


Understanding and Using Socio-Economic Demographic Information to Support Community and Economic Development Webinar Series

**Part II of III:
Accessing and Interpreting Demographic Data**

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Today's overview:

- PAD's profiles are live!
- Data and tool highlights from the PAD website
- Basic things to consider when looking for data
- A brief overview of the American Community Survey (ACS)
- How do we assess the accuracy of the data?
 - Exercises with margins of error (MOE)
- Running your own custom profiles using a free Excel Add-in (from Headwaters EPS-HDT)
 - Create regions, compare geographies, data for sub-county units, etc.

**Cornell PAD
Program on Applied Demographics**



The Program on Applied Demographics brings skills in demographics, economics, statistics, data gathering and data analysis. PAD works closely with the New York State Department of Economic Development, the U.S. Census Bureau and other organizations to assist them in their activities.

<http://pad.human.cornell.edu/>

Maps, Data, Projections, ACS Calculator, Workshops, Publications, etc

Link to NYS County profiles and Recorded webinar from 1/18/13:
<http://pad.human.cornell.edu/profiles/index.cfm>

Important things to consider about data

- No single indicator is representative of the entire community or county or region or state.
- One time point does not necessarily represent the community over time.
- Local data is most useful and informative when:
 - Examined over time – need trend data.
 - Compared to other places.
 - Multiple measures are used.
- Graphs, charts and maps are usually better than tables of numbers for communicating data to an audience.
- Does the data make sense?
- Data and numbers do not tell the story without interpretation, context, etc.
- Understanding the American Community Survey (ACS) is important in order to understand the data itself.

Census Geography

Through its many surveys, the Census Bureau reports data for a wide variety of geographic types, ranging from the entire United States down to a Census block. The geographic types that a survey reports on will depend upon the survey's purpose, and how the data were collected.



How Census Data was collected in the past

- Short Form vs. Long Form
 - Short Form - 100% full count – 7 Questions
 - 6 Population items
 - 1 Housing item
 - <http://www.census.gov/dmd/www/pdf/d61a.pdf>
 - Long Form - Sample (~ 1 in 6 sample) – 53 questions
 - Detailed Socio-economic characteristics of population
 - Detailed Physical and Financial characteristics of housing
 - <http://www.census.gov/dmd/www/pdf/d-61b.pdf>

American Community Survey (ACS) The New Census!

- Replacement for the 2010 Long Form
- Large monthly sample
- Generate annual estimates for small areas
- Full coverage began in 2005
- Issues of data comparability and statistical error
- <http://www.census.gov/acs/www/>

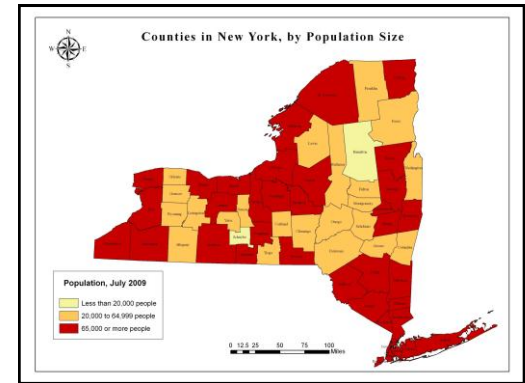
American Community Survey (ACS)

□ Data is currently available for all geographic areas down to the block group level.

- Areas with a population 65,000+: 1-Year Estimates
(data avail. for 2005, 2006, 2007, 2008, 2009, 2010, 2011)

- Areas with a population 20,000+: 3-Year Estimates
(data avail. for 2005-07, 2006-08, 2007-09, 2008-10, 2009-2011)

- Areas below 20,000 (incl. census tracts & block groups):
5-year estimates (data avail. for 2005-09, 2006-10, 2007-2011)



How do we assess the accuracy of the data?

What is a margin of error (MOE)?

- It is a way to express how “good” an estimate is.
- It describes the uncertainty, because of sampling, that surrounds an estimate – it is what we predict the likely range is.
- Margins of error are reminders of the limitations of the estimates.

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**What is the effect of sampling?
Remember: the ACS is based on a *sample***

- As sample size decreases relative to total population, the variation in the estimate – the margin of error - increases.
- The multi-year estimates may have smaller margin of errors than the single year estimates.

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**Ugh. This all sounds too technical for me.
I never used margins of error before, so why should I pay attention now?**

- Avoid Making a Mistake when interpreting the data!
MOE's may save you from saying something has changed when it hasn't, or that something is different when it isn't.
- Shows the range of possible estimates of a characteristic.
- Confidence intervals help you decide how confident you should be about your assertions.

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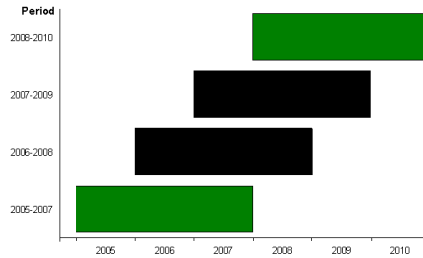
ACS estimates are averages over a time period, NOT a specific point in time

- It's an *average* estimate of a characteristic over the entire period
- A 5-year estimate is the average over 60 months of data collection; a three-year estimate is the average of 36 months; and a one-year estimate is the average of 12 months.
- A 5-year estimate is labeled based on the sampled years; e.g., 2007-2011.
- This is DIFFERENT than previous Census data that refers to a specific point in time.

