



The American Community Survey: Development, Implementation, and Issues for Congress

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Summary

The American Community Survey (ACS), implemented nationwide in 2005 and 2006, is the U.S. Bureau of the Census's (Census Bureau's) replacement for the decennial census long form, which, from 1940 to 2000, gathered detailed socioeconomic and housing data from a representative population sample in conjunction with the once-a-decade count of all U.S. residents. Unlike the long form, with its approximately 17% sample of U.S. housing units in 2000, the ACS is a "rolling sample" or "continuous measurement" survey of about 295,000 housing units a month, totaling about 3.54 million a year (an increase from the 2005 to 2011 sample size of about 250,000 housing units monthly, totaling about 3 million annually). The data are aggregated to produce one-year, three-year, and five-year estimates. As were the long-form data, ACS estimates are used in program formulas that determine the annual allocation of certain federal funds, currently more than \$450 billion, to states and localities.

The ACS has several other features in common with the long form: the topics covered are largely the same; responses are mandatory; and the Bureau may follow up, by telephone or in-person visits, with households that do not submit completed questionnaires. The ACS is conducted under the authority of Title 13, *United States Code*, Sections 141 and 193; so was the long form. Title 44, Section 3501, the Paperwork Reduction Act of 1995, and its implementing regulations require federal agencies to obtain Office of Management and Budget approval before collecting information from the public. On the long form, the Bureau could gather only data that were mandatory for particular programs, required by federal law or regulations, or needed for the Bureau's operations. Likewise, the ACS can collect only necessary information.

The limited ACS sample size makes longer cumulations of data necessary to generate reliable estimates for less populous areas. Yearly averages have been available since 2006, but only for geographic areas with 65,000 or more people. The first three-year period estimates were released in 2008 for areas with at least 20,000 people. The first five-year averages became available in 2010 for areas from the most populous to those with fewer than 20,000 people. A concern noted by some data users is that the ACS sample size results in less-detailed five-year data products for smaller geographic areas—census tracts and block groups—than were available every 10 years from the long form. A related issue is data quality, especially for small areas.

An ongoing concern for some Members of Congress and their constituents is that responses to the ACS are required. The Bureau's 2003 test of a voluntary versus mandatory ACS showed a 20.7-percentage-point drop in the overall ACS response rate when answers were optional. The Bureau estimated in 2003 and 2004 that if the survey became voluntary, maintaining data reliability would necessitate increasing the planned annual sample size from about 3 million to 3.7 million housing units, at an additional cost of \$59.2 million per year in FY2005 dollars (re-estimated at \$66.5 million per year, as of FY2011). In the 113th Congress, companion bills H.R. 1078, introduced on March 12, 2013, by Representative Ted Poe, and S. 530, introduced on the same day by Senator Rand Paul, would make almost all ACS responses optional. H.R. 1638, introduced on April 18, 2013, by Representative Jeff Duncan, would repeal the authority of the Department of Commerce Secretary and the Census Bureau, a Commerce Department agency, to conduct the ACS and any other surveys or censuses except the decennial census. This census would be limited to counting the total population of every state. No action beyond committee referrals and one subcommittee referral has occurred on the bills.

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Introduction

In the mid-1990s, the U.S. Bureau of the Census (Census Bureau) began developing and testing a new means of data collection called a “rolling sample” or “continuous measurement” survey¹ that became the American Community Survey (ACS). Implemented nationwide in 2005 and 2006, the ACS currently collects data from a representative sample of about 295,000 housing units a month, totaling about 3.54 million a year (an increase from the 2005 to 2011 sample size of approximately 250,000 housing units monthly, totaling about 3 million annually). The data are aggregated over time to produce large enough samples for reliable² estimates, with longer cumulations of data necessary in less populous areas. The Bureau issues one-year estimates for the most populous areas, those with at least 65,000 people; three-year estimates for areas with 20,000 or more people; and five-year estimates for areas from the most populous to those having fewer than 20,000 residents.

Although conducted separately from the once-a-decade count of the whole U.S. population, the ACS is considered a part of the decennial census program³ because it replaced the census long form, which covered a representative sample of housing units every 10 years from 1940 through 2000.⁴ In the 2000 census, a set of basic questions on a short form went to most housing units; a sample of units—about 17% overall—received a long form containing the short-form questions and additional questions that collected detailed data on socioeconomic and housing characteristics. The data served myriad governmental, business, and research purposes and were used in program formulas that determined the annual allocation of various federal funds to states and localities. ACS data, which serve the same purposes but are much more current than the long-form estimates were, are used to distribute more than \$450 billion a year in funding.⁵ Thus, the timeliness and quality of ACS data are important for many reasons, but especially to promote the equitable allocation of scarce public resources.

¹ The idea for a rolling sample survey originated with statistician Leslie Kish. When interviewed toward the end of his life, Kish described the concept this way: “I want to call it rolling sample or rolling census because instead of taking the sample or census all at once, as you go through successive periods, you roll the samples gradually over the whole population. The name gives the idea.” Martin Frankel and Benjamin King, “A Conversation with Leslie Kish,” *Statistical Science*, vol. 11, no. 1 (February 1996), p. 79. For further discussion, see Leslie Kish, “Population Counts from Cumulated Samples,” pp. 5-50 in U.S. Congress, House Committee on Post Office and Civil Service, Subcommittee on Census and Population, *Using Cumulated Rolling Samples to Integrate Census and Survey Operations of the Census Bureau: An Analysis, Review, and Response*, committee print, 97th Cong., 1st sess., June 26, 1981, CP 97-2 (Washington: GPO, 1981).

The Census Bureau has explained the rolling sample concept as follows: “A rolling sample design jointly selects k nonoverlapping probability samples, each of which constitutes $1/F$ of the entire population. One sample is interviewed each time period until all of the sample has been interviewed after k periods.” U.S. Census Bureau, *American Community Survey, Design and Methodology* (Washington: GPO, 2009), glossary, p. 13.

² “An indicator is reliable if it consistently assigns the same numbers to some phenomenon.” Kenneth J. Meier and Jeffrey L. Brunei, *Applied Statistics for Public Administration* (Belmont, CA: Wadsworth, Inc., 1987), p. 98.

³ U.S. Census Bureau, “Policy on New Content for the American Community Survey,” p. 1, at http://www.census.gov/acs/www/Downloads/operations_admin/ACS_Content_Policy.pdf.

⁴ U.S. Census Bureau, *American Community Survey, Design and Methodology* (Washington: GPO, 2009), p. iii.

⁵ Testimony of then-Census Bureau Director Robert M. Groves in U.S. Congress, House Committee on Oversight and Government Reform, Subcommittee on Health Care, District of Columbia, Census, and the National Archives, *The Pros and Cons of Making the Census Bureau’s American Community Survey Voluntary*, hearing, 112th Cong., 2nd sess., March 6, 2012, at <http://oversight.house.gov/wp-content/uploads/2012/03/3-6-12-Census-Groves.pdf>. Dr. Groves left the Bureau on August 10, 2012. Thomas L. Mesenbourg Jr. is the Bureau’s acting Director.

Discussing in 2001 how the ACS evolved, the late Charles H. Alexander of the Census Bureau recalled that in the early 1990s

[t]here was renewed Congressional interest in intercensal characteristics data ... and a “continuous measurement” alternative to the census long form was considered as part of the research for Census 2000, starting in 1992. [The] rolling sample design was eventually proposed for this purpose because it provided flexibility in making estimates, as well as the potential for efficient data collection.... “Continuous Measurement” was later renamed the “American Community Survey.... ”

The proposed ACS was not adopted for Census 2000, but after limited testing during 1996-1998, the ACS methodology was implemented in 36 counties for the years 1999-2001, so that ACS results could be compared to the 2000 census long form data. There was also a large-scale test in 2000, for a state-representative annual sample ... called the Census 2000 Supplementary Survey, of collecting long-form data separately from the census, using the ACS questionnaire.⁶

He explained that

[f]or the main ACS objective, to replace the census long form as a source of detailed descriptive statistics, we plan to use 5-year ACS cumulations, for a data product similar to traditional long form “summary files”. This is the shortest time period for which the ACS sampling error is judged to be reasonably close to that of the census long form. All sizes and types of geographic areas would be included on these 5-year data files....

For individual areas, the most prominently published data will be one-year averages for areas greater than 65,000 population, and 3-year averages for areas greater than 20,000, in addition to the 5-year averages for all areas.⁷

Reasons for Adopting the ACS

The Census Bureau had two main reasons for replacing the long form with the ACS. First was the intention to increase public acceptance of, and response to, the decennial enumeration by decoupling the count of the whole population from the sample-survey part of the census.⁸ The Bureau strives, never entirely successfully, to achieve a complete count because it is a constitutional requirement for apportioning seats in the U.S. House of Representatives, and because the data serve many other important national, state, and local purposes.⁹ According to a

⁶ Charles H. Alexander, “Still Rolling: Leslie Kish’s ‘Rolling Samples’ and the American Community Survey,” *Survey Methodology*, vol. 28, no. 1 (June 2002), p. 36; the article earlier was a paper presented at the Proceedings of Statistics Canada Symposium 2001, Achieving Data Quality in a Statistical Agency: A Methodological Perspective.

⁷ *Ibid.*, p. 38.

