The American Community Survey

A fabulous (and formidable) data source

Andi Egbert, MN State Demographic Center | January 8, 2014
ACS Show & Tell (speedy, please!)

1. Name & affiliation
2. What are the primary ACS topics you use in your work?
   - Examples: health, housing, transportation, poverty, employment, disparities
3. Name one data product or report you create with ACS data
   - Did you bring copies?
What is the role of the MN State Demographic Center?

- Serve as a liaison to the Census Bureau and assist with the decennial census counts; create MN population estimates for intercensal years
- Create projections and issue reports about their implications for the state
- Analyze, interpret, and distribute data from the U.S. Census Bureau, state departments, and other sources
- Offer data and technical assistance to policymakers, all levels of government, media, organizations, and citizens across the state
- Monitor trends and help MN to make data-informed decisions

www.demography.state.mn.us
@MN_StateData
A fabulous, but occasionally formidable friend

THE AMERICAN COMMUNITY SURVEY (ACS)
No shortage of data!

- The 2012 ACS release contains more than 7,800 tables (including 1-, 3- and 5-year data)
“Organized toast”

Do I want...

“INDUSTRY BY SEX AND MEDIAN EARNINGS IN THE PAST 12 MONTHS (IN 2012 INFLATION-ADJUSTED DOLLARS) FOR THE CIVILIAN EMPLOYED POPULATION 16 YEARS AND OVER” ...

Or ...

“INDUSTRY BY SEX AND MEDIAN EARNINGS IN THE PAST 12 MONTHS (IN 2012 INFLATION-ADJUSTED DOLLARS) FOR THE FULL-TIME, YEAR-ROUND CIVILIAN EMPLOYED POPULATION 16 YEARS AND OVER”

?!
Honesty, what would be do without it?!

ACS: BEST THING SINCE SLICED BREAD
ACS: Some background

- The ACS is a nationwide, continuous survey
- The ACS was developed to “replace” the long form following the 2000 decennial census, the survey part of the census that gives us rich data on characteristics — such as income, poverty, education, birthplace, field of degree, transportation mode, etc.
- The Census Bureau contacts 3.5 million households — about 1 in 38 — each year to participate in the ACS
  - (Sampling for old long form was 1 in 6)
- Questionnaire can be completed on paper, in-person or online
  - Non-respondents receive phone calls, visits from Bureau staff
- Fully implemented in 2005 (group quarters added in 2006)
ACS: The basics

- Each year, we now get a 1 year, 3 year and 5 year set of data estimates. Based on the size of the geography:
  - 1-year=65,000+ people (2012)
  - 3-year=20,000+ people (2010-2012)
  - 5-year=Virtually everywhere: Block groups on up (2008-2012)

- For Minnesota or Minneapolis, you can get 1, 3 and 5 year data
- For the town of Ada, MN, you can only get 5 year data.
- If you wish to compare Ada to MN as a whole, you must use 5 year data
- Just because 5 year data are available, that doesn’t always mean the data are good (reliable). More on margins of error (MOEs) to come...
ACS: The basics

- For 3 or 5 year estimates, boundaries and dollar values are always shown in the most recent year (2012 currently). To compare changes in median income or other income values over time, you must inflation-adjust earlier data points for comparability.
  - Quick resource = Mpls Fed inflation calculator
    www.minneapolisfed.org

- Should not compare overlapping estimates
  - Example: 2009-2011 to 2010-2012
    (2 of 3 years of sample are identical)

- Trend data for places with fewer than 65,000 residents
  - 2005-2007 vs. 2008-2010 vs. 2011-2013* Not yet (Fall 2014)
  - 2005-2009 vs. 2010-2014* Not yet (Fall 2015)
The ACS is not...

- A point-in-time survey, referenced to a certain date (like April 1)
  - Rather “period estimates” can be thought of as average characteristics over a span of time
  - Income/poverty questions look back over the *past 12 months*.
    - So the 2012 estimates actually include many 2011 characteristics
    - E.g., those interviewed in Jan. 2012 are reporting on all of 2011—lagging indicator

- Using the same residence rules as the decennial long form
  - Decennial census uses “usual place of residence” rule
  - ACS uses 2-month residence rule—been there or planning to be there 2 months
  - Affects places with substantial seasonal populations—e.g., college towns, communities with many seasonal workers or snowbirds
    - Impacts in population, age composition, household types, etc.
The ACS is...

