

**GRANDPARENTS LIVING WITH AND PROVIDING  
CARE FOR GRANDCHILDREN:  
A COMPARISON OF DATA FROM CENSUS 2000 AND  
2000 AMERICAN COMMUNITY SURVEY**

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# Purpose

- The American Community Survey (ACS) was designed to replace the long-form of the decennial census and consequently collected the same information as Census 2000 on grandparent caregivers.
- It is important to evaluate how well the ACS can replicate the long form census data.
- In addition to identifying the differences between the two sources of data on grandparent caregivers, I investigated potential areas for improvement in data quality
  - By examining data collection methods, sampling rates, non-response follow-up (NRFU), imputation rates, and edit procedures
  - At national, state and county levels of geography.

# Benefits of the ACS

- At full implementation the ACS will
  - provide relevant, timely and detailed long form type data every year for most geographic areas.
  - reduce respondent burden, as only about 2.5 percent of the population will be surveyed each year.

# Legislative mandate

- The Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) of 1996
  - required the Census Bureau to collect information in Census 2000 about grandparents who have primary responsibility for the care of their grandchildren
  - 2000 ACS asked the same questions.

# Grandparents Living with Grandchildren

Answer question 17 ONLY if this person is 15 years old or over. Otherwise SKIP to the questions for PERSON 2 on page 10.

18.

a. Does this person have any grandchildren under the age of 18 living in this house or apartment?

Yes

No

# Grandparents Responsible for Grandchildren

- b. Is this grandparent currently responsible for most of the basic needs of any grandchild(ren) under the age of 18 who live(s) in this house or apartment?

Yes

No

# Grandparents Responsible for How Long

c. **How long has this grandparent been responsible for the(se) grandchild(ren)?** *If the grandparent is financially responsible for more than one grandchild, answer the question for the grandchild for whom the grandparent has been responsible for the longest period of time.*

**Less than 6 months**

**6 to 11 months**

**1 or 2 years**

**3 or 4 years**

**5 years or more (long-term)**

# Differences in Methods

- Census 2000
  - Focus on Census Day April 1, 2000
  - Approximately 17 percent of all households in the U.S. were surveyed
  - Temporary employees hired to collect data
  - Paper forms and proxy data used in non-response follow-up (NRFU)
- 2000 ACS
  - Focus on the two months prior to the survey response
  - About 0.8 percent of all households in the U.S. were surveyed
  - Experienced field representatives
  - Computer assisted non-response follow-up (NRFU)



# Estimates for Grandparent Coresidence and Responsibility in the United States

## Census 2000

- 5.8 million grandparents living with their own grandchildren under 18.  
(3.6 percent of 30 years and over)
- 2.43 million co-resident grandparents responsible for grandchildren under age 18. (42.0 percent of grandparents living with grandchildren)

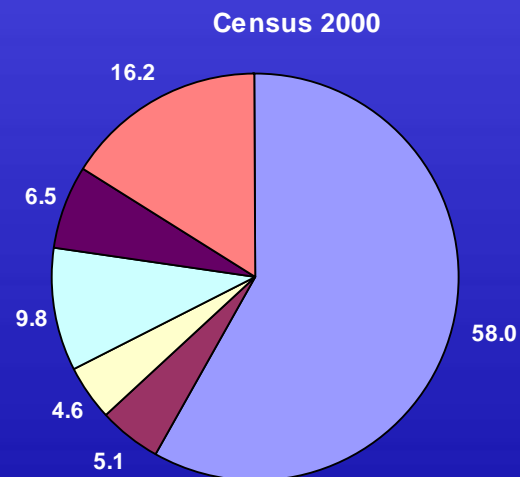
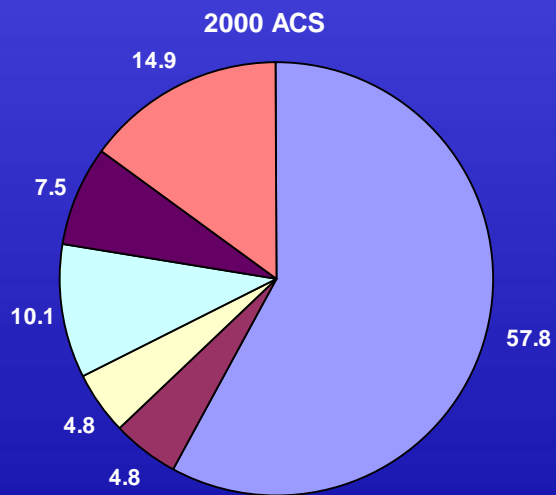
## 2000 ACS