⁸ See, for example, testimony of then-Census Bureau Director Kenneth Prewitt in U.S. Congress, House Committee on Government Reform, Subcommittee on the Census, *The American Community Survey—A Replacement for the Census Long Form?*, hearing, 106th Cong., 2nd sess., July 20, 2000, no. 106-246 (Washington: GPO, 2001), p. 29: “The ACS will revolutionize the way we take the decennial census and for the better. With good reason, the Congress has been concerned that the long form is a drag on the decennial census, that it introduces a complication in carrying out the basic constitutional purpose of the census. The best solution is to radically simplify the census by eliminating the long form.”

⁹ Article I, Section 2, clause 3 of the Constitution, as modified by Section 2 of the Fourteenth Amendment, mandates a count of the “whole number of persons in each State” every 10 years for House apportionment. Decennial census data (continued...)

2008 Government Accountability Office (GAO) report on the projected mail response rate¹⁰ of 69% for the 2010 census, the Bureau calculated that eliminating the long form and moving to a short-form-only census would add one percentage point to the 2000 census initial mail return rate of 65%.¹¹ The second reason for adopting the ACS was to produce more timely information,¹² which was particularly needed in program formulas used to distribute certain federal funds to states and localities. Detailed socioeconomic and housing data not only were collected just once a decade on the long form, but also were up to three years old by the time the Bureau processed and released them. In 1976, Congress authorized,¹³ but did not fund, a mid-decade census that would have provided more current data.¹⁴ The ACS could be viewed as substituting for the never-implemented mid-decade census as well as the long form.

Development and Launching of the ACS

Before the ACS became fully operational, in 2005 and 2006, it underwent extensive development and testing, which began in the mid-1990s. The steps that led to full implementation are discussed briefly below.

(...continued)

are used, too, for within-state redistricting and, like ACS data, as a component of certain program formulas that determine the annual allocation of more than \$450 billion in federal funds to states and localities. For background information about the decennial census and a discussion of the 2010 census, see CRS Report R40551, *The 2010 Decennial Census: Background and Issues*, by Jennifer D. Williams.

¹⁰ The “mail response rate” is “the percentage of census forms completed and returned for all housing units that were on the Bureau’s address file eligible to receive a census questionnaire delivered by mail or by a census enumerator. The denominator used in calculating the response rate includes vacant housing units” and other addresses where questionnaires were determined to be “undeliverable” or that were “deleted through other census operations.” U.S. Government Accountability Office, *2010 Census: Census Bureau Needs Procedures for Estimating the Response Rate and Selecting for Testing Methods to Increase Response Rate*, GAO-08-1012, September 2008, p. 6. Another measure of response is the “mail return rate,” the percentage of questionnaires completed and returned from “occupied housing units with deliverable addresses.” *Ibid.*, footnote 6, p. 6.

¹¹ When the Bureau compared 2000 census short-form and long-form mail response rates, it found a nine-percentage-point higher rate for the short form. Constance F. Citro, Daniel L. Cork, and Janet L. Norwood, eds., *The 2000 Census: Counting Under Adversity* (Washington: National Academies Press, 2004), p. 100. Because the long form went to only about 17% of housing units in 2000, however, its “overall effect on the response rate estimate was small....” U.S. Government Accountability Office, *2010 Census: Census Bureau Needs Procedures for Estimating the Response Rate and Selecting for Testing Methods to Increase Response Rate*, GAO-08-1012, September 2008, pp. 12-13.

The Bureau’s projected mail response rate of 69% for the 2010 census was based on more than limiting the census to a short form, for a one-percentage-point increase over the initial 65% response rate in 2000. The projection also assumed a seven-percentage-point increase in 2010 from mailing replacement questionnaires to selected nonresponding households and a four-percentage-point decrease because of generally declining public participation in surveys. *Ibid.*, p. 12.

The National Academy of Sciences’ Committee on National Statistics, Panel to Review the 2000 Census, reported a mail response rate of 67%, two percentage points higher than the earlier-reported 65% rate. Constance F. Citro, Daniel L. Cork, and Janet L. Norwood, eds., *The 2000 Census: Counting Under Adversity* (Washington: National Academies Press, 2004), p. 100.

¹² U.S. Census Bureau, *American Community Survey, Design and Methodology* (Washington: GPO, 2009), p. 2-1.

¹³ An act to Amend Title 13, *United States Code*, to Provide for a Mid-Decade Census of Population, and for Other Purposes, P.L. 94-521; 90 Stat. 2459; 13 U.S.C. 141(d).

¹⁴ U.S. Census Bureau, *American Community Survey, Design and Methodology* (Washington: GPO, 2009), p. 2-1.

Developing a Prototype

The Bureau's ACS designers decided, while developing a prototype of the survey, that it would have several features in common with the decennial census: survey questionnaires would be mailed to housing units, and completed questionnaires would be returned by mail;¹⁵ responses would be mandatory; and the Bureau would follow up, by telephone and, as necessary, in-person visits, with households that did not fill out and return their questionnaires.¹⁶

Unlike the census, however, the ACS would collect data continuously from independent monthly samples of the population and would aggregate the data over time to produce estimates¹⁷ that would be controlled to population and housing estimates.¹⁸ The designers "initially suggested" an ACS sample size of 500,000 housing units per month, but rejected it as prohibitively expensive and "determined that a monthly sample size of 250,000 would generate an acceptable level of reliability."¹⁹

Early Testing

Limited testing of ACS operations began in 1995 in Rockland County, New York; Brevard County, Florida; Multnomah County, Oregon; and Fulton County, Pennsylvania.²⁰

In 1996, the Bureau extended testing to areas with varied geographic and demographic characteristics, including Harris County, Texas; Fort Bend County, Texas; Douglas County, Nebraska; Franklin County, Ohio; and Otero County, New Mexico. This testing led to further

¹⁵ The Internet response option for the ACS, which the Bureau introduced in January 2013, altered the mail-out, mail-back feature of the survey. Now, the Bureau sends a letter notifying most households selected to participate in the ACS that they can access and complete the survey online. Any household that does so within about two weeks of receiving the notification letter does not receive a questionnaire by mail. Any household that does not respond online within this time frame receives a mailed questionnaire with instructions to answer and return it by mail. U.S. Census Bureau, "Census Bureau to Offer American Community Survey Internet Response," press release CB12-247, December 17, 2012.

¹⁶ U.S. Census Bureau, *American Community Survey, Design and Methodology* (Washington: GPO, 2009), p. 2-1. The Bureau attempts to reach all nonrespondents by telephone, but conducts personal visits with a subsample of the original ACS sample who have not answered the survey.

¹⁷ *Ibid.*, p. 2-2.

¹⁸ The Bureau has explained "controlled" estimates as follows: "During the ACS weighting process, the official county-level population and housing unit estimates are used as controls. Weights are adjusted so that ACS estimates conform to these controls. This is done to improve person and housing unit coverage and to reduce the variability of the ACS estimates. Total population and total housing unit estimates are controlled for states and counties. Combinations of age, sex, [race,] and Hispanic origin may also be controlled." U.S. Census Bureau, "American FactFinder, Glossary," at http://factfinder2.census.gov/help/en/american_factfinder_help.htm#glossary/glossary.htm.

The Bureau's population estimates program, which is separate from the ACS, produces the official annual estimates of the resident population for the total United States, states and the District of Columbia, counties, incorporated places and minor civil divisions, and metropolitan areas. Estimates by basic population characteristics—age, sex, race, and Hispanic ethnicity—are available yearly for the nation, states and the District of Columbia, and counties. The estimates are benchmarked to the most recent decennial census and rely mainly on administrative records, such as birth and death records from the National Center for Health Statistics, Medicare enrollment data, and Internal Revenue Service tax return data on addresses, to update the census numbers. U.S. Census Bureau, "Population Estimates," at <http://www.census.gov/popest/estimates.html>.

¹⁹ U.S. Census Bureau, *American Community Survey, Design and Methodology* (Washington: GPO, 2009), p. 2-1.

²⁰ *Ibid.*, p. 2-2.

research into small-area estimation, estimation methods, nonresponse follow-up, weighting in ACS tests, item nonresponse, response rates, and the quality of data for rural areas.²¹

In 1998, operational testing expanded to Kershaw County, South Carolina; Richland County, South Carolina; and Broward County (which the Bureau substituted for Brevard County), Florida. Adding the two South Carolina counties enabled the Bureau to compare ACS test data with results from the 1998 dress rehearsal for the 2000 census, which included these counties.²²

Testing was extended in 1999 to 36 counties in 26 states, “selected to represent different combinations of county population size, difficulty of enumeration, and 1990-1995 population growth,” as well as “racial and ethnic diversity, migrant or seasonal populations, American Indian reservations, changing economic conditions, and predominant occupation or industry types.”²³ In addition, during 1999 and 2001, the 36 counties were test sites for enumerating residents of group quarters (GQs), such as college residence halls, residential treatment centers, skilled nursing facilities, group homes, military barracks, correctional facilities, and workers’ dormitories; and facilities for homeless people.²⁴ These tests, which concentrated on the methodology for visiting group quarters, selecting samples of residents, and conducting interviews,²⁵ “led to modification of sampling techniques and revisions to data collection methods.”²⁶

Although the primary objective of this testing phase “was to determine the viability of the methodologies utilized, it also generated usable data.”²⁷ Data were released in 1999 on “demographic, social, economic, and housing topics.”²⁸

The Demonstration Phase

In 2000, the Bureau undertook a larger-scale test, or demonstration, originally called the “Census 2000 Supplementary Survey,”²⁹ to “assure Congress and other data users” that nationwide

²¹ Ibid.

