Demystifying Census Data

Legislative Research Librarians
September 18, 2013
Boise, Idaho
Agenda

• Demographic programs
• Census geography
• Race and ethnicity
• Accessing the data
• Tips: Presenting the data
• Topic-driven searches
• Resources
• Summary
Demographic Programs

- **2010 Census**
  - *Counts*: number of people and housing units
  - 100% coverage

- **American Community Survey (ACS)**
  - Estimates demographic, social, economic characteristics of people and housing stock
  - *Characteristics*: how people live
  - Sample of 2.5% of U.S. households every year
Questionnaire Topics
2010 Decennial Census

- (Name)
- Sex
- Age
- Date of birth
- Ethnicity
- Race
- Relationship of people within household
- Rent / own house (tenure)
- (Coverage questions)
On January 1, 1863, the Emancipation Proclamation went into effect, freeing all slaves in Confederate territory. After discussing the idea with his cabinet in July 1862, Lincoln waited for a strong Union victory in the Civil War before announcing his decision. In September 1862, Union troops prevented a Confederate invasion of Maryland at the Battle of Antietam, providing Lincoln the opportunity to issue the Preliminary Emancipation Proclamation.

Although the importation of slaves into the United States had been banned in January 1808, slavery was not abolished until the 13th Amendment was ratified in December 1865. Below are a few facts from the U.S. Census Bureau concerning the Civil War and emancipation:

- The 1850 Census recorded 3.2 million slaves in the United States. By 1860, there were nearly 4 million slaves in the nation, 89 percent of whom lived in states that became part of the Confederacy.

- Between 1850 and 1860, 3,000 slaves were freed by slave owners. During the decade, the number of slaves gaining freedom decreased in Delaware and Florida but increased in seven states: Alabama, Georgia, Louisiana, Maryland, Mississippi, North Carolina, and Tennessee.

- The total number of people who escaped from slavery decreased between 1850 and 1860.
Questionnaires

Since the first census in 1790, the U.S. Census Bureau has collected data using a census "schedule," also called a "questionnaire." Between 1790 and 1820, U.S. Marshals conducting the census were responsible for supplying paper and writing-in headings related to the questions asked (i.e., name, age, sex, race, etc.). In 1830, Congress authorized the printing of uniform schedules for use throughout the United States.

The 1940 Census included separate questionnaires to count the population and collect housing data. The 1960 and later censuses combined population and housing questions onto a single questionnaire mailed to households or completed during a census taker’s visit.

Between 1970 and 2000, the U.S. Census Bureau used two questionnaires. Most households received a short-form questionnaire asking a minimum number of questions. A sample of households received a long-form questionnaire that included additional questions about the household. The 2010 Census had just one questionnaire consisting of ten questions.
Questionnaire Topics
American Community Survey (ACS)

<table>
<thead>
<tr>
<th>Demographic</th>
<th>Social</th>
<th>Economic</th>
<th>Housing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td>Families</td>
<td>Income</td>
<td>Tenure</td>
</tr>
<tr>
<td>Age</td>
<td>Education</td>
<td>Poverty</td>
<td>Occupancy</td>
</tr>
<tr>
<td>Race</td>
<td>Marital Status</td>
<td>Food Stamps / SNAP</td>
<td>Structure Housing</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>Fertility</td>
<td>Employment Status</td>
<td>Value</td>
</tr>
<tr>
<td>Household Relationship</td>
<td>Grandparent Caregivers</td>
<td>Occupation</td>
<td>Taxes / Insurance</td>
</tr>
<tr>
<td>House Group Quarters</td>
<td>Veterans</td>
<td>Industry</td>
<td>Utilities</td>
</tr>
<tr>
<td></td>
<td>Disability Status</td>
<td>Journey to Work</td>
<td>Mortgages Vehcles</td>
</tr>
<tr>
<td></td>
<td>Language at Home</td>
<td>Place of Work</td>
<td>Monthly Rent</td>
</tr>
<tr>
<td></td>
<td>Citizenship</td>
<td>Health Insurance</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Migration</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Items in red were also collected on the 2010 Census
### American Community Survey (ACS) Data Release Timetable

<table>
<thead>
<tr>
<th>Data Product (next release)</th>
<th>Population Threshold of Area</th>
<th>Year of Data Release</th>
<th>Year(s) of Data Collection</th>
</tr>
</thead>
</table>

*All Areas = All legal/administrative and statistical geographic areas down to the block group level.
*Zip Code Tabulation Area (ZCTA) estimates first became available in 2012, with the 2007-2011 estimates.
2013 Release Dates
ACS 2012 Products

