

# New ACS Data and the Census

## How to use the American Community Survey



For decades, only the decennial census provided detailed social and economic data for small areas and specific population groups. These numbers have been used to identify community needs and plan for housing, senior citizen centers, roads, health clinics, schools, and child care centers. However, their major drawback was they were only available every ten years. By each decade's end, the numbers were out of date and often no longer represented community characteristics accurately.

To provide more timely information, the U.S. Census Bureau replaced the "long form" of the census with the American Community Survey, compiled from a monthly sample of household surveys with detailed questions.

The recently released 2005-2009 ACS 5-Year Estimates are the first new small-area data since the 2000 Census. However, it's important to remember that although the ACS is a Census Bureau product, it is not the decennial census. State agencies, local governments, and nonprofits who use the ACS data for planning, grant proposals, or "snapshots" of communities should approach these data with caution.

When comparing data, it's important to look at similar data sets. While we can reliably compare results from one census to another to track changes in population, labor force, income, or poverty, we should be aware of the differences between the categories (see Exhibit 1) and calculation methods for the ACS and census data sets.

### 1 Comparing Data Characteristics: ACS Estimates and 2000 Census Alaska, 2005 to 2009

#### Comparable Characteristics and Their Differences\*

Ancestry	Occupation (T)
Citizenship Status (T)	Class of Worker (T)
Nativity	Rooms and Bedrooms (Q)
Year of Entry	Cost of Utilities
Place of Birth	House Heating Fuel
Journey to Work (T)	Kitchen Facilities (Q)
Grandparents and Grandchildren	Monthly Rent
School Enrollment	Mortgage Status
Educational Attainment	Occupants/Room (Q)
Language	Owner Costs (T)
Income and Earnings (RP)	Plumbing Facilities (Q)
Poverty (RP)	Tenure
Veteran Status and Period of Military Service	Units in Structure
Employment Status (Q)	Home Value (Q)
Hours and Weeks Worked	Vehicles Available
Industry (T)	Group Quarters Population (U)

#### Characteristics That Shouldn't Be Compared

Migration
Marital Status
Disability Status**
Contract Rent and Gross Rent
Gross Rent as Percentage of Household Income
Real Estate Taxes
Telephone Service
Year Moved In
Year Structure Built

\*These characteristics appear in both the ACS data and the census; however, the letter in parentheses shows there's a difference between the two in how that characteristic is defined or calculated. They show differences in: Q = question wording, RP = reference period, T = tabulation, U = universe. "Universe" refers to the entire group considered eligible to receive a survey.

\*\*Data will be available in the 2008-2012 ACS.

Source: U.S. Census Bureau, American Community Survey, 2009 Comparison Quick Guide

## The American Community Survey

For decades, people would fill out census questionnaires that asked ten basic questions, and a smaller sample of the population would also answer questions about education, income, and employment. This was referred to as the “long form,” and data were tabulated for all geographic areas.

The U.S. Census Bureau has replaced the long form questionnaire with the American Community Survey, a monthly survey of a sample of households. The ACS uses questions similar to the census long form, and adds questions to address current social and economic conditions.

The ACS data are tabulated for geographic areas according to population size. In Alaska, the 2009 ACS 1-Year Estimates (collected over 12 months) are available for areas with a population of 65,000 or more: the state, the Municipality of Anchorage, the Fairbanks North Star Borough, and the Matanuska-Susitna Borough.

The 2007-2009 ACS 3-Year Estimates (collected over 36 months) also include areas with 20,000 or more people, and add the City and Borough of Juneau and the Kenai Peninsula Borough to the above list.

The most recent release of the 2005-2009 ACS 5-Year Estimates (collected over 60 months) is available for all 347 communities in the state,<sup>1</sup> incorporated and unincorporated. These include the smallest areas in Alaska, such as census tracts and block groups. Exhibit 2 shows the differences in the one-year, three-year, and five-year estimates, and which set might be most useful.