²² Ibid.

²³ Ibid.

²⁴ The Bureau classifies living quarters as either housing units, by far the dominant type, or group quarters. A group-quarters facility is “owned or managed by an entity or organization providing housing and/or services for the residents. These services may include custodial or medical care, as well as other types of assistance, and residency is commonly restricted to those receiving these services.” Ibid., p. 8-1.

The ACS does not include certain types of group quarters: “domestic violence shelters, soup kitchens, regularly scheduled mobile food vans, targeted nonsheltered outdoor locations, crews of commercial maritime vessels, natural disaster shelters, and dangerous encampments.” They are excluded due to “[c]oncerns about privacy and the operational feasibility of repeated interviewing for a continuing survey, rather than once a decade for a census....” “ACS estimates of the total population,” however, “are controlled to be consistent with the Population Estimates Program estimate of the GQ resident population from all GQs, even those excluded from the ACS.” Ibid., p. 4-9.

²⁵ ACS group-quarters data collection differs from the operation used for most housing units. Group-quarters data are gathered by field representatives, who “may obtain the facility information by conducting either a personal visit or a telephone interview with the GQ contact.” This interview determines whether the field representative “samples all, some, or none of the residents at a sampled facility for person-level interviews.” Ibid., p. 8-1.

²⁶ Ibid., p. 2-2.

²⁷ Ibid., p. 2-3.

²⁸ Ibid.

²⁹ See Charles H. Alexander, “Still Rolling: Leslie Kish’s ‘Rolling Samples’ and the American Community Survey,” *Survey Methodology*, vol. 28, no. 1 (June 2002), p. 36.

implementation of the ACS was feasible and that the rolling sample survey could produce information comparable in quality and reliability to long-form data.³⁰

The demonstration was conducted in 1,239 of the nation's 3,141 counties, the 36 ACS test counties and 1,203 newly added counties. The number of housing units sampled annually increased from 165,000 in 1999 to 866,000 in 2000.

From 2001 through 2004, the Bureau issued 11 reports analyzing various aspects of the demonstration phase.³¹ Overall, according to this analysis, the demonstration showed the ACS to be a success and supported proceeding with it, but with certain refinements. The demonstration's "planned tasks were completed on time and within budget, and the data collected met basic Census Bureau quality standards."³² The ACS "was well-managed, was achieving the desired response rates, and had functional quality control procedures."³³ The ACS and census 2000 long-form estimates of economic characteristics were comparable. The same was true of social characteristics, except for the estimates of disability and ancestry. The analysis recommended further research concerning these discrepancies, and other research to reduce variance³⁴ in ACS estimates below the county level of geography.³⁵ Moreover, the analysis found that although the "ACS methodology was sound, its improvement needed to be an ongoing activity."³⁶

At congressional direction,³⁷ part of the demonstration involved a test of voluntary versus mandatory compliance with the ACS. The test and its results, which have implications for ACS response rates, survey costs, and data reliability, are discussed later in this report.

Full Implementation

Full implementation of the housing unit component of the ACS occurred in January 2005, with the survey's expansion to all 3,141 U.S. counties³⁸ and coverage of approximately 250,000 housing units per month, for a total of about 3 million a year.³⁹ In January 2006, with an annual

³⁰ U.S. Census Bureau, *American Community Survey, Design and Methodology* (Washington: GPO, 2009), p. 2-3.

³¹ The 11 reports are available on the Bureau's website. See U.S. Census Bureau, *Meeting 21st Century Demographic Data Needs—Implementing the American Community Survey*, at http://www.census.gov/acs/www/library/by_series/implementing_the_acs/. The topics include assessments of ACS operational feasibility and survey quality and comparisons of ACS with 2000 census demographic, social, economic, and housing characteristics.

³² U.S. Census Bureau, *American Community Survey, Design and Methodology* (Washington: GPO, 2009), p. 2-3.

³³ *Ibid.*

³⁴ "Sampling error," as the Bureau has explained, "is the difference between an estimate based on a sample and the corresponding value that would be obtained if the estimate were based on the entire population.... Measures of the magnitude of sampling error, such as the variance and the standard error (the square root of the variance), reflect the variation in the estimates over all possible samples that could have been selected from the population using the same sampling methodology." *Ibid.*, p. 12-1.

³⁵ *Ibid.*, p. 2-4.

³⁶ *Ibid.*, p. 2-3.

³⁷ U.S. Congress, Conference Committee, *Making Further Continuing Appropriations for the Fiscal Year 2003, and for Other Purposes* (Consolidated Appropriations Resolution, 2003), conference report to accompany H.J.Res. 2, 108th Cong., 1st sess., H.Rept. 108-10 (Washington: GPO, 2003), p. 689.

³⁸ Also in 2005, the Puerto Rico Community Survey, the ACS-equivalent there, expanded to all 78 Puerto Rican municipios. The present report discusses only the ACS in the 50 states and the District of Columbia.

³⁹ As previously noted, the current ACS sample size is about 295,000 housing units per month, totaling about 3.54 million per year.

sample of approximately 20,000 group quarters, the Bureau fully implemented this part of the ACS.⁴⁰

ACS Data Releases on the Web

In mid-2006, the Bureau began releasing, on its American FactFinder website,⁴¹ annual ACS population and housing unit profiles for geographic areas—including congressional districts—with 65,000 or more people.⁴² An estimate released in any given year is a period estimate, an average of data collected in every month during the previous year. Thus, for example, the data issued in 2006 represent information gathered throughout 2005, not at a particular point in 2005.

The first three-year period estimates, for areas with at least 20,000 people, became available in 2008. They represent data collected in 2005, 2006, and 2007.⁴³ The second three-year set, released in 2009, covers 2006 through 2008.⁴⁴ The latest three-year averages, for 2009 through 2011, were released on October 25, 2012.⁴⁵

In areas with fewer than 20,000 people, generating an ACS sample large enough to provide estimates similar in accuracy to long-form estimates requires, as noted at the beginning of this report, data collection over a five-year period.⁴⁶ The first five-year averages, of data gathered from 2005 through 2009, were released on December 14, 2010,⁴⁷ and five-year estimates are to be made available in every subsequent year. Accordingly, on December 6, 2012, the Bureau posted the most recent five-year averages, for 2007 through 2011.⁴⁸

The many tables of ACS data shown in American FactFinder include, beside each estimate, the margin of sampling error associated with it. As the Bureau has explained, “a *margin of error* is the difference between an *estimate* and its *upper* or *lower confidence bounds*. Confidence bounds can be created by adding the margin of error to the estimate (for an upper bound) and subtracting the margin of error from the estimate (for a lower bound).”⁴⁹ All published margins of error for the ACS are based on a 90% confidence level. That is, the data user can be 90% certain that the true value of an ACS estimate lies between its upper and lower confidence bounds.⁵⁰ The Bureau

⁴⁰ U.S. Census Bureau, *American Community Survey, Design and Methodology* (Washington: GPO, 2009), pp. 2-1 and 2-4.

⁴¹ U.S. Census Bureau, “American FactFinder,” at <http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml>.

⁴² U.S. Census Bureau, *American Community Survey, Design and Methodology* (Washington: GPO, 2009), p. 2-4.

⁴³ *Ibid.*

⁴⁴ U.S. Census Bureau, “American Community Survey, 2008 Release Schedule,” at http://www.census.gov/acs/www/data_documentation/2008_release_schedule/.

⁴⁵ U.S. Census Bureau, “American FactFinder, News and Notes,” at http://factfinder2.census.gov/faces/nav/jsf/pages/newsandnotes_listing.xhtml.

⁴⁶ U.S. Census Bureau, *A Compass for Understanding and Using American Community Survey Data: What Congress Needs to Know* (Washington: GPO, 2008), p. 5.

⁴⁷ U.S. Census Bureau, “American Community Survey, 2005-2009 ACS 5-Year Estimates,” at http://www.census.gov/acs/www/data_documentation/2009_release/.

⁴⁸ U.S. Census Bureau, “American FactFinder, News and Notes,” at http://factfinder2.census.gov/faces/nav/jsf/pages/newsandnotes_listing.xhtml.

⁴⁹ U.S. Census Bureau, “Quick Guide to the American Community Survey (ACS) Products in American FactFinder,” September 2010, pp. 12-13. Italics in original.

⁵⁰ *Ibid.*, p. 13. Nonsampling error, the other component of total survey error, includes “errors that occur during data (continued...)”

gave the following illustration using a one-year estimate from 2007. The estimate for the percentage of children under age 18 below the poverty level in Mississippi “is 29.3% and the margin of error is +/- 1.2.” The data user can be 90% “certain that the true value is between 28.1% and 30.5%. This is calculated by first subtracting the margin of error (1.2%) from the estimate (29.3%), giving the lower bound for the estimate (28.1%).” Then, to calculate the upper bound, the data user adds “the margin of error (1.2%) to the estimate (29.3%), to get 30.5%.”⁵¹

The Determination of Questionnaire Contents

Those who access ACS data tables in American FactFinder will see that the survey covers a broad array of topics, which are summarized in the **Appendix** to this report. The brief explanation or description after each topic was adapted from the ACS questionnaire. Although—as the **Appendix** indicates—the questionnaire is quite detailed, the items on it, like the predecessor long-form items, underwent a precise selection process. A 2006 policy statement by the Bureau⁵² pointed out that Title 44, *United States Code*, Section 3501, the Paperwork Reduction Act of 1995 (PRA), and its implementing regulations⁵³ require federal agencies to obtain Office of Management and Budget (OMB) approval before collecting information from the public.

