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

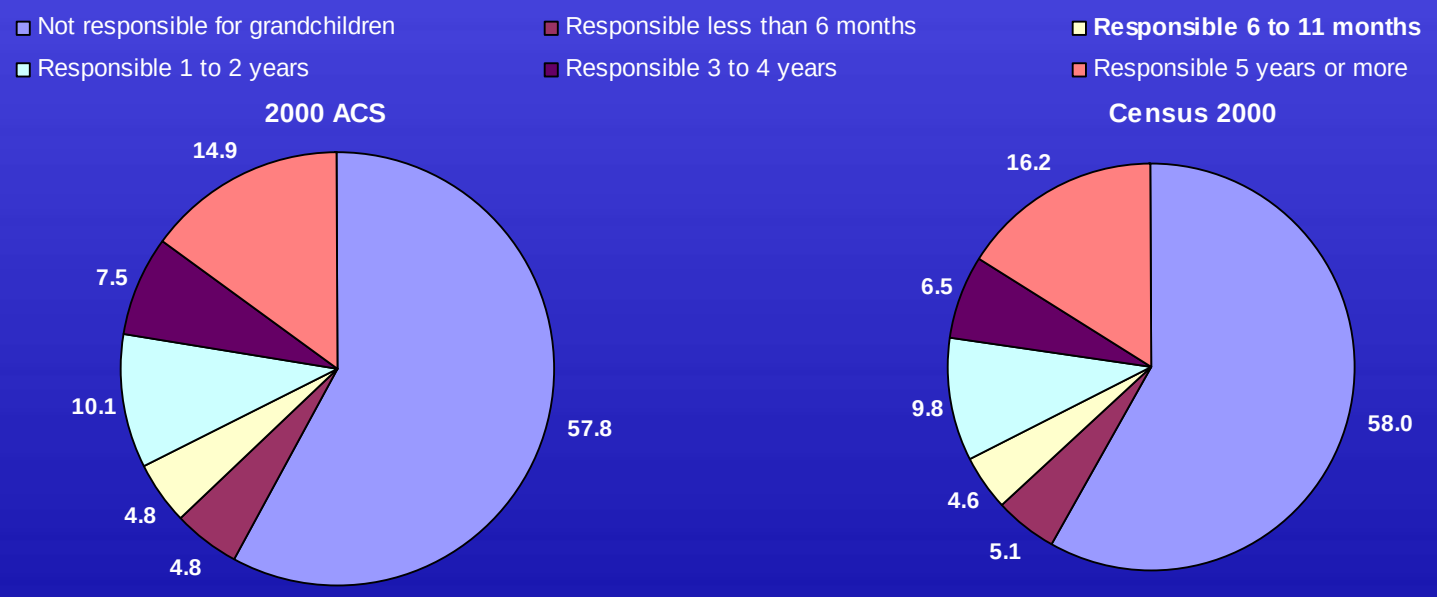
- 5.6 million grandparents living with their own grandchildren under 18.

  (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)



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.

