Just the Facts, Ma’am

Getting Started with the U.S. Census & American FactFinder

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University of Southern California
Objectives

• **Introduction** to Census and American Community Survey

• **Approaches** for navigating American FactFinder
What languages do the people in my community speak at home?
What are the top occupations of first-generation Americans?
How has the area around the Staples Center in Los Angeles been affected by its development and expansion?
Key: Census data allow us to describe a population or place at a specific time.

Research Questions
Article 1, Section 2

Representatives and direct Taxes shall be apportioned among the several States which may be included within this Union, according to their respective Numbers, which shall be determined by adding to the whole Number of free Persons, including those bound to Service for a Term of Years, and excluding Indians not taxed, three fifths of all other Persons. The actual Enumeration shall be made within three Years after the first Meeting of the Congress of the United States, and within every subsequent Term of ten Years, in such Manner as they shall by Law direct. The Number of Representatives shall not exceed one for every thirty Thousand, but each State shall have at Least one Representative; and until such enumeration shall be made, the State of New Hampshire shall be entitled to chuse three, Massachusetts eight, Rhode-Island and Providence Plantations one, Connecticut five, New-York six, New Jersey four, Pennsylvania eight, Delaware one, Maryland six, Virginia ten, North Carolina five, South Carolina five, and Georgia three.

U.S. Census Bureau & the
Decennial Census
“10 Questions in 10 Minutes”

Census 2010

Population vs. Sample

Source: 1940 Census
• The American Community Survey (ACS) is a **nationwide, continuous survey** of social, economic & housing characteristics

**Key:** More timely data but limitations
• Education
• Marital Status
• Veterans
• Place of Birth
• Citizenship
• Year of Entry to U.S.
• Language Spoken at Home
• Grandparent Caregivers

American Community Survey

Social Characteristics
• Income
• Benefits
• Employment Status
• Occupation
• Industry
• Commuting to Work
• Place of Work

American Community Survey

Economic Characteristics
• Tenure
• Occupancy & Structure
• Housing Value
• Taxes & Insurance
• Utilities
• Mortgage & Monthly Rent

American Community Survey

Housing Characteristics
• Sex
• Age
• Race
• Hispanic Origin
• The ACS is continuously given to a **sample** of the population.

• Statistics calculated from the ACS are considered **estimates** and include a **margin of error**.

• The Census Bureau claims a confidence interval of 90% for the ACS estimates.
### Margin of Errors

AGE BY LANGUAGE SPOKEN AT HOME
Universe: Population 5 years and over
2011 American Community Survey 1-Year Estimates

<table>
<thead>
<tr>
<th></th>
<th>United States</th>
<th>Margin of Error</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total:</strong></td>
<td>291,524,091</td>
<td>+/-19,607</td>
</tr>
<tr>
<td>5 to 17 years:</td>
<td>53,842,873</td>
<td>+/-26,371</td>
</tr>
<tr>
<td>Speak only English</td>
<td>42,005,224</td>
<td>+/-59,939</td>
</tr>
<tr>
<td>Speak Spanish</td>
<td>8,470,505</td>
<td>+/-50,936</td>
</tr>
<tr>
<td>Speak other Indo-European languages</td>
<td>1,557,090</td>
<td>+/-28,580</td>
</tr>
<tr>
<td>Speak Asian and Pacific Island languages</td>
<td>1,325,053</td>
<td>+/-20,320</td>
</tr>
<tr>
<td>Speak other languages</td>
<td>485,001</td>
<td>+/-17,796</td>
</tr>
<tr>
<td>18 to 64 years:</td>
<td>196,296,192</td>
<td>+/-24,439</td>
</tr>
<tr>
<td>Speak only English</td>
<td>153,532,515</td>
<td>+/-101,096</td>
</tr>
<tr>
<td>Speak Spanish</td>
<td>26,399,097</td>
<td>+/-74,137</td>
</tr>
<tr>
<td>Speak other Indo-European languages</td>
<td>7,396,350</td>
<td>+/-55,878</td>
</tr>
<tr>
<td>Speak Asian and Pacific Island languages</td>
<td>7,024,203</td>
<td>+/-39,928</td>
</tr>
<tr>
<td>Speak other languages</td>
<td>1,944,027</td>
<td>+/-36,919</td>
</tr>
<tr>
<td>65 years and over:</td>
<td>41,385,026</td>
<td>+/-20,340</td>
</tr>
<tr>
<td>Speak only English</td>
<td>35,409,332</td>
<td>+/-31,665</td>
</tr>
<tr>
<td>Speak Spanish</td>
<td>2,710,185</td>
<td>+/-16,004</td>
</tr>
<tr>
<td>Speak other Indo-European languages</td>
<td>1,893,972</td>
<td>+/-21,747</td>
</tr>
<tr>
<td>Speak Asian and Pacific Island languages</td>
<td>1,136,208</td>
<td>+/-12,884</td>
</tr>
<tr>
<td>Speak other languages</td>
<td>235,329</td>
<td>+/-8,435</td>
</tr>
</tbody>
</table>
## Multi-Year Estimates