On the long form, the Bureau could ask only for data that were

- mandatory: “a current federal law ... explicitly called for the use of decennial census data for a particular federal program”;
- required: “it was unequivocally clear that a federal law (or implementing regulation) required the use of specific data and the decennial census was the historical or only source of data”; or
- programmatic: “the data were necessary for Census Bureau operational needs.”⁵⁴

“In accordance with the PRA,” the policy statement continued, “the OMB, in consultation with the Census Bureau, is responsible for approving new content for the ACS.”⁵⁵ Factors to be considered include

frequency of data collection; the level of geography needed ... and whether any other source of data would meet the requestor’s need in lieu of ... the ACS. The Census Bureau recognizes and appreciates the interests of federal partners and stakeholders in the collection of data on the ACS. The fact that respondents’ participation ... is mandatory requires that the OMB will only approve, and the Census Bureau will only ask, necessary questions. On a periodic basis,

(...continued)

collection (for example, nonresponse error, response error, and interviewer error) or data capture....” U.S. Census Bureau, *American Community Survey, Design and Methodology* (Washington: GPO, 2009), glossary, p. 11.

⁵¹ U.S. Census Bureau, “Quick Guide to the American Community Survey (ACS) Products in American FactFinder,” September 2010, p. 13.

⁵² U.S. Census Bureau, “Policy on New Content for the American Community Survey,” p. 1, at http://www.census.gov/acs/www/Downloads/operations_admin/ACS_Content_Policy.pdf.

⁵³ 5 C.F.R. part 1320.

⁵⁴ U.S. Census Bureau, “Policy on New Content for the American Community Survey,” p. 2, at http://www.census.gov/acs/www/Downloads/operations_admin/ACS_Content_Policy.pdf.

⁵⁵ *Ibid.*, p. 3.

the Census Bureau will reassess the questions contained on the ACS to ensure that this survey remains the appropriate vehicle for collection of these data. The OMB's responsibility under the PRA requires that practical utility of the data be demonstrated and that the respondent burden be kept to a minimum. As such, the Census Bureau will refer all agency requests for new content to the OMB.⁵⁶

The Bureau's website⁵⁷ reproduces each item from the ACS questionnaire and describes in general terms how the resulting data are used, including, as mentioned at the beginning of this report, in program formulas that determine the distribution of more than \$450 billion a year in certain federal funds to states and localities. Below are several examples of these program uses, paraphrased from the Bureau's descriptions.

- Various federal agencies use information about disability status to develop programs and distribute funds, such as grants based on the number of elderly people with physical and mental disabilities and funds for mass transit systems to provide facilities for the handicapped.
- Income data are part of the federal allocation formulas for many programs. Among other purposes, these data are used to allocate funds for home energy aid; provide funds for housing assistance; identify localities eligible for grants to promote economic recovery and conduct job-training programs; provide local agencies with funds for food, health care, and legal services for the low-income elderly; allocate funds for food, health care, and classes in meal planning to low-income women with children; and distribute funds to counties and school districts to improve the education of children from low-income households.
- Data on veteran status are used to distribute funds to states and localities for veterans' employment and job training programs.
- Data on language are the basis for allocating grants to school districts to benefit children with limited English proficiency.
- Data about plumbing facilities are used as one variable in assessing the quality of housing stock; an additional use is to allocate federal housing subsidies.

Issues Concerning the ACS

Tension is inherent between the amount, quality, timeliness, and geographic coverage of data that the ACS provides, and the public cost—in both dollars and respondent burden—of gathering the information. Larger samples can provide better data and better coverage across different levels of geography, but they are more expensive and involve more respondents. Gathering a large amount

⁵⁶ Ibid., p. 2.

A document that provides the statutory and regulatory authority for all ACS questions is available on OMB's website at <http://www.whitehouse.gov/sites/default/files/omb/inforeg/memos/statutory-and-regulatory-authority-for-questions-asked-in-the-american-community-survey.pdf>. An attached OMB memorandum, dated June 26, 2012, and addressed to "The Heads of Selected Executive Departments and Agencies," announces that they are to review and, if necessary, revise this document. The results of this initiative have not been announced.

⁵⁷ See U.S. Census Bureau, "Questions on the Form and Why We Ask," at http://www.census.gov/acs/www/about_the_survey/questions_and_why_we_ask/.

of data monthly and aggregating it over one-, three-, and five-year intervals yields detailed, relatively current information, but also at considerable cost.

Sample Size

In a March 2009 *Federal Register* notice, the Bureau announced and sought public comments on its plans for releasing 2005 through 2009 ACS data products.⁵⁸ According to the notice, the release was to “achieve a goal of the ACS to provide small area data similar to the data published after Census 2000, based on the long-form sample,”⁵⁹ but some who commented had a different assessment. As one observed,⁶⁰ with a “fixed sample size of three million households annually, the ACS 5-year sample is considerably smaller than the 1-in-6 household sample of Census 2000.... The original ACS sample design was for three percent of households each year, a level that would have produced 5-year data for small geographic areas near the reliability and disclosure avoidance⁶¹ levels of Census 2000.” Because the Bureau “did not receive a budget for a sample similar to that of the long form ... the 5-year data products cannot be as detailed for smaller geographic areas as they were in 2000.” The correspondent called for the Bureau to acknowledge “openly” that, “given the smaller sample size, some ACS 5-year products cannot meet some user needs for detailed census tract⁶² and block group⁶³ data.”

The issue of sample size, especially as it affects small-area data, is not new. It was discussed, for example, in a 2007 publication by the National Academy of Sciences’ Committee on National Statistics⁶⁴ and a 2004 GAO report.⁶⁵ Moreover, a fixed sample size of the ACS would mean that as the U.S. population grew, with a corresponding increase in housing units, the proportion of units surveyed would decrease. This decrease could affect the quality of ACS data for all

⁵⁸ U.S. Department of Commerce, U.S. Census Bureau, “American Community Survey 5-Year Data Products,” 74 *Federal Register* 9785, March 6, 2009. See also U.S. Department of Commerce, U.S. Census Bureau, “American Community Survey 5-Year Data Product Plans; Final Notice,” 75 *Federal Register* 57254, September 20, 2010.

⁵⁹ U.S. Department of Commerce, U.S. Census Bureau, “American Community Survey 5-Year Data Products,” 74 *Federal Register* 9786, March 6, 2009.

⁶⁰ See Andrew Reamer, Fellow, Brookings Institution Metropolitan Policy Program, “Re: Request for Comments on the American Community Survey 5-Year Data Products,” April 20, 2009, in U.S. Census Bureau, “Comments to the Census Bureau—American Community Survey 5-Year Data Products Plan,” at http://www.census.gov/acs/www/about_the_survey/operations_and_administration/.

⁶¹ The Bureau defines “disclosure avoidance” as “statistical methods used in the tabulation of data prior to releasing data products to ensure the confidentiality of responses.” U.S. Census Bureau, *American Community Survey, Design and Methodology* (Washington: GPO, 2009), glossary, p. 6.

⁶² A “census tract” refers to “a small, relatively permanent statistical subdivision of a county delineated by a local committee of census data users for the purpose of presenting data. Census tract boundaries normally follow visible features, but may follow governmental unit boundaries and other nonvisible features; they always nest within counties. Designed to be relatively homogeneous units with respect to population characteristics, economic status, and living conditions at the time of establishment, census tracts average about 4,000 inhabitants.” *Ibid.*, glossary, p. 4.

⁶³ “A block group,” in Bureau terminology, “is a cluster of blocks having the same first digit of their four-digit identifying number within a census tract.” A block “is the smallest geographic entity for which the Census Bureau tabulates decennial census data. Many blocks correspond to individual city blocks bounded by streets, but blocks—especially in rural areas—may include many square miles and may have some boundaries that are not streets.” *Ibid.*, glossary, p. 3.

⁶⁴ Constance F. Citro and Graham Kalton, eds., *Using the American Community Survey: Benefits and Challenges* (Washington: National Academies Press, 2007), pp. 2, 4, and 5.

⁶⁵ U.S. Government Accountability Office, *American Community Survey: Key Unresolved Issues*, GAO-05-82, October 2004, p. 21.

purposes, particularly for the equitable distribution of various federal funds to states and localities. In 2003, the Bureau reported that the fully implemented ACS would sample about 3 million of approximately 120 million housing units annually,⁶⁶ or about 2.5% of all units. By 2010, when that year's census showed the number of housing units to be 131.7 million,⁶⁷ 3 million units represented about 2.3% of the total.

