New Kid in Town

Understanding Data from the American Community Survey

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Kentucky: By The Numbers
University of Kentucky Cooperative Extension
Resources for accessing data in real time
http://www.ca.uky.edu/snarl

If you are looking for county-level data such as family characteristics, educational attainment, or detailed data on poverty, the **American Community Survey** is the place to go.

The **American Community Survey** (also called **ACS**) provides detailed estimates on many different population characteristics and for many different geographies such as counties, cities, states, and the nation.

We used to get this kind of data as part of the Decennial Census that is conducted every 10 years, but this is no longer the case. So if you find something with these kinds of data for 2000 or before, today they are found in the American Community Survey.

Every 10 years, we still have the Census. So, the official head count (such as the number of people in your county) still comes from that Decennial Census. (If you want the official counts for the years in between, the Census Bureau provides Annual Population Estimates. These are available on the American FactFinder website: https://factfinder.census.gov/.)

Even thought the American Community Survey is a rich source, and can be the only source for many county-level data, there are **important differences** that we need to know about.

What kinds of data can I find in the American Community Survey?

Education
- Educational Attainment
- Level of School

Journey to Work and Commuting
- Means of Transportation to Work
- Time Leaving Home
- Travel Time to Work

Youth Characteristics
- Grandchildren
- Poverty
- Family Type

Economic Characteristics
- Occupation
- Hours/Weeks Worked
- Detailed Poverty Characteristics
- Income to Poverty Ratio

Family Characteristics
- Married
- Single Parents
- Grandparents

Language Ability
- Ability to Speak English
- Language Spoken at Home

Housing
- Own/Rent
- Year Moved In
- Year Structure Built
- Vehicles Available

Other Characteristics
- Veteran Status
- Marital History
- Disability
- Migration
- etc…

As the Census Bureau puts it, while the Census that is conducted every 10 years tells us "*how many*" people there are, the **American Community Survey** tells us "***what do they look like***?"

How is the American Community Survey different?

Data from the American Community Survey are different in several ways:

1. We now have something called a margin of error.
2. The data are called "estimates."
3. Instead of data for just one point in time, most estimates for counties cover 5 years.
4. For some places, the American Community Survey provides both 1-year estimates and 5-year estimates.

Kentucky: By The Numbers

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Why are the data called "estimates?"

The data are called estimates because they are just that – estimates. The technical terms are "multi-year" and "period" estimates. This is in part because the data are collected over a period of time – as much as 5 years.

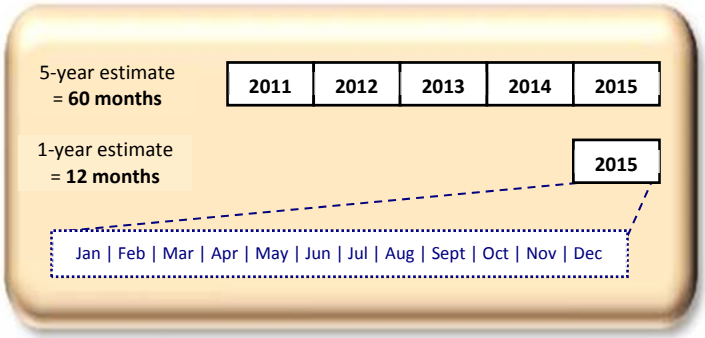
It is important that we **use the word "estimates"** when we report data from the American Community Survey.

"**Estimates** from the American Community Survey indicate that _____ ."

"According to the American Community Survey, it is **estimated** that _____ ."

Why are there 1-year and 5-year estimates?

A key reason for switching to the American Community Survey was cost. As a result, the ACS uses a smaller sample and continuously collects responses. To get a sample that is big enough, the responses need to be combined.



For the 5-year estimates, responses are collected each month over a 60 month time period.

For the 1-year estimates, responses are collected during the entire 12 months of the calendar year. In both cases, responses are combined to produce the 1- or 5- year estimate.

It is important to remember that the ACS estimates are **NOT AVERAGES**.

Even though the Census Bureau releases new estimates from the American Community Survey each year, the estimates are only **updated by only one year**. (The Census Bureau calls it "refreshing" the estimates.)

