

The American Community Survey: The Census Bureau's Plan to Provide Timely 21st Century Data

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In a society now changing so rapidly, many people have come to view the decennial (10 year) census as too slow and, therefore, antiquated. Certainly, data from a census taken only once in a 10-year period can become stale before it is time for a recount. To counter this situation, the U.S. Bureau of the Census is already implementing plans for a process of continuous measurement as we move into the 21st century.

The plan for continuous measurement will not replace the decennial census; information obtained on what is commonly referred to as the short form will still be collected on a 10-year basis. In essence, implementing continuous measurement will replace the long form census questionnaire. The Census Bureau's method for collecting the detailed socio-economic data (traditionally collected in the decennial census) will be reengineered and data will be provided throughout the decade.

The goal of continuous measurement is to blend the strength of small area estimation from the census with the quality and timeliness of continuing surveys. Current plans call for a continuous monthly survey covering most of the U.S. beginning in 2000. This process will then be extended to every county beginning in 2003. The survey which will be used to implement continuous measurement is called the American Community Survey or ACS. The ACS will cover topics as determined by the decennial census content process. Over the course of each year, three million different addresses will be selected for interview.

Goals of the Program

At its full sample size, the American Community Survey will provide descriptive profiles annually for all states, and for all communities of 65,000 persons or more, based on the interviews from the previous year. For less populous communities, such as rural areas, city neighborhoods, or very small population groups, the sample size will be too small to make good estimates from just one year's ACS sample. At three million households per year, it will take about five years to sample the same number of households as sampled in the 1990 decennial census. Therefore, the full five-year accumulation of data will be needed to provide accurate information for small geographic areas such as census tracts. Even for communities of 65,000-250,000, where the ACS gives a useful profile based on the previous year's data, multiple year profiles will be preferred for measuring gradual changes that are too small for the annual sample size to measure accurately.

Once the American Community Survey is in full operation, estimates will be provided each year for every governmental unit, for every component of the population, and for census tracts and block groups on a basis of refreshed multiyear accumulations.

The goals of the American Community Survey are: 1) to provide users with geographically detailed socio-economic data throughout the decade; 2) aid state and local officials in meeting new responsibilities such as welfare reform; 3) replace the 2010 census long form; and 4) improve the infrastructure for the federal statistical system.

Data Dissemination

Plans for the ACS include releasing a microdata file each year, patterned after the five percent Public Use Microdata Sample (PUMS) file of the 1990 decennial census records. The microdata file will allow for two different units of analysis: housing unit and person. The microdata file will include as many records as possible and will show the lowest level of geography possible within confidentiality constraints. Users of the American Community Survey data can then customize tabulations to examine the information in the way that best serves their needs.

In addition, the ACS will provide summarized data for population and housing estimates, cross tabulated by various characteristics. The summarized data will be similar to the Summary Tape Files (STF) of the 1990 decennial census records, and are designed to provide statistics with greater subject and geographic detail than what has been feasible in the past when there was a heavy reliance on printed reports. The microdata files, tabulated files, and associated documentation will be available through the Internet and on CD-ROMs. Users will be able to obtain annual summaries down to the block-group level, which will give them the flexibility to tabulate and analyze the data in various ways. However, the recommended profiles to describe small communities would be based on multiple years of data, the number of years depending on the population of the community.

Timing of the American Community Survey

As originally planned, the ACS was to have an extra-large sample of nearly five million addresses per year during the years 1999-2001. This would have allowed a direct comparison of the three-year accumulation from the ACS with the 2000 long form estimate for every census tract with comparable sample sizes for each. The Census Bureau believes that a comparison of the ACS with the long form is essential if the ACS is to replace the long form as the basic profile of the nation's communities. However, in this tight budget period, it was not realistic to conduct this expanded ACS at the same time as the census long form; therefore, the Census Bureau has developed an alternative to its original proposal.