Of the Obama Administration's \$1.267 billion appropriations request for the Bureau in FY2011, \$44 million was to go toward enlarging the annual ACS sample size to about 3.54 million housing units, almost 2.7% of all units, "to improve the reliability of the ACS estimates at the tract level." The funds also were to "allow the Census Bureau to enhance field and telephone center data collection, conduct a 100 percent nonresponse follow-up operation in Remote Alaska and small American Indian, Alaska Native, and Native Hawaiian Homeland areas, and provide additional resources for the full review of the 3-year and 5-year data."⁶⁸ In July 18, 2012, congressional testimony, then-Bureau Director Robert M. Groves confirmed that the ACS sample size had increased to about 3.54 million housing units a year.⁶⁹

Public Perception

The ACS has encountered some public resistance, as did its long-form predecessor. One indication of the reaction to a mailed questionnaire from the Bureau is whether the recipients fill it out and mail it back before nonresponse follow-up begins. Long-form responses by mail tended to decrease over time, and the same has occurred with the ACS since 2000. A 2004 report by the National Academy of Sciences' Committee on National Statistics, Panel to Review the 2000 Census,⁷⁰ cited a two-percentage-point difference between short-form and long-form mail return rates⁷¹ in 1980 (82% versus 80%), which widened to five percentage points in 1990 (76% versus 71%) and nine percentage points in 2000 (80% versus 71%).⁷² The 71% mail return rate for the long form in 1990 and 2000 represented a nine-percentage-point decrease from the 1980 rate of

⁶⁶ U.S. Census Bureau, *Meeting 21st Century Demographic Data Needs—Implementing the American Community Survey*, Report 3, *Testing the Use of Voluntary Methods*, December 2003, Appendix 4, at http://www.census.gov/acs/www/library/by_series/implementing_the_acs/.

⁶⁷ U.S. Census Bureau, *Housing Characteristics: 2010*, p. 1, at <http://www.census.gov/prod/cen2010/briefs/c2010br-07.pdf>.

⁶⁸ U.S. Office of Management and Budget, *Budget of the U.S. Government, Appendix, Fiscal Year 2011* (Washington: GPO, 2010), p. 210. See also CRS Report R41161, *Commerce, Justice, Science, and Related Agencies: FY2011 Appropriations*, coordinated by Nathan James, Oscar R. Gonzales, and Jennifer D. Williams. The Census Bureau, as a Commerce Department agency, receives its funding through CJS appropriations.

⁶⁹ Testimony of then-Census Bureau Director Robert M. Groves in U.S. Congress, Senate Committee on Homeland Security and Governmental Affairs, Subcommittee on Federal Financial Management, Government Information, Federal Services, and International Security, *Census: Planning Ahead for 2020*, hearing, 112th Cong., 2nd sess., July 18, 2012, at <http://www.hsgac.senate.gov/subcommittees/federal-financial-management/hearings/census-planning-ahead-for-2020>.

⁷⁰ Constance F. Citro, Daniel L. Cork, and Janet L. Norwood, eds., *The 2000 Census: Counting Under Adversity* (Washington: National Academies Press, 2004).

⁷¹ As previously noted, the "mail return rate" is the percentage of questionnaires completed and returned from "occupied housing units with deliverable addresses." U.S. Government Accountability Office, *2010 Census: Census Bureau Needs Procedures for Estimating the Response Rate and Selecting for Testing Methods to Increase Response Rate*, GAO-08-1012, September 2008, footnote 6, p. 6.

⁷² Constance F. Citro, Daniel L. Cork, and Janet L. Norwood, eds., *The 2000 Census: Counting Under Adversity* (Washington: National Academies Press, 2004), p. 100.

80%. A 2009 evaluation⁷³ by the Bureau found that ACS mail response rates⁷⁴ dropped 5.8 percentage points over eight years (from 40.6% in 2000 to 34.8% in 2008).⁷⁵ These rates, however, excluded questionnaires returned more than 25 days after being mailed out. When all the questionnaires were included, response rates were higher and the decrease over eight years was less (3.1 percentage points, from 59.7% in 2000 to 56.6% in 2008).⁷⁶

Press reports,⁷⁷ a poll,⁷⁸ and a House subcommittee oversight hearing on the 2000 census reflected a degree of dissatisfaction with the 2000 census long form. In opening remarks at the hearing, the subcommittee chairman stated,

Clearly the biggest controversy surrounding the census has been the perceived intrusiveness and the invasion of privacy of the long form....

While the long form has always been less popular than the short form, the attitudes toward the 2000 long form seem to be particularly intense despite the fact that it ... only differs by one new question from 1990. During the 1998 dress rehearsals, the long form response rate was between 10 and 15 percentage points lower than the short form....

From the first day that the forms were being received at millions of homes around the Nation, Members of Congress were receiving phone calls from constituents who were very upset about the long form.

Every major newspaper in the Nation has written about the long form and the privacy issue. Electronic media from talk radio to television have weighed in....

The reason why there is a long form controversy is because millions of Americans aren't comfortable answering the questions.... The News Hour on PBS had an entire segment on the

⁷³ U.S. Census Bureau, "2008 American Community Survey Sampling Memorandum Series ACS08-S-28," September 14, 2009.

⁷⁴ GAO has pointed out that the mail response rates in the ACS analysis "are comparable to the Bureau's definition of mail return rates for the decennial census in that vacant and nonexistent housing units are excluded from the denominator in the calculation." U.S. Government Accountability Office, *2010 Census: Census Bureau Needs Procedures for Estimating the Response Rate and Selecting for Testing Methods to Increase Response Rate*, GAO-08-1012, September 2008, p. 14.

⁷⁵ U.S. Census Bureau, "2008 American Community Survey Sampling Memorandum Series ACS08-S-28," September 14, 2009, p. 6.

⁷⁶ Ibid.

The Bureau eventually closes much of the gap between questionnaires sent out and those mailed back. For example, the estimated total ACS response rate in 2008, after nonresponse follow-up, was 98%. Ibid., p. 5. In the 2000 census, to cite another example, the Bureau received 98.5% of the long forms it expected to receive from households and retained 93.2% of forms received. Constance F. Citro, Daniel L. Cork, and Janet L. Norwood, eds., *The 2000 Census: Counting Under Adversity* (Washington: National Academies Press, 2004), pp. 291-292.

⁷⁷ See, as examples, August Gribbin, "Census Bureau offers to find long-form alternative by '03," *Washington Times*, April 6, 2000, p. A8; D'Vera Cohn, "Census Complaints Hit Home," *Washington Post*, May 4, 2000, p. A9; August Gribbin, "Criticism of census form sparks bureau to re-look," *Washington Times*, April 11, 2000, p. A4; and Steven A. Holmes, "Low Response to Long Form Causes Worry About Census," *New York Times*, April 7, 2000, p. A18.

⁷⁸ According to a nationwide survey of 1,933 people during the week of April 2, 2000, by InterSurvey of Menlo Park, CA, 47% of respondents who received the long form viewed the questions as "too intrusive; census should not ask." The highest proportions of respondents, 53% and 32%, respectively, viewed the income and disability questions as "too personal." The margin of error was plus or minus three percentage points. The poll results were cited in D'Vera Cohn, "Census Complaints Hit Home," *Washington Post*, May 4, 2000, p. A9.

privacy issue and the long form almost 2 weeks ago.⁷⁹ On 60 Minutes, one of the most popular news shows on television with almost 13 million viewers weekly, commentator Andy Rooney voiced to the Nation two Sundays ago his criticism of the long form.⁸⁰ He concluded ... by saying, “I am not going to fill out the long form.”⁸¹

Whereas the long form could attract criticism once a decade, however, the monthly survey can generate some negative attention more frequently.⁸² Among the comments reported by the media are that the ACS asks for too much detail and that certain questions—such as those about income, disability, and home plumbing facilities—invade respondents’ privacy.⁸³ Reluctant respondents may ask whether, and why, they must answer these and other questions.⁸⁴

As noted previously, the ACS can ask only “necessary questions,”⁸⁵ and responses are mandatory. The decennial census is conducted under the authority of Title 13, *United States Code*, Sections 141 and 193. Section 141 authorizes a census of population every 10 years for House apportionment and within-state redistricting. This section also authorizes the Department of Commerce⁸⁶ Secretary “to obtain such other census information as necessary.” Section 193 provides that “[i]n advance of, in conjunction with, or after the taking of each census ... the Secretary may make surveys and collect such preliminary and supplementary statistics related to the main topic of the census as are necessary to the initiation, taking, or completion thereof.” The Census Bureau considered long-form responses to be mandatory and has conducted the ACS as mandatory “since its inception” in the mid-1990s.⁸⁷ Title 13, Section 221, provides for a fine of not more than \$100 for refusal or neglect to answer questions; pursuant to Title 18, Sections 3559

⁷⁹ PBS broadcast the “Nosy Census” segment on March 30, 2000.

⁸⁰ CBS broadcast the Andy Rooney commentary on March 26, 2000.

⁸¹ Opening remarks of Subcommittee Chairman Dan Miller in U.S. Congress, House Committee on Government Reform, Subcommittee on the Census, *Oversight of the 2000 Census: Mail-Back Response Rates and Status of Key Operations*, hearing, 106th Cong., 2nd sess., April 5, 2000, no. 106-186 (Washington: GPO, 2001), pp. 2-3.

⁸² As the Bureau Director at the time observed during an ACS congressional hearing, “Long form questions” are neither “less, nor more, intrusive because they are asked in the ACS rather than the decennial environment, but the environments are wholly different. It matters whether 20 million housing units are asked long form questions in one intense timeframe or whether those questions are asked in a series of monthly surveys.” Testimony of then-Census Bureau Director Kenneth Prewitt in U.S. Congress, House Committee on Government Reform, Subcommittee on the Census, *The American Community Survey—A Replacement for the Census Long Form?*, hearing, 106th Cong., 2nd sess., July 20, 2000, no. 106-246 (Washington: GPO, 2001), p. 31.

