16</b>	1.08	9.2	15.0	<b>5.85</b>	4.74
Total income	13.3	22.9	<b>9.68</b>	1.07	12.9	19.4	<b>6.45</b>	4.17

\*Statistical significance tested at the 90 percent confidence level.

Question	Other non-institutional			
	Feb-Jun	Jul-Dec	Difference	Margin
	2006	2006	(Jul-Dec	of Error
	(%)	(%)	minus Feb-	(Difference)
		Jun)	(+/-)	
		(%)		
<b>Sufficient partial items</b>				
Sex	0.6	1.3	<b>0.68</b>	0.25
Age/Date of birth	0.1	0.2	<b>0.11</b>	0.09
Hispanic origin	1.4	2.4	<b>1.04</b>	0.34
Race	1.3	1.8	<b>0.45</b>	0.34
Marital status	1.8	2.2	<b>0.39</b>	0.30
Worked last week	0.6	1.1	<b>0.58</b>	0.29
<b>Other items</b>				
Place of birth	5.8	6.9	<b>1.12</b>	0.43
Citizenship	6.1	7.5	<b>1.48</b>	0.51

Question	Other non-institutional			
	Feb-Jun	Jul-Dec	Difference	Margin
	2006	2006	(Jul-Dec	of Error
	(%)	(%)	minus Feb-	(Difference)
		Jun)	(+/-)	
		(%)		
Year of entry	19.9	25.9	<b>6.02</b>	2.82
School enrollment	6.1	8.8	<b>2.75</b>	0.53
Grade enrolled	5.4	8.6	<b>3.18</b>	2.62
Educational attainment	4.2	6.7	<b>2.48</b>	0.42
Ancestry	25.1	27.7	<b>2.63</b>	1.06
Language at home	4.8	6.5	<b>1.64</b>	1.63
Type of language spoken	6.9	10.4	<b>3.50</b>	0.52
English proficiency	3.4	3.5	0.14	1.31
Migration	7.1	9.4	<b>2.28</b>	0.54
Migration – city	5.3	6.0	0.72	1.07
Migration – county	11.3	11.6	0.34	1.57
Migration – state	5.3	5.0	-0.39	0.93
Migration – zip code	25.5	28.1	<b>2.64</b>	2.07
Food stamps	7.1	8.9	<b>1.82</b>	0.47
Disability – work	7.7	10.0	<b>2.31</b>	0.53
Disability – vision	7.9	10.2	<b>2.32</b>	0.47
Disability – mental	7.5	9.6	<b>2.11</b>	0.46
Disability – physical	8.2	10.5	<b>2.33</b>	0.52
Disability – self care	7.9	10.3	<b>2.41</b>	0.54
Disability – going out	7.3	9.5	<b>2.16</b>	0.51
Fertility	6.8	11.6	<b>4.74</b>	1.66
Grandchildren – living with	8.9	11.4	<b>2.50</b>	0.99
Grandchildren – responsible for	14.5	29.7	15.18	26.27
Grandchildren – how long				
responsible for	19.8	0.0	-19.80	25.77
Military service status	8.1	10.6	<b>2.54</b>	0.61
Military period of service	1.9	1.4	-0.55	1.41
Years of military service	9.5	7.5	-2.01	2.54
Place of work – address	10.5	12.0	1.44	1.73
Place of work – city	6.0	8.2	<b>2.18</b>	1.41
Place of work – county	6.3	9.6	<b>3.29</b>	1.63
Place of work - state	5.5	8.4	<b>2.88</b>	1.35
Place of work – zip code	18.3	21.8	<b>3.50</b>	2.11
Means of transportation to work				
	2.8	4.1	<b>1.29</b>	0.81