- A great improvement over the decennial census long form especially late in the decade for more populous places (who receive annual data)
- Nationally comparable and (mostly) comparable over time
- A continuous collection sample that, each year, is roughly 40 times larger than the Current Population Survey’s Annual Social & Economic Supplement (CPS-ASEC), which produces the nation’s official poverty estimates
- Home to more diverse topics than other federal survey, allowing for a multitude of cross-tabulations
- Prompting all sorts of great data visualization tools and products
11) Poverty Rate

Percentage of the population below poverty thresholds as published by the American Community Survey.

Source: Minnesota Housing analyses of American Community Survey 2007-2011 3 year sample
New offerings in the ACS in this fall/winter release

FRESHLY SLICED
New offerings in the 2012 data

- First 5-year file (for all areas down to the block groups) with
  - Consistent disability definitions (Qs revised in 2008)
  - Health insurance coverage estimates (Q introduced in 2008)

  *Note: Small Area Health Insurance Estimates (SAHIE) also an option*

http://ow.ly/rVPXa
New offerings in the 2012 data

- 2008-2012 ACS is *ONLY* data available by current, post-redistricting state legislative districts (SLDs)

- Due to funding cuts/sequestration, the Census Bureau is NOT going to retabulate the 2010 Census data to the current SLD boundaries

- State Legislative Coordinating Commission also has some Census 2010 demographic reports prepared by current state house and senate district boundaries

http://www.gis.leg.mn/hsemapdata.htm
New “Census Explorer”

- Includes ACS 2008-2012, 2000 and 1990 decennial data down to census tract level
  - Shifting geographic boundaries by dataset
  - Address/geography search feature
- Eight topics presently:
  - Total population
  - 65 and older %
  - Foreign-born population %
  - Population with a high school degree or higher %
  - Population with a bachelor’s degree or higher %
  - Labor force participation %
  - Home ownership %
  - Median household income
- Shortcomings: not directly downloadable, no error margins given
New Census Explorer: % foreign-born, 2008-2012

http://www.census.gov/censusexplorer/
New Census Explorer: % foreign-born, 1990

http://www.census.gov/censusexplorer/
A few navigational assists...

TIPS & TRICKS FOR PERFECT TOAST
Some tips

- “C” tables are compressed/collapsed versions of B tables.
- The “Data Profile” tables (DP02, DP03, DP04, DP05) contain the most commonly requested information regarding social, economic, housing, and demographic* topics.

* SDC or Census official population estimates preferred over DP05 for overall estimates or by age, gender, race.
Some tips

- Wondering whether 1, 3 or 5 year estimates are available for any given geography? Type it in the box below and see which datasets come up. ACS offerings will appear first.
Some tips

- Know which dataset you want to use already—such as 1 year 2012 ACS? Then start navigating by Topics>Datasets
- Know you want ACS data (but not sure which year? Then start by navigating by Topics>Program
Some tips

- When selecting geographies, switch to “Name” tab (default is “List”) to get *nested areas*
  - Example: All the census tracts *within* MN, Hennepin County, or Minneapolis
Interest in AFF trainings?

- The MN State Demographic Center is considering offering trainings on the data extraction tool during 2014
- Follow our Twitter feed @MN_StateData or watch TCRG emails for information about future training opportunities
Common challenges I have encountered...

TROUBLESOME TOAST
Understanding diverse groups

- Race, Hispanic origin, nativity (U.S.- or foreign-born), ancestry, language, years in the U.S., mobility...
- We often look through every available lens to estimate group size and characteristics
- ACS data are better for some groups than others...
Which of the following groups is a race, according to the ACS?

1. Hmong
2. Guamanian
3. Filipino
4. Somali
Race

What is Person 4’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
- Chinese
- Filipino
- Other Asian – Print race, for example, Hmong, Laotian, Thai, Pakistani, Cambodian, and so on.
- Japanese
- Korean
- Vietnamese
- Native Hawaiian
- Guamanian or Chamorro
- Samoan
- Other Pacific Islander – Print race, for example, Fijian, Tongan, and so on.
- Some other race – Print race.
Ancestry/origin

About 9 percent of respondents don’t answer this question

Somali
Which of the following ancestries can be found in the ACS published tables?

1. Somalian
2. Ethiopian
3. Bermudan
4. Hmong

See table B04001
Which of the following languages can be found in the ACS published tables?

1. Somali
2. Hmong
3. Gujarati
4. Urdu

See table B16001
Which of the following refugee groups have spent time in Thai refugee camps?

