U.S. Census Bureau

People   Business   Geography   Newsroom   Subjects A to Z

American Community Survey

| **Main** | **About the Survey** | **Guidance for Data Users** | **Data & Documentation** | **Methodology** | **Library** |

Methodology Main

Sample Size and Data Quality

   Sample Size - Data

   Sample Size - Definitions

   Response Rates - Data

   Coverage Rates - Data

   Item Allocation Rates - Data

2006 Content Test

Questionnaire Archive

Sample Size - Data

Hawaii

Select a State [ ]   [Go]

Initial Addresses and Sample Selected and Final Interviews

Download Sample Size

Year	Housing Units		Group Quarters People	
	Initial Addresses Selected	**Final Interviews**	**Initial Sample Selected**	**Final Interviews**
2009	11,822	7,417	983	477
2008	11,721	7,303	918	590
2007	11,924	7,473	807	457
2006	12,054	7,629	833	598
2005	12,295	7,627	N/A	N/A
2004	6,560	4,304	N/A	N/A
2003	6,466	4,230	N/A	N/A
2002	5,808	3,968	N/A	N/A
2001	6,556	4,489	N/A	N/A
2000	6,587	4,119	N/A	N/A

or the letters [xls] indicate a document is in the Microsoft® Excel® Spreadsheet Format (XLS). To view the file, you will need the Microsoft® Excel® Viewer available for **free** from Microsoft®.

GET EMAIL

Contact Us

Frequently Ask

Site Map

Privacy Policy | 2010 Census | Data Tools | Information Quality | Product Catalog

Source: U.S. Census Bureau | American Community Survey Office | Email ACS | Last Revised: September 28, 2010

U.S. Census Bureau

American Community Survey

| Main | About the Survey | Guidance for Data Users | Data & Documentation | Methodology | Library |

Methodology Main

Sample Size and Data Quality

Sample Size - Data

Sample Size - Definitions

Response Rates - Data

Coverage Rates - Data

Item Allocation Rates - Data

2006 Content Test

Questionnaire Archive

Sample Size - Definitions

1. How large is the sample?

The full implementation of the ACS, which began in 2005, samples approximately 2.9 million addresses annually stateside. The PRCS samples approximately 36,000 housing unit address year in Puerto Rico.

The full implementation of the ACS and PRCS Group Quarters data collection began in 2006 approximately 200,000 people living in group quarters annually.

The ACS sampled between 740,000 and 900,000 housing unit addresses annually in 2000 th

2. What is sampling error?

The ACS estimates are based on data from a sample of housing units and people in the popu the full populations. For this reason, ACS estimates have a degree of uncertainty associated called sampling error. In general, the larger the sample, the smaller the level of sampling err

3. Why is it important to measure sampling error?

The estimates produced by the ACS are not exact because they are based on a sample. The error measures the degree of uncertainty associated with the estimates. If the degree of unce large, users should be cautious in how the estimates are used.

4. How does the ACS measure sampling error

The ACS calculates standard errors for each estimate produced and publishes the 90 percer level margins of error (the Census Bureau standard). You can be 90 percent confident that th within the margin of error from the estimate includes the true value. See Accuracy of the Data details on how margin of error and confidence intervals are calculated and interpreted.

5. What other numbers provide important information on the reliability of ACS estimate

Housing Units Initial Addresses Selected - The number of addresses in each state and for that were selected for the ACS sample for a particular year. Each year's sample is systematic into 12 monthly samples for ACS interviewing. This initial number includes addresses later d be commercial or nonexistent, as well as housing units that are not interviewed due to subsa personal visit follow-up, refusals or other reasons.

U.S. Census Bureau

People | Business | Geography | Newsroom | Subjects A to Z

American Community Survey

| Main | About the Survey | Guidance for Data Users | Data & Documentation | Methodology | Library |

Methodology Main

Sample Size and Data Quality

Sample Size - Data

Response Rates - Data

Response Rates - Definitions

Coverage Rates - Data

Item Allocation Rates - Data

2006 Content Test

Questionnaire Archive

Response Rates - Data

Hawaii

Select a State

Download Respons

Response Rates and Reasons for Noninterviews (in percent) — Housing Units

Year	Housing Unit Response Rate	Reasons for Noninterviews					
		Refusal	Unable to Locate	No One Home	Temporarily Absent	Language Problem	In
2009	98.3	0.5	0.0	0.3	0.1	0.0	
2008	97.6	0.7	0.0	0.5	0.1	0.0	
2007	97.3	0.9	0.0	0.5	0.1	0.0	
2006	97.8	0.7	0.1	0.4	0.1	0.1	
2005	97.8	0.8	0.3	0.1	0.2	0.0	
2004	92.8	1.0	0.1	0.1	0.2	0.0	
2003	95.7	2.4	0.1	0.4	0.2	0.0	
2002	98.1	1.1	0.0	0.0	0.1	0.0	
2001	97.5	1.1	0.1	0.2	0.1	0.0	
2000	94.9	1.3	0.0	0.7	0.1	0.1	

