

Using the ACS Across NYC Geographies:
Overcoming Reliability Issues

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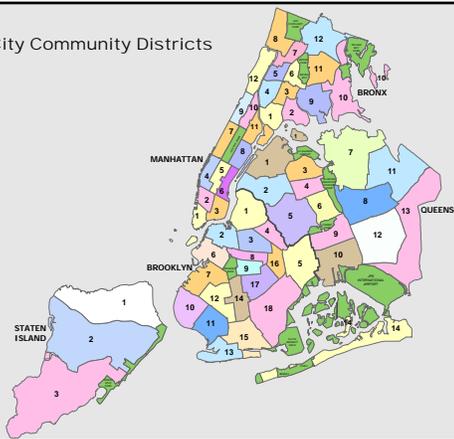
Presentation at the State Data Center Annual Affiliate Meeting
Albany, May 7, 2015

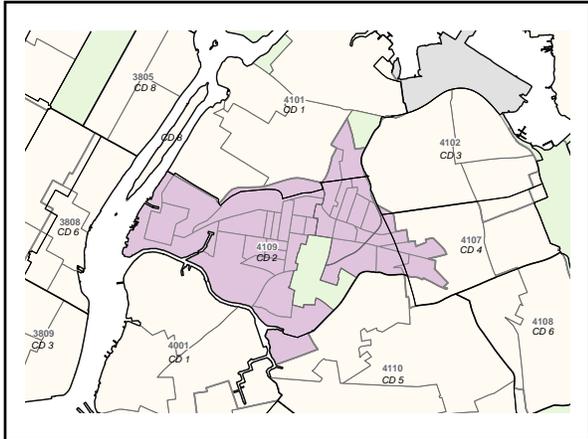


5 Boroughs of New York City



New York City Community Districts





Reliability of the ACS Poverty Data Across Tracts of Varying Size

Tract Population	Number of Tracts	Median CV	Mean CV
Less than 1000	713	31.3	37.9
1000-2999	18910	29.0	32.8
3000-4999	30588	28.1	31.0
5000-9999	16283	28.2	30.5
7000 or more	8831	27.8	29.8

Source: PRB analysis of 2008-2012 ACS data.

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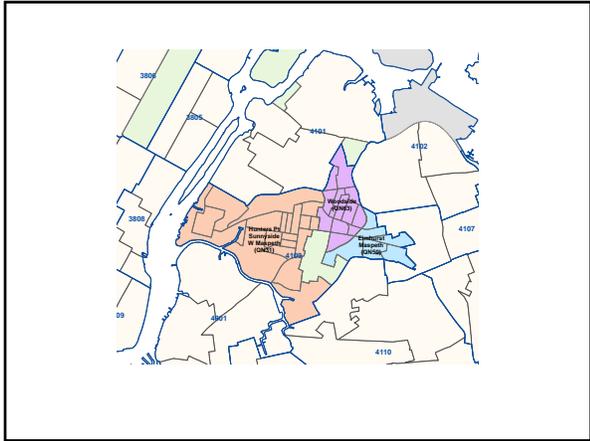
What are acceptable levels of relative reliability when using ACS estimates?

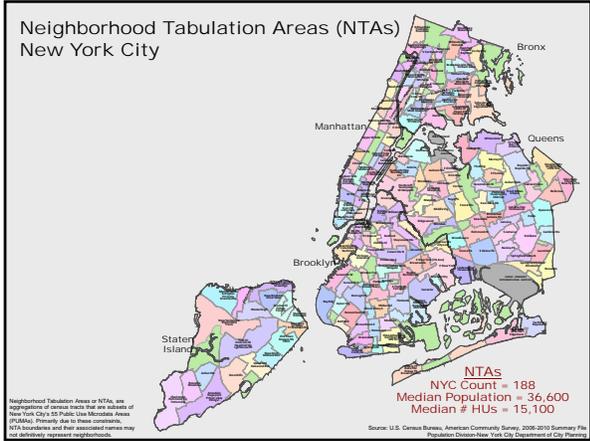
"CVs of 10-12 percent or less are often accepted as a reasonable standard of precision for an estimate."
 - *Using the American Community Survey: Benefits and Challenges, 2007*