- 5.6 million grandparents living with their own grandchildren under 18.  
(3.5 percent of 30 years and over)
- 2.35 million co-resident grandparents responsible for grandchildren under age 18. (42.2 percent of grandparents living with grandchildren)

# Grandparents Living with Grandchildren, by Duration of Responsibility in the United States: A Comparison of 2000 ACS and Census 2000

(Percent distribution)

- Not responsible for grandchildren
- Responsible 1 to 2 years
- Responsible less than 6 months
- Responsible 3 to 4 years
- Responsible 6 to 11 months
- Responsible 5 years or more



Source: U.S. Census Bureau, Census 2000 SF-3, special tabulations and 2000 American Community Survey detailed tables.

# National Level Results

- Substantively the two surveys produced the comparable estimates.
  - Although statistically different, the numerical estimates of grandparent caregivers in the United States from Census 2000 and ACS 2000 were very similar substantively.
  - The proportions of grandparents living with grandchildren (3.5 to 3.6 percent) and responsible for grandchildren (42 percent) were not statistically different from Census and ACS.
  - The distributions of grandparent responsibility for grandchildren by duration were also similar – only those responsible less than one year were statistically different.

# Results for Large States

## Census 2000

- Arizona
  - 4.1% living with grandchildren
  - 45.4% responsible
  - 32.2% long term
- Michigan
  - 3.0% living with grandchildren
  - 42.0% responsible\*
  - 34.9% long-term

## 2000 ACS

- Arizona
  - 3.9% living with grandchildren
  - 46.0% responsible
  - 32.1% long term
- Michigan
  - 3.0% living with grandchildren
  - 39.2% responsible\*
  - 36.0% long term

\* Indicates a statistically significant difference using a 90% confidence interval.

# State Level Results

- For most states the results are consistent.
  - For Arizona and Michigan, examples of large states, the surveys produced only one statistically significant difference.
    - ACS found a slightly smaller proportion of grandparents responsible for grandchildren in Michigan.

# Results for Small States

## Census 2000

- Kentucky
  - 3.0% living with grandchildren\*
  - 51.5% responsible
  - 39.6% long term\*
- Maine
  - 1.7% living with grandchildren
  - 38.9% responsible
  - 34.5% long-term

## ACS 2000

- Kentucky
  - 3.5% living with grandchildren\*
  - 52.1% responsible
  - 32.6% long term\*
- Maine
  - 1.9% living with grandchildren
  - 42.9% responsible
  - 31.4% long term

\* Indicates a statistically significant difference using a 90% confidence interval.

# State Level Results

- For Kentucky and Maine, examples of smaller states, the surveys estimated two statistically significant differences.
  - ACS found a slightly smaller proportion living with grandchildren and a significantly smaller percent responsible long term in Kentucky.

# Results for ACS Site (County) Level

## Census 2000

- San Francisco County, CA
  - 4.0% living with grandchildren
  - 27.6% responsible
  - 40.3% long term
- Madison County, MS
  - 4.9% living with grandchildren
  - 50.2% responsible
  - 43.6% long-term

## 2000 ACS

- San Francisco County, CA
  - 3.6% living with grandchildren
  - 28.6% responsible
  - 38.2% long term
- Madison County, MS
  - 3.4% living with grandchildren
  - 33.7% responsible
  - 41.3% long-term

Note: None of these comparisons were statistically significant using a 90% confidence interval.