1. Hmong
2. Cambodian
3. Karen

Thus, those who were foreign-born in Thailand can represent many ethnic groups.
5-year ACS for economic conditions

- 2008 through 2012 were VERY different years economically

Source: MNCompass.org, Economy topic
Alternatives to ACS 5-year data regarding economic conditions

- Consider alternatives that are more timely for small areas

- For jobs, wages, employment or industry sectors:
  - Quarterly Census of Employment & Wages (QCEW) via DEED
  - Local Area Unemployment Statistics (LAUS) via DEED
  - County or Zip Code Business Patterns (CPB) via FactFinder
  - OnTheMap (OTM) onthemap.ces.census.gov

- For poverty:
  - Small Area Income & Poverty Estimates (SAIPE) (Also median income)
  - Free and/or reduced lunch enrollment from MN Dept of Education
Can we be BOLD with ACS data?

- Large error margins with some ACS data are a challenge for “gap closing” efforts—want to show swift progress and detail for small groups
  - E.g., Employment gap between whites, American Indians for small areas

- As researchers, we need to:
  - **Be the voice of caution about sampling (and other) error**
    - Educate and save others from bad conclusions...
    - **BUT** without being so cautious that we prevent important action
  - **Find simpler ways to represent statistical concepts for general consumption**
    - Display range created by CI, suppress dangerous data
    - Change level of confidence (say to 95%) when the task calls for it
      - Note: ACS published margins of error are based on a 90% CI
    - Be sounding board for one another
Do I have to use American FactFinder?

OTHER TOOLS FOR TOASTING
ACS tools other than FactFinder

QuickFacts is the best online tool to find interesting facts fast. Start with a map to quickly find data about your community from the ACS and other data sources. Want to know the median income for your city? The median age for your hometown? Access QuickFacts today to get started. http://quickfacts.census.gov/qfd/

EasyStats is a new census.gov data tool that allows the user to create their own custom tables on the fly, with a menu of variables the user can select, and almost instantaneously create their own custom table which can be downloaded into an Excel file. www.census.gov/easystats/

- PUMS (Public Use Microdata Series) or better yet...
- IPUMS (Integrated PUMS) via the U of M
A researcher’s resolution for 2014: Explore IPUMS online

- IPUMS at [https://usa.ipums.org/usa/](https://usa.ipums.org/usa/)
  - Try the “Analyze Data Online” feature in upper left corner

- Online tabulation tool allows for basic analyses without involving any statistical software package
  - Applies weights automatically, shows unweighted n also
  - Allows you to filter, set level of confidence, output to Excel with a simple copy and paste

- Also look up question language on any questionnaire from the homepage>Resources>Enumeration Forms
  - [https://usa.ipums.org/usa/voliii/tEnumForm.shtml](https://usa.ipums.org/usa/voliii/tEnumForm.shtml)
ACS “Compass” guides

- I recommend “What Researchers Need to Know”
- Available online (along with an online tutorial) at
  www.census.gov/acs/www/guidance_for_data_users/e_tutorial
More help with error margins, significance testing, etc.

- A very helpful, accessible PowerPoint to remind you about everything you forgot from your statistics class, as applied to ACS estimates
  [Link](http://www.sacog.org/demographics/census-workshops/docs/pdf/3-Understanding%20MOEs%20and%20CVs%20in%20ACS%20SACOG.pdf)

Some nifty Excel calculators for calculating ACS error when combining estimates:

- Two tools available on our website A-Z listing under American Community Survey [Link](http://www.demography.state.mn.us/a2z.html#American%20Community%20Survey)

- Another great one available for download here, under “ACS Calculator” [Link](http://okcommerce.gov/data-and-research/demographics-and-population-data/american-community-survey/)
Bureau examining ACS content

## Content Review Process

<table>
<thead>
<tr>
<th>Benefit</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Number of Statutory Uses</td>
<td>- Cognitive Burden</td>
</tr>
<tr>
<td>- Number of Regulatory Uses</td>
<td>- Sensitivity</td>
</tr>
<tr>
<td>- Number of Programmatic Uses</td>
<td>- Overall Difficulty</td>
</tr>
<tr>
<td>- Lowest Geography Level-Statutory</td>
<td>- Number of Complaints</td>
</tr>
<tr>
<td>- Lowest Geography Level-Required</td>
<td>- Seconds to Answer</td>
</tr>
<tr>
<td>- Lowest Geography Level-Programmatic</td>
<td>- Median Item Response Rate at County Level</td>
</tr>
<tr>
<td>- County-Level Interquartile Range in Values</td>
<td></td>
</tr>
<tr>
<td>- Used to Administer ACS</td>
<td></td>
</tr>
<tr>
<td>- Used to Select Frame for a Federal Survey</td>
<td></td>
</tr>
<tr>
<td>- Used to produce Other Census Bureau Products</td>
<td></td>
</tr>
<tr>
<td>- Other Data Sources Exist</td>
<td></td>
</tr>
<tr>
<td>- Median County-level Coefficients of Variation</td>
<td></td>
</tr>
</tbody>
</table>
Building the “community of practice”