⁸³ For examples of media reports, see Jon Rutter, “Census Survey a Little Too Intrusive for Some,” Lancaster, PA, Online.com News, November 15, 2010; Mark Davis, “Census Wants to Know More, Way Too Much More, Critics of Survey Say,” *Atlanta Journal-Constitution*, September 5, 2010, p. 1B; John Derbyshire, “Count Me Out,” *National Review*, vol. 57, no. 2 (February 2005), p. 56; Kathleen Hennessey, “GOP Takes on Census Critics,” *Los Angeles Times*, April 14, 2010, p. A11; “Questions on Census Survey ‘Exceptionally Intrusive,’” ABC 27 News, WHTM, Harrisburg, York, Lancaster, and Lebanon, PA, November 5, 2010; and William M. Dowd, “What? Why Me?” *Times Union*, June 14, 2009, p. B1.

⁸⁴ Ibid. See also testimony of Rep. Ted Poe in U.S. Congress, House Committee on Oversight and Government Reform, Subcommittee on Health Care, District of Columbia, Census, and the National Archives, *The Pros and Cons of Making the Census Bureau’s American Community Survey Voluntary*, hearing, 112th Cong., 2nd sess., March 6, 2012, at <http://oversight.house.gov/wp-content/uploads/2012/03/3-6-12-Census-Poe.pdf>.

⁸⁵ U.S. Census Bureau, “Policy on New Content for the American Community Survey,” p. 2, at http://www.census.gov/acs/www/Downloads/operations_admin/ACS_Content_Policy.pdf.

⁸⁶ As previously noted, Commerce is the Bureau’s parent department.

⁸⁷ U.S. Census Bureau, *Meeting 21st Century Demographic Data Needs—Implementing the American Community Survey*; Report 3, *Testing the Use of Voluntary Methods*, December 2003, p. 1, at http://www.census.gov/acs/www/library/by_series/implementing_the_acs/.

and 3571, the Sentencing Reform Act of 1984, the possible fine has been adjusted to not more than \$5,000.

In addition, current and former Bureau employees are required to maintain the confidentiality of census data about individuals. Under Title 13, Section 214, the wrongful disclosure of information is punishable by a fine of not more than \$5,000, or not more than five years' imprisonment, or both. Pursuant to Title 18, Sections 3559 and 3571, the possible fine has been adjusted to not more than \$250,000.

Testing a Mandatory Versus Voluntary ACS

By late 2002, public complaints about the long form and congressional concern about the ACS had prompted some in Congress to inquire about the advisability of making responses to the latter survey voluntary.⁸⁸ Shortly thereafter, the conferees on H.J.Res. 2, P.L. 108-7, the Consolidated Appropriations Resolution, 2003,⁸⁹ included \$1 million for the Bureau “to test the response rates of both a voluntary and a mandatory” ACS because “sufficient information is not available to [weigh] the benefits” of each approach.⁹⁰ The conferees directed the Commerce Secretary to report to the Appropriations Committees as soon as the test results were available.

Two reports about the test and its findings appear on the Bureau's website.⁹¹ The first one, issued in December 2003, “was prepared on an expedited basis to meet Congressional needs.”⁹² A year later, the second report presented additional test results, with “greater detail for some of the measures included in the initial report.”⁹³ The discussion below focuses on the 2003 report.

As the ACS is, the test of a voluntary ACS (hereinafter called the “ACS test”) was a mail-out, mail-back operation in which interviewers followed up with nonresponding households by telephone and, when necessary, personal visits.⁹⁴

The ACS test studied four experimental treatments of mailed questionnaires, two instructing recipients that responses were mandatory and two treating responses as voluntary. The 2003 report highlighted two main treatments, one mandatory and the other voluntary: the benchmark

⁸⁸ Ibid., pp. v and 1.

⁸⁹ 117 Stat. 11.

⁹⁰ U.S. Congress, Conference Committee, *Making Further Continuing Appropriations for the Fiscal Year 2003, and for Other Purposes* (Consolidated Appropriations Resolution, 2003), conference report to accompany H.J.Res. 2, 108th Cong., 1st sess., H.Rept. 108-10 (Washington: GPO, 2003), p. 689.

⁹¹ U.S. Census Bureau, *Meeting 21st Century Demographic Data Needs—Implementing the American Community Survey*; Report 3, *Testing the Use of Voluntary Methods*, December 2003, and Report 11, *Testing Voluntary Methods—Additional Results*, December 2004, at http://www.census.gov/acs/www/library/by_series/implementing_the_acs/.

⁹² U.S. Census Bureau, *Meeting 21st Century Demographic Data Needs—Implementing the American Community Survey*; Report 3, *Testing the Use of Voluntary Methods*, December 2003, p. 1, at http://www.census.gov/acs/www/library/by_series/implementing_the_acs/.

⁹³ U.S. Census Bureau, *Meeting 21st Century Demographic Data Needs—Implementing the American Community Survey*; Report 11, *Testing Voluntary Methods—Additional Results*, December 2004, p. v, at http://www.census.gov/acs/www/library/by_series/implementing_the_acs/.

⁹⁴ U.S. Census Bureau, *Meeting 21st Century Demographic Data Needs—Implementing the American Community Survey*; Report 3, *Testing the Use of Voluntary Methods*, December 2003, p. 2, at http://www.census.gov/acs/www/library/by_series/implementing_the_acs/.

“2002 Current Mandatory approach” was “identical to the mail treatment used in prior years and provided a control to previous years”;⁹⁵ the “Standard Voluntary treatment” used “a standard survey approach” to explain that responses were not required.⁹⁶

The Bureau’s sample design for the test divided the universe of approximately 140,000 housing units⁹⁷ into two strata, high-response areas (HRAs) and low-response areas (LRAs), which were designated on the basis of “tract-level long form mail return rates from Census 2000.”⁹⁸ Data from the 2001 ACS indicated that people in the LRAs were younger, more likely to be Hispanic, more likely to be non-White, less likely to be college educated, and more likely to be renters than in the HRAs. The LRA stratum had more households with lower incomes, more that included “other relatives”⁹⁹ or “nonrelatives,” and more where languages “other than English” were spoken at home.¹⁰⁰

The ACS test was conducted in March and April 2003. The tables in the report issued later that year compared the results from the Standard Voluntary treatment of test questionnaires (hereinafter, the “2003 voluntary survey”) with those from the mandatory ACS for March and April 2002 (hereinafter, the “2002 mandatory ACS”), as discussed below.¹⁰¹

Key test results pertained to the mail cooperation rate.¹⁰² It was 20.7 percentage points lower overall for the 2003 voluntary survey than for the 2002 mandatory ACS (38.8% compared with 59.5%, a 34.8% decrease). In the HRAs, the decrease was 22.2 percentage points (42.4% versus 64.6%, a 34.4% drop). In the LRAs, the percentage-point decrease was less, 15.9 points, but the already low 2002 mail cooperation rate of 43.6% dropped to 27.7% in 2003 (a 36.5% decrease).¹⁰³

Lower mail cooperation in the 2003 voluntary survey meant a heavier workload of nonresponse follow-up by telephone. Moreover, cooperation with telephone interviewers was lower when it was optional (66.5% overall in 2003 versus 80.7% in 2002, a 14.2 percentage-point or 17.6% decrease). Although the 2003 rates of telephone cooperation were almost identical in the HRAs and LRAs, cooperation decreased more from 2002 to 2003 in the HRAs (by 15.6 percentage points or 19%, from 82.1% to 66.5%) than in the LRAs (by 10.2 percentage points or 13.4%, from 76.4% to 66.2%).¹⁰⁴

⁹⁵ The other mandatory treatment tested mail-out material that the Bureau had revised to clarify the nature and purpose of the survey. *Ibid.*, p. 2.

⁹⁶ The other voluntary treatment “explained more directly that the survey was voluntary.” *Ibid.*, pp. 2-3.

⁹⁷ *Ibid.*, p. 2.

⁹⁸ *Ibid.*, p. 3.

⁹⁹ The Bureau defines “other relatives” as household members “related to the householder by birth, marriage, or adoption, but not specifically included in any other relationship category. Can include grandchildren, parents, in-laws, cousins, etc.” U.S. Census Bureau, “American FactFinder, Glossary,” at http://factfinder2.census.gov/help/en/american_factfinder_help.htm#glossary/glossary.htm.

¹⁰⁰ U.S. Census Bureau, *Meeting 21st Century Demographic Data Needs—Implementing the American Community Survey*; Report 3, *Testing the Use of Voluntary Methods*, December 2003, p. 3, at http://www.census.gov/acs/www/library/by_series/implementing_the_acs/.

¹⁰¹ *Ibid.*, pp. 1 and 3.

¹⁰² This rate refers to the percentage of questionnaires returned from all occupied housing units included in the mail-out phase. *Ibid.*, p. 6.

¹⁰³ *Ibid.*

¹⁰⁴ *Ibid.*, p. 7.