For the 5-year estimates, this means that as many as 4 years could overlap between the data releases.

Which estimates are available for my county?

All counties in the U.S. are provided 5-year estimates. Only counties with 65,000 persons or more get BOTH 1-year and 5-year estimates.

American Community Survey Estimates for Kentucky Counties

(* = After the 2014 ACS, 3-year estimates were discontinued)

5-year estimates
(Populations of less than 65,000)

Adair, Allen, Anderson*, Ballard, Barren*, Bath, Bell*, Bourbon, Boyd*, Boyle*, Bracken, Breathitt, Breckinridge, Butler, Caldwell, Calloway*, Carlisle, Carroll, Carter*, Casey, Clark*, Clay*, Clinton, Crittenden, Cumberland, Edmonson, Elliott, Estill, Fleming, Floyd*, Franklin*, Fulton, Gallatin, Garrard, Grant*, Graves*, Grayson*, Green, Greenup*, Hancock, Harlan*, Harrison, Hart, Henderson*, Henry, Hickman, Hopkins*, Jackson, Jessamine*, Johnson*, Knott, Knox*, LaRue, Laurel*, Lawrence, Lee, Leslie, Letcher*, Lewis, Lincoln*, Livingston, Logan*, Lyon, McCreary, McLean, Magoffin, Marion, Marshall*, Martin, Mason, Meade*, Menifee, Mercer*, Metcalfe, Monroe, Montgomery*, Morgan, Muhlenberg*, Nelson*, Nicholas, Ohio*, Oldham*, Owen, Owsley, Pendleton, Perry*, Powell, Pulaski*, Robertson, Rockcastle, Rowan*, Russell, Scott*, Shelby*, Simpson, Spencer, Taylor*, Todd, Trigg, Trimble, Union, Washington, Wayne*, Webster, Whitley*, Wolfe, and Woodford*.

1-year and 5-year estimates
(Populations of 65,000 + persons)

Boone, Bullitt, Campbell, Christian, Daviess, Fayette, Hardin, Jefferson, Kenton, McCracken, Madison, Pike, and Warren.

My county used to have 3-year estimates. Where did they go?

The Census Bureau used to provide 3-year estimates for counties with populations of 20,000 or larger. After the 2014 ACS, the 3-year estimates were discontinued and are no longer available.

My county has both 1- and 5-year estimates, which one do I choose?

It depends on your purpose. Generally speaking, the **1-year estimates** will have ***larger margins of error*****.**

This means that the 1-year estimates are not as precise as the 5-year estimates for the same item.

If you are interested in general characteristics for a large population, the difference might not matter. But for small groups, such as just female headed households or just people in a particular age group, the margin of error can be too large for the estimate to be useful. In this case, you would want to use the 5-year estimates.

What is a "Margin of Error?"

The margin of error tells us the range within which the estimate most likely falls.

If you have seen poll results reported in the news, when they say "plus or minus 5 points," they are telling you the margin of error.

Why is the Margin of Error important?

All data from surveys have margins of error. The margin of error gives us an idea as to how reliable the data are.

One reason that margins of error from the ACS are important is that there will be times when they can be **very large** (especially for small places or small groups).

One way to think of it is:

> Imagine planning a program where the number of potential participants is 50 people (+/- 10). This means that you could have anywhere between 40 and 60 participants in your program.
>
> Now imagine planning that same program if the number of potential participants is 50 (+/- 40). This means that you could have anywhere from 10 to 90 people.
>
> When the range is this large, you can see how things can become more difficult.

The same goes for understanding estimates from the American Community Survey.

The larger the margin of error, the more "wiggle room" there is in the estimate.

Do I have to include the Margin of Error?

Yes. It is important to **always report** the margin of error – in text, tables, or charts and graphs.

Remember, if we don't know the margin of error, how can we determine how much "wiggle room" there is in the estimate?

If you use a website that does not give you the margin of error for estimates from the ACS, use American FactFinder instead.

https://factfinder.census.gov/

I want to compare my county with another, but our estimates are for different time frames, what do I do?

Since estimates from the American Community Survey vary by the size of a place, when it comes to comparing across counties, it is important to always:

compare apples to apples

Whichever years you pick for one county, use the same years for the other county.

