Census Basics and American FactFinder (AFF)

The path to finding social & economic data!

New Mexico Data Users Conference
November 19, 2015

Suzan Reagan
Sr. Program Mgr Data Bank
Agenda

- BRIEF Overview
  - US Census Bureau
  - Products
  - Decennial Census
  - American Community Survey
  - Geography & data concepts

- Census Website
- American FactFinder:
- Caveats
- Tips to finding data sets
- Questions

“This is where it starts getting a little complicated.”
About the US Census Bureau

Mandated by the U. S. Constitution to count the population

Used:

- to apportion seats in the U.S. House of Representatives
- to define legislature districts, school district assignment area and other important areas of government
- to distribute federal funds to local, state and tribal governments
- to do research and make decisions such as where to build new roads or what services to provide the elderly.

Both George Washington and Thomas Jefferson expressed skepticism over the final count, expecting a number that exceeded the 3.9 million inhabitants counted in the census.
Census Products - Programs

- Decennial Census
- American Community Survey
- Small Area Income and Poverty Estimates
- Census Population Estimates
- Economic Census
- Survey of Business Owners
- Nonemployer Statistics
- Economic Indicators
  - (Several surveys, construction, manufacturing etc.)
- Census of Governments
- Survey of Income and Program participation
- Annual Survey of Schools System Finances
- Current Population Survey
Census \ Survey

Decennial Census

- A one-point-in-time snapshot of population and housing
- Available for small areas
- Not as current as ACS
- Limited topics (100% data)

American Community Survey

- Most current data available w/ annual updates
- Limited data for small areas
- 1 yr., 3 yr., & 5 yr. estimates
- Estimates may have large margins of error
When to Use...

**Short-form 100% Counts**
- **Population**
  - Sex, Age, Hispanic Origin, Race, Relationship to head of Household
- **Housing Data**
  - Tenure (Owned or Rented)

Constitutionally required for redistricting

**Long-form**
- Comprehensive Socioeconomic and detailed housing data.
- **Selected topics:** Ancestry, Disability, Citizenship, Educational Attainment, Income, Class of worker, Tenure in house, Plumbing Facilities

In danger of losing funding
<table>
<thead>
<tr>
<th>Demographic</th>
<th>Social</th>
<th>Housing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age Sex Race</td>
<td>Marital Status/History</td>
<td>Year Built</td>
</tr>
<tr>
<td>Hispanic Origin</td>
<td>Fertility</td>
<td>Units in Structure</td>
</tr>
<tr>
<td>Rel. to Householder</td>
<td>Ancestry</td>
<td>Year Moved into Unit</td>
</tr>
<tr>
<td>Economic</td>
<td>Disability</td>
<td>Room</td>
</tr>
<tr>
<td>Income</td>
<td>Grandparents as Caregivers</td>
<td>Bedrooms</td>
</tr>
<tr>
<td>Food Stamp Benefit</td>
<td>Place of Birth</td>
<td>Kitchen Facilities</td>
</tr>
<tr>
<td>Labor Force Status</td>
<td>Citizenship</td>
<td>Plumbing Facilities</td>
</tr>
<tr>
<td>Industry</td>
<td>Year of Entry</td>
<td>House Heating Fuel</td>
</tr>
<tr>
<td>Occupation</td>
<td>Language Spoken at Home</td>
<td>Telephone Serv. Available</td>
</tr>
<tr>
<td>Class of Worker</td>
<td>Educational Attainment</td>
<td>Farm Residence</td>
</tr>
<tr>
<td>Place of Work</td>
<td>School Enrollment</td>
<td>Tenure (Owner/Renter)</td>
</tr>
<tr>
<td>Journey to Work</td>
<td>Residence 1 Year Ago</td>
<td>Housing Value</td>
</tr>
<tr>
<td>Work Status Last Year</td>
<td>Veteran Status</td>
<td>Rent</td>
</tr>
<tr>
<td>Vehicles Available</td>
<td>Period of Military Service</td>
<td>Monthly Owner Costs</td>
</tr>
<tr>
<td>Health Ins. Coverage</td>
<td>VA Service-Connected Disability</td>
<td></td>
</tr>
</tbody>
</table>

With a decennial census you can only change questions every ten years. With ACS they can modify/add/delete questions more easily. Review Comparisons at:
Decennial - [http://www.census.gov/history/www/through_the_decades/index_of_questions/](http://www.census.gov/history/www/through_the_decades/index_of_questions/)
ACS Products

• Data Profiles

• \textit{Narrative Profiles}

• Subject tables – percent!