A TOAST TO ACS DATA USERS
New ACS Data Users Group in 2013, led by PRB and Census Bureau

Purpose: to improve understanding of the value and utility of ACS data and to promote information sharing. Membership free & open.

Features: an online community forum, webinars, and special sessions at professional meetings, and an annual conference

- Call for abstracts through Jan. 15

Activities will be determined based on input from ACS Data Users Group members, Steering Committee members, and Census Bureau

Led by a Steering Committee representing a broad spectrum of data users with different interests (incl. Jeff Matson of CURA)
The local “community of practice”

- How can we build our local “community of practice” for the ACS and related data tools?
- How can we better share knowledge, concerns, techniques?
- What technical tools/in-person meetings would best serve you?
- Think on this and send your ideas to me at andi.egbert@state.mn.us.
- Thanks!
Twin Cities Research Group

Census ACS: A fabulous and formidable data source

Is there Congressional support for data?

Jan. 8, 2013

Wilder Foundation, St. Paul, MN

Agenda

• ACS Census Data face ongoing challenges in Congress

• MACS was created in 2013 to address challenges to census data

• We need your help!
ACS Census Data Face Challenges

• What are the objections to ACS census data? Why?
  – Privacy Concerns
  – Role of government

• What are the challenges?
  – Voluntary ACS
  – Defund ACS
  – Strangle 2020 Census/ACS Census Bureau budgets

• What is the current status of these challenges?
  – 2012 bills in House and Senate
  – 2013 bills in House and Senate
  – 2014 bills in House and Senate

• What is the current status of Census Bureau funding?
The mission of MACS is to educate Minnesota’s Members of Congress and the public about the critical importance of census data to drive a strong economy and improve the well-being of all Minnesotans.

We are a coalition of Minnesota leaders, policy and decision makers, analysts, business people, planners and forecasters, social service providers, data users and data providers, educators, and engaged citizens.

We value and support the consistent, reliable, timely, small-area, and unique data that only the Census Bureau can provide about our population, housing, communities, neighborhoods, and economy. Without valid data, how will we know how to allocate resources, invest, and measure progress?
Focus Areas

• Membership
  – **Size**  From 12 in March to over 100. Our growth reflects the importance of the data in MN.
  – **Broad Base**  Representing the public, private, and nonprofit sectors
  – **Geography**  Covering the State of Minnesota
  – **Nonpolitical**  This message resonates across party lines, by sector and across geographic areas

• Outreach to Minnesota’s 10 Members of Congress and the public
  – Relationships developed or in process with Minnesota’s delegation
  – Growing our supporter base through word of mouth and outreach to community based groups, state and local government, private sector and trade groups, nonprofits and foundations, academia, etc
  – Find us on Facebook: Minnesotans for the American Community Survey. The site is used to share examples, stories, blogs, and articles about ACS Data. Twitter and LinkedIn planned.
  – Outreach to media planned in Q1 2014
Key Challenges and Opportunity
Funding for ACS and 2020 Planning is at risk

• Census Bureau is in the normal “ramp up” period of testing & design for the 2020 Census

• Sequestration and continuing CRs have severely impacted ACS, Economic Census, and 2020 planning.

• Now is the time to invest in efficient and effective design.
  – Internet response option is very promising – BUT it must be done right for 2020.
  – Cutting $$ now leads to large costs later, and better data.
How can you help?

• Become a MACS supporter

• What is your congressional district -- where you live, work, and the geographic area that benefits from your work.

• Share your stories of how ACS Census data drive growth, change lives, improve communities, lessen congestion, etc.
Contact MACS, make a difference

joan.g.naymark@gmail.com

Facebook: Minnesotans for the American Community Survey
Questions? Comments? Toast puns?

Thank you!

Joan Naymark  
joan.g.naymark@gmail.com

Andi Egbert  
andi.egbert@state.mn.us