### Evaluating the data

Because the ACS is a major departure from decennial census data, the department is still evaluating its accuracy and how to best guide its users. Exhibit 1 shows the data topics and the categories for the 2000 Census and the ACS. There are differences in the universe,<sup>2</sup> wording of the questions, residence rules, and reference period.

For example, data from the decennial census are

<sup>1</sup>Although all communities are included, some data may not be reported, and may be listed as zero. See the next section, “Evaluating the data,” for more information.

<sup>2</sup>“Universe” refers to all people who are eligible to receive a survey.

## 2 Using ACS Estimates 1-Year, 3-Year, and 5-Year

### One-Year Estimates

12 months of data collected  
Data available for geographic areas of 65,000+  
Smallest sample size  
Less reliable than three-year or five-year data  
Most current data

### Three-Year Estimates

36 months of data collected  
Data for geographic areas of 20,000+  
Larger sample size than one-year  
More reliable than one-year; less reliable than five-year  
Less current than one-year and more current than five-year

### Five-Year Estimates

60 months of data collected  
Data for all geographic areas  
Largest sample size  
Most reliable  
Least current

Source: U.S. Census Bureau, American Community Survey, Guidance for Data Users

“point-in-time,” and identify the state’s population as 710, 231 as of April 1, 2010. However, the ACS five-year estimates are averages of the monthly results over five years, and report an Alaska population of 683,142.

We have also found that although the ACS provides detailed geographic levels, data are not available for all places in the state. This may be due to sample size or the time of year they are collected.<sup>3</sup>

The data from the 2005-2009 ACS estimates reflect the geographic boundaries for boroughs and census areas as of 2009. This means, for example, that data are available for the Municipality of Skagway and the City and Borough of Wrangell, both incorporated since 2000. However, numbers for cities and unincorporated places, Alaska Na-

<sup>3</sup>The Census Bureau has divided the state into “Remote Alaska” and “Non-Remote Alaska.” In 2007, most of the Alaska Native Village Statistical Areas were added to the sample for “Remote Alaska.” In most of the state, the Census Bureau collects data over a period of three months through a mailed questionnaire and a telephone follow-up. In “Remote Alaska,” field representatives conduct in-person interviews over a four-month period.