• 1-year ACS 2012 estimates
  – September 19
• 3-year ACS 2010-2012 estimates
  – October 24
• 5-year ACS 2008-2012 estimates
  – December 5
  – To include current state legislative district boundaries
ACS Questionnaires
American Community Survey

In a Nutshell

• **Strengths**
  – Data are current
  – Rich topical detail

• **Challenges**
  – Reliability issues due to sample size
    • Small areas
    • Small population groups
  – Data user must consider margin of error (MOE) when using ACS estimates
ACS Updates and Improvements

Sample Size Increase

• Sample expanded from 2.9 million to 3.54 million addresses per year

• Begun during 2011 data collection
  – Mail out -- June 2011
  – CATI (Computer-Assisted Telephone Interview) -- July 2011
  – CAPI (Computer-Assisted Personal Interview) -- August 2011
ACS Updates and Improvements

Reallocation of Sample

- Objective: Improve the reliability of the estimates for small areas
- Increased sampling rates for small tracts and governmental units
- Slightly decreased sampling rates in larger tracts
- Begun in January 2011
ACS Updates and Improvements: New Questions
Computer Ownership / Internet Usage

9. At this house, apartment, or mobile home—do you or any member of this household own or use any of the following computers?
- EXCLUDE GPS devices, digital music players, and devices with only limited computing capabilities, for example: household appliances.

   a. Desktop, laptop, netbook, or notebook computer
   - Yes ☐ No ☐

   b. Handheld computer, smart mobile phone, or other handheld wireless computer
   - Yes ☐ No ☐

   c. Some other type of computer
   - Yes ☐ No ☐

10. At this house, apartment, or mobile home—do you or any member of this household access the Internet?
   - Yes, with a subscription to an Internet service ☐
   - Yes, without a subscription to an Internet service → SKIP to question 12
   - No Internet access at this house, apartment, or mobile home → SKIP to question 12

11. At this house, apartment, or mobile home—do you or any member of this household subscribe to the Internet using—

   a. Dial-up service?
   - Yes ☐ No ☐

   b. DSL service?
   - Yes ☐ No ☐

   c. Cable modem service?
   - Yes ☐ No ☐

   d. Fiber-optic service?
   - Yes ☐ No ☐

   e. Mobile broadband plan for a computer or a cell phone?
   - Yes ☐ No ☐

   f. Satellite Internet service?
   - Yes ☐ No ☐

   g. Some other service?
   - Yes ☐ No ☐
   Specify service ☐
ACS Updates and Improvements
Internet Response Option

• Ongoing digital transformation
  – 61st U.S. Census Bureau survey with Internet response option
    • Households in sample receive letter with login instructions to secure website
    • Participants have the ability to review responses
    • Assistance available to respondents
  – Advantages
    • More convenient for respondents
    • More cost-effective
  – Secure and confidential
Census Geography Hierarchy
(with 2010 Statistical Area Criteria)
Revised 02-19-13

Central axis describes a nesting relationship

Types of Place

- Cities and towns -- incorporated
- Census Designated Places (CDPs):
  - Unincorporated; no size threshold
  - Separate and distinct from city/town
  - Redefined each census

Census Tracts

- 1,200 to 8,000 population (optimum 4,000)
- 480 to 3,200 housing units

Block Groups

- 600 to 3,000 population
- 240 to 1,200 housing units

Blocks not defined by population
Lowest geographic level for data
Block level data only for Decennial Census

Census Tracts

- 1,200 to 8,000 population (optimum 4,000)
- 480 to 3,200 housing units

AIANNH Areas*
(American Indian, Alaska Native, Native Hawaiian Areas)
Small Area Geography Hierarchy

- **Block number:** Blocks have 4-digit numbers – their block group number (“3” in this illustration) is the first digit.
- **Block group number:** Always a single digit (1 to 9).
- **Census tract number:** A decimal indicates that a census tract has been split, usually because it has exceeded the optimum size (housing units or population). This enables comparability from census to census.
- **Decennial Census:** Lowest level of geography on American FactFinder (AFF) - - block.
- **American Community Survey:** Lowest level of geography on AFF - - census tract; on the FTP (download) site - - block group.
Maps & Data

Find geographic data and products such as the TIGER/Line Shapefiles, KMLs, TIGERweb, cartographic boundary files, geographic relationship files, and reference and thematic maps.