Response Rates and Reasons for Noninterviews (in percent) — Group Quarters

Year	Group Quarters (Person) Response Rate	Reasons for Noninterviews				
		GQ Person Refusal	Unable to Locate GQ Person	Resident Temporarily Absent	Language Problem	Insufficient Data
2009	95.8	0.9	0.0	0.0	0.0	0.2
2008	99.0	0.0	0.0	0.0	0.0	0.0
2007	98.7	0.0	0.0	0.0	0.0	0.0
2006	99.1	0.0	0.7	0.0	0.0	0.0

Note: As a result of a reduction in funding in 2004, ACS dropped the telephone and persona operations for the January 2004 panel, thus only allowing mail respondents to contribute to th

U.S. Census Bureau

American Community Survey

| Main | About the Survey | Guidance for Data Users | Data & Documentation | Methodology | Library |

Response Rates - Definitions

1. What is Unit Nonresponse?

Unit nonresponse is the failure to obtain the minimum required information from an eligible h[...] group quarters (GQ) person in the sample. For the ACS, response rates are subtracted from [...] to measure unit nonresponse.

Unit nonresponse occurs when respondents are unable or unwilling to participate, interview[...] unable to locate addresses or respondents, or when other barriers exist to completing the int[...]

2. How does the ACS adjust for unit nonresponse?

The ACS uses noninterview adjustment methods to give a higher weight to interviewed units [...] interviewed GQ persons. See Accuracy of the Data for more information on how the noninter[...] adjustment is calculated.

3. Why is it important to measure unit nonresponse?

We measure it because it has a direct effect on the quality of the data. If the rate of unit nonr[...] high, it increases the chance that the final survey estimates may reflect bias. Estimates may [...] the characteristics of nonresponding units differ from the characteristics of responding units. [...]

4. How does the ACS measure unit nonresponse?

The Census Bureau calculates survey response rates to measure unit nonresponse in the AC[...] **survey response rate** is the ratio of the estimate of units interviewed after data collection is [...] the estimate of all units that should have been interviewed. Separate rates are calculated for [...] response and GQ person response. For housing units, this means all interviews after mail, te[...] personal visit follow-up. For GQ persons, this means all interviews after the personal visit. **Int**[...] include complete and partial interviews with enough information to be processed.

To accurately measure unit nonresponse the ACS must estimate the universe of cases eligib[...] interviewed and the survey noninterviews; that is, all eligible units in personal visit follow-up a[...] appropriate weight as are all the noninterviews.

5. What are the primary reasons for unit nonresponse in the ACS?

The Census Bureau classifies all final noninterviews by one of the following **Reasons for No**[...] to understand why unit nonresponse occurred:

U.S. Census Bureau

People | Business | Geography | Newsroom | Subjects A to Z

American Community Survey

| Main | About the Survey | Guidance for Data Users | Data & Documentation | Methodology | Library |

Methodology Main

Sample Size and Data Quality

Sample Size - Data

Response Rates - Data

Coverage Rates - Data

Coverage Rates - Definitions

Item Allocation Rates - Data

2006 Content Test

Questionnaire Archive

Coverage Rates - Data

Hawaii

Select a State

Download Coverag

Coverage Rates (in percent)

Year	Housing Units Total	Total Population [1] Total	Male
2009	95.8	94.4	91.3
2008	94.8	92.2	92.0
2007	95.4	92.9	90.8
2006	95.7	91.7	90.1
2005	96.6	94.9	95.1
2004	96.4	93.0	92.4
2003	97.4	91.0	89.8
2002	98.3	96.1	96.5
2001	100.8	97.8	96.8
2000	102.2	94.9	94.2

[1] The 2000-2005 population coverage rates exclude the group quarters population since that was not added to the ACS until 2006.

or the letters [xls] indicate a document is in the Microsoft® Excel® Spreadsheet Format (XLS). To view the file, yo Microsoft® Excel® Viewer available for **free** from Microsoft®.

Privacy Policy | 2010 Census | Data Tools | Information Quality | Product Catalog

Source: U.S. Census Bureau | American Community Survey Office | Email ACS | Last Revised: September 28, 2010

U.S. Census Bureau

People | Business | Geography | Newsroom | Subjects A to Z

American Community Survey

| Main | About the Survey | Guidance for Data Users | Data & Documentation | Methodology | Library |

Methodology Main

Sample Size and Data Quality

Sample Size - Data

Response Rates - Data

Coverage Rates - Data

Coverage Rates - Definitions

Item Allocation Rates - Data

2006 Content Test

Questionnaire Archive

Coverage Rates - Definitions

1. What is coverage error?

There are two kinds of coverage error: under-coverage and over-coverage.

Under-coverage exists when housing units or people do not have a chance of being selecte[d] sample.

Over-coverage exists when housing units or people have more than one chance of selection sample, or are included in the sample when they should not have been.

2. How does the ACS reduce coverage error?

The final ACS population estimates are adjusted for coverage error by controlling specific su[r] estimates to independent population controls by sex, age, race, and Hispanic origin.