• Ranking tables

• Detailed tables

• Geographic comparison tables

• Public use microdata sample file

(40\%\ sample\ of\ ACS\ file,\ create\ crosstabs)
Data has context with Geography

How does the Census Bureau work with geography?
Geography that Sums

Nesting Hierarchy

- Nation
- Region
- Division
- State
- County
- Census Co. Division
- Census tract
- Block Group
- Block

No ACS data available for blocks
block group data is now available for 5 yr ACS 2013 in AFF
Levels of Geography that are Non-nesting

Place (Incorporated or CDP Census Designated Place)
Metropolitan/Micropolitan Area
American Indian Reservation
PUMAs
Urban/Rural
Urban Area
State Legislative Dist.
Congressional District
Zip Code Tabulation Area (ZCTA)

The 2010 Census data are based on 2010 census geographic boundaries. Data for the 2000 Census is based on the 2000 census geographic boundaries.
Boundaries of incorporated places and other legal jurisdictions are updated regularly by local governments through the Census Bureau’s Boundary and Annexation Survey (BAS).

Boundaries of CDPs, census tracts, block groups, blocks and other areas are updated before each census via Census Bureau/local planning programs such as the Participant Statistical Area Program (PSAP).
Metropolitan Statistical Areas (MSA) & Micropolitan Statistical Areas

• Consist of a single county or multiple, contiguous cos.
• Contain large central core city (50K+ population)
• High economic integration between counties within an MSA
• Micropolitan Statistical Area similar but with central core city of 10-50K population
• Defined by Office of Mgt. & Budget (OMB)
  • determined for 2010 Census in June 2003
  • updated in Feb 2013.
    • OMB Bulletin No. 13-01
    • The file has 21 Metro & Micro areas for NM.
    • Note: El Paso-Las Cruces, TX-NM Combined Statistical Area

For more information about MSAs go to www.census.gov/population/metro
ZIP Code Tabulation Areas or ZCTAs – have a close approximation to actual postal ZIP Code coverage, but are defined by census boundaries.

(Can’t split a block down the middle.)
Census Geography on the website

http://www.census.gov/geography.html

Links to maps
• TIGER Files for GIS
• Area Definitions
• Boundary Changes
• And more…

Geography

Geography is central to the work of the Census Bureau, providing the framework for survey design, sample selection, data collection, tabulation, and dissemination. Geography provides meaning and context to statistical data.

Tell us what YOU think

TIGER Products
Spatial extracts for use in GIS software from the MAF/TIGER database, containing features such as roads, rivers, and legal and statistical geographic areas.

TIGERweb
A web-based application giving users a way to view geographic data, including roads, rivers, legal and statistical areas, without having to download data.

Reference Maps
Reference maps easily show the boundaries and names of geographic areas for which statistical data is tabulated.
Be sure to look for the “Index” map from each map set. This will help you orient yourself geographically and decide which maps to look at for your specific geography needs.
Census and ACS Maps

Bern. Co. fair grounds area -- Map needed is inset A35
2010 Census map with block level detail

CT 5.01, BG 1

Fairgrounds

CT 5.01, BG 2

CT 6.04, BG 3

Bernalillo County

Albuquerque CCD 90060
2010 Census map with Census tract level detail
Geographies:
American Indian, Alaska Native, and Native Hawaiian Areas

Hierarchy of American Indian, Alaska Native, and Native Hawaiian Areas

American Indian Areas (Federal)/Off-Reservation Trust Lands
- Tribal Census Tracts
  - Tribal Block Groups
- Oklahoma Tribal Statistical Areas
- Alaska Native Regional Corporations / Alaska Native Village Statistical Areas / Hawaiian Home Lands
- Tribal Designated Statistical Areas
  - American Indian Reservations (state) / State Designated Tribal Statistical Areas

Census Blocks
New Mexico American Indian Geographies

- 29 areas
- Reservations and associated trust lands.
- Joint Use areas
- Three areas extend into other states.
- Census Designated Place

ACS Geography and Time

• Areas of 65,000 or more have 1-yr, 3-yr and 5-yr est.
• Areas of 20,000 or more have 3-year and 5-year est.
• Census tracts (and block groups) have only 5-year est.
Basic Steps to use American Factfinder

1. Start at: http://factfinder2.census.gov
2. Advanced Search
3. “Geographies” make selections
4. “Topics” - select a data set
5. Select data tables
6. View selected
7. Print or download
Start at [http://factfinder.census.gov/](http://factfinder.census.gov/)
Select Advanced Search
Select Geographies
Note: Your Selections
Narrow down tables with the “Topics”
Check the table and then view.
Typical Difficulties & Data Caveats

- Can’t find the geography
- Data is missing ***
- Can’t find the topic
- How to compare data over time

