AMERICAN COMMUNITY SURVEY

ACS Publication No. 1

User Guide

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What is the American Community Survey?

In 2010, the Census Bureau mailed a revised decennial census short form to American households. The traditional long form associated with the decennial census has been replaced by the American Community Survey (ACS). The ACS is an ongoing national survey that produces period estimates rather than point in time estimates approximating April 1st of each census year. With the ACS, households across the nation are randomly sampled every month and data from the monthly surveys are accumulated and pooled over 12, 36, and 60 months. The transition to a continuous survey presents important technical and statistical challenges for data users who must now become familiar with the nuances of working with single and multiyear estimates, measures of sampling error, and guidelines for comparing ACS data to historical Census data and other sources. As a major source of information about the characteristics of the U.S. population, the ACS is having a tremendous impact on policy making, program evaluation, and local government planning.

OFM recommends that data users read through this guide and become familiar with the ACS resources provided by the Census Bureau in order to obtain the necessary level of knowledge needed to use ACS data with confidence. The Census Bureau has created a series of handbooks entitled "A Compass for Understanding and Using American Community Survey Data" that target different audiences such as: general data users, media, state and local government, and researchers among others. The ACS data user is advised to read the most relevant ACS Compass handbook in order to gain a better understanding of the ACS. The appendices in the Compass handbooks, which are all the same, contain a wealth of technical information. Each handbook also contains several informative case studies targeting a particular audience.

This guidebook is structured in a question and answer format. Although a number of general guidelines, definitions, and examples are provided, many more can be found in the Guidance for Data Users section of the Census Bureau's ACS web site. OFM's ACS User Guide will be updated periodically in response to feedback from ACS data users and Census Bureau updates.

Is ACS data comparable to Census 2000 long form data? What do I need to know?

For decades, the Census Bureau used a least two questionnaires to collect decennial census data. The short form was used to collect basic demographic information only. The long form was used to collect basic demographic information plus more detailed housing and socioeconomic information. The source of detailed information about American households—their income, education, employment status, disability, etc.—was the census long form questionnaire. ACS data are intended to replace data traditionally collected via the decennial Census long form.

Even though the ACS contains most of the Census 2000 long form questions, *ACS data are not the same as Census 2000 long form data*. While some ACS items are comparable to those from the Census 2000 long form, many are not. Users should refer to the Census Bureau guidelines for Comparing ACS Data. OFM has compiled the following list, which is not exhaustive, with goal of alerting ACS users to some of the fundamental differences between the ACS and Census 2000 long form:

1. *The ACS is based on a smaller sample*: The number of ACS households sampled each year is fairly small (about 1 in 40), compared to the much larger sample for the Census long form (about 1 in 6). The smaller sample size associated with the ACS means that there is increased error surrounding estimates produced by the ACS compared to the decennial Census.

2. *Point of time vs. period estimates:* Data collection for the decennial census targets a specific point in time whereas ACS data are collected continuously. While decennial census enumeration lasts from around mid-March to late August, most of the data is collected around the April 1st time period and, for all practical purposes, represents the characteristics of the population as of April 1st in the decennial census year. ACS data are collected on a continual basis and are combined to represent the characteristics of the population over a period of one, three, or five years. For more information about period estimates, please see Appendix 1.

3. *Residence rules:* The Census 2000 defines place of residence as "usual place of residence" while the ACS defines it as the place a person has resided for two months or more. This can impact the count and the characteristics of the population in places such as college towns or other areas with highly seasonal populations. For more information, please see place of residence in Appendix 1.

4. *Income:* The Census 2000 captures income from the previous calendar year while the ACS captures income from the previous 12 months. For example, ACS 2007 income data reflect income received between January 2006 and November 2007. All income data are adjusted for inflation using the National CPI for the last year in the series. For more information on income and other dollar measures, please see income, other dollar measures, and gas and electric costs in Appendix 1.

5. *Poverty:* Because poverty data are based on income, the differences between the 2000 Census and the ACS are the same as those listed above under income.

6. *Migration:* The Census 2000 captured place of residence five years ago for the population aged five and older, while the ACS captures place of residence one year ago for those aged one year or more.