The final PRCS population estimates are adjusted for coverage error by controlling specific s estimates to independent population control by sex and age.

The ACS housing unit estimates are adjusted for coverage error by controlling the survey est independent housing unit controls for total housing units. Because of subsequent steps in the weighting process, the final ACS housing unit estimates will not agree with the independent h controls.

Refer to Accuracy of the Data to learn more about this weighting procedure.

3. Why is it important to measure coverage error?

If the characteristics of under-covered or over-covered housing units or individuals differ from are selected, the ACS may not provide an accurate picture of the population.

4. How does the ACS measure coverage error?

The Census Bureau calculates coverage rates to measure coverage error in the ACS. The c[overage] is the ratio of the ACS population or housing estimate of an area or group to the independent that area or group, times 100.

Coverage rates for the total resident population are calculated by sex at the national, state, a Rico levels, and at the national level only for total Hispanics, and non-Hispanics crossed by t race categories: White, Black, American Indian and Alaska Native, Asian, and Native Hawaii[an]

U.S. Census Bureau

People | Business | Geography | Newsroom | Subjects A to

American Community Survey

| Main | About the Survey | Guidance for Data Users | Data & Documentation | Methodology | Library |

Methodology Main

Sample Size and Data Quality

Sample Size - Data

Response Rates - Data

Coverage Rates - Data

Item Allocation Rates - Data

Item Allocation Rates - Definitions

2006 Content Test

Questionnaire Archive

Item Allocation Rates - Data

Hawaii

Select a State

Download Allocatio

| 2005 through 2009 | 2000 through 2004 |

Housing: Overall | Physical Characteristics | Utilities | Special Programs | Mortgage Items
Other Financial Characteristics

Population: Overall | Basic Demographics | Origin and Language | Education | Mobility a
Migration | Health Insurance | Disability | Grandparents and Fertility | Military | Labor Forc
Journey to Work | Industry and Occupation | Income

Item Allocation Rates 2005 through 2009 for Hawaii					
Overall	**Percent Allocated**				
Item	**2009**	**2008**	**2007**	**2006**	**2**
Overall housing allocation rate occupied and vacant housing units	4.5	4.8	5.6	5.3	
Overall person allocation rate total population	5.3	6.9	5.4	4.6	

Back to the

Housing: Physical Characteristics	**Percent Allocated**				
Item	**2009**	**2008**	**2007**	**2006**	**2**
Vacancy status vacant housing units	2.1	1.1	1.2	2.1	
Tenure occupied housing units	0.5	0.8	0.7	0.7	
Units in structure occupied and vacant housing units	1.8	1.7	2.1	1.9	
Year moved in occupied housing units	2.5	2.2	3.3	3.2	
Month moved in	0.5	1.2	1.0	0.9	

American Community Survey

You are here: **Census.gov** › **American Community Survey** › **Methodology** › **Sample Size and Data Quality** › **Item Allocation Rates - Data** › Item Allocation Rates - Definitions

| **Main** | **About the Survey** | **Guidance for Data Users** | **Data & Documentation** | **Methodology** | **Library** |

Methodology Main

Sample Size and Data Quality

Sample Size - Data

Response Rates - Data

Coverage Rates - Data

Item Allocation Rates - Data

Item Allocation Rates - Definitions

2006 Content Test

Questionnaire Archive

Item Allocation Rates - Definitions

1. What is item nonresponse?

Missing data for a particular question or item is called item nonresponse. It occurs when a re to provide an answer to a required item. The ACS also considers invalid answers as item nor

2. How does the ACS correct for item nonresponse?

The Census Bureau uses imputation methods that either use rules to determine acceptable a use answers from similar housing units or people who provided the item information. The firs methods is known as "assignment," while the second is referred to as "allocation."

Assignment involves logical imputation where a response to one question implies the value response to another question. For example, first name can often be used to assign a value to

Allocation, on the other hand, involves using statistical procedures, such as within-househo neighbor matrices populated by donors, to impute for missing values.

3. Why is it important to measure item nonresponse?

Item nonresponse measures allow data users to judge the completeness of the data in which estimates are based. Final estimates can be adversely impacted when item nonresponse is I can be introduced if the characteristics of the nonrespondents differ from those reported by r Item nonresponse and unit nonresponse both contribute to potential bias in the estimates.

4. How does the ACS measure item nonresponse?

Item nonresponse is measured through the calculation of allocation rates which are publishe survey estimates. The Census Bureau calculates measures of item nonresponse for two dist universes. The American Factfinder (AFF) includes allocation tables specific to the tabulation This Quality Measures Web page includes allocation rates for the universe that was eligible f imputation. In some instances these will be the same, but in many instances they will differ. F we edit and impute data collected for educational attainment for the total population 3 years a that is the universe referenced to calculate the allocation rates shown on the Quality Measure However, the tables for educational attainment in the AFF are restricted to the population age therefore the imputation tables on AFF are restricted to this universe. The specific universe a with each of these Quality Measures are shown in the tables, displayed below the title of eac