Maps

- Census Data Mapper
- Reference
- Thematic
- Maps Available for Purchase

Geographic Data

- TIGER Products
  - Geospatial Files and Applications from our MAF/TIGER database. Tools for use in GIS software, Web Mapping Services (WMS) to use in your applications, and browsers to view geographic data.
- Partnership Shapefiles
  - The Partnership Shapefiles are used in our partner programs to share data with and capture data from our partners.
- Relationship Files
  - Relationship files help users compare different vintages of geography, such as Census 2000 blocks to 2010 Census blocks in text format.

Census Data Mapper

The Census Data Mapper is a web mapping application intended to provide users with a simple interface to view, save and print county-based demographic maps of the United States.

Reference Maps

Reference maps are designed to show the geographic locations of features and boundaries. These maps usually contain features, such as roads and rivers, and boundaries, such as county, place, census tracts, or many more. These maps do not contain demographic data and are used solely to show the location of and relationship between boundaries and features. For interactive reference maps see TIGERweb.
2010 Census (Boise city, ID)
Tract Reference Maps
(block maps also available)

Homepage > Geography tab > Maps and Data > Reference Maps > Census Reference Maps > Census Tract Maps (2010) > place (select state) GO > (select county) > click hyperlink for place name > if more than one map sheet, open 000.pdf (index map) to determine map sheet number (or inset letter) > back out > select map sheet (or inset)
2010 Census Ethnicity Question (asked since 1970)

8. Is Person 1 of Hispanic, Latino, or Spanish origin?
   - No, not of Hispanic, Latino, or Spanish origin
   - Yes, Mexican, Mexican Am., Chicano
   - Yes, Puerto Rican
   - Yes, Cuban
   - Yes, another Hispanic, Latino, or Spanish origin — Print origin, for example, Argentinean, Colombian, Dominican, Nicaraguan, Salvadoran, Spaniard, and so on.

9. What is Person 1’s race? Mark X one or more boxes.
   - White
   - Black, African Am., or Negro
   - American Indian or Alaska Native — Print name of enrolled or principal tribe.
   - Asian Indian
   - Japanese
   - Native Hawaiian
   - Chinese
   - Korean
   - Guamanian or Chamorro
   - Filipino
   - Vietnamese
   - Samcan
   - Other Asian — Print race, for example, Hmong, Laotian, Thai, Pakistani, Cambodian, and so on.
   - Other Pacific Islander — Print race, for example, Fijian, Tongan, and so on.
   - Some other race — Print race.
Accessing the Data
Simple Portals

Links on Homepage – census.gov

QuickFacts
- Geographies: State, county, city
- Current demographic, business, and geography facts
- Links to historic data (through “Browse data sets”)

Interactive Map
- County maps displaying a mashup of population and economic data
- Sources: 2011 County Business Patterns and the 2010 Census

Population Finder
- Product: 2010 Demographic Profile summaries
- Geographies: State, county, city, American Indian area
Census Homepage: census.gov
Quick Data Tools

- Quick Facts
- Interactive Map
- Population Finder
Simple Portals

Links from Data tab – census.gov

Easy Stats
- Table topics: Financial, jobs, housing, people, and education by race and ethnicity
- Geographies: State, county, city, congressional district

American FactFinder: Community Facts
- Popular facts/estimates: Population, age, business and industry, education, housing, income, origins and language, poverty, veterans
- Geographies: State, county, city, zip code

American FactFinder: Guided Search
- Prompts user for criteria by presenting search options, one after another
- Simple geographic areas, including nation, state, American Indian area, place (city, town, or Census Designated Place – CDP), metropolitan area, congressional district, school district, zip code, census tract
Census Homepage: census.gov

Data tab: Easy Stats
Easy Stats

About Easy Stats

Easy Stats gives you quick and easy access to selected statistics collected by the U.S. Census Bureau through the American Community Survey. With the American Community Survey, detailed demographic and economic statistics are available every year for the nation's communities and their people.

This interactive tool provides the latest statistics about where you live. You can search different geographies including states, counties, incorporated places (towns/cities) and census designated places (CDP). With Easy Stats, you can view detailed racial, age and sex breakdowns and much more.