7. *Group quarters (GQ): GQs* are included in the ACS from 2006 onwards. The Census 2000 collected a complete count of persons in GQs. The ACS includes fewer population groups in the

GQ category than the Census 2000. The ACS does not survey people in "domestic violence shelters, soup kitchens, regularly scheduled mobile food vans, targeted non-sheltered outdoor locations, crews of maritime vessels and living quarters for victims of natural disasters" (U.S. Census Bureau, 2009). In addition, some GQ categories no longer exist such as a "residential care facility providing 'Protective Oversight', hospital/wards for the chronically ill and hospitals/wards for drug/alcohol abuse" (U.S. Census Bureau, 2009). In addition, the ACS is based on a sample of the GQ population controlled to the U.S. Census Bureau's estimate of GQs at the state level while Census 2000 values were based on a complete count. GQ data contained in the ACS may not be reliable for sub-state geographies, particularly in areas where few GQs exist.

8. *School Enrollment:* While both the Census 2000 and the ACS ask essentially the same question used to determine school enrollment, the reference periods are different. Census 2000 asked whether each person had attended school or college since February 1st, while the ACS asks about the last three months. For most Census 2000 households the reference period for the school enrollment question was around two months, but for some the reference period was as short as six weeks and as long as seven months. The ACS, in contrast, asks about school enrollment for the last three months, and data are collected from January to December. Given typical school schedules, one might expect to find differences in enrollment patterns based on these two reference periods. For more information, please see the following Census Bureau presentation: Measuring Education: A Comparison Between the Decennial Census and the American Community Survey.

Are ACS data available for your area of interest?

ACS questionnaires are mailed out each month to a sample of residences. The monthly survey data are then combined to represent the characteristics of a population over periods of 1, 3, or 5 years. While all areas are continuously sampled each year, ACS data are not available for all areas in the 1-year and 3-year datasets. Washington State and other large areas with populations of 65,000 and over are available as single year estimates as well as 3-year and 5-year estimates. Estimates for areas with populations greater than 20,000 are available in the 3-year and 5-year datasets. All areas are represented in the 5-year data products starting in 2010 (i.e., the 2005-2009 ACS release).

OFM has created two technical resources that can be used to ascertain whether or not ACS data are published for a given area in Washington state and whether or not a specific data table is available. The first resource, ACS Geographic Availability for Washington, provides a convenient way for users to gauge ACS data availability for their particular area of interest. In addition to state, county, and city summary levels, ACS data are also summarized by American Indian area, metropolitan and micropolitan statistical area, congressional district, census designated place, census tract, census block group, combined

statistical area, metropolitan division, Public Use Microdata Area, school district, urban area, plus many others. The second resource, ACS Detailed Table Availability, provides a convenient way for users to determine whether a specific table exists for a particular dataset, including whether a table is restricted to certain geographic summary levels. Using the above links, one can determine whether or not ACS data exist for a particular geographic area and which tables are available.

Why should ACS data be used to determine characteristics, not counts?

Use the ACS to obtain information about the characteristics of an area, not counts of the population. The primary purpose of the ACS is to measure changes in a community's socioeconomic characteristics based on a small sample of households surveyed every month. For example, the ACS is useful for gauging trends over time and for comparing characteristics across areas, but lacks the precision to determine the number of Hispanics that have moved into your city since the Census 2000. If population counts are needed, consider using information from the decennial census, the Census Bureau's Population Estimates Program, or one of OFM's population estimate products.

How does the ACS benefit from Census 2010 efforts?

The ACS benefits from Census 2010 efforts in two main ways. First, Census 2010 preparations and the Census 2010 count itself resulted in improvements to the list of housing units called the Master Address File (MAF). The MAF is the sampling frame for the ACS, so corrections for over and under coverage improve both the accuracy and efficiency of the sample. Second, the weighting of the sample is improved because the population and housing estimates that serve as controls are based on 2010 Census values. ACS data with the last year ending on or before 2009 (i.e. 2009 ACS, 2007-2009 ACS, and 2005-2009 ACS) are controlled to population and housing estimates that are based on Census 2000 counts. ACS data with the last year ending on or after 2010 (i.e. 2010 ACS, 2008-2010 ACS, and 2006-2010 ACS) are controlled to estimates based on Census 2010 population and housing counts.