# ACS Site (County) Level Results

- San Francisco County, CA and Madison County, MS are very different populations with very different types of grandparent caregivers.
  - The estimates from the two surveys look different, especially in Madison county, MS but statistically they are not significantly different.
    - Confidence intervals are large.

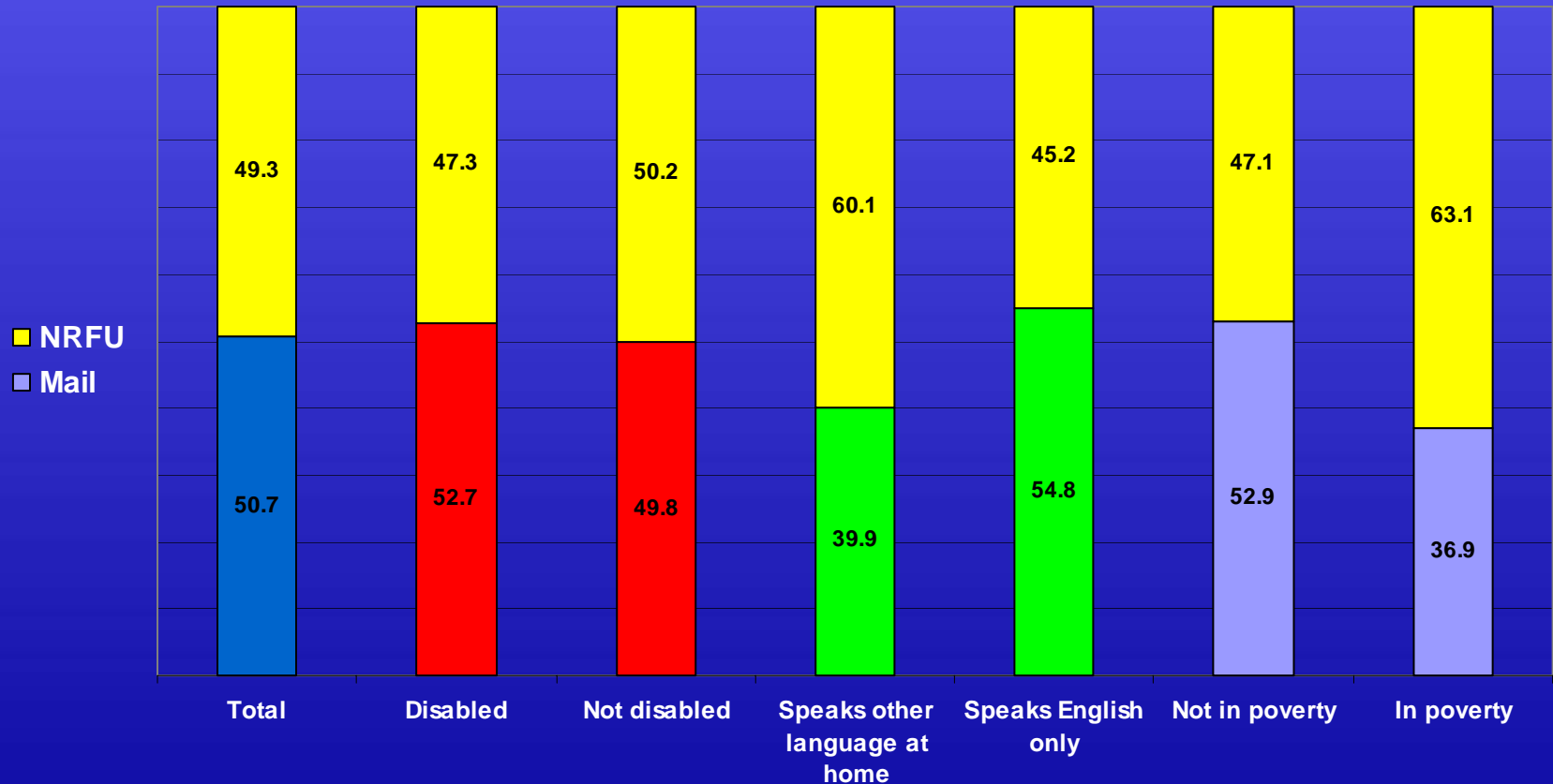
# Possible Reasons for Differences

	Census 2000	ACS 2000
<b>Questions</b>	No difference	No difference
<b>Sample Size</b>	16.7% of households	0.8% of households
<b>Time frame</b>	April 1, 2000	Monthly cycles over 12 months in 2000
<b>Mode of Response</b>	Higher mail response	Higher NRFU response
<b>FR train/exp.</b>	New temporary FRs, less training	Experienced FRs
<b>Proxy data</b>	Allowed non-household members to respond	Did not use proxy data
<b>NRFU Methods</b>	FRs used paper forms in-person	FRs used computerized CATI and CAPI
<b>Item NRFU</b>	No	Yes
<b>Edits/Imputation</b>	More detailed relationship and age data	Less detailed relationship and age data

# Characteristics of Grandparents who Responded by Mail

- Only 50.7 percent of grandparents living with grandchildren returned their ACS form in the mail.
  - Compared with 92.1 percent for Census.
- Possible reasons why some did not return their ACS survey in the mail.
  - ACS was less publicized than Census 2000, and
  - Respondents may have already completed a Census 2000 short-form.
  - Characteristics of co-resident grandparents who were less likely to respond by mail include those who were disabled, spoke another language besides English at home, and lived in poverty.