Question	Other non-institutional			
	Feb-Jun	Jul-Dec	Difference	Margin
	2006	2006	(Jul-Dec minus Feb- Jun)	of Error (Difference)
	(%)	(%)	(%)	(+/-)
Workers per car, truck, or van	2.4	2.4	0.02	1.51
Journey to work – hr	32.0	29.3	<b>-2.68</b>	2.43
Journey to work – min	31.8	28.7	<b>-3.14</b>	2.48
Journey to work – am/pm	32.1	29.5	<b>-2.62</b>	2.52
Journey to work – minutes	31.1	28.5	<b>-2.57</b>	2.55
Layoff from work	7.6	11.2	<b>3.68</b>	0.72
Absent from work	3.5	3.5	0.01	0.55
Recalled to work	5.7	6.5	0.75	7.01
Looking for work	0.9	1.5	<b>0.61</b>	0.36
Available to work	4.4	2.5	-1.95	2.61
When last worked	9.1	12.4	<b>3.35</b>	0.74
Weeks worked	3.6	5.6	<b>2.00</b>	0.90
Usual hours worked	8.4	12.5	<b>4.09</b>	1.36
Class of worker	4.4	6.0	<b>1.62</b>	0.99
Employer	11.2	11.6	0.48	1.25
Kind of business	8.7	10.3	<b>1.58</b>	1.27
Occupation	7.9	10.1	<b>2.13</b>	1.13
Activities	9.8	11.0	1.18	1.19
Wages	14.5	17.1	<b>2.62</b>	1.02
Self employment income	10.8	14.4	<b>3.60</b>	0.67
Interest income	13.8	18.7	<b>4.92</b>	0.77
Social security income	20.4	28.5	<b>8.16</b>	0.95
Supplemental security income	17.7	23.5	<b>5.76</b>	0.91
Public assistance	14.0	18.3	<b>4.38</b>	0.73
Retirement income	13.4	18.3	<b>4.90</b>	0.74
Other income	13.5	17.7	<b>4.27</b>	0.79
Total income	25.4	34.4	<b>8.91</b>	1.04

\*Statistical significance tested at the 90 percent confidence level.