Personal visits for nonresponse follow-up closed “some, but not all”¹⁰⁵ of the gap in mail and telephone cooperation between 2002 and 2003. As with telephone nonresponse follow-up, the workload of personal visits increased in 2003; responses decreased when they were optional; and the percentage-point decline in cooperation was greater in the HRAs than in the LRAs, suggesting that the voluntary approach had a greater negative effect on compliance in areas that usually tended to be cooperative. Overall response to personal visits was 89% in 2003, down from 95.6% a year earlier (a 6.6 percentage-point or 6.9% decline). In the HRAs, the 2003 response rate was 88.2% versus 95.7% in 2002 (a 7.5 percentage-point or 7.8% drop). The comparable figures for the LRAs were 90.7% versus 95.6% (a 4.9 percentage-point or 5.1% decrease).¹⁰⁶

The Bureau observed that when ACS responses were voluntary instead of required, respondents tended to shift “from participating by mail to participating by telephone or personal visit follow-up.”¹⁰⁷ Because personal interviews are about 10 times more expensive than data collection by mail or telephone,¹⁰⁸ survey costs rise as mail and telephone cooperation fall. Further, since the Bureau selects a subsample of ACS nonrespondents—not all nonrespondents—for personal visits, reliability of the data is a concern. A decrease in the percentage of responses by mail and telephone means “fewer total interviews and thus, a reduction in reliability.”¹⁰⁹ If the survey became voluntary, the Bureau concluded, maintaining the same data reliability as under the 2002 mandatory ACS would necessitate increasing the planned annual sample size from about 3 million to an estimated 3.7 million housing units,¹¹⁰ at an additional cost of at least \$59.2 million per year in FY2005 dollars.¹¹¹ The latter estimate reflected “direct data collection costs only”; it did not include the expense of hiring and training more ACS staff, and purchasing additional equipment.¹¹² The Bureau subsequently, as of FY2011, re-estimated the annual cost of a voluntary ACS at \$66.5 million.¹¹³

Proposals in the 111th, 112th, and 113th Congresses for a Voluntary ACS or an End to the ACS

Two bills introduced in the 111th Congress sought to make almost all ACS responses optional. They received no action beyond committee and subcommittee referrals.

- H.R. 3131, to Make Participation in the American Community Survey Voluntary, except with Respect to Certain Basic Questions, was introduced on July 8, 2009, by Representative Ted Poe. The bill would have prohibited applying any criminal

¹⁰⁵ *Ibid.*, p. 8.

¹⁰⁶ *Ibid.*

¹⁰⁷ *Ibid.*

¹⁰⁸ *Ibid.*, p. v.

¹⁰⁹ *Ibid.*, p. 9.

¹¹⁰ *Ibid.*, p. 16. As previously noted, the current ACS sample size is about 295,000 housing units per month, totaling about 3.54 million per year.

¹¹¹ *Ibid.*, pp. 16-17.

¹¹² *Ibid.*, p. 17.

¹¹³ U.S. Census Bureau, “2011 American Community Survey Research and Evaluation Report Memorandum Series #ACS11-RER-01,” June 23, 2011, p. 5.

penalty to people who refused or willfully neglected to answer ACS inquiries, except those about the respondent's name and contact information, the date of the response, and the number of residents at the respondent's address.

- H.R. 5046, the Census Clarification and Privacy Act, was introduced on April 15, 2010, by Representative Todd Akin. The measure called for a statement, on the front of the decennial census and ACS questionnaires, that the respondent was constitutionally required only to provide the number of people living at the residence, and that all other answers were optional. The bill also would have made penalties applicable only for refusing or willfully neglecting to answer this question on any census or survey conducted under Title 13, *United States Code*, Sections 141 or 193, or for falsely answering any question on any census or survey conducted under these sections.

In the 112th Congress, two bills would have made almost all ACS responses optional. A third, appropriations, bill passed the House with two amendments pertinent to the ACS. One would have prohibited funds from being used to enforce a penalty for ACS nonresponse; the other would have defunded the survey.

- H.R. 931, to Make Participation in the American Community Survey Voluntary, except with Respect to Certain Basic Questions, was introduced on March 3, 2011, by Representative Poe. The bill, which was the same as H.R. 3131 from the 111th Congress, was referred to the House Committee on the Judiciary, Subcommittee on the Constitution, and Subcommittee on Crime, Terrorism, and Homeland Security; and to the House Committee on Oversight and Government Reform, Subcommittee on Health Care, District of Columbia, Census, and the National Archives. This subcommittee held a hearing on March 6, 2012, about the pros and cons of a voluntary ACS.¹¹⁴ No further action occurred on H.R. 931.
- S. 3079, companion legislation to H.R. 931, was introduced by Senator Rand Paul on May 10, 2012, and referred to the Senate Committee on Homeland Security and Governmental Affairs, where no further action occurred.
- Before the House passed H.R. 5326, the Commerce, Justice, Science, and Related Agencies Appropriations Act, 2013,¹¹⁵ on May 10, 2012, it adopted two amendments that would have affected the ACS. The Poe amendment, which was similar to H.R. 931, would have prohibited the use of funds to enforce a penalty for refusing or willfully neglecting to answer the questions on the ACS. An amendment offered by Representative Daniel Webster would have prohibited the use of funds to conduct the survey. The Senate did not take up H.R. 5326 or S. 2323, its FY2013 CJS appropriations bill, which had no provisions similar to the Poe and Webster amendments.

¹¹⁴ U.S. Congress, House Committee on Oversight and Government Reform, Subcommittee on Health Care, District of Columbia, Census, and the National Archives, *The Pros and Cons of Making the Census Bureau's American Community Survey Voluntary*, hearing, 112th Cong., 2nd sess., March 6, 2012, at <http://oversight.house.gov/hearing/the-pros-and-cons-of-making-the-census-bureaus-american-community-survey-voluntary/>.

¹¹⁵ See CRS Report R42440, *Commerce, Justice, Science, and Related Agencies: FY2013 Appropriations*, coordinated by Nathan James, Jennifer D. Williams, and John F. Sargent Jr.

H.J.Res. 117, P.L. 112-175,¹¹⁶ the Continuing Appropriations Resolution, 2013, became law on September 28, 2012, without reference to the ACS. It provided funding for CJS entities until the March 26, 2013, enactment of H.R. 933, P.L. 113-6,¹¹⁷ the Consolidated and Further Continuing Appropriations Act, 2013, which funds CJS entities for the remainder of FY2013. Although P.L. 113-6 does not mention the ACS, the Senate explanatory statement notes that language in the two House amendments to H.R. 5326, from the 112th Congress, “prohibiting funding for the ACS or prohibiting penalties for non-compliance with the ACS is not adopted.” The Census Bureau, however, “is directed to provide a report to the Committees on Appropriations no later than 120 days after enactment of this Act on ... the steps being taken to ensure that the ACS is conducted as efficiently and unobtrusively as possible.” The Department of Commerce “is directed to acquire an independent analysis of the costs and benefits of making compliance with the ACS voluntary. The results of this analysis shall be provided ... to the Committees on Appropriations no later than 180 days after enactment of this Act.”¹¹⁸

Three bills that would affect the ACS have been introduced in the 113th Congress. Two companion proposals that resemble H.R. 3131 and H.R. 5046 from the 111th Congress and H.R. 931, S. 3079, and the Poe amendment to H.R. 5326 in the 112th Congress would make all but a few ACS responses optional. A third bill would prohibit the Commerce Secretary and the Census Bureau from conducting any surveys, including the ACS, and almost all censuses. No action beyond committee referrals and one subcommittee referral has occurred on the bills.

- H.R. 1078, to Make Participation in the American Community Survey Voluntary, except with Respect to Certain Basic Questions, and for Other Purposes, was introduced on March 12, 2013, by Representative Poe, and referred to the House Committee on Oversight and Government Reform. The legislation would make optional most responses to “any survey authorized under” Title 13, *United States Code*, Section 193. The ACS, as previously mentioned, is conducted under this section and Section 141. H.R. 1078 would require responses only to inquiries about the respondent’s name and contact information, the date of the response, and the “number of people living or staying at the same address.” The bill further specifies that except for having to provide this information, “no person may be fined or otherwise compelled to answer questions in connection with the survey ... which is commonly referred to as the ‘American Community Survey’.”
- S. 530, the same as H.R. 1078, was introduced on the same day by Senator Paul and referred to the Senate Committee on Homeland Security and Governmental Affairs.
- H.R. 1638, the Census Reform Act of 2013, was introduced on April 18, 2013, by Representative Jeff Duncan. It was referred on that date to the House Committees on Oversight and Government Reform, Agriculture, and Appropriations. On May 3, 2013, the bill was referred to the Agriculture Committee’s Subcommittee on

¹¹⁶ 126 Stat. 1313.

¹¹⁷ 127 Stat. 198.

¹¹⁸ “Consolidated and Further Continuing Appropriations Act,” Senate explanatory statement, *Congressional Record*, daily edition, vol. 159 (March 11, 2013), p. S1300.

Department Operations, Oversight, and Nutrition. H.R. 1638 would repeal the authority of the Commerce Secretary and the Census Bureau to conduct the ACS and any other surveys or censuses except the decennial census. This census would be limited to collecting “only ... information necessary for the tabulation of total population by States.” The censuses that would end if H.R. 1638 were enacted include the censuses of agriculture¹¹⁹ and governments as well as the economic census.