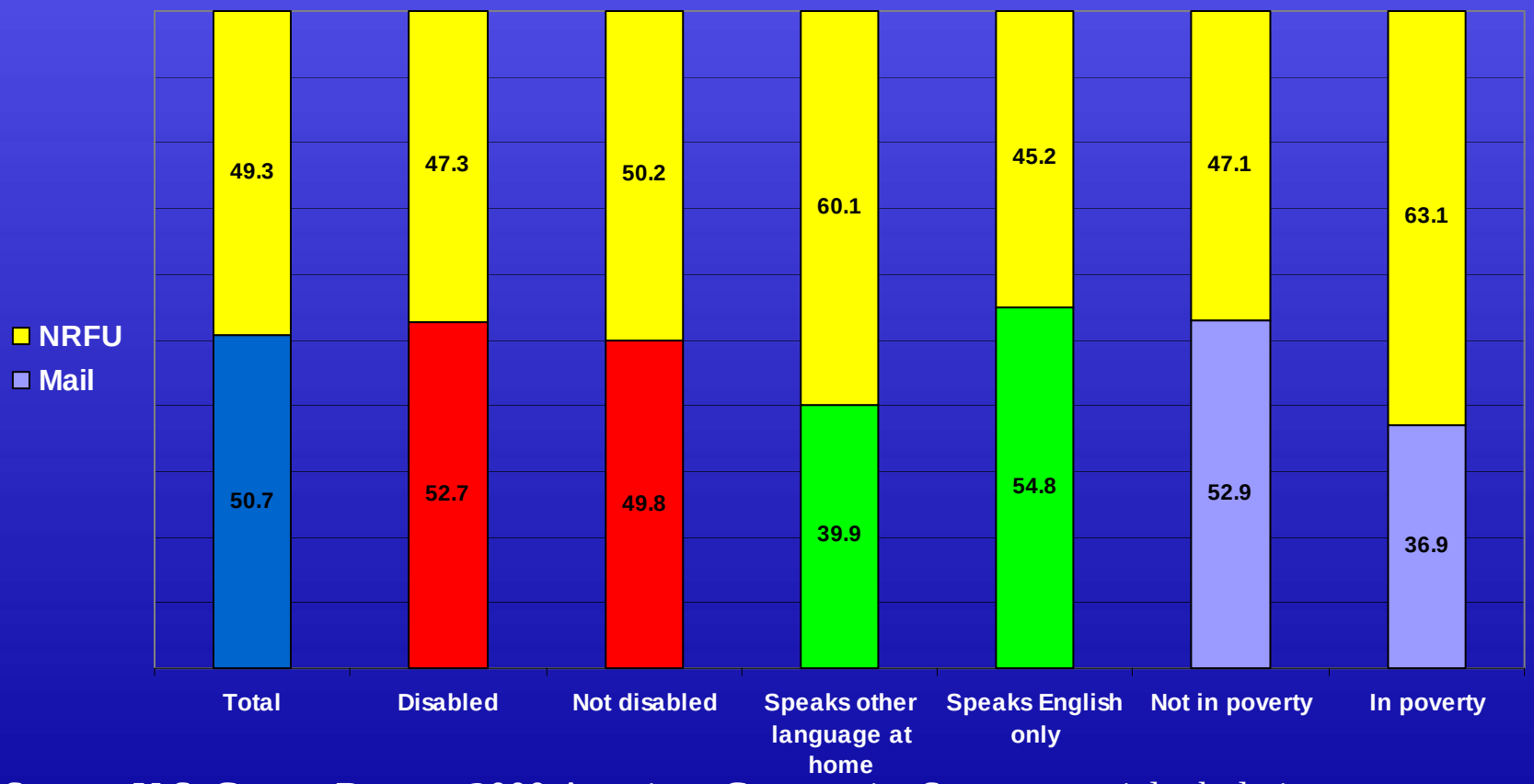
Possible Reasons for Differences

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

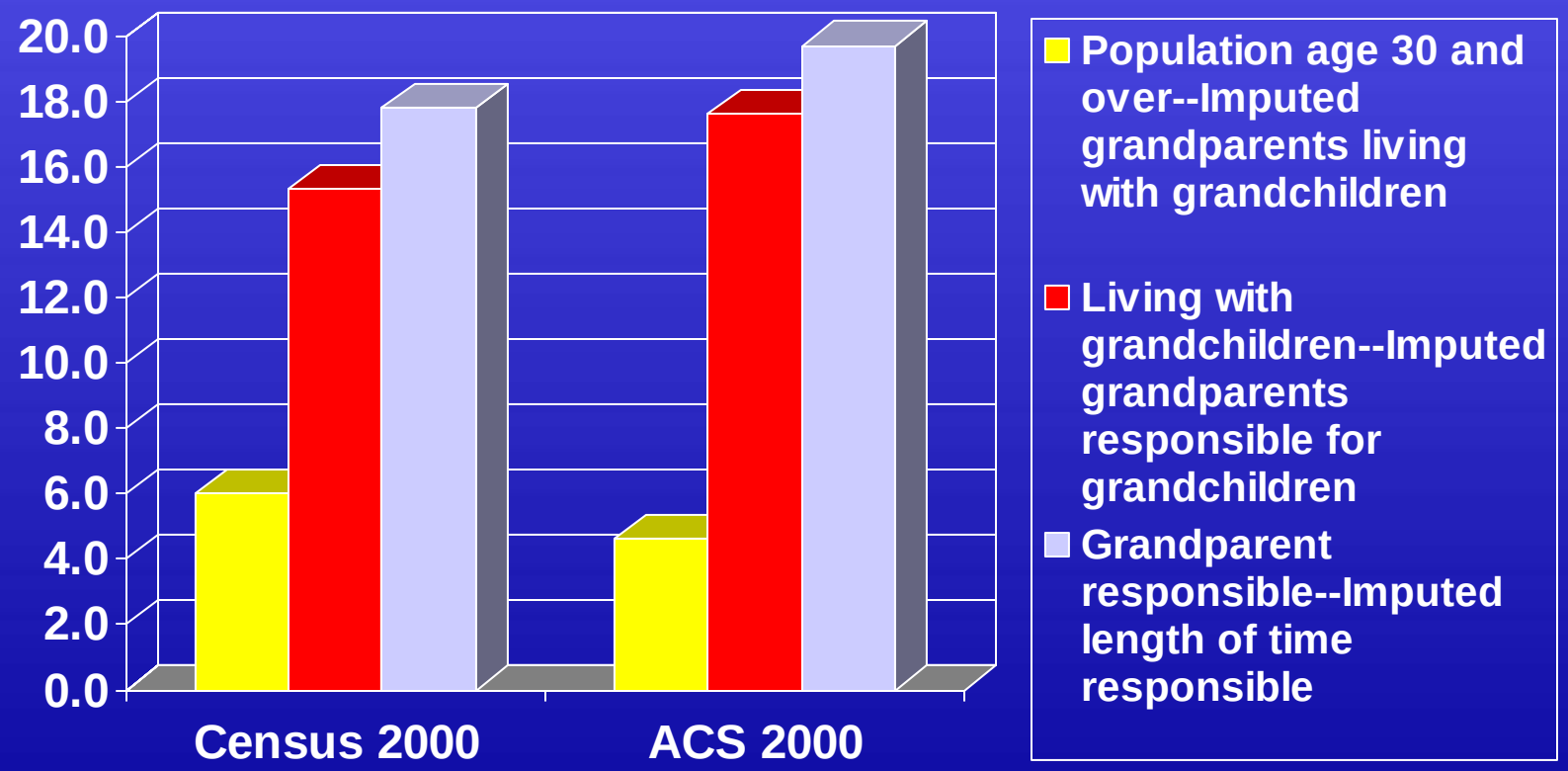


Source: U.S. Census Bureau, 2000 American Community Survey, special tabulation.