**Appendix 2. Item Nonresponse Rates by GQ Type**

*Jan.-Oct. 2008 vs Nov.-Dec. 2008*

Question	Total institutional				Total non-institutional			
	Jan-Oct 2008	Nov-Dec 2008	Difference	Margin	Jan-Oct 2008	Nov-Dec 2008	Difference	Margin
			(Nov-Dec minus Jan- Oct)	of Error (Difference)			(Nov-Dec minus Jan- Oct)	of Error (Difference)
(%)	(%)	(%)	(+/-)	(%)	(%)	(%)	(+/-)	
<b>Sufficient partial items</b>								
Sex	1.4	1.6	0.15	0.30	1.1	1.5	0.39	0.75
Age/Date of birth	0.2	0.3	<b>0.17</b>	0.15	0.1	0.3	<b>0.15</b>	0.14
Hispanic origin	2.3	1.5	<b>-0.83</b>	0.58	4.7	5.1	0.36	1.34
Race	1.4	0.9	-0.43	0.48	4.4	5.4	1.06	1.28
Marital status	7.0	6.8	-0.23	1.02	7.5	9.6	<b>2.11</b>	1.33
Worked last week	NA	NA	NA	NA	8.1	10.8	<b>2.71</b>	1.81
<b>Other items</b>								
Place of birth	6.1	3.7	<b>-2.39</b>	1.64	8.0	12.4	4.42	5.78
Citizenship	6.7	4.4	<b>-2.27</b>	1.74	7.6	11.7	4.03	5.82
Year of naturalization	62.9	66.7	3.85	6.01	35.4	36.6	1.16	11.96
Year of entry	38.1	39.7	1.65	5.74	19.8	19.9	0.10	4.80
School enrollment	10.1	9.0	-1.04	2.53	6.9	5.5	<b>-1.43</b>	1.24
Grade enrolled	17.3	10.9	<b>-6.33</b>	4.54	4.9	5.0	0.12	1.27
Educational attainment	18.7	15.0	<b>-3.62</b>	2.06	10.3	12.7	2.35	6.06
Ancestry	33.2	29.5	<b>-3.68</b>	2.07	24.7	26.8	2.09	5.81
Language at home	7.0	6.7	-0.31	2.21	7.2	5.9	-1.31	2.09
Type of language spoken	13.4	11.9	-1.54	1.84	12.3	16.4	4.08	6.48
English proficiency	8.0	9.0	0.98	2.46	5.0	5.3	0.30	2.00
Migration	11.3	9.7	-1.61	1.91	12.0	16.6	4.57	6.46
Migration - address	23.9	22.0	-1.81	2.52	16.0	13.8	-2.24	3.16
Migration – city	9.2	8.0	-1.16	1.98	8.5	7.0	-1.51	2.36
Migration – county	20.8	17.5	<b>-3.30</b>	2.32	22.7	19.6	<b>-3.06</b>	3.05
Migration – state	7.5	5.3	<b>-2.14</b>	1.47	7.3	6.6	-0.67	2.31
Migration – zip code	27.0	27.1	0.04	2.64	16.6	13.0	<b>-3.60</b>	2.69
Food stamps	13.2	11.7	-1.43	2.51	12.6	16.7	4.08	6.54
Health insurance – all types combined	11.7	8.0	<b>-3.76</b>	1.17	13.2	16.8	3.61	6.39
Health insurance - employer	15.2	10.5	<b>-4.70</b>	1.46	17.7	19.5	1.78	6.30
Health insurance – insurance company	15.4	10.7	<b>-4.68</b>	1.45	19.8	21.4	1.57	6.30
Health insurance - Medicare	13.0	9.2	<b>-3.85</b>	1.50	19.9	21.0	1.10	6.35
Health insurance – Medicaid	13.6	9.0	<b>-4.62</b>	1.13	19.5	21.1	1.60	6.43
Health insurance – TRICARE	15.3	10.6	<b>-4.71</b>	1.49	20.0	21.5	1.44	6.28
Health insurance – VA	15.2	10.2	<b>-4.92</b>	1.47	20.8	22.0	1.22	6.24
Health insurance – Indian Health Service	15.2	10.3	<b>-4.81</b>	1.47	20.8	21.7	0.95	6.29
Health insurance – other	14.6	10.1	<b>-4.50</b>	1.50	20.6	21.9	1.34	6.27
Disability – hearing	11.6	8.0	<b>-3.67</b>	1.26	10.7	15.8	5.11	6.48
Disability – vision	11.8	8.3	<b>-3.50</b>	1.31	10.8	15.9	5.10	6.48
Disability – mental	11.6	8.2	<b>-3.40</b>	1.30	11.1	16.5	5.36	6.47
Disability – physical	12.3	9.4	<b>-2.96</b>	1.61	11.3	16.6	5.29	6.51
Disability – self care	12.2	9.4	<b>-2.75</b>	1.60	11.1	16.5	5.33	6.50
Disability – going out	12.2	10.6	<b>-1.59</b>	1.50	11.2	16.5	5.31	6.56
Marital event – married	14.5	13.3	-1.17	1.84	16.1	11.9	-4.15	5.41
Marital event – widowed	15.7	14.2	-1.48	1.76	19.5	14.8	-4.74	5.00
Marital event - divorced	15.4	14.1	-1.25	1.72	19.3	13.5	<b>-5.82</b>	4.93
Number of marriages	23.2	23.3	0.19	2.22	17.6	15.5	-2.06	4.60