How do changes to the ACS survey methodology impact the estimates?

Data users need to be aware that the Census Bureau has made important changes to the ACS survey methodology since its inception. While these changes have generally improved the quality of the estimates, they make comparisons over time somewhat difficult. The rebasing the ACS to Census 2010 values effectively creates a break in the series starting with the 2010 ACS data products. Data users should also note that the Census Bureau implemented sub-county population controls for incorporated

places and minor civil divisions, beginning with ACS releases ending in 2009 (i.e. 2009 ACS, 2007-2009 ACS, and 2005-2009 ACS). The sub-county controls result in ACS estimates that are not only more accurate but are also more consistent with those from the Population Estimates Program. Due to the ongoing nature of the ACS, the Census Bureau often makes minor adjustments to the ACS survey methodology with the goal of delivering a better end product. However, in making these adjustments, it becomes more difficult to interpret year-to-year change.

Which ACS data series should I use: 1-year, 3-year, or 5-year?

If both single year and multi-year data are available for your area of interest, the following examples will lead you to information that can help you decide which data set to use. In general data users will want to use more current data, but data quality and the intended use are also factors that should be considered when choosing an ACS dataset.

Multiple geographies example: You want to compare estimates from Spokane and Olympia. Spokane data are available in the 1-year, 3-year, and 5-year datasets, but Olympia is only available in 3-year and 5-year datasets. The most current data for the comparison would be the latest release of the 3-year ACS data. Depending on your data needs and the quality of the estimates, you may end up deciding to use the 5-year ACS data if reliability is more important than the currency of the information.

Time series example: You want to compare Seattle estimates over time. Estimates for Seattle are available in the 1-year, 3-year, and 5-year datasets. If the single year estimates are of reasonable quality, then each year of ACS data can be compared to the others. If the single year estimates are not of sufficient quality, then it might be possible to use non-overlapping 3-year ACS data as the basis for comparison instead. The first 3-year dataset for Seattle was the 2005-2007 ACS with first non-overlapping dataset being the 2008-2010 ACS. If you must use datasets where the years overlap, please read "Comparisons Based on Overlapping Periods" in Appendix 4 in any of the Census's Bureau's Compass documents. For additional information about ACS data comparisons, please see the Census Bureau document Comparing ACS Data. This document also contains useful information about item changes across surveys.

What are some advantages to using multiyear estimates?

You may want to use multiyear data, even if the single year data are available. Use information about the margin of error (MOE) and the coefficient of variation (CV) to help you decide which data series to use.

Smaller population in a larger area example: Many small populations, such as those contained in a number of the ancestry groupings, often have very high CV's regardless of the data release. For example, the estimated number of people living in Kent with Czech ancestry is 353, according to the 2005-2007 ACS. The CV for that estimate is 40.8 percent and the MOE is 237. The CV is high and the MOE is large relative to the estimate, so this estimate should be used with caution. In the period between 2005 and 2007, we know with 90 percent certainty that the population in Kent with Czech ancestry is roughly between 100 and 600 people. This is not a very specific estimate, but it does tell us that there are Czech people living in Kent and that the Czech population is very small relative to the total population.

Single versus multiyear estimates example: According to the 2007 ACS, 7,081 Seattle women had a birth in the past 12 months with a 90 percent MOE of plus or minus 1,141 people. According to the 2005-2007 ACS, 6,394 Seattle women had a birth in the past 12 months with a 90 percent MOE of plus or minus 775 people. As shown in Figure 1, the 2007 ACS estimate is more current, but it has a larger MOE than the 2005-2007estimate. One can clearly see the trade-off between the currency of the 2007 ACS estimate and precision of the 2005-2007 ACS estimate.