# Grandparents Living with Grandchildren, Selected Characteristics by Mode of Response: 2000

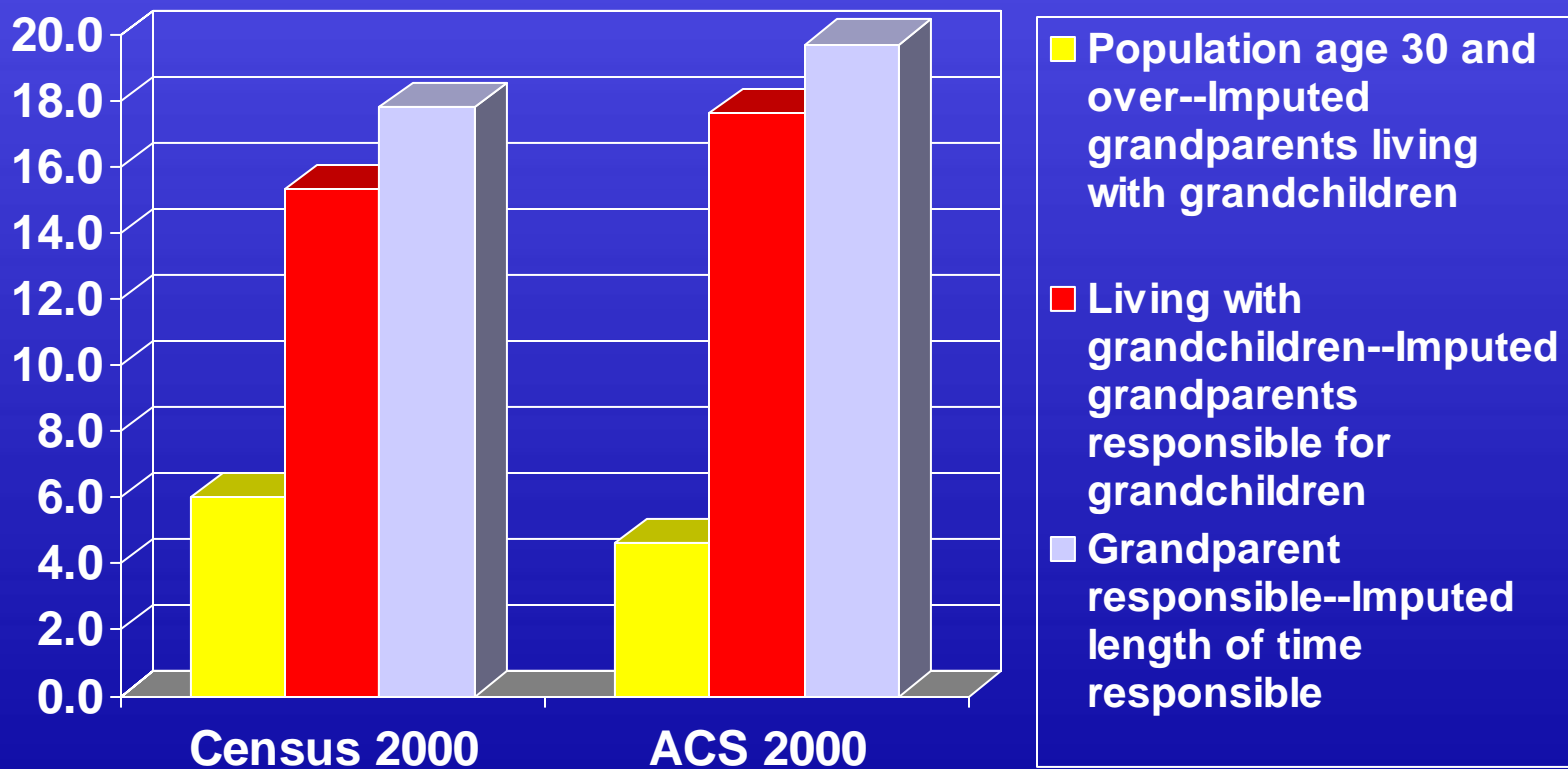


Source: U.S. Census Bureau, 2000 American Community Survey, special tabulation.

# Edits and Imputation

- There were some small differences in editing and imputation procedures in Census and ACS:
  - Both surveys restrict the universe to people age 30 and over.
  - Census asks more detailed Age (in months).
  - Census asks for more detail in relationship to householder (including niece/nephew, aunt/uncle, etc...).