Year of last marriage	47.5	47.8	0.23	2.87	35.0	32.5	-2.52	5.73
Fertility	14.3	10.2	-4.14	4.49	13.1	18.6	<b>5.55</b>	4.22
Grandchildren – living with	NA	NA	NA	NA	14.7	25.8	11.07	21.49
Grandchildren – responsible for	NA	NA	NA	NA	13.8	13.8	-0.02	22.98
Grandchildren – how long responsible for	NA	NA	NA	NA	17.8	0.0	-17.80	27.07
Military service status	12.9	11.2	-1.64	2.59	10.2	14.7	4.49	6.74
Military period of service	14.6	13.3	-1.27	2.78	4.1	4.7	0.59	3.25
Service-connected disability status	19.2	17.7	-1.54	3.02	8.4	6.0	-2.40	3.31
Service-connected disability rating	23.8	17.8	-6.02	6.98	21.7	30.4	8.72	23.36
Place of work – address	NA	NA	NA	NA	13.9	10.0	-3.88	4.06
Place of work – city	NA	NA	NA	NA	8.2	4.0	<b>-4.10</b>	1.58
Place of work – county	NA	NA	NA	NA	10.4	8.2	-2.18	5.33
Place of work - state	NA	NA	NA	NA	7.6	3.9	<b>-3.68</b>	1.64
Place of work – zip code	NA	NA	NA	NA	13.8	10.4	<b>-3.35</b>	3.25
Means of transportation to work	NA	NA	NA	NA	9.3	6.4	-2.95	3.15
Workers per car, truck, or van	NA	NA	NA	NA	2.1	1.3	-0.79	1.08
Journey to work – hr	NA	NA	NA	NA	31.7	37.3	5.61	10.30
Journey to work – min	NA	NA	NA	NA	31.4	37.2	5.80	10.30
Journey to work – am/pm	NA	NA	NA	NA	31.6	37.0	5.42	10.39
Journey to work – minutes	NA	NA	NA	NA	29.3	36.7	7.34	9.76
Layoff from work	NA	NA	NA	NA	7.5	5.1	<b>-2.45</b>	1.55
Absent from work	NA	NA	NA	NA	1.5	1.0	-0.46	0.56
Recalled to work	NA	NA	NA	NA	18.1	15.0	-3.09	10.31
Looking for work	NA	NA	NA	NA	2.0	1.3	<b>-0.68</b>	0.56
Available to work	NA	NA	NA	NA	3.5	3.9	0.40	1.71
When last worked	15.6	13.9	-1.61	2.79	10.8	9.3	-1.46	4.38
Weeks worked	10.0	7.1	<b>-2.99</b>	1.93	6.3	5.1	-1.22	1.87
Usual hours worked	11.2	9.0	<b>-2.27</b>	2.09	7.0	5.6	-1.40	1.92
Class of worker	13.0	12.3	-0.75	1.98	9.0	7.4	<b>-1.63</b>	1.50
Employer	16.0	13.9	<b>-2.12</b>	1.58	9.2	7.5	<b>-1.70</b>	1.58
Kind of business	12.0	9.5	<b>-2.48</b>	1.35	8.9	7.3	-1.58	2.12
Occupation	11.3	8.4	<b>-2.92</b>	1.37	9.6	7.6	<b>-1.99</b>	1.69
Activities	14.0	10.2	<b>-3.82</b>	1.57	11.1	9.1	<b>-2.04</b>	1.93
Wages	22.2	19.9	-2.35	2.49	23.0	26.9	3.95	5.64
Self employment income	21.6	19.4	-2.22	2.58	18.6	21.8	3.21	6.22
Interest income	27.0	24.7	-2.35	2.36	20.5	23.7	3.17	6.11
Social security income	37.8	34.5	<b>-3.25</b>	2.33	22.4	24.6	2.13	6.32
Supplemental security income	25.4	23.3	-2.08	2.44	20.6	23.3	2.79	6.25
Public assistance	24.2	21.7	-2.43	2.49	19.1	22.7	3.58	6.14
Retirement income	28.0	26.6	-1.38	2.43	19.6	22.5	2.86	6.25
Other income	25.3	23.5	-1.78	2.39	19.5	23.1	3.66	6.16
Total income	41.9	37.8	<b>-4.06</b>	2.17	29.5	30.8	1.30	5.75

\*Statistical significance tested at the 90 percent confidence level

Bold estimates are significantly different.