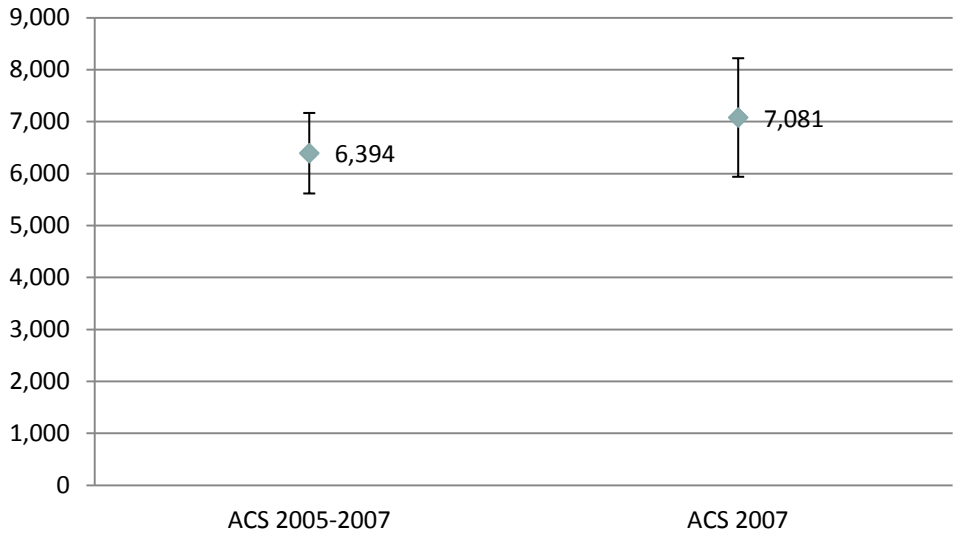

Figure1: Seattle Women Aged 15 to 50 Who Had a Birth in the Past 12 Months

For more information about data quality measures, please see the sections in this document entitled: Definition of margin of error (MOE), Definition of confidence interval, Computing a 90% confidence interval, Definition of coefficient of variation(CV), and Interpreting the coefficient of variation.

How can I obtain ACS data?

The Census Bureau provides a useful table showing the types of ACS data products that are available along with a brief description of each product. You can obtain ACS data from a variety of sources. The Census Bureau primarily publishes ACS data online through American FactFinder (AFF). To assist data users, the Census Bureau prepared a series of tutorials on how to access information using AFF. For more experienced data users, one can leverage the ACS summary file data.

OFM has created a webpage with links to frequently requested ACS data products for Washington state, counties, and cities including data profiles, comparison profiles, and a select number of detailed tables. The data profiles and comparison profiles cover basic social, economic, housing, and demographic characteristics. The detailed tables target specific areas of interest such as housing, poverty, income, and sample characteristics. Data users who do not find what they need from OFM's website are encouraged to search for information using AFF.

How to use and interpret 5-year ACS data: A small area example

Refer to the case study on the fictional town of Wolf Lake contained in A Compass for Understanding and Using American Community Survey Data: What Users of Data for Rural Areas Need to Know (pages 7-22) for detailed questions and answers about how to use and interpret the 5-year ACS data. Issues covered include:

- What do 5-year ACS estimates mean?
- Differences between the ACS and the Census 2000 long form data
- Differences in the residency rule between the ACS and the Census 2010
- Issues surrounding the use of population counts and estimates derived from the decennial census, the ACS, and other population estimate programs
- Margins of error in the both the ACS and the Census 2000 long form
- Determining whether an ACS estimate is statistically different from the Census 2000 estimate
- When to use Census 2010 data and when to use the 5-year ACS data
- How large changes, such as a plant closing, will be reflected in the 5-year ACS employment estimates

Can the ACS be used to find evidence of recent changes to economic, labor market, and housing market conditions?

Possibly. The answer depends on the size of your geographic and whether or not it is represented in the 1-year, 3-year, or 5-year data. Obviously, the 1-year and non-overlapping 3-year data are more suitable

for assessing change occurring over a relatively short time span. For areas with small populations with no 1-year or 3-year data available, one could look for more timely data published at a higher level of geography. For example, a person interested evaluating change in labor market conditions over time in a town with approximately 500 people can look for data tabulated by school district or county in order to find evidence of the impact of the recent recession. When using multiyear datasets, remember that estimates based on 36 or 60 months worth of data may mask short term changes or trends.