Distinguishing features of ACS 1-year, 3-year, and 5-year estimates

<table>
<thead>
<tr>
<th></th>
<th>1-year estimates</th>
<th>3-year estimates</th>
<th>5-year estimates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data for areas with populations of 65,000+</td>
<td>Data for areas with populations of 20,000+</td>
<td>Data for all areas</td>
<td></td>
</tr>
<tr>
<td>Smallest sample size</td>
<td>Larger sample size than 1-year</td>
<td>Largest sample size</td>
<td></td>
</tr>
<tr>
<td>Less reliable than 3-year or 5-year</td>
<td>More reliable than 1-year; less reliable than 5-year</td>
<td>Most reliable</td>
<td></td>
</tr>
<tr>
<td>Most current data</td>
<td>Less current than 1-year estimates; more current than 5-year</td>
<td>Least current</td>
<td></td>
</tr>
</tbody>
</table>

**Best used when**

- Currency is more important than precision
- Analyzing large populations
- More precise than 1-year, more current than 5-year
- Analyzing smaller populations
- Examining smaller geographies because 1-year estimates are not available
- Precision is more important than currency
- Analyzing very small populations
- Examining tracts and other smaller geographies because 1-year estimates are not available

### OCCUPANCY STATUS
**Universe: Housing units**

**2007-2011 American Community Survey 5-Year Estimates**

<table>
<thead>
<tr>
<th>ZCTA5 90027</th>
<th>Estimate</th>
<th>Margin of Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>23,572</td>
<td>+/-290</td>
</tr>
<tr>
<td>Occupied</td>
<td>21,702</td>
<td>+/-341</td>
</tr>
<tr>
<td>Vacant</td>
<td>1,870</td>
<td>+/-353</td>
</tr>
</tbody>
</table>

Source: U.S. Census Bureau, 2007-2011 American Community Survey

Explanation of Symbols:
- An "***" entry in the margin of error column indicates that either no sample observations or too few sample observations were available to compute a standard error and thus the margin of error. A statistical test is not appropriate.
- An "**" entry in the estimate column indicates that either no sample observations or too few sample observations were available to compute an estimate, or a ratio of medians cannot be calculated because one or both of the median estimates falls in the lowest interval or upper interval of an open-ended distribution.
- An "*" following a median estimate means the median falls in the lowest interval of an open-ended distribution.
- An "++++" entry in the margin of error column indicates that the median falls in the lowest interval or upper interval of an open-ended distribution. A statistical test is not appropriate.
- An "*****" entry in the margin of error column indicates that the estimate is controlled. A statistical test for sampling variability is not appropriate.
- An "N" entry in the estimate and margin of error columns indicates that data for this geographic area cannot be displayed because the number of sample cases is too small.
- An '(X)' means that the estimate is not applicable or not available.

Census Geographies

Source: http://www.census.gov/acs/www/guidance_for_data_users/geography/
SCHOOL ENROLLMENT BY TYPE OF SCHOOL BY AGE FOR THE POPULATION 3 YEARS AND OVER
Universe: Population 3 years and over
2011 American Community Survey 1-Year Estimates

Thematic Map of Estimate: Enrolled in public school: - 3 and 4 years
Geography: by County

Legend
Data Classes
Persons
0 - 365
462 - 873
819 - 1197
1454 - 2357
3102 - 5222

Boundaries
State
*11 County
Features
Major Road
Street
Stream/Waterbody
Items in grey text are not visible at this zoom level

Modify the map using the options below:
Colors and Data Classes
Boundaries and Features
Find a Location
Map Markers

Source: U.S. Census Bureau, 2011 American Community Survey
American FactFinder
But wait...
### 2000 Census

Does this person have any of the following long-lasting conditions:

<table>
<thead>
<tr>
<th></th>
<th>a. Blindness, deafness, or a severe vision or hearing impairment?</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>b. A condition that substantially limits one or more basic physical activities such as walking, climbing stairs, reaching, lifting, or carrying?</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 2013 ACS

<table>
<thead>
<tr>
<th></th>
<th>a. Is this person deaf or does he/she have serious difficulty hearing?</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>b. Is this person blind or does he/she have serious difficulty seeing even when wearing glasses?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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Making Comparisons

**Questions, Boundaries & Timeframe**
### Understanding Measurement of Race & Ethnicity

**Race & Ethnicity**

**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, Argentine, Colombian, Dominican, Nicaraguan, Salvadoran, Spaniard, and so on.