This alternative, reflected in the current budget, reduces and redesigns the sample that will participate in the ACS during the years 1999-2002, but the alternative still permits a sound statistical comparison of the ACS with the 2000 census. Under this new plan, beginning in 2001, profiles for states and sub-state areas based on the previous year's data will be available down to approximately the 250,000 population level. This compares to the 65,000 limit for the full survey after the sample gets to the long-term level of three million per year starting in 2003.

The new plan reduces the ACS sample used for the comparison with the 2000 census from the original five million addresses per year for 1999-2001 to 940,000 addresses per year in 2000-2002. Instead of spreading the entire sample evenly across the nation, as originally proposed, the 940,000 sample will be divided into two parts. The first part will be a nationwide sample of 700,000 addresses per year covering most metropolitan areas and a sample of rural counties. The second part will consist of about 40 selected "comparison counties" from across the nation, where an annual sample totaling 240,000 addresses will be concentrated to allow detailed scrutiny of the 1999-2001 ACS estimates to understand where and why they differ from the 2000 long form estimates. These comparison counties will be in the sample starting in 1999 and will be sampled at the same annual rate (roughly 5%) that was used nationally in the original proposal, so direct comparisons for every census tract can be made in these counties. From the national sample of 700,000 addresses, the Census Bureau plans to make a direct comparison of the ACS and the 2000 long form estimates for all states, large cities, and large sub-state areas. For smaller areas, such as small counties, small towns, or census tracts, the ACS sample will be too small to produce a 2000 estimate. Instead, statistical modeling will be used to produce an "adjusted ACS-like" estimate for each of these smaller areas. Comparison of the ACS to the long form is important because some differences can be expected in how things are measured. For example, some differences would be expected due to collecting data throughout the year rather than just in April as well as differences in population coverage and nonresponse rates. The mid-decade updates from the full ACS will then be compared to the "adjusted" 2000 estimates, which will have been adjusted for differences in collection procedures.

During 1998, the Census Bureau will continue to collect and process data for the eight areas currently being used as evaluation sites: Portland OR, Rockland County NY, Brevard County FL, Fulton County PA, Omaha NE, Houston TX, Columbus OH, and Otero County NM. The bureau will produce 1997 estimates for these counties and estimate changes between 1996 and 1997 for the four counties which were first set up to evaluate the ACS in 1996. It will also collect data for two counties in South Carolina that overlap with counties in the 1998 Decennial Census Dress Rehearsal to investigate the effects of conducting both the ACS and the census simultaneously. In 1999, the bureau plans to increase the number of county/city sites in the sample to approximately 40 and begin expanding the national sample. Between 2000 and 2002, 700,000 addresses will be included annually in the national sample in addition to the 240,000 addresses in the 40 benchmark sites. The size of the 2000 sample will allow the Census Bureau to provide descriptive profiles for all states, all congressional districts, and cities or counties of 250,000 persons or more.

ACS and the Federal Statistical System

Because it will give current estimates for small geographic areas, the Census Bureau believes that ACS data can be used to improve statistical estimates for states and counties from other federal surveys such as the Current Population Survey, the Survey of Income and Program Participation, the Local Area Unemployment Statistics program, and the National Crime Victimization Survey. As a result, these programs will be able to provide information with much greater geographic detail than in the past. Making this small-area data available continuously should provide an essential and consistent base for evaluating the effects of welfare reform, changes in educational programs, enterprise or empowerment zones, and other programs that affect local communities.

The new American Community Survey web site was recently released to the Internet. You can access it from the "A-Z" section of the Census Bureau's home page or go to: <http://www.census.gov/acs/www/>.