Different ways of finding locations
Census or Survey & population limitations
Search methods, Vocabulary,
Census documentation
ACS Sample Size

American Community Survey

Sample Size

New Mexico

Initial Addresses and Sample Selected and Final Interviews

<table>
<thead>
<tr>
<th>Year</th>
<th>Initial Addresses Selected</th>
<th>Final Interviews</th>
<th>Initial Sample Selected</th>
<th>Final Actual Interviews</th>
<th>Final Synthetic Interviews</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>25,768</td>
<td>16,173</td>
<td>1,190</td>
<td>909</td>
<td>677</td>
</tr>
<tr>
<td>2013</td>
<td>25,812</td>
<td>15,242</td>
<td>1,165</td>
<td>815</td>
<td>756</td>
</tr>
<tr>
<td>2012</td>
<td>25,661</td>
<td>16,689</td>
<td>1,206</td>
<td>793</td>
<td>677</td>
</tr>
<tr>
<td>2011</td>
<td>24,484</td>
<td>14,546</td>
<td>1,196</td>
<td>808</td>
<td>777</td>
</tr>
<tr>
<td>2010</td>
<td>21,986</td>
<td>12,779</td>
<td>1,055</td>
<td>692</td>
<td>N/A</td>
</tr>
<tr>
<td>2009</td>
<td>21,472</td>
<td>12,615</td>
<td>1,033</td>
<td>700</td>
<td>N/A</td>
</tr>
<tr>
<td>2008</td>
<td>21,216</td>
<td>12,792</td>
<td>1,031</td>
<td>801</td>
<td>N/A</td>
</tr>
<tr>
<td>2007</td>
<td>20,936</td>
<td>12,588</td>
<td>923</td>
<td>575</td>
<td>N/A</td>
</tr>
<tr>
<td>2006</td>
<td>19,895</td>
<td>12,397</td>
<td>897</td>
<td>674</td>
<td>N/A</td>
</tr>
<tr>
<td>2005</td>
<td>19,901</td>
<td>11,862</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>2004</td>
<td>7,156</td>
<td>4,387</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>2003</td>
<td>7,078</td>
<td>4,444</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>2002</td>
<td>6,418</td>
<td>3,955</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>2001</td>
<td>7,692</td>
<td>4,861</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>2000</td>
<td>7,563</td>
<td>4,583</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>
Comparability of 2010 Census to ACS

Sampling issues & Margin of errors & survey question & time frame


American Community Survey (ACS)

Comparing 2014 American Community Survey Data

Learn more about making the following comparisons:

- Comparing the 2014 ACS estimates with Census 2000 (second column below)
- Comparing the 2014 ACS 1-year with the 2013 ACS 1-year estimates (third column below)
- Comparing the 2014 ACS estimates with 2010 Census (fourth column below)

<table>
<thead>
<tr>
<th>Subject Area*</th>
<th>2014 ACS 1-Year with Census 2000</th>
<th>2014 ACS 1-Year with 2013 ACS 1-Year</th>
<th>2014 ACS 1-Year with 2010 Census</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>Compare with Caution The entire population continually ages into older</td>
<td>Compare</td>
<td>Compare</td>
</tr>
</tbody>
</table>

Age and Sex (01)
Warning: Although the American Community Survey (ACS) produces population, demographic and housing unit estimates, it is the Census Bureau's Population Estimates Program that produces and disseminates the official estimates of the population for the nation, states, counties, cities and towns and estimates of housing units for states and counties.

http://www.census.gov/popest/
Clues for finding the *right* data set

The Census is only one source of data
Places to start from

- Census

- NMDWS [laser.state.nm.us](laser.state.nm.us)
  - Publications Center looking for:

  *New Mexico Annual Social & Economic Indicators*
Who to Contact when you need assistance

My contact information appears at the end of this presentation.

Additionally, State Data Center affiliates in New Mexico are good contacts for census data and assistance. To find contacts in your area go to bber.unm.edu/affils.htm
Exercise 1

You are applying for a federal grant to assist in early childhood development for families in poverty in Gallup. Your grant has a section for identifying the target population and it’s demographics.

1) What are the basic demographics of McKinley county?
2) How many families with children under 5 are below the poverty level?
3) What is the Median Household Income in McKinley?
4) How many families are without health insurance?

Can you find this data for Gallup or other small population local area?
You would like to open up a Gas Station in Gallup. Part of your business plan is to analyze the local market.

1) How many Gas Stations are in the area?
2) What is their annual payroll?
3) How does that compare to other similar areas like Farmington?
Thank You!

Suzan Reagan
Phone: (505) 277-3038
Email: sreagan@unm.edu
Website: bber.unm.edu
www.facebook.com/BBERUNM