Powered by
The American Community Survey
and Census API

United States Census Bureau
U.S. Department of Commerce
Economics and Statistics Administration
U.S. CENSUS BUREAU
census.gov
Census Homepage: census.gov

Data tab: American FactFinder
factfinder2.census.gov
American FactFinder (AFF)

Community Facts tab
Assistance with American FactFinder

- Click **Help** (AFF mainpage, top right)
  - Online User Guide
  - Virtual Tour
  - Community Facts
  - Guided Search
  - Advanced Search
  - Download Options
  - Using Data
  - Tables
  - Maps
  - Narrative Profiles
  - **Tutorials**
  - Glossary
AFF Community Facts

Community Facts - Find popular facts (population, income, etc.) and frequently requested data about your community.

Enter a state, county, city, town, or zip code: [Input Field]  Go

Fairbanks North Star Borough, Alaska

Educational Attainment: Percent high school graduate or higher

93.0%  Source: 2007-2011 American Community Survey 5-Year Estimates

Popular tables for this geography:

2010 Census
- Population, Age, Sex, Race, Households and Housing...

American Community Survey
- Education, Marital Status, Relationships, Fertility, Grandparents...
- Income, Employment, Occupation, Commuting to Work...
- Occupancy and Structure, Housing Value and Costs, Utilities...
- Sex and Age, Race, Hispanic Origin, Housing Units...

Population Estimates Program
- Annual Population Estimates...

Economic Census
- Number of Establishments, Annual Payroll, Number of Employees...

Want more? Use Guided Search or Advanced Search, or visit Census.gov’s Quick Facts.
factfinder2.census.gov
American FactFinder (AFF)

Guided Search tab
AFF Guided Search

User answers prompts, then clicks “Next” or a numbered arrow to proceed -- arrows 1 through 4 may be selected in any order.
factfinder2.census.gov
American FactFinder (AFF)

Advanced Search tab
Filter bars facilitate searches. Object is to select filters, such as Topics, to refine search. All filters will appear in the Your Selections box to be applied to the final table selection. See next slide for Topics sub-categories.
“Which Data Tool Should I Use?”

ACS Product Types
Case Studies (11)

ACS Product Types

Market Analyst

Justin wants to compare characteristics of an area, such as household type, median family income, and language spoken at home, over time to determine needs for a new grocery store. He is interested in seeing if these characteristics have changed over time, and if these changes are statistically significant.

Recommendation: Comparison Profiles (on American FactFinder)

Find out more about Comparison Profiles

Business Owner

Thomas wants in-depth information about commuting patterns to figure out where to locate his service station and plan operating hours around busy commute times. He’s looking for the most detailed information the ACS provides on this topic.

Recommendation: Detailed Tables (on American FactFinder)

Find out more about Detailed Tables
Tips: Presenting the Data
Four Tips for Using Census Data

• Use the most appropriate source

• Understand census jargon

• Use census data to draw comparisons between two different geographies or two different population groups

• Use census data to look at changes over time
Census Data Profiles

• Four fact sheets on the social, economic, housing, and demographic characteristics of different geographic areas
• More than 450 characteristics for an area, depicting how people live
• Excellent starting point for research
  • Data profiles may help identify a problem
  • May need a different table with more specific information to quantify a problem
Data in a Grant Proposal

- Present data that demonstrates a need
- Reflect funding agency priorities
- If you are serving a small population, provide census tract data
- Show data and derived measures as reference points
  - Example: 3,000 families below poverty, or 15%
Provide Comparisons

• Over time (2000, 2010)
  • Demonstrate emerging issues affecting your target population
  • Be mindful of boundary changes

• Compare subset data to larger group
  • State to national
  • City/town to county or state
  • Census tract to other tracts or to city/county
## Two Censuses: Power of Comparisons

<table>
<thead>
<tr>
<th></th>
<th>Old: 2000</th>
<th>New: 2010</th>
<th>Change</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Alpha County</strong></td>
<td>255,602</td>
<td>262,382</td>
<td>6,780</td>
<td>2.7%</td>
</tr>
<tr>
<td><strong>Bravo city</strong></td>
<td>10,033</td>
<td>9,918</td>
<td>-115</td>
<td>-1.1%</td>
</tr>
<tr>
<td><strong>Charlie CDP</strong></td>
<td>16,628</td>
<td>17,158</td>
<td>530</td>
<td>3.2%</td>
</tr>
<tr>
<td><strong>Delta city</strong></td>
<td>54,593</td>
<td>59,946</td>
<td>5,353</td>
<td>9.8%</td>
</tr>
<tr>
<td><strong>Echo city</strong></td>
<td>11,385</td>
<td>11,580</td>
<td>195</td>
<td>1.7%</td>
</tr>
<tr>
<td><strong>Foxtrot city</strong></td>
<td>44,265</td>
<td>51,199</td>
<td>6,934</td>
<td>15.7%</td>
</tr>
</tbody>
</table>