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

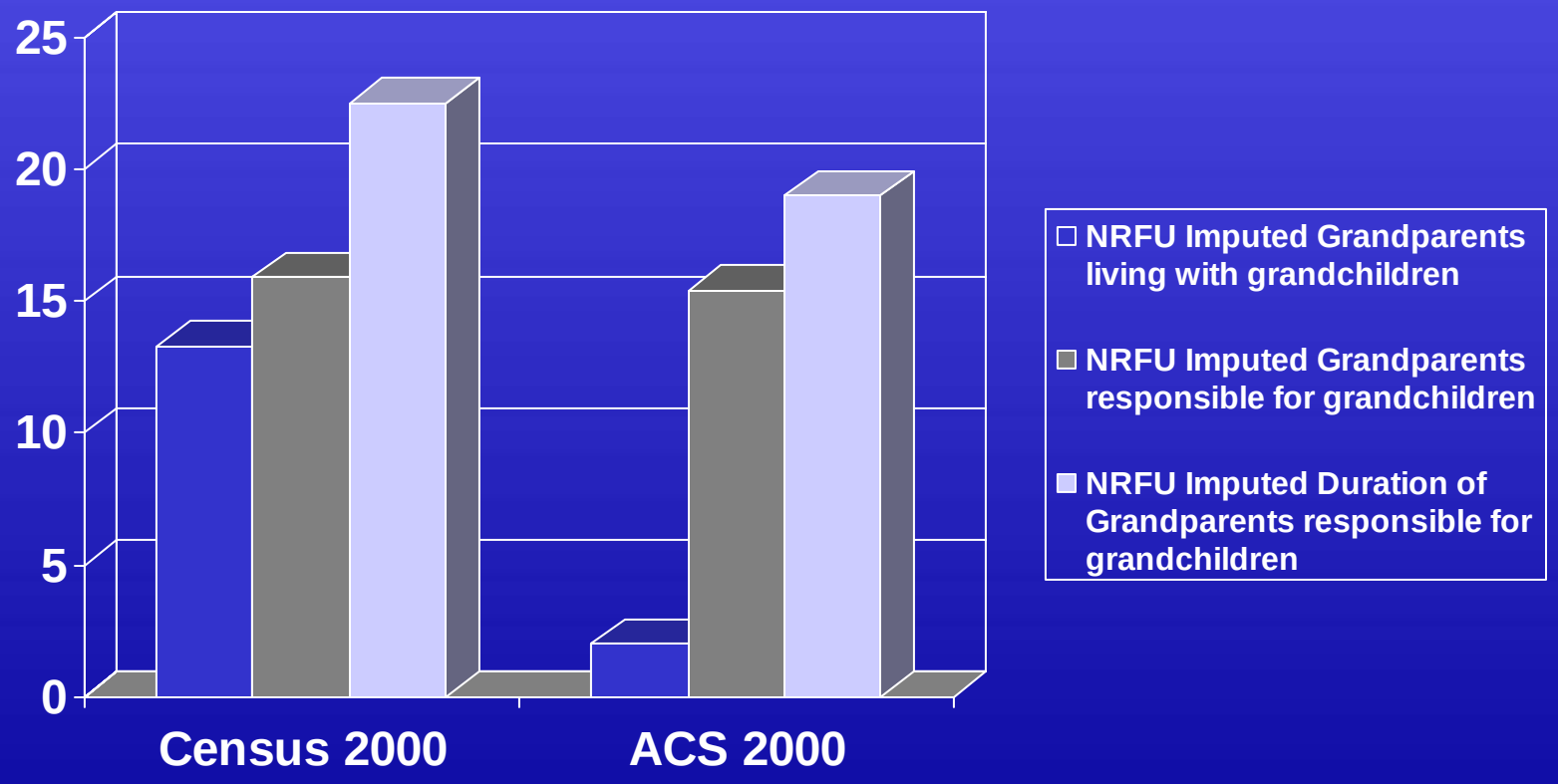


Source: U.S. Census Bureau, Census 2000 SF-3 special tabulations and 2000 ACS detailed tables.

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.

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