Under the new continuous measurement proposal, the list of activities is the same as under the original proposal, but the major steps are delayed by several years. The general timing of activities under the new proposal is as follows:

| Date | Action |
|-----------|--|
| 1997-99 | Conduct in-depth research using data from the initial eight test areas |
| 2000 | Extend the in-depth research from the initial eight sites to all 40 comparison areas |
| 2001 | Release data for states, large cities, and large counties nationwide so that other data users will start becoming familiar with them |
| 2002 | Release the data and work with experts who are familiar with the areas to analyze the results of the complete 1999-2001 comparison for the 40 comparison areas |
| 2003-2007 | Release progressively more detailed ACS-based estimates each year for all counties and smaller places, including the evaluations of the entire 1999-2002 comparison period; integrate ACS estimates with official population and housing estimates; explain the improvements to federal, state, and local officials and other interested parties; initiate a small, but ongoing, program of research on the ACS questionnaire, to replace the testing phase of the content determination process |
| 2008 | Release the first "official" update of the 2000 census for tracts and small places, based on cumulating data from 2003-2007; this is the target date to complete the legislative and administrative process that establishes the status of the ACS data as official estimates |

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| 2009 | Release official updated estimates for all areas each year, using the most recent ACS data |
| 2010 | Replace the long form the 2010 census with regular ACS updates |

For additional information about the American Community Survey, contact the Demographic Statistical Methods Division of the Continuous Measurement Office, U.S. Bureau of the Census at 888-456-7215 or cmo.acs@census.gov.

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In a rapidly changing society, many see the decennial census as too slow and antiquated. Data from a census taken once every ten years becomes stale. To counter this, the US Bureau of the Census is implementing a process of continuous measurement called the American Community Survey (ACS).

The American Community Survey will not replace the decennial census; information from what is commonly called the "short form" will still be collected every ten years. The ACS will replace the "long form" census questionnaire starting in 2010.

The Census Bureau's method for collecting detailed socioeconomic data (traditionally decennial census) will be re-engineered. Data will be provided throughout each decade. The goal of continuous measurement is to blend the strength of census-based small-area estimation with the quality and timeliness of continuing surveys.

Current plans call for a continuous monthly survey covering most of the US beginning in 2000 and extended to every county beginning in 2003. The ACS will cover topics determined by the decennial census content process. Over the course of each year starting in 2003, three million different addresses will be selected for interview.

At its full sample size, the ACS will provide descriptive profiles annually for all states, and for all communities of 65,000 persons or more, based on the interviews from the previous year. For less populous communities, such as rural areas, city neighborhoods, or very small population groups, the sample size will be too small to make good estimates from just one year's sample.

At three million households per year, it will take about five years to sample the same number of households as sampled in the 1990 decennial census. Therefore the full five-year accumulation of data will be needed to provide accurate information for small geographic areas such as census tracts.

Once the ACS is in full operation, estimates will be provided each year for every governmental unit, for every component of the population, and for census tracts and block groups based on refreshed multiyear accumulations.

The goals of the American Community Survey are:

- To provide users with geographically detailed socioeconomic data throughout each decade
- To aid state and local officials in meeting new responsibilities such as welfare reform
- To replace the 2010 census long form
- To improve the infrastructure for the federal statistical systems

Plans for the ACS include releasing an annual microdata file, patterned after the five percent Public Use Microdata Sample, (PUMS) file of the 1990 decennial census records. In addition, the ACS will provide summarized data similar to the Summary Tape Files (STF) of the 1990 decennial census. The microdata files, tabulated files, and associated documentation will be available through the Internet and on CD-ROMs.

Users will be able to obtain annual summaries down to the block-group level, with the flexibility to tabulate and analyze data in various ways. However, the recommended profiles to describe small communities would be based on multiple years of data, the number of years depending on population.

As originally planned, the ACS was to have an extra-large sample during the years 1999-2001 to allow direct comparison of three-year accumulations of ACS data with the 2000 long form estimate for every census tract. The Census Bureau believes that comparison of the ACS with the long form is essential if the ACS is to replace the long form as the basic profile of the nation's communities.

Given tight budgets, however, it was not realistic to conduct an expanded ACS and a census long form at the same time. The Bureau has developed an alternative that reduces and redesigns the sample while providing a good opportunity for comparison.