If your county has only 5-year estimates, then you need to compare it with the other county's 5-year estimates. (Don't forget to check that you are comparing the same time frames.)

Can I use estimates from the American Community Survey to see how much things have changed?

Each year, the Census Bureau releases new estimates from the American Community Survey. You can use these estimates to look at change over time.

However, it is important to know that...

Small changes may not mean that any real change actually happened

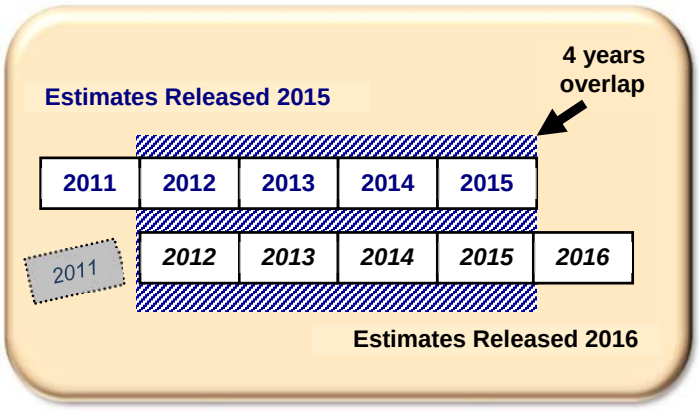
Since the American Community Survey uses a smaller sample, for any change to be real, the difference needs to be larger than the margin of error.

In order to determine if any change in a number is real, the Census Bureau recommends that you **only compare years that don't overlap**.

Remember, the Census Bureau is constantly collecting new responses for the American Community Survey.

Each year, the newly collected responses are added to the estimates and the oldest ones are dropped out.

For the 1-year estimates, this means a whole new set of responses. But, for the **5-year estimates**, this means that **only one year of the 5-years** has changed.



Because there are overlapping years, change between estimates could have happened only because some of the people in the sample changed, not because there was any real change.

In any case, don't forget that the difference between the two estimates **must be larger than the margin of error**.

I found my county's data but some of it is missing. What's going on?

1. It might be that you could be looking for estimates that don't exist. For example, if you are looking for 1-year estimates for Lyon or Owsley County, you wont find anything. Remember, **most counties only have 5-year estimates**.
2. For the 1-year estimates, the Census Bureau filters the results. This means that if there were too few responses to report an estimate, the Census Bureau does not provide a table. In some instances, there will be a "collapsed" version of the table with fewer estimates. (If this happens and the table does not have the estimate you are looking for, go to the 5-year estimate for the same item.)

Where do I find data from the American Community Survey?

The Census Bureau provides access to the American Community Survey through its **American FactFinder** website. This website has many different data sources produced by the Census Bureau.

http://factfinder2.census.gov/

On the home page, the "Community Facts" search will give you quick access to some of most recent estimates from the American Community Survey and other data.

If you want more detail, enter your county's name into the "Advanced Search." There, you can use the following filters to look at just the estimates from the American Community Survey,:

Topics → Program → American Community Survey

(If you are looking for data from the 2010 Census, pick the "dataset" filter called "2010 SF1 100% Data")

For many of the commonly used estimates, the Census Bureau already does the math and provides **both estimates** and **percents**.

One place where you can find these are in the "**Subject Tables**." (If the table number begins with an "S", then you know it is a subject table.)

How do I find more information?

The Census Bureau's has a website with lots of resources and information about the American Community Survey - including training presentations and Handbooks for Data Users.

https://www.census.gov/programs-surveys/acs/

The **Kentucky: By The Numbers** program has resources on the American Community survey written with the occasional user in mind.

http://www.ca.uky.edu/snarl/

Kentucky**: B**y **T**he **N**umbers is a program located in the Department of Community and Leadership Development and is part of the Kentucky Cooperative Extension Service at the University of Kentucky. For more information contact your local County Cooperative Extension office or Dr. Julie N. Zimmerman. Professor, Rural Sociology. Department of Community and Leadership Development, 500 Garrigus Building, University of Kentucky, Lexington, KY 40546-0215. email: jzimm@email.uky.edu.