Percent change equation: New minus Old divided by Old multiplied by 100 (fictitious geography)
Charts and Graphs

Good Data Visualization

• Reduces “cognitive load”
  – Enables reader to understand relationships quickly and clearly

• Is self-explanatory
  – Narrative can provide background

• “The chart on the next page illustrates increases in the American Indian population over the past 30 years”
Race Categories: Alone or Combo

Choices for data user to make:
- Race Alone (smaller number), or
- Race Alone or in Combination
Presenting the Data
Tips

• Show both data and derived measures
  – Example: 3,000 families, or 15%, are living below the poverty level

• Note the “universe” for the table
  – Example: “Population for whom poverty status is determined”

• Two data points do not define a “trend”
Derived Measures*

*A unit that is determined by combining one or more measurements

- Mean = average
- Median
- Percent
- Rate

The ACS generally does a better job estimating percentages, rate, means, and medians than it does totals
Income Estimates

Mean = Average

Salaries of nine workers at the World Wide Widget Company:

- The CEO makes $100,000 per year,
- Two managers make $50,000 per year,
- Four factory workers make $15,000 each per year, and
- Two trainees make $9,000 each per year.

Add $100,000 + $50,000 + $50,000 + $15,000 + $15,000 + $15,000 + $15,000 + $9,000 + $9,000, which gives you $278,000.

Then you divide that total by 9 -- the number of values or workers in the set of data. This gives you the mean or average, which is $30,889.

Be careful! Only three of the nine workers at WWW Co. make that much money, and the other six workers don’t even make half the average salary.

So what statistic should you use when you want to give some idea of what the average worker at WWW Co. is earning? Let’s look at the median.
Income Estimates

Median (preferred)

When you speak about the average worker or average household, you really want a statistic that tells you something about the worker or the household in the middle. Again, this statistic is easy to determine because the median literally is the value in the middle. Just line up the values in your set of data, from largest to smallest. The one in the dead-center is your median. Below are the nine WWW Co. workers’ salaries:

$100,000
$50,000
$50,000
$15,000
$15,000
$15,000
$15,000
$9,000
$9,000

The one halfway down the list, the fifth value, is $15,000. That’s the median. If you have an even number of values, split the difference between the two in the middle.

Comparing the mean ($30,889) to the median ($15,000) gives you an idea how widely the values in your dataset are spread apart.
Calculated Measures -- examples

• Poverty
  – A set of money income thresholds that vary by family size and composition -- updated annually

• Age dependency ratios
  – Measures the share of people in the total population who are not economically active (children under 18 years and seniors 65 and older)

• Gini index
  – Measures the degree of inequality in the distribution of family income in a country
Challenges of Working with Census Bureau Data

Limitations / Solutions

• Some concepts / definitions are not easily understood -- footnote
• Might not be in exact tabular form as funding agency is requesting -- download
• Can be cumbersome to get specific data by tract or other small area -- aggregate
• Most socio-economic census data based on a sample estimate -- consider MOE
• Time series can be difficult -- check SDC
Topic-Driven Searches
Census Homepage: census.gov
People Topics Portal

Links to more data, as well as statistically- and grammatically-correct publications
Some pages include table creator tools for survey data not included on American FactFinder, like Small Area Health Insurance Estimates, or SAHIE.
What is “poverty?”
How is it measured?
Which survey should I use?

SAIPE provides poverty estimates of children by school district.
Voting and Registration

Information on reported voting and registration by various demographic and socioeconomic characteristics is collected for the nation in November of Congressional and Presidential election years in the Current Population Survey (CPS). The CPS is a monthly survey of about 50,000 households conducted by the Bureau of the Census for the Bureau of Labor Statistics. The CPS is the primary source of information on the labor force characteristics of the U.S. population. The voting supplement does not provide estimates of partisanship, such as what candidate a voter supported or what political party a voter aligned themselves with.