The new plan reduces the ACS comparison sample from five million addresses per year for 1999-2001 to 940,000 addresses per year in 2000-2002. Instead of spreading the entire sample evenly across the nation, the 940,000 sample will be divided into two parts. The first will be a nationwide sample of 700,000 addresses per year covering most metropolitan areas and a sample of rural counties.

The second will consist of about 40 selected "comparison counties" from across the nation, where an annual sample totaling 240,000 addresses will be concentrated to allow detailed scrutiny of the ACS estimates to understand where and why they differ from the 2000 long form estimates. These comparison counties will be in the sample starting in 1999 and will be sampled at the same annual rate (roughly 5%) that was used nationally in the original proposal, so direct comparisons for every census tract can be made in these counties.

From the national sample of 700,000 addresses, the Census Bureau plans to make a direct comparison of the ACS and the 2000 long form estimates for all states, large cities, and large sub-state areas. For smaller areas, such as small counties, small towns, or census tracts, the ACS sample will be

too small to produce a 2000 estimate. Instead, statistical modeling will be used to produce a modeled, "ACS-like" estimate. Some differences are expected due to collecting data throughout the year rather than just in April as well as to differences in population coverage and non-response rates. Mid-decade updates from the full ACS will be compared to the modeled, "ACS-like" estimates which have been adjusted for differences in collection procedures.

During 1998, the Bureau will continue to collect data for the eight areas (in Oregon, New York, Florida, Pennsylvania, Nebraska, Texas, Ohio and New Mexico) currently used as evaluation sites. They will produce 1997 estimates for these counties and estimate changes between 1996 and 1997 for the four counties which were first set up to evaluate the ACS in 1996. They will also collect data for two counties in South Carolina that overlap with counties in the 1998 Decennial Census Dress Rehearsal to investigate the effects of conducting both the ACS and the census simultaneously.

In 1999, they plan to increase the number of county/city sites in the sample to approximately forty and begin expanding the national sample. Between 2000 and 2002, 700,000 addresses will be included annually in the national sample in addition to the 240,000 addresses in the forty bench-mark sites. The size of the 2000 sample will allow the Census Bureau to provide descriptive profiles for all states, all congressional districts, and cities or counties of 250,000 persons or more.

Because it will give current estimates for small geographic areas, the Census Bureau believes that the ACS can be used to improve statistical estimates for states and counties from other federal surveys such as the Current Population Survey, the Survey of Income and Program Participation, the Local Area Unemployment Statistics program, and the National Crime Victimization Survey. As a result, these surveys will be able to provide information with much greater geographic detail than in the past.

Making this small-area data available continuously should provide an essential and consistent base for evaluating the effects of welfare reform, changes in educational programs, enterprise or empowerment zones, and other programs that affect local communities.

For additional information about the American Community Survey, contact the Demographic Statistical Methods Division of the Continuous Measurement Office, US Bureau of the Census at 888-456-7215 or cmo.acs@census.gov.

An American Community Survey Timeline

The proposed general timing for the American Community Survey between 1997 and 2010 is designed to lead to the eventual replacing of the census long form by the ACS for the 2010 census:

| Date | Action |
|-----------|---|
| 1997-99 | In-depth research using eight test areas |
| 2000 | Extend research to 40 comparison sites |
| 2001 | Release data for states, large cities and large counties in comparison areas |
| 2002 | Release data and work with experts familiar with comparison areas to analyze results |
| 2003-2007 | Release progressively more detailed ACS-based estimates annually for all counties and smaller places, including evaluations of comparison estimates. Integrate ACS estimates with official population and housing estimates. Explain improvements to all levels of government and other interested parties. Initiate on-going research on ACS questionnaire, to replace testing phase of 2010 content determination |
| 2008 | Release first "official" update of 2000 census for tracts and small places, based on cumulative data for 2003-07 |
| 2009 | Begin releasing official annual estimate updates for all areas |
| 2010 | Replace long form of 2010 census with regular ACS updates |