CHAPTERS

# 4. American Community Survey

Beginning in 2010, the American Community Survey (ACS) replaced the "long form" that was used to collect sample data in past decennial censuses. Instead of sampling one in six households every ten years (about 18 million households in 2000), the ACS samples 2-3 million households every year. The goal of the ACS is to enable Census Bureau statisticians to produce more timely estimates of the demographic, economic, social, housing, and financial characteristics of the U.S. population. You can view a sample ACS questionnaire by entering the keywords "American Community Survey questionnaire" into your favorite

## Try This!

Internet search engine.

# **Acquiring and Understanding American Community Survey (ACS)**

The purpose of this practice activity is to guide your exploration of ACS data and methodology. In the end, you should be able to identify the types of geographical areas for which ACS data are available; to explain why 1-year and 3-year estimates are available for some areas and not for others; and to describe how the statistical reliability of ACS estimates vary among 1-year, 3-year, and 5-year estimates.

- 1. Return to the <u>U.S. Census Bureau site</u>.
- 2. Click the **Surveys/Programs** tab and follow the link to **American** Community Survey (ACS). This takes you to the MAIN American Community Survey page.
- 3. Begin by clicking the **Guidance for Data Users** link and looking through the information available there. Note the link to Handbooks for Data Users.
  - Under the More Guidance for Data Users Topics heading, pay particular attention to the When to use... section with its descriptions of the various estimates (1-, 3- and 5-year), and to the section on Comparing ACS Data to other census data. If you are so inclined, there is also a link to a listing of Training **Presentations** under this same heading. (You might benefit from
  - Understanding Multiyear Estimates... offering.)
- 4. Next, hover your mouse cursor over the **Data** link located in the navigation list on the left side of the ACS page, and note what entries are there:

You can download ACS data to make maps and analyses using your own GIS or statistical software. Find download links and pertinent information in the sections titled Data via FTP and Summary File Data.

There is also a section pertaining to Public Use Microdata **Sample (PUMS)**. PUMS data are edited, however, to protect the confidentiality of individuals and households.

In the remaining steps, you will make a map or two to reinforce the geographies covered by the American Community Survey. You will map data from your home (or adopted) state.

The Nature of Geographic Information



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- 5. You first need to go to the MAIN <u>American FactFinder site</u>, then follow the **Advanced Search** / **SHOW ME ALL** link, click the **Topics** search box, then expand the **Program** list and choose **American Community Survey**. Close the Select Topics overlay window.)
- 6. Click the **Geographies** search options box (on the left) to reveal the **Select Geographies** overlay window.

  Under **Select, a geographic type**, click **County 050**.

  Next, from the **Select a state** list, choose your state.

  Then, from the **Select one or more geographic areas...** list, choose **All Counties within <**your state>.

  Then, click **ADD TO YOUR SELECTIONS**. This will add the All Counties... entry to the **Your Selections** list.

  Close the **Select Geographies** overlay window.
- 7. In the **Search Results** window, note that there are many datasets that have 1-, 3- and 5-year estimates entries.

  Decide upon a *1-Year* dataset to look at and check the box for it.

Then click **View**.

On the new **Table Viewer** page that you land on, be sure that the

Create a Map choice is blue – not grayed out. (If it is grayed out, click the BACK TO ADVANCED SEARCH button and make sure only one dataset box is checked, or make a different choice, then click View again.)

Click on Create a Map. The data values in the table will turn blue,

Click on **Create a Map**. The data values in the table will turn blue and you will be prompted to "Click on a data value in the table to map." Clicking a single data value from any *row* will allow you to map the data in that row for all of the counties for which it is available. Click on a blue data value of your choice – *remember which row you choose*. Click on the **SHOW MAP** button in the small popup window that appears.

Are all of the counties in the state symbolized as having data? Why not?

8. Now, click the **BACK TO ADVANCED SEARCH** button. Un-check the box for the 1-year dataset, and check the box for the 5-year estimate of the same category. Proceed as above to map the data. After the map is refreshed, note how many counties now exhibit data.

Take a look at the 3-year estimates for the same dataset if you wish, though they may not be available for the more recent years.

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This textbook is used as a resource in Penn State's Online Geospatial Education online degree and certificate programs. If this topic is interesting to you and you want to learn more about online GIS and GEOINT education at Penn State, check out

our Geospatial Education Program Office.

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