**9. What is Person 1’s race? Mark one or more boxes.**

- White
- Black, African Am., or Negro
- American Indian or Alaska Native — Print name of enrolled or principal tribe.
- Asian Indian
- Chinese
- Japanese
- Korean
- Guamanian or Chamorro
- Filipino
- Vietnamese
- Samoan
- Other Asian — Print race, for example, Hmong, Laotian, Thai, Pakistani, Cambodian, and so on.
- Some other race — Print race.

**B03002**

**HISPANIC OR LATINO ORIGIN BY RACE**

**Universe: Total population**

**2011 American Community Survey 1-Year Estimates**

<table>
<thead>
<tr>
<th></th>
<th>United States</th>
<th>Margin of Error</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total:</strong></td>
<td>311,591,919</td>
<td>****</td>
</tr>
<tr>
<td>Not Hispanic or Latino:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>White alone</td>
<td>259,652,003</td>
<td>+/-8,666</td>
</tr>
<tr>
<td>Black or African American alone</td>
<td>38,148,876</td>
<td>+/-48,486</td>
</tr>
<tr>
<td>American Indian and Alaska Native alone</td>
<td>2,085,995</td>
<td>+/-19,477</td>
</tr>
<tr>
<td>Asian alone</td>
<td>14,854,988</td>
<td>+/-32,374</td>
</tr>
<tr>
<td>Native Hawaiian and Other Pacific Islander alone</td>
<td>469,941</td>
<td>+/-12,258</td>
</tr>
<tr>
<td>Some other race alone</td>
<td>565,213</td>
<td>+/-23,160</td>
</tr>
<tr>
<td>Two or more races:</td>
<td>6,441,457</td>
<td>+/-52,125</td>
</tr>
<tr>
<td>Two races including Some other race</td>
<td>300,228</td>
<td>+/-17,256</td>
</tr>
<tr>
<td>Two races excluding Some other race, and three or more races</td>
<td>6,141,239</td>
<td>+/-57,199</td>
</tr>
<tr>
<td>Hispanic or Latino:</td>
<td>50,393,916</td>
<td>+/-8,665</td>
</tr>
<tr>
<td>White alone</td>
<td>33,754,452</td>
<td>+/-10,640</td>
</tr>
<tr>
<td>Black or African American alone</td>
<td>1,040,652</td>
<td>+/-28,984</td>
</tr>
<tr>
<td>American Indian and Alaska Native alone</td>
<td>460,011</td>
<td>+/-24,181</td>
</tr>
<tr>
<td>Asian alone</td>
<td>165,431</td>
<td>+/-9,457</td>
</tr>
<tr>
<td>Native Hawaiian and Other Pacific Islander alone</td>
<td>36,076</td>
<td>+/-5,691</td>
</tr>
<tr>
<td>Some other race alone</td>
<td>14,202,943</td>
<td>+/-107,431</td>
</tr>
<tr>
<td>Two or more races:</td>
<td>2,280,351</td>
<td>+/-50,279</td>
</tr>
<tr>
<td>Two races including Some other race</td>
<td>1,182,622</td>
<td>+/-35,836</td>
</tr>
<tr>
<td>Two races excluding Some other race, and three or more races</td>
<td>1,097,529</td>
<td>+/-33,742</td>
</tr>
</tbody>
</table>
Selecting Geographies

Census Data is Spatial Data

Source: SimplyMap
Census Data is Spatial Data

Selecting Geographies

Source: SimplyMap
Selecting Geographies

Census Data is Spatial Data

Selecting Geographies

Source: Google Maps
• American Community Survey
  http://www.census.gov/acs/www/
• 2010 Census
  http://www.census.gov/2010census/

Digging Into the Data
• **Social Explorer** Interactive mapping database that can be used to view current and historical Census and ACS data in map or table (“report”) format. Available by subscription and with limited data freely available. [http://www.socialexplorer.com](http://www.socialexplorer.com)

• **National Historical Geographic Information System (NHGIS)** Aggregate census data and GIS-compatible boundary files for the United States, 1790 to present: [https://www.nhgis.org/](https://www.nhgis.org/)

• **IPUMS-USA** Public-use Census and ACS microdata: [http://usa.ipums.org/usa/](http://usa.ipums.org/usa/)
August 7: Congressional research with Rosalind Tedford


Archived & Upcoming

NCLA GRS Webinars
Thank You! Questions?

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