# Imputation of Grandparent Response Items in the United States: Census 2000 and 2000 ACS

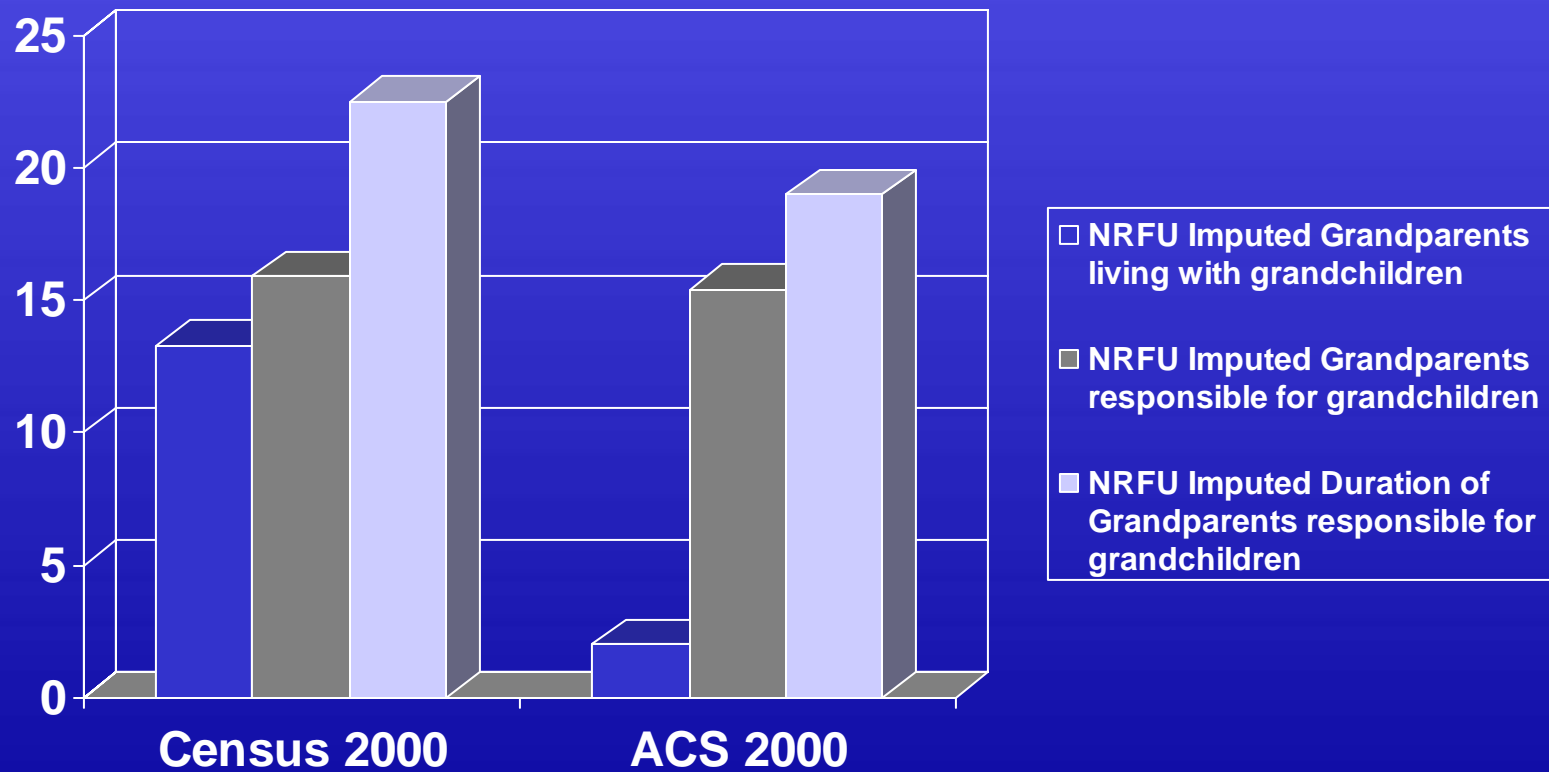


Source: U.S. Census Bureau, Census 2000 SF-3 special tabulations and 2000 ACS detailed tables.

# Combination of Factors

- Mode of Response and Imputation
  - Census
    - More detail for edits and imputation
      - Able to find more inconsistencies
      - Results in higher imputation rates
      - Imputation rates are high for all 3 questions for each mode.
  - ACS
    - Computerized NRFU
      - Corrected the flow of who was asked the first question, so there was less need to edit or impute inconsistencies.
      - Imputation rates are low for the first question in the NRFU mode, and high for all other groups.

# Non-Response Follow-up (NRFU) Responses Imputed





# Implications

- The computerized NRFU resulted in more accurate data collection for the first question on grandparents in the ACS
  - By forcing the correct people to answer the question (those 30 and over with at least one child under 18 in the household)
  - This suggests that human error may have been common in answering these questions.
- Results for the mode of response by imputation rates suggests that for both surveys
  - The questions may be misunderstood by FRs and respondents.

# Understanding the Concepts/Questions

- Congress wanted to know:
  - Primary responsibility for grandchildren
  - Those “providing a home” for grandchildren
- Possible misunderstandings of Questions:
  - The first question begins with “Does this person have any of his/her own grandchildren....”
    - People may not read further and answer “yes” when they don’t live with their grandchildren.
  - The second question begins with “Is this person responsible for most of the basic needs of any grandchildren....”
    - If people don’t read the whole question, this could mean providing day care or babysitting.
    - Most of the basic needs is vague, could mean financial, emotional, etc...

# Summary

- ACS 2000 produced comparable data on grandparent caregivers, especially for larger geographies.
- ACS “improved” upon Census methods by
  - Being more timely and less burdensome
  - Data quality for NRFU improved – with the help of computerized CATI/CAPI and well trained, experienced FRs
- Possible Drawbacks of ACS
  - Smaller sample size resulting in large confidence intervals.
  - Lower mail response rate than Census (could be due to media, or differences in perceived legal obligation).
- The real issue for grandparent data:
  - High imputation rates in both surveys suggests that question wording may be an important issue for further study.

# Contact Information

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