Latest Releases

Voting and Registration in the Election of November 2012
- Report [PDF - 1.0M]
- Detailed Tables »
- Press Release »

Voting and Registration in the Election of November 2010
- Report

Historical Voting Visualizations
- [VISUALS]
Some duplication with links from tabs at top of homepage
Current releases, tip sheets, multimedia gallery, blogs
DECENNIAL & ACS

Visit the 2010 News or the ACS Media Tool Kit
August 6, 2013

New Census Bureau Interactive Map Shows Languages Spoken in America
July 31, 2013

Nuevo mapa interactivo de la Oficina del Censo muestra los idiomas hablados en los Estados Unidos
July 31, 2013

U.S. Island Areas: 2010 Census Detailed Crosstabs (Part 1)
July 29, 2013

Media Advisory — Census Bureau Sets Timetable for Income, Poverty and Health Insurance Statistics and American Community Survey Results
July 29, 2013

Census Bureau's New Tool Puts Congressional District Statistics at Your Fingertips
July 2, 2013

2010 Census Tribal Tract Reference Maps
June 25, 2013

Island Areas: 2010 Census Summary File
June 12, 2013

National Day of Civic Hacking Results in New Web Applications Using American Community Survey Statistics
May 30, 2013

May 29, 2013

Media Advisory — Census Bureau Issues Challenge to App Developers
May 29, 2013

Arab Households in the United States: 2006-2010
May 16, 2013

2010 Census Congressional District Summary File (113th Congress)
May 1, 2013

About 6 in 10 Recent Moms in Their Early 20s are Unmarried, Census Bureau Reports
May 1, 2013

OTHER RELEASES

A new and improved Newsroom is coming soon! Stay tuned for details.
August 25, 2013

More Families with an Unemployed Parent, Census Bureau Reports
August 21, 2013

Tip Sheet Number 17 — Aug. 23, 2013
August 22, 2013

August 21, 2013

August 21, 2013

Tip Sheet Number 16 — Aug. 9, 2013
August 8, 2013

A Look at State and Local Government Finances, including Public Pensions, Live on C-SPAN's "America by the Numbers" Segment of "Washington Journal"
August 8, 2013

Income and Earnings Estimates for 1st Quarter 2012
August 2, 2013

Thompson Confirmed as Census Bureau Director
August 1, 2013

July 31, 2012

2011 Business Dynamics Statistics
July 30, 2012

July 26, 2013

PROFILE AMERICA — FACTS FOR FEATURES Mes de la herencia hispana del 2013: 15 de septiembre al 15 de octubre [PDF Version [101K]
July 26, 2013

July 29, 2013

Census Bureau Develops Tool for Assessing Ability of Developing Countries to Conduct Censuses and Household Surveys
July 29, 2013

When Off-Campus College Students are Excluded, Poverty Rates Fall in Many College Towns
Stock photographs like those on slide one of this PowerPoint are available to download free -- for public use.
Resources
Regional Offices

- Atlanta
- Chicago
- Denver
- Los Angeles
- New York
- Philadelphia

Field Realignment
New Structure effective January 1, 2013 [PDF 9kb]
Printable Map of New Regional Office Structure [PDF 795kb]
Questions and Answers on Field Realignment [PDF 25kb]

Web Transformation
How Do We Know? (Infographics)
Census Mobile Apps
Census API for Developers

Census Bureau Regional Office Boundaries
Select a state on the map or from the list to the right to locate the regional office servicing your area.
Description of 28 Census Bureau Surveys

Demographic Survey Abstract

ABOUT US
Are You in a Survey?
FAQs
Glossary
Director's Corner
Regional Offices
History
Research
Scientific Integrity
Jobs @ Census
Diversity @ Census
Business Opportunities
Congressional & Intergovernmental
Contact Us

SURVEY ABSTRACTS

The Demographic Directorate

Employment
Expenditures
Health
Homelessness
Housing
Income
Nutrition
Outlets
Population
Recreation
Quick Reference Guide

- **Demographic Program Comparisons**

- **Decennial Census**
  - Topics Covered
    - Table Prefix Codes / Product Types
    - Race / Ethnicity Table ID Suffix Codes

- **Topics: 2010 Census – American Community Survey**

- **American Community Survey (ACS)**
  - Data Release Timetable
  - ACS Tips
  - ACS Product Types
  - Topics Covered and Table ID Codes
  - Wildcard Shortcut
  - Content Updates for the 2013 ACS Questionnaire
  - Tips for Reducing the Margins of Error (MCEs)
  - ACS Table ID Numbers Deconstructed
  - Race / Ethnicity Table ID Suffix Codes

- **Census Geography**
  - Hierarchy and 2010 Statistical Area Criteria
  - Small Area Geography Hierarchy
American FactFinder Tables & Maps

Citation Styles

Frequently Asked Questions  ADA/508 friendly site

Search results

American FactFinder: How do I cite tables and maps in American FactFinder?
Dynamically generated tables, maps, and files from American FactFinder:(Use semicolons to separate...  (more)
American FactFinder: How do I cite tables and maps in American FactFinder?