## ACS 5-Year Characteristics and Margins of Error

### Selected Alaska areas, 2005 to 2009

# 3

Geography	Total Population	Margin of Error	Unemp. Rate	Margin of Error	Persons Below Poverty	Margin of Error	Median Household Income	Margin of Error	Per Capita Income	Margin of Error
Anchorage, Municipality of	280,389	*****	7.3%	+/- 0.5%	21,466	+/- 1739	\$70,151	+/- \$1,348	\$33,436	+/- \$698
Bear Creek CDP	1,770	+/- 419	0%	+/- 2.7%	45	+/- 74	\$73,969	+/- \$12,032	\$25,156	+/- \$4,711
Bethel city	6,384	+/- 19	8.9%	+/- 3.7%	307	+/- 207	\$85,841	+/- \$7,671	\$27,616	+/- \$2,814
Chase CDP	0	+/- 109	-	**	0	+/- 109	-	**	N	N
College CDP	14,148	+/- 1063	8.9%	+/- 2.5%	1,543	+/- 473	\$69,144	+/- \$4,179	\$30,706	+/- \$4,226
Deltana CDP	1,829	+/- 311	11.6%	+/- 5.6%	149	+/- 107	\$73,720	+/- \$5,110	\$25,533	+/- \$4,180
Dillingham city	2,348	+/- 175	6.9%	+/- 3.4%	232	+/- 114	\$73,833	+/- \$16,461	\$34,816	+/- \$3,132
Dot Lake CDP	12	+/- 16	-	**	0	+/- 109	-	**	N	N
Ester CDP	1,976	+/- 574	2.5%	+/- 3.9%	367	+/- 307	\$54,813	+/- \$8,466	\$24,809	+/- \$7,824
Fairbanks city	34,688	+/- 35	6.2%	+/- 1.6%	3,322	+/- 615	\$51,365	+/- \$3,087	\$25,757	+/- \$1,057
Flat CDP	0	+/- 109	-	**	0	+/- 109	-	**	N	N
Fritz Creek CDP	1,865	+/- 284	10%	+/- 4.8%	148	+/- 74	\$44,773	+/- \$9,673	\$20,694	+/- \$3,007
Haines CDP	1,887	+/- 235	5.7%	+/- 6.3%	44	+/- 39	\$43,952	+/- \$6,734	\$28,801	+/- \$7,158
Juneau, City and Borough of	30,777	*****	6.1%	+/- 1.2%	2,014	+/- 435	\$76,437	+/- \$4,382	\$34,880	+/- \$1,477
Karluk CDP	53	+/- 32	63.3%	+/- 38.6%	38	+/- 29	\$6,250	+/- \$26,895	\$7,502	+/- \$4,480
Lowell Point CDP	50	+/- 46	0%	+/- 38.6%	0	+/- 109	\$54,732	+/- \$382,736	\$71,554	+/- \$16,723
Nikolai city	87	+/- 40	39.6%	+/- 17.2%	62	+/- 41	\$17,500	+/- \$5,734	\$6,872	+/- \$2,217
Nome city	3,604	+/- 16	6.6%	+/- 3.8%	132	+/- 119	\$70,664	+/- \$14,695	\$32,338	+/- \$5,890
Port Clarence CDP	394	+/- 637	0%	+/- 28.6%	0	+/- 109	-	**	\$29,776	+/- \$265
Portage Creek CDP	0	+/- 109	-	**	0	+/- 109	-	**	N	N
Sitka, City and Borough of	8,811	*****	7.6%	+/- 2.7%	577	+/- 225	\$58,895	+/- \$3,740	\$30,013	+/- \$2,251
Unalaska city	3,502	+/- 758	2.3%	+/- 2%	382	+/- 210	\$76,989	+/- \$5,829	\$25,694	+/- \$3,466

CDP = Census Designated Place

- indicates either no sample observations or too few sample observations were available to compute an estimate or ratio.

N indicates the data for this geographic area cannot be reported because the sample is too small.

\*\* indicates either no sample observations or too few sample observations were available to compute a standard error and thus the margin of error.

\*\*\*\*\* indicates that a statistical test for sampling variability is not appropriate.

Source: U.S. Census Bureau, American Community Survey 2005-2009 5-Year Estimates

tive Village Statistical Areas, census tracts, and block groups have been calculated for this release according to 2000 Census geographic boundaries.

The 2006-2010 ACS 5-Year Estimates will reflect the geographic changes as of 2010. Because the ACS is a monthly survey with data released annually, boundary changes to boroughs and cities will be provided to the Census Bureau to ensure the ACS reflects the current boundaries.

Finally, users should also note the margin of error for each number or percentage, which may be significant. Exhibit 3 shows randomly selected boroughs and communities with frequently requested categories, and the related margins of error.

## The 2010 Census

Last year, the Census Bureau conducted the 2010 Census across the state. All residents received the standard questionnaire with ten questions.

The data have been tabulated, and when released to the state will show total population; population by race, age, and households; types of households (e.g., married couples and single-parent families); and whether homes are occupied or vacant.

The 2010 Census will not include poverty, income, education, veteran status, labor force, or detailed housing characteristics, which were eliminated with the long form and are now part of the ACS.

Data from the 2010 Census will be released in mid-March beginning with the redistricting file, followed by demographic profiles in May and detailed population characteristics in June.

Just as social and economic characteristics from the recent ACS data aren't comparable to the 2000 Census, they also can't be compared to the 2010 Census. To analyze changes in demographic population characteristics — such as age, sex,

## Technical Documentation

The Census Bureau provides lengthy documentation on the ACS, including the accuracy of the data, subject definitions, sample size, data quality, and changes from one data set to another.