MOEs, CVs, and other statistics: What do they mean and how should I use them?

Definition of margin of error

"A margin of error (MOE) 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 the upper bound) and subtracting the margin of error from the estimate (for the lower bound). All published ACS margins of error are based on a 90-percent confidence level" (U.S. Census Bureau, 2008, p. 30).

Definition of coefficient of variation

The coefficient of variation (CV) is the "ratio of the standard of error (square root of the variance) to the value being estimated, usually expressed in terms of a percentage (also known as the relative standard deviation). The lower the CV, the higher the relative reliability of the estimate." (U.S. Census Bureau, 2008, p. 29).

Interpreting the coefficient of variation

The CV measures the relative amount of variability associated with a sample estimate. Low CV values indicate more reliable estimates. There are no steadfast rules as to what constitutes a reliable estimate. The Census ACS Compass products suggest that users should be cautious about using an estimate if the CV is greater than 15%, however, the actual cutoff value really depends upon the context of the research at hand. Some users may find that an estimate with a CV value of 35 meets their needs especially when better quality data are not available, while others may find they need a more precise estimate.

After evaluating a number of Census Bureau publications, OFM recommends the following classification scheme for assessing the reliability of an ACS estimate: good (CV <= 15%), fair (15% > CV <=30%), or use

with caution (CV > 30%). Ultimately is up to the user to access the quality of each ACS estimate and decide whether a particular estimate is suitable to his/her needs.

Definition of confidence interval

"The sample estimate and its standard error permit the construction of a confidence interval that represents the degree of uncertainty about the estimate. A 90-percent confidence interval can be interpreted roughly as providing 90 percent certainty that the interval defined by the upper and lower bounds contains the true value of the characteristic." (U.S. Census Bureau, 2008, p. 29).

Computing a 90% confidence interval

Confidence interval example: The following example shows how to construct 90% confidence intervals for Seattle labor force participation using 2007 ACS single year data.

In labor force	Estimate	MOE (+/-)	Percent	MOE (+/-)
ACS 2007, 1-Year	352,324	9,019	71.0%	1.1%

Formula for constructing confidence intervals:

Lower bound of the confidence interval: $L_{CL} = \hat{X} - MOE_{CL}$

Upper bound of the confidence interval: $U_{CL} = \hat{X} - MOE_{CL}$

where $\hat{X}$ is the ACS estimate, MOE is the margin of error associated with the estimate, and CL is the confidence level.

Calculating the 90% confidence interval for a point estimate:

Lower bound of confidence interval = 352,324 - 9,019 = 343,305

Upper bound of confidence interval = 352,324 + 9,019 = 361,343

Interpretation: With 90 percent certainty we can say that the number of people in Seattle's labor force is between 343,305 and 361,343 persons.

Calculating the 90% confidence interval for a percent:

Lower bound of confidence interval = 71% - 1.1% = 69.9%

Upper bound of confidence interval = 71% + 1.1% = 72.1%

Interpretation: With 90 percent certainty we can say that the labor force participation rate for Seattle is between 69.9 percent and 72.1 percent.

Calculating the 95% and 99% margins of error and associated confidence intervals from the 90% margin of error

In some cases, it may be desirable to increase the level of confidence in an estimate.

MOE example: The following example shows how to construct the 95% and 99% MOEs and confidence intervals for Seattle labor force participation using the information provided in the previous example.

Formula for constructing the 95% MOE:

95% MOE formula = 1.96 / 1.645 * MOE_{ACS}

Calculating the 95% MOE:

95% MOE = 1.96 / 1.645 * 9,019 = 10746.0

Constructing the 95% confidence interval:

Lower bound of confidence interval = 352,324 – 10,746 = 341,578

Upper bound of confidence interval = 352,324 + 10,746 = 363,070

Interpretation: With 95 percent certainty we can say that the number of people in Seattle's labor force is between 341,578 and 363,070 persons.