Dynamically generated tables, maps, and files from American FactFinder:
(Use semicolons to separate elements)

1. U.S. Census Bureau;
2. Name of the database or other data repository/source (e.g., American FactFinder), set off by quotation marks, or follow publication citation style;
3. The name of the person who generates the tabulation, etc., e.g., "generated by John Smith;"
4. The name of the software package used to generate the tabulation, if known, e.g., "using American FactFinder;"
5. The URL of the application software's main or first page set off by angle brackets, e.g., <http://factfinder2.census.gov>;
6. The date, within parenthesis, when the user generated the tabulation, e.g., (7 January 2012).

For a reference map in American FactFinder:

○ U.S. Census Bureau; generated by Jane Smith; using American FactFinder; <http://factfinder2.census.gov>; (12 February 2012).

For a thematic map in American FactFinder
(Find the specific survey or census, data set and matrix number under the map image):

○ U.S. Census Bureau; Census 2000, Summary File 1, Matrix P7; generated by Joe Smith; using American FactFinder; <http://factfinder2.census.gov>; (15 February 2012).

Examples:

○ U.S. Census Bureau; American Community Survey, 2010 American Community Survey 1-Year Estimates, Table GCT0101; generated by John Smith; using American FactFinder; <http://factfinder2.census.gov>; (7 January 2012).
○ U.S. Census Bureau; Census 2000, Summary File 1, Table P001; generated by Jane Jones; using American FactFinder; <http://factfinder2.census.gov>; (20 February 2012)
○ U.S. Census Bureau; 2010 Census Summary File 1; Tables P1 and QT-P1; generated by John Smith; using American FactFinder; <http://factfinder2.census.gov>; (12 December 2011).
Comparing ACS Estimates

The American Community Survey (ACS) is an ongoing statistical survey that samples a small percentage of the population every year — giving communities the information they need to plan investments and services. Learn more about how we protect your privacy; why you were selected; why it's important to participate; why we ask specific questions and more in About the Survey.

Learn ways to respond to the ACS or get help with the survey. Learn more about how we protect your privacy; why you were selected; why it's important to participate; why we ask specific questions and more in Guidance for Data Users.

Start learning about the ACS with three tips about the data. Find additional information about geography in the ACS, comparison guidance, and user specific handbooks. Learn more in Guidance for Data Users.
Choose Comparison Tool & Year

American Community Survey

Comparing ACS Data

The strength of the American Community Survey is in estimating characteristic distributions. We recommend users compare derived measures such as percents, means, medians, and rates rather than estimates of population totals.

Can I compare...?

- American Community Survey 1-Year estimates with other data?
  - ACS 1-year estimates with Census 2000
  - ACS 1-year estimates from different years.

⚠️ Use Caution: Because ACS variables change over time, some areas and subjects must be compared with caution, or not compared at all.

Use the left navigation to get yearly guidance on specific topics/subjects.

Tools and Resources

- Table-specific Guidance
- Topic-specific Guidance (by year)
  - Topic specific guidance is provided on a yearly basis:
    - 2011
    - 2010
    - 2009
    - 2008
    - 2007
    - 2006

- Comparison Quick Guide (2009)
## Four Possible Recommendations

- **Veteran Status (21)**
- **Food Stamps (22)**
- **Employment Status; Work Experience; Labor Force (23)**
- **Industry & Occupation; Class of Worker (24)**

### Housing (25)

<table>
<thead>
<tr>
<th>Topic</th>
<th>2011 ACS with Census 2000</th>
<th>2011 ACS 1-Year with 2010 ACS 1-Year</th>
<th>2011 ACS with Census 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bedrooms</td>
<td>Compare with Caution <em>(Details)</em></td>
<td>Compare</td>
<td>The question was not asked in the 2010 Census</td>
</tr>
<tr>
<td>Contract and Gross Rent</td>
<td>Do Not Compare <em>(Details)</em></td>
<td>Compare</td>
<td>The question was not asked in the 2010 Census</td>
</tr>
<tr>
<td>Cost of Utilities</td>
<td>Compare</td>
<td>Compare</td>
<td>The question was not asked in the 2010 Census</td>
</tr>
<tr>
<td>Gross Rent as a Percentage</td>
<td>Do Not Compare <em>(Details)</em></td>
<td>Compare</td>
<td>The question was not asked in the 2010 Census</td>
</tr>
</tbody>
</table>
## Aggregating ACS Estimates