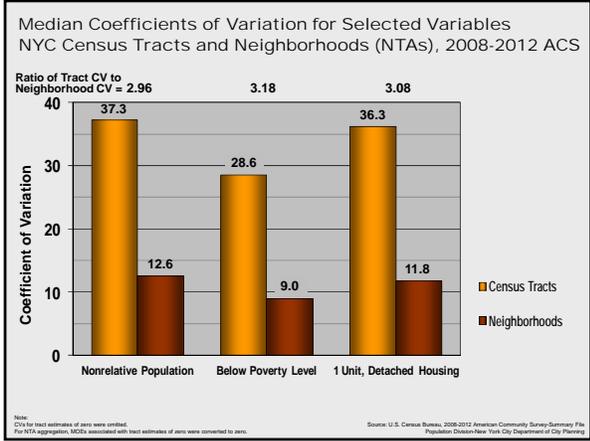
"While there is no hard-and-fast rule, for the purposes of this handbook, estimates with CVs of more than 15 percent are considered cause for caution when interpreting patterns in the data."
 - *Census Bureau's ACS Compass Handbook Series, 2009*

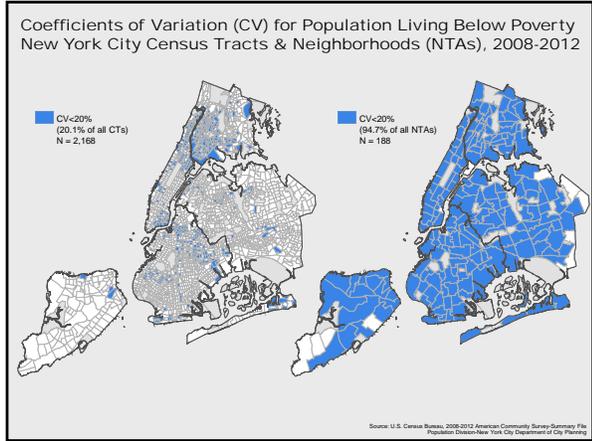
Remember: Income of \$60,000
 with CV of 10 percent has MoE of +/- \$10,000
 CV of 15 percent MoE of +/- \$15,000
 CV of 20 percent MoE of +/- \$20,000







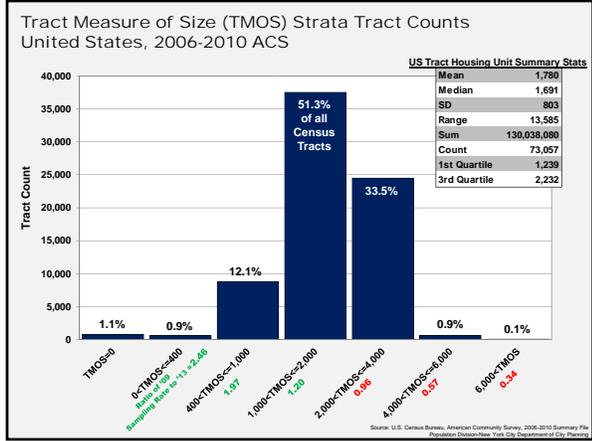




Tract Measure of Size (TMOS) Sampling Rates 2009 and 2013 American Community Surveys

Tract Measure of Size In Housing Units	2009 Average of Post-reduction Sampling Rates	2013 Average of Post-reduction Sampling Rates	Ratio of 2013 Sampling Rate to 2009 Sampling Rate
0 < TMOS <= 400	2.141	5.275	2.464
400 < TMOS <= 1,000	2.141	4.220	1.971
1,000 < TMOS <= 2,000	2.141	2.562	1.197
2,000 < TMOS <= 4,000	1.573	1.507	0.958
4,000 < TMOS <= 6,000	1.573	0.904	0.575
6,000 < TMOS	1.573	0.528	0.335

Source: U.S. Census Bureau, American Community Survey, ACS Design and Methodology Report 2009 and 2013
Population Division-New York City Department of City Planning



Suggestions for the Census Bureau

1. Provide more guidance on acceptable levels of reliability (examples)
2. Provide more guidance on aggregation of summary level ACS data
3. Re-consider the impact of new sample design on data aggregation
4. Longer-term: Press for further increases in sample and/or endorse new small area geographic summary level



Data Links

- DCP Population Division Web site:
www.nyc.gov/population
- New York City Census Aggregation Tool:
<http://gis.nyc.gov/dcp/pa/address.jsp>
- Census Bureau Web site:
www.census.gov

Population Division Website