Formula for constructing the 99% MOE:

99% MOE formula = 2.576 / 1.645 * MOE_{ACS}

Calculating the 99% MOE:

99% MOE = 2.576 / 1.645 * 9,019 = 14123.4

Constructing the 99% confidence interval:

Lower bound of confidence interval = 352,324 – 14,123 = 338,201

Upper bound of confidence interval = 352,324 + 14,123 = 366,447

Interpretation: With 99 percent certainty we can say that the number of people in Seattle's labor force is between 338,201 and 366,447 persons.

How to tell whether two estimates are statistically different from each other?

ACS estimates can be used to make comparisons between estimates within or across geographic areas and time periods. Detailed instructions on how to make statistical comparisons are provided in Appendix 4 of the ACS Compass handbooks. Two common examples using Washington State data are provided here although the data user is encouraged to view the Compass resources for more examples (e.g., how to compare ACS data with decennial census data or how to make comparisons based on an overlapping time period).

1-year data example: Is the 2007 poverty rate in Grant County significantly different from 2006?

Poverty Rate	% in Poverty	Margin of Error	Lower Bound	Upper Bound
ACS 2006, 1-Year	21.7%	3.8%	17.9%	25.5%
ACS 2007, 1-Year	17.4%	3.3%	14.1%	20.7%

Formula for a test of statistical significance:

$$\left|\frac{\hat{X}_1 - \hat{X}_2}{\sqrt{SE_1^2 + SE_2^2}}\right| > Z_{CL}$$

where $\hat{X}_1$ and $\hat{X}_2$ are the 2006 and 2007 ACS estimates, $SE_1$and SE_2 are the standard errors for each of the estimates, and Z_{CL} is the critical value for the desired confidence level.

Using the above formula, you need to calculate standard errors:

2006 ACS SE = MOE / 1.645 = 0.038 / 1.645 = 0.0231

2007 ACS SE = MOE / 1.645 = 0.033 / 1.645 = 0.020061

Plugging the numbers into the equation:

$$\left|\frac{0.174 - 0.217}{\sqrt{0.020061^2 + .0231^2}}\right|$$

Resolves to:

$$\left|\frac{-0.043}{0.030595}\right| = 1.4055$$

Standard critical values (Z_{CL}) are as follows:

- For 90% confidence level: Z_{90} = 1.645
- For 95% confidence level: Z_{95} = 1.960
- For 99% confidence level: Z_{99} = 2.576

$1.4055 < Z_{90}$

Conclusion: The change in the poverty rate in Grant County between 2006 and 2007 is not statistically significant at the 90 percent confidence level.

Note: If the confidence intervals for two estimates overlap, this often means the two estimates are not statistically significant from each other. Do not rely on this method for determining statistical significance as it will not always produce an accurate result. In some cases, two or more estimates may have overlapping confidence intervals and be statistically different from each other.

In addition, the Census Bureau urges caution when comparing poverty data from adjacent years. ACS income data refers to the prior 12 months. Income for a respondent contacted in March of 2007 will cover about nine months of 2006 but the answers will be part of the 2007 ACS. For more details on this topic please refer to the Census Bureau document Comparing ACS Data.

3-year data example: Is Bellevue's 2005-2007 poverty rate significantly different from Yakima's?

Poverty Rate	% in Poverty	Margin of Error	Lower Bound	Upper Bound
Bellevue, 3-Year	8.1%	1.3%	6.8%	9.4%
Yakima, 3-Year	21.0%	2.6%	18.4%	23.6%

Formula for a test of statistical significance:

$$\left| \frac{\hat{X}_1 - \hat{X}_2}{\sqrt{SE_1^2 + SE_2^2}} \right| > Z_{CL}$$

where $\hat{X}_1$ and $\hat{X}_2$ are the Bellevue and Yakima ACS estimates, $SE_1$and SE_2 are the standard errors for each of the estimates, and Z_{CL} is the critical value for the desired confidence level.