### How to Calculate the New MOE

<table>
<thead>
<tr>
<th>Geography</th>
<th>Estimate</th>
<th>Margin of Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tract 1</td>
<td>5,264</td>
<td>+/- 1,624</td>
</tr>
<tr>
<td>Tract 2</td>
<td>6,508</td>
<td>+/- 1,395</td>
</tr>
<tr>
<td>Tract 3</td>
<td>4,364</td>
<td>+/- 1,026</td>
</tr>
<tr>
<td>Tract 4</td>
<td>6,865</td>
<td>+/- 1,909</td>
</tr>
<tr>
<td>TOTAL</td>
<td>23,001</td>
<td>+/- 5,954</td>
</tr>
</tbody>
</table>

**Apply the formula:**

\[
MOE_{agg} = \pm \sqrt{\sum_{c} MOE_{c}^2}
\]

New Estimate = 23,001  
New MOE = +/- 3,046  
Equal to the sum of the estimates  
Less than the sum of the MOEs

The estimates in this example are fictitious.  
Note the ACS easy calculator next slide.
American Community Survey Calculators

Last updated: December 6, 2010

For further information, please contact:
Oklahoma Department of Commerce
Steve Barker
E-mail: steven_barker@okcommerce.gov
Phone: 1-405-815-5182 or 1-800-879-6552
www.okcommerce.gov

Quick Links

- ACS Made Easy
- Change Confidence Interval to 95% or 99% - Values
- Change Confidence Interval to 95% or 99% - Percentages
- Add ACS estimates together - Values
- Add ACS estimates together - Percentages
- Calculate a ratio
- Change a value to a percentage
- Change a percentage to a value
- Calculate percent change or percent difference

Full text of Census advice used to develop these calculators
Additional Information

Help for data users on a variety of subjects
Intended Audiences

ACS Compass Handbooks

• General Data Users
• Businesses
• High School Teachers
• Congress
• Federal Agencies
• Media
• PUMS Users
• Researchers
• Rural Areas
• State and Local Governments
• American Indian and Alaska Native Populations
• Puerto Rico Community Survey
ACS Compass Training Presentations with speaker notes

Good information on Product Types

Excellent information on margins of error

An Overview of the American Community Survey [PPT 5.0MB]
Speaker Notes [PDF 52KB]
Basics of the American Community Survey program and website, with information on content, survey methodology, and data products. How the ACS supplements the 10-year census with continuous social, economic, housing, and demographic data.

Data Products from the American Community Survey [PPT 2.4MB]
Speaker Notes [PDF 53KB]
Examples and suggestions for using data profiles, tables, and Public Use Microdata Sample (PUMS) Files. How period estimates and sampling error measures could affect your results.

Things that May Affect the Estimates from the American Community Survey [PPT 215KB]
Speaker Notes [PDF 60KB]
Because the American Community Survey is a sample survey, sampling error is inevitable. How 4 different measures of sampling error are calculated, what they mean, and how you can use them to draw appropriate conclusions. Plus a brief look at non-sampling error and population controls.

Understanding Multiyear Estimates from the American Community Survey [PPT 592KB]
Speaker Notes [PDF 49KB]
Explains 1-year, 3-year, and 5-year period estimates and when to use each one. Introduction to interpreting the data and making comparisons using multiyear estimates.

Geographic Areas and Concepts for the American Community Survey [PPT 2.3MB]
Speaker Notes [PDF 45KB]
Get the most out of ACS data by knowing how geographic areas are defined in different ways and different estimates. The difference between legal and administrative areas is important.

Introduction to the Public Use Microdata Sample (PUMS) File from the American Community Survey [PPT 612KB]
Speaker Notes [PDF 44KB]
Reasons to access PUMS data for small or unique population groups and housing characteristics.
Summary
Summary

Where Do You Start?

• Is your topic covered by the ACS?
• What geographical area(s) do you need?
• What year(s) are you interested in?
• What tradeoffs are you prepared to make?
• Can you sacrifice currency for reliability?
Why use Census Bureau data?

• Regular, predictable schedule
  – Data collection
  – Data release

• Consistent terminology and concepts
  – Shared across many programs
  – Stable over time
  – Comparable nationwide

• Leading data source -- industry standard
  – Widely used by many organizations
Why use Census Bureau data?

• Reliable
  – Measureable results
  – Quality controls built into programs

• Accessible
  – Simple searches from homepage
  – American FactFinder data access tool

• Detailed and flexible

• Free!
Workshop Information and Data Questions

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