Working with ACS Census Microdata

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October 15, 2014

Today

1 What is microdata?

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2. *Why* do we need them?

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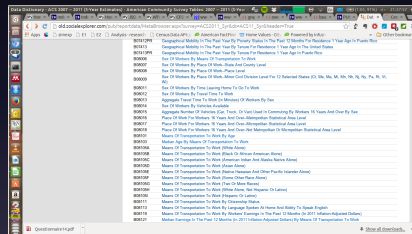**2** *Why* do we need them?

3 *When* do we need them?

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1. What is microdata?
2. *Why* do we need them?
3. *When* do we need them?
4. What are common pitfalls?

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1. What is microdata?
2. *Why* do we need them?
3. *When* do we need them?
4. What are common pitfalls?
5. Practice

What is microdata

1 Differs from standard tabulations

2 Microdata–> the response records?

3 Microdata is not a separate survey. Microdata is a unit of analysis.

4 Segmented into Housing and Person records, linked by SERIALNO

From survey form to raw data–almost directly

When / why do we need them?

1. When we want to understand relationships *between* variables not already tabulated

When / why do we need them?

1. When we want to understand relationships *between* variables not already tabulated
2. When we want *custom breakpoints* / categorizations relevant to local conditions

What are key characteristics?

1. PUMS data ships in 1,3, and 5-year files, annually
2. Persons and housing units are provided in separate files, representing different units of analysis
3. Response records have weights associated with them
4. Each file ships with its own weight
5. Geographic precision is much lower (PUMA areas, 100k residents)

Pitfalls

1. The sky is the limit? I can tabulate anything? Be careful. Samples can get thin.
2. Weights are dangerous and easy to inadvertently misuse. Start with proof-of-concept calculations where you can evaluate the magnitude of the estimate

Resources

A Compass for Understanding and Using American Community Survey Data

What PUMS Data Users Need to Know

Issued
February 2009

U S C E N S U S B U R E A U

Helping You Make Informed Decisions

U.S. Department of Commerce
Economics and Statistics Administration
U.S. CENSUS BUREAU

United States®
Census
2010
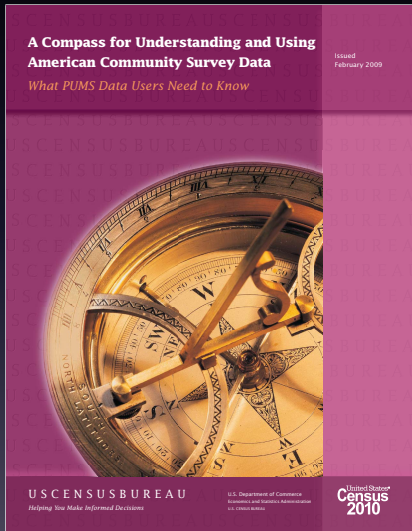
```
                        PERSON RECORD

RT          1
   Record Type
              P .Person Record

SERIALNO  7
   Housing unit/GQ person serial number
              0000001..9999999 .Unique identifier

SPORDER   2
   Person number
              01..20 .Person number

PUMA      5
   Public use microdata area code (PUMA)
       00100..08200 .Public use microdata area codes
              77777 .Combination of 01801, 01802, and 01905 in Louisiana

Note: Public use microdata areas (PUMAs) designate areas of 100,000 or more
population.  Use with ST for unique code.

ST        2
   State Code
              01 .Alabama/AL
              02 .Alaska/AK
              04 .Arizona/AZ
              05 .Arkansas/AR
              06 .California/CA
              08 .Colorado/CO
              09 .Connecticut/CT
              10 .Delaware/DE
              11 .District of Columbia/DC
              12 .Florida/FL
              13 .Georgia/GA
              15 .Hawaii/HI
              16 .Idaho/ID
              17 .Illinois/IL
              18 .Indiana/IN
              19 .Iowa/IA
              20 .Kansas/KS
              21 .Kentucky/KY
              22 .Louisiana/LA
              23 .Maine/ME
              24 .Maryland/MD
              25 .Massachusetts/MA
              26 .Michigan/MI
              27 .Minnesota/MN
              28 .Mississippi/MS
              29 .Missouri/MO
              30 .Montana/MT
              31 .Nebraska/NE
              32 .Nevada/NV
              33 .New Hampshire/NH

                        27
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