Using the above formula, you need to calculate standard errors:

Bellevue 2005-2007 ACS SE = MOE / 1.645 = 0.013 / 1.645=0.007903

Yakima 2005-2007 ACS SE = MOE / 1.645 = 0.026 / 1.645 = 0.015805

Plugging the numbers into the equation:

$$\left|\frac{0.081 - 0.21}{\sqrt{0.007903^2 + 0.015805^2}}\right|$$

Resolves to:

$$\left|\frac{-0.129}{0.017671}\right| = 7.3$$

Standard critical values (Z_{CL}) are as follows:

- For 90% confidence level: Z_{90} = 1.645
- For 95% confidence level: Z_{95} = 1.960
- For 99% confidence level: Z_{99} = 2.576

$7.3 > Z_{99}$

Conclusion: According to the 2005-2007 ACS, Yakima's poverty rate is significantly higher than Bellevue's poverty rate. The difference between the two poverty rates is statistically significant at the 99 percent confidence level.

I want to generate custom estimates using ACS data. How do I calculate a margin of error for derived estimates?

Refer to Case Study 4 in A Compass for Understanding and Using American Community Survey Data: What General Data Users Need to Know or Appendix 3, Page A-14 to A-17 in any of the Census Bureau Compass handbooks for detailed instructions. For cases that include many estimates with a value of zero, please see Page 21 and 22 of Issues with Approximating the Standard Error of Linear Combinations of Multiple Estimates.

Tools to extract ACS data, calculate margins of error, and test for statistical significance

A number of utilities are available that can be used to extract and analyze ACS data:

- ACS summary file retrieval tool: 2010 | 2009, U.S Census Bureau
- DataFerret, U.S Census Bureau
- ACS calculators, Oklahoma Department of Commerce
- ACS margins of error and significance calculator, SDC/BIDC Clearinghouse

Appendix 1: Supplemental Information

Period estimates: Period estimates are estimates based on data collected over a given time period as opposed to a data collected at a single point in time. Depending on the ACS release, the period for ACS estimates is 1, 3, or 5 years. Here are some examples of how to describe period estimate data.

- According to the 2008 ACS, 67 percent of Washington State's population aged 16 and over in 2008 were in the labor force.

- According to the 2005-2007 ACS, the child poverty rate in Walla Walla County during the 2005-2007 period was 26 percent.

Census 2000 long form data and other types of surveys that are collected over a short period of time are called "point-in-time estimates". Even if the questions on two surveys are the same, caution should be used when comparing period estimates with point in time estimates because the reference period is different.

Place of residence: The ACS defines where a person resides differently than the decennial Census. According to the ACS, anyone "who is currently living or staying at a sample address is considered a resident of that address, except people staying there for 2 months or less. People who have established residence at the sample unit and are away for only a short period of time are also considered to be current residents" (U.S. Census Bureau, 2008, p.29).

The decennial Census counts people residing in their "usual place of residence". This has been defined as "the place where the person lives and sleeps most of the time. This place is not necessarily the same as the person's voting residence or legal residence." (U.S. Census Bureau, Population Division, 2008).

The ACS definition of a resident makes it impossible to tell the difference between seasonal and full-year population. Individuals who reside in one place for 9 ½ months and another for 2 ½ months may be counted in either place. This will impact the population characteristics (i.e., vacancy rates, income distribution, age distribution, household composition, etc.) of areas with large seasonal populations.

Income: ACS data users need to be aware of the methods by which income is calculated. An individual interviewed in April 2008 would report his/her income between April 2007 and March 2008. That individual's income is adjusted to the 2008 calendar year using the CPI. This is done by taking the individual's income and dividing by the average CPI for April 2007-March 2008 and then multiplying by the average annual CPI for 2008 (January through December 2008). For multiyear ACS data releases, the income data are adjusted to represent the last calendar year of the release.

Other dollar measures: For multiyear ACS data, dollars values for measures such as rent, mortgage payments, utility costs, etc. are adjusted to the last year in the series. Single year data are not adjusted.

Gas and Electric Costs: For the ACS, respondents are asked about utility costs in the prior month, while Census 2000 responses refer to annual utility costs.

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