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Overlapping Periods

Comparison is independent only if there is no overlap:



MOE Example #1:

% Persons with Bachelor's Degree or Higher

2005-2009 American Community Survey 5yr Estimate

New York	Tompkins County	Ithaca	Census Tract 1
31.8%	48.7%	60.0%	62.7%
+/- 0.1 MOE	+/- 1.7 MOE	+/- 4.2 MOE	+/- 9.3 MOE

Q: Why do we need to use the 5-year estimate in this example?

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MOE Example #2:
% Families in Poverty

	New York	Tompkins County	Ithaca
2009 1yr Estimate	10.8 (+/- 0.2)	8.3 (+/- 2.9)	N/A
2007-2009 3yr Estimate	10.4 (+/- 0.1)	6.5 (+/- 1.5)	9.5 (+/- 5.3)
2005-2009 5yr Estimate	10.5 (+/- 0.1)	6.9 (+/- 1.1)	11.1 (+/- 4.4)

Q: Which estimate should you use?

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MOE Example #3:
% Foreign Born
Tompkins County, NY

Census 2000	2006-2008 ACS 3yr Estimate	2007-2009 ACS 3yr Estimate
10.5	13.0 +/- 1.0 MOE	12.2 +/- 1.0 MOE

Q: What can we say about the trend in foreign born persons in Tompkins County?

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I love the new PAD county-level profiles!

<http://pad.human.cornell.edu/profiles/index.cfm>

But what if I want to.....

Compare counties?


Create a region?

Look at sub-county geographies?

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Headwaters Socio-Economic Profile Toolkit

Socioeconomic Profile Toolkit
Headwaters Economics | READ STORY
The Economic Profile System-Human Dimensions Toolkit allows users to produce detailed socioeconomic profiles of their communities.



Welcome to the Economic Profile System-Human Dimensions Toolkit, which allows users to produce free, detailed socioeconomic profiles at a variety of geographic scales.

Download to install EPS-HDT after completing an easy, first-time only, registration.

See **How to Use EPS-HDT** or **Technical Information**.

For **Custom Analysis**, contact Headwaters Economics with any questions about custom analysis.

EPS-HDT was designed and funded in partnership with the Bureau of Land Management and the U.S. Forest Service.
(Terms of Use)

For more information, contact:
Ray Rausser, Ph.D., at 408.570.7044 or rrausser@blm.gov

<http://headwaterseconomics.org/tools/eps-hdt>

Create regions, compare geographies, run 14 different reports, includes study guides, data for sub-county units as well.

Example #1: Run a socio-demographic report for a "region" (using whatever counties and/or states you choose)

- Download free EPS-HDT software to your computer
- Open Excel
- Select "Add-ins" from top menu
- Select "EPS-HDT" from top left, click "Select Geographies" from drop-down menu
- Select 1st General Report, Socioeconomic Measures (check box)
- Select counties or states to include in a region , and give your region a "title"
- select geography to compare as a benchmark (entire state, non-metro part, etc).
- 20 - "Run"

Example #2: Run a summary report comparing two or more counties

- Select "Add-ins" from top menu
- Select "EPS-HDT" from top left, click "Select Geographies" from drop-down menu
- Select "Detailed Reports, Summary" (check box)
- Select counties to compare individually (select state first). By default the system will also create a "region" of these individual counties (even if it doesn't make sense...) so you may want to give this region a "title". Otherwise, ignore the region in the resulting report.
- "Run"

Example #3:

Run a demographic report comparing two or more towns, villages, cities, and/or counties
(sub-county geography only available for Demographic detailed report)

- Select "Add-ins" from top menu
- Select "EPS-HDT" from top left, click "Select Geographies" from drop-down menu
- Select "Detailed Reports, Demographics" (check box)
- First select the **state** within which you will select smaller geographies.
- Then select the **geographic level**. Cities and towns will be found by selecting "County subdivisions" in drop-down menu and are organized alphabetically *within* counties. Villages will be found by selecting "Cities and Towns and Census Designated Places (CDP)" and are organized alphabetically for the whole state.

Examples #4-11 !!!!!:

Run reports comparing two or more counties, creating a region, etc using the following reports:

- Demographics
- Mining & Energy
- Services
- Travel & Tourism
- Government
- Non-Labor
- Timber
- Land Use

Features of the Headwaters System:

- Similar to PAD profiles, you can copy graphics and tables from reports
- Nice cover page, table of contents, etc.
- Includes a "study guide" on opposite page which includes "what do we measure on this page", "why is it important", "methods", and additional resources". PAD profiles also includes a glossary of terms.
- Estimates with higher margins of error are noted by orange or red font – use cautiously!
- Demographic data for all U.S. states, counties, cities, towns, villages, american indian areas, and congressional districts

A reminder that the PAD profiles are now available for all 62 NYS Counties

<http://pad.human.cornell.edu/profiles/index.cfm>

Please join us for our next webinar in the series:

Part III: Grant Writing

Friday, March 15, 2012, 10:00 – 11:00 am

Presenter: Heidi Mouillesseaux-Kunzman, CaRDI

Finding, procuring, using, and reporting on the use of grant funds can be thought of as different stages of a single process, one which often requires the use of socio-economic data throughout. In this class we will build on the first two sessions in this series by considering the importance of data as we talk about strategies for (1) finding sources of funding, (2) writing a strong grant application, and (3) evaluating a grant-funded project.

Thank you
& Good Luck!!!

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