Possible ACS Options for Congress

Noted below are several possible approaches for Congress regarding the ACS, given that the survey, fully implemented since 2005 and 2006, supplanted the long form in the 2010 census.

Congress could support the status quo, providing oversight and funding of the ACS into the future. Oversight issues might include ACS methodology and any advisable improvements in it. Three other related issues are how large the ACS sample should be to ensure reliability of the data, particularly for small areas, as the U.S. population continues to grow; what funding levels would be necessary to achieve and maintain such a sample size; and what funding levels would be feasible, in view of federal budgetary constraints that could continue indefinitely.

Two bills from the 111th Congress and three from the 112th Congress would have made completing the ACS questionnaire optional for respondents, as would two proposals in the 113th Congress. Another congressional approach—because the test results discussed previously indicate that a voluntary survey might well lower response rates and raise costs—might involve inquiring into the extent and sources of public dissatisfaction with the ACS and exploring remedies short of voluntary responses. Possible questions to consider are how to explain more effectively why ACS data are collected and how best to engage the public in nonresponse follow-up. Congress could assess with the Bureau whether an advertising campaign, perhaps modeled on that for the 2010 census,¹²⁰ might heighten awareness of the survey and its value to states and localities. A related consideration is whether the Bureau might enhance the appeal of the ACS by identifying on its website every federal program whose formula for distributing funds uses ACS data and what the data are, together with estimates of the funds provided each year to specific states and localities on the basis of the program formulas.

Various Members of Congress from time to time have advised the Bureau to use the Internet as one means of collecting decennial census-related data.¹²¹ In July 18, 2012, congressional testimony, then-Bureau Director Robert M. Groves announced the Bureau’s intention to offer an

¹¹⁹ The census of agriculture currently is conducted under Title 7, *United States Code*. “In 1997,” according to the Bureau, “Congress transferred budgetary responsibility for the census of agriculture” to the U.S. Department of Agriculture (USDA). “Despite the shift in funding, the Census Bureau continues to design the questionnaires, mail questionnaires, manage returns, and process the data ...” for the USDA. U.S. Census Bureau, “Census of Agriculture,” at https://www.census.gov/history/www/programs/agriculture/census_of_agriculture.html.

¹²⁰ See CRS Report R40551, *The 2010 Decennial Census: Background and Issues*, by Jennifer D. Williams.

¹²¹ See, for example, opening statement of Sen. Thomas Carper in U.S. Congress, Senate Committee on Homeland Security and Governmental Affairs, Subcommittee on Federal Financial Management, Government Information, Federal Services, and International Security, *Census: Planning Ahead for 2020*, hearing, 112th Cong., 2nd sess., July 18, 2012, at <http://www.hsgac.senate.gov/subcommittees/federal-financial-management/hearings/census-planning-ahead-for-2020>.

Internet response option for the 2020 census and, beginning in January 2013, for the ACS.¹²² Accordingly, as noted earlier in this report, the Bureau now sends a letter notifying most households selected to receive the ACS that they can access and complete the survey online.¹²³ Congress could review with the Bureau the effects of this option on ACS response rates, survey costs, and public perception of the ACS.

Congress could examine alternatives to the ACS. If the past is an accurate predictor, returning to an approximately 17% sample of U.S. housing units via the long form would depress decennial census response rates somewhat and complicate the count; this reprise also would generate less timely data than does the ACS. Congress could set as a priority research into whether administrative records might substitute for the ACS. Possible points to consider would be the operational feasibility of this approach, its expense, the quality and completeness of administrative records, privacy concerns, and acceptability to the public.

The ACS is arguably an efficient means of gathering data for many purposes. Congress could direct that the Bureau and other federal statistical agencies expedite research into whether the ACS could replace certain other surveys. This research might involve identifying duplicative data collections, if any; estimating what savings, in both money and respondent burden, might occur from having the ACS substitute for these collections; and assessing any disadvantages of replacing them.

¹²² Testimony of then-Census Bureau Director Robert M. Groves in U.S. Congress, Senate Committee on Homeland Security and Governmental Affairs, Subcommittee on Federal Financial Management, Government Information, Federal Services, and International Security, *Census: Planning Ahead for 2020*, hearing, 112th Cong., 2nd sess., July 18, 2012, at <http://www.hsgac.senate.gov/subcommittees/federal-financial-management/hearings/census-planning-ahead-for-2020>.

¹²³ U.S. Census Bureau, "Census Bureau to Offer American Community Survey Internet Response," press release CB12-247, December 17, 2012.

Appendix. ACS Topics

The topics covered by the ACS are summarized below. Following each topic is a brief explanation or description of it, adapted from the ACS questionnaire.¹²⁴

Demographic Characteristics

- Age: each person's age and date of birth
- Sex: male or female
- Hispanic origin: whether a person considers himself or herself to be of Hispanic ethnicity; if so, whether the person is Mexican, Puerto Rican, Cuban, Argentinean, Colombian, Salvadoran, etc.
- Race: a person's self-classification as White; Black or African American; American Indian or Alaska Native, with the tribal name specified; Asian or Pacific Islander, with the specific group, such as Chinese or Samoan, named; belonging to more than one of these groups; or belonging to some other race, with the name specified
- Relationship: the relationship of each person listed on the ACS form to the person filling out the form; examples are husband or wife, roomer or boarder, and foster child

Social Characteristics

- Ancestry: a self-classification based on the country from which each person, or the person's parents or ancestors, came; examples of ancestries include Jamaican, Korean, and Ukrainian
- Citizenship status: whether a person is a U.S. citizen, either by birth or by naturalization
- Disability status: whether a person has various physical or mental impairments, such as serious difficulty hearing, seeing, walking, dressing, bathing, concentrating, or remembering
- Educational attainment: the highest degree or level of schooling that a person has completed
- Fertility: whether a woman gave birth to any children in the past 12 months
- Field of degree: the major field of study for a bachelor's degree
- Grandparents as caregivers: whether a person has any grandchildren under age 18 living with him or her; if so, whether the person is responsible for their needs, and how long the person has had this responsibility

¹²⁴ U.S. Census Bureau, "American Community Survey, Subjects Included in the American Community Survey," at http://www.census.gov/acs/www/guidance_for_data_users/subjects/.

- Language: whether a person speaks a language other than English at home; if so, what the other language is and how well the person speaks English
- Marital status and marital history: whether a person currently is married, divorced, widowed, etc.; whether the person was married, divorced, or widowed within the past 12 months; how many times the person has been married; and the year when he or she last married
- Place of birth: either the U.S. state or the place outside the 50 states
- School enrollment: whether a person attended public or private school or college in the last three months; if so, the grade or level
- Residence one year ago and migration: whether a person moved from one residence to another in the past year; if so, what his or her previous address was
- Veterans: whether and when a person served on active duty in the U.S. military, whether the person has a service-connected disability rating; if so, what it is
- Year of entry: the year when a person born outside the United States came to live in this country

Economic Characteristics

- Class of worker: whether a person employed during the past 12 months worked for a private for-profit company, a private nonprofit organization, or federal, state, or local government; was self-employed; or was an unpaid worker for a family business or farm
- Employment status: whether a person worked for pay during the past week or was on layoff from a job, whether the person was actively looking for work in the past four weeks, and when the person last worked
- Health insurance coverage: whether a person currently is covered by any health insurance plan, such as through a current or former employer, Medicaid, or Medicare
- Income: income in the past 12 months from various sources, including wages and salary, interest and dividends, and Social Security
- Industry: the type of activity that occurred where a person was employed during the past 12 months, such as manufacturing, retail trade, or construction
- Journey to work: the location where a person worked in the past week; what mode of transportation the person used to commute to work; whether the person commuted with other people in an automobile, a truck, or a van; and how much time the commute took
- Occupation: the kind of work a person did during the past 12 months, such as nursing, personnel management, or accounting
- Poverty: determined from income data
- Work status: the number of weeks a person worked during the past year, and the number of hours he or she usually worked each week

Housing Characteristics

- House heating fuel: the fuel that is used most for heating the house, apartment, or mobile home
- Kitchen facilities: whether the housing unit has a sink with a faucet, a stove or range, and a refrigerator
- Owner statistics: the owner's mortgage payments; condominium fees; real estate taxes; payments for utilities; and payments for fire, hazard, or flood insurance
- Ownership and use of computers and use of the Internet by household members
- Plumbing facilities: whether the housing unit has hot and cold running water, a flush toilet, and a bathtub or shower
- Renter statistics: the renter's payments for rent and utilities
- Rooms and bedrooms: the number of rooms in the housing unit, excluding bathrooms
- Sales of agricultural products from the property in the past 12 months
- Supplemental Nutrition Assistance Program (SNAP, formerly the Food Stamp program): whether, in the past 12 months, anyone in the household received benefits from the program
- Telephone service available: whether the housing unit has telephone, including cell-phone, service
- Tenure: whether the housing unit is rented or owned, with or without a mortgage, by someone in the household
- Units in structure: whether the housing structure is a mobile home, a single-family detached house, a building with two apartments, etc.
- Value of home: the estimated dollar value of the home, the number of acres on which it is located, and whether the property includes a business or medical office
- Vehicles available: the number of motor vehicles kept at the home for household members' use
- Year householder moved into unit: the year the person in whose name the housing unit is rented or owned moved into the unit
- Year structure built: the year the housing structure was built

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