Comparing Social Characteristics Between Census 2000 and the ACS / Census 2000 Supplementary Survey

David A. Raglin, Theresa F. Leslie,
and Deborah H. Griffin
U.S. Census Bureau

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Summary of Talk

- Research goal and questions
- ACS and Census 2000
- Social Characteristics
- Methodology
- Results

Research Goal and Questions

Research goal:

- We want to help users in the transition from using decennial census long form data to using ACS data.

Research questions:

- What are the systematic differences in the distributions between the census and the ACS?
- What are reasons for those differences?

Comparing ACS and Census 2000

- The ACS in 2000 was called the Census 2000 Supplementary Survey
- ACS conducted with nationally-representative sample for the first time in 2000
- This provided a unique opportunity to compare ACS and Census distributions

ACS and Census 2000 Methodological Differences

- Reference dates:
  - Census: April 1, 2000
  - ACS: date data are collected

- Residence rules:
  - Census: usual residence
  - ACS: two-month rule

ACS and Census 2000 Methodological Differences

- Modes (both use mail self-enumeration):
  - Census: personal visit followup on paper
  - ACS: telephone & personal visit followup computer (CATI/CAPI)

- Interviewers:
  - Census: largely temporary
  - ACS: permanent

ACS and Census 2000 Comparison Studies

- We are conducting four comparison studies–roughly analogous to the four profile tables:
  - General–sex, age, relationship, race, Hispanic origin, and tenure
  - Economic–employment, commute, industry, occupation, class of worker, income, and poverty
  - Housing–structure, number of rooms, value, mortgage, rent, heating fuel, and more
  - Social

Social Characteristics Profile Table

- Nativity and place of birth
- Region of birth/foreign-born
- Language spoken at home
- Ancestry

- Disability
- School enrollment and educational attainment
- Marital status
- Grandparents as caregivers
- Veterans status

Related JSM Talk

- Methodological Issues in Local Area Statistics: A Subject Area Assessment of Data from Census 2000 and the American Community Survey
- Session 464, Thursday, August 12th, 10:30-12:20, Hilton–Union Square 22
- Talks on education, grandparents as caregivers, and disability, as well as income and housing unit vacancy status

Methodology

- 2000 ACS only for households (no group quarters), so Census data only for households
- Both ACS and Census data weighted
- ACS standard errors: standard ACS methods
- Census standard errors: SRS standard errors times 1990 Census long form design effects
- Significance levels controlled for multiple comparisons

Methodology

- Two types of significance differences:
  - Statistically differences–if so, we then looked at
  - Meaningfully differences–was the difference between the two percentages large enough to change their meaning to data users
- Standard errors often tenth or hundredth of a percentage
- We realize “meaningful differences” are in the eye of the beholder, though

Nativity and Place of Birth

Category	Census	ACS	Difference
	Percent		
Native	88.8	88.9	0.2*
Born in the United States	87.5	87.7	0.2*
State of residence	60.1	59.8	-0.3*
Different state	27.5	27.9	0.4*
Born outside the US	1.3	1.2	-0.0

* Statistically significant difference at 90% confidence level

Base: All persons (in households), 273.6M in both

Nativity and Place of Birth

Category	Percent		
	Census	ACS	Difference
Foreign born	11.2	11.1	-0.2*
Entered since 1990	4.8	4.8	0.0
Naturalized citizen	4.5	4.5	-0.0*
Not a citizen	6.7	6.6	-0.1*

* Statistically significant difference at 90% confidence level

Base: All persons (in households), 273.6M in both

Nativity and Place of Birth

- Several statistically significant differences
- We do not see meaningful differences, though
- Example of a variable for which there is no obvious issue going from the census to the ACS

Region of Birth for Foreign-Born

Category	Percent		
	Census	ACS	Difference
Europe	15.7	15.7	-0.0
Asia	26.4	27.3	0.9*
Africa	2.8	2.8	0.0
Oceania	0.5	0.6	0.0
Latin America	51.8	50.8	-1.0*
Northern America	2.6	2.8	0.1*

* Statistically significant difference at 90% confidence level

Base: Foreign-born people, 30.7M in Census, 30.3M in ACS

Region of Birth for Foreign-Born

- Several statistically significant differences, but we do not see meaningful differences
- Differences for Asia and Latin America large enough for research at local level
- No reason to believe at this time there are issues

Language Spoken at Home

Category	Census	Percent ACS	Difference
English Only	82.0	82.5	0.5*
Other Languages	18.0	17.5	-0.5*
English < “very well”	8.2	7.6	-0.7*
Spanish	10.8	10.5	-0.3*
English < “very well”	5.3	4.9	-0.5*
Other Indo-European	3.8	3.7	-0.1*
English < “very well”	1.3	1.2	-0.1*
Asian/Pacific Islands	2.7	2.7	-0.0
English < “very well”	1.4	1.3	-0.1*

* Statistically significant difference at 90% confidence level
Base: Persons five or more years old, 254.6M in both

Language Spoken at Home

- We do not see the differences to be meaningful, individually
- Trend: less reporting of other languages in the ACS
- Possible reasons: only English paper form in ACS, data collection mode differences
- Example of a variable for which there could be a difference from the change from the long form to ACS

Ancestry

Category	Percent Census	Percent ACS	Difference
English	8.8	10.3	1.5*
French (except Basque)	3.0	3.6	0.6*
German	15.4	17.0	1.6*
Irish	11.0	12.1	1.1*
Italian	5.7	5.8	0.2*
Polish	3.2	3.3	0.1*
United States/American	7.5	7.3	-0.1

* Statistically significant difference at 90% confidence level
Base: All persons (in households), 273.6M in both

Ancestry

- We see meaningful differences–more reporting in ACS in general
- No editing of ancestry responses in ACS or Census:
  - Census–80.1 percent of people provided 1+ ancestries
  - ACS–88.3 percent provided at least one ancestry
- Distributions with only people that reported at least one ancestry--the differences go both ways
- This is a variable that may produce different results in ACS due to methodological differences

Conclusions

- For several variables: we do not see reasons to believe that a change from the long form to ACS will cause large changes in the results
- However, in some cases, more research is necessary
- For ancestry: there will be differences due to more reporting of ancestry in ACS

Next Steps

- Further analysis on these variables
- Look at these differences for 30 ACS sites, to identify differences at local level that are masked at national level
- Four ACS-Census 2000 comparison reports

Contact Information

- Presenting author: David Raglin
- E-mail: david.a.raglin@census.gov
- Telephone: 301/763-4226