**Methodology:**

[http://www.census.gov/acs/www/methodology/methodology\\_main/](http://www.census.gov/acs/www/methodology/methodology_main/)

**Sample size and quality:**

[http://www.census.gov/acs/www/methodology/sample\\_size\\_and\\_data\\_quality/](http://www.census.gov/acs/www/methodology/sample_size_and_data_quality/)

**Accuracy of the data and subject definitions:**

[http://www.census.gov/acs/www/data\\_documentation/documentation\\_main/](http://www.census.gov/acs/www/data_documentation/documentation_main/)

**Geography and the ACS:**

[http://www.census.gov/acs/www/guidance\\_for\\_data\\_users/geography/](http://www.census.gov/acs/www/guidance_for_data_users/geography/)

**User notes:**

[http://www.census.gov/acs/www/data\\_documentation/user\\_notes/index.php](http://www.census.gov/acs/www/data_documentation/user_notes/index.php)

race, Hispanic or Latino origin, household type and relationship, and housing vacancy — compare the 2010 Census data to the 2000 Census figures.

For the most recent ACS data, see our Web site at <http://labor.alaska.gov/research/census/acs.htm>. This site reflects any new data or changes to the methods or geographic areas.

By NEAL FRIED, Economist

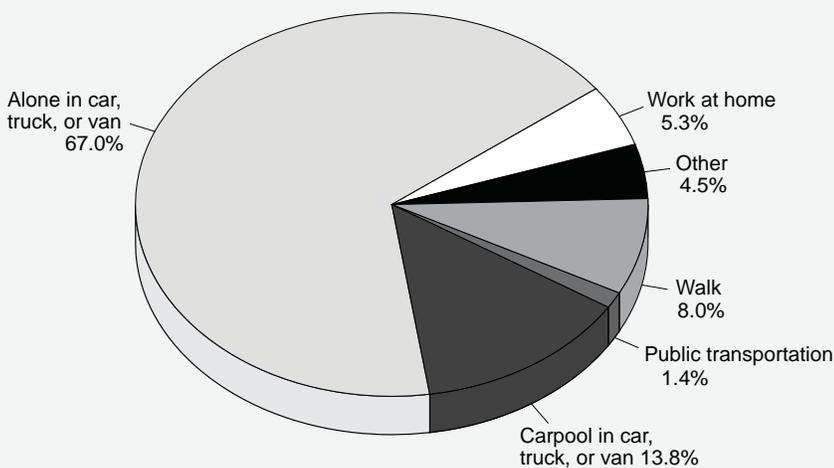
# How Alaskans Get to Work

## A look at American Community Survey Commuter Data

Most Alaskans drive their cars or trucks to work, just like their fellow Americans — but what sets Alaska apart is the range of other ways we commute.

More people nationwide use public transportation. But recent American Community Survey data<sup>1</sup> show that Alaskans, especially those in rural areas, tend to walk or use alternative methods of transportation far more often than their U.S. counterparts. These include riding bikes, motorcycles, snowmachines, four-wheelers, dog sleds, planes, or boats. Also, more of us simply go nowhere — that is, we work at home.

### 1 Most Alaskans Drive to Work Alone Alaska, 2005 to 2009



Source: U.S. Census Bureau, American Community Survey

### Most of us drive to work, alone

Like a majority of Americans, most Alaskans commute to work daily by car, truck, or van — alone. (See Exhibits 1 and 2.) In fact, two-thirds of Alaskans travel to our jobs this way, and if we combine this group with those who drive with at least one other person (the U.S. Census Bureau calls this carpooling), the number grows to nearly 81 percent. This is no surprise when we consider that there were 451,100 cars and 214,000 pickups registered in Alaska in 2010. We either love our cars and pickups,

<sup>1</sup> For a detailed description of the ACS and how it compares to census data, please see the preceding article on page 9 of this issue: "New ACS Data and the Census."