

Comment on ACS Briefing

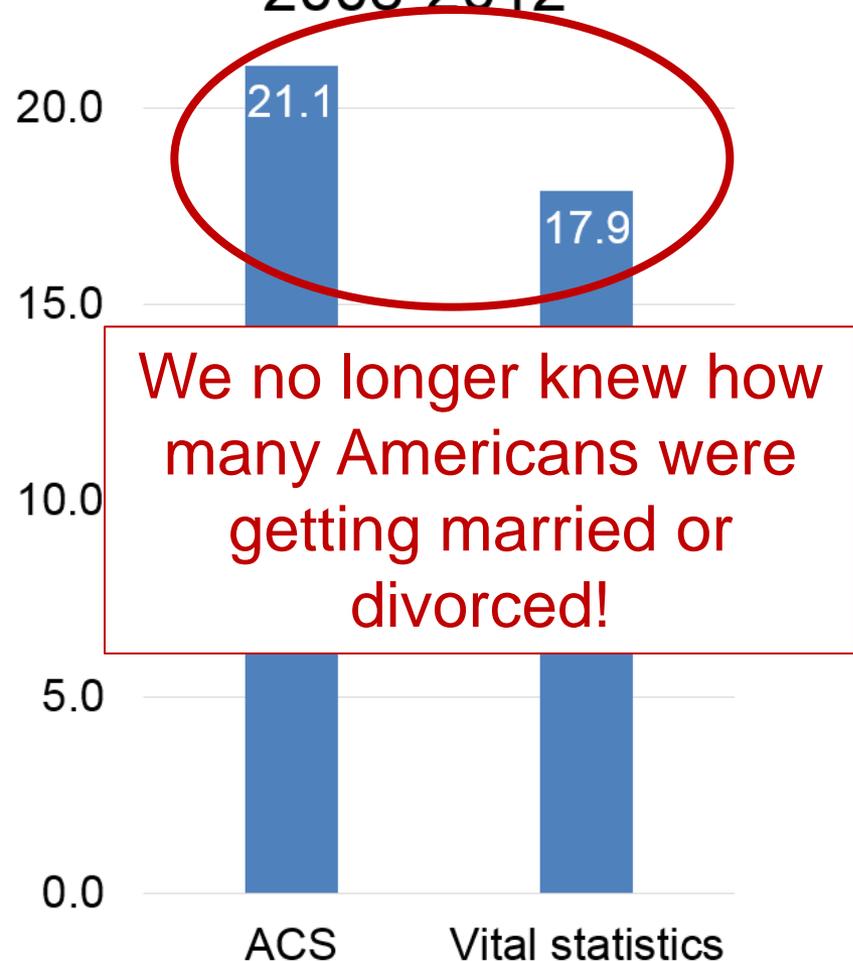
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CSAC Meeting
April 17, 2015

Why the marriage questions were added

- Deterioration of the vital records on marriage and divorce
- Detailed statistics no longer collected—only crude counts
- 6 states (including California) do not participate
- Crude divorce rates underestimated by 20%

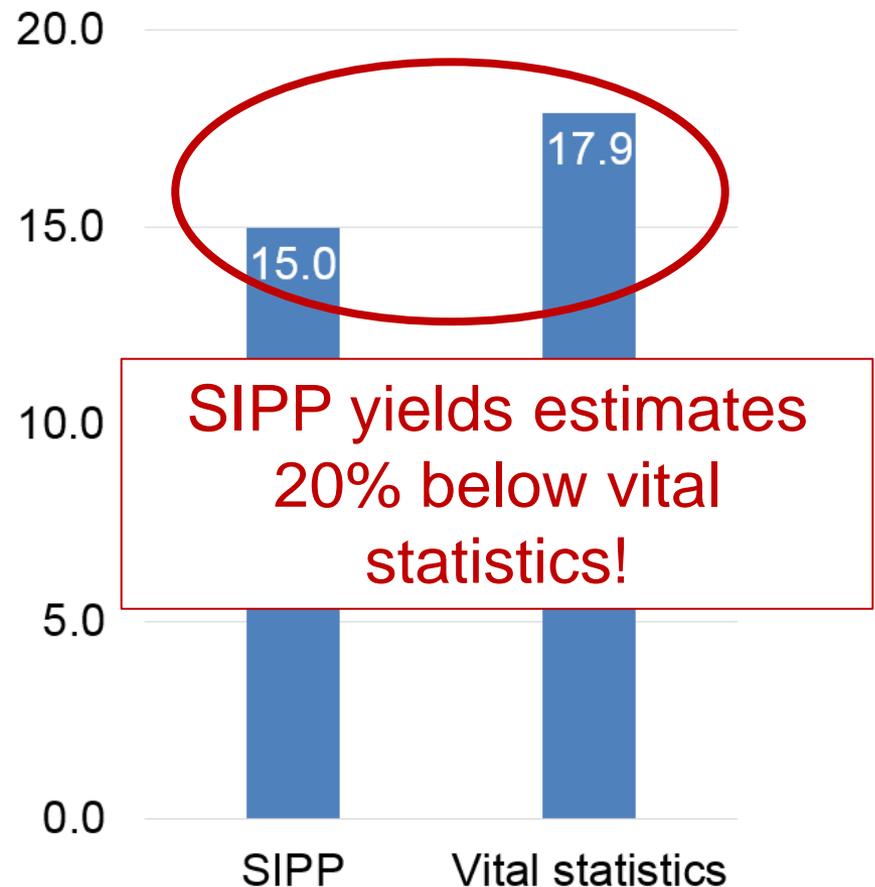
Divorces per 1000 Married Women,
2008-2012



Why not use SIPP or NSFG?

Divorces per 1000 Married Women, 2003-2007

- Recall bias leads to undercount
- Small samples do not allow detailed analysis
- Almost *half* of SIPP cases use an imputed date of divorce!
- NSFG limited to age 15-44



A new measurement strategy

The large scale of the ACS allowed a new measurement strategy focusing on events in the past 12 months, greatly reducing recall bias.

Two additional questions were needed to interpret the questions on the incidence of marriage, divorce, and widowhood.

21 In the **PAST 12 MONTHS** did this person get –

	Yes	No
a. Married?	<input type="checkbox"/>	<input type="checkbox"/>
b. Widowed?	<input type="checkbox"/>	<input type="checkbox"/>
c. Divorced?	<input type="checkbox"/>	<input type="checkbox"/>

22 How many times has this person been married?

- Once
- Two times
- Three or more times

23 In what year did this person last get married?

Year

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ACS cost-benefit analysis

The measures of cost are reasonable and appropriate:

Examining Costs

1. Cognitive Burden Score
 2. Sensitivity Score
 3. Overall Difficulty Score
 4. Number of Complaints to Census Bureau HQ
 5. Median Seconds to Answer
 6. Median County-Level item Response Rate
- } Interviewer Survey

A flawed cost-benefit analysis

The measures of benefits are *not* appropriate:

1. Uses at Block Group/Tract Level-Mandatory

2. Use
Lev

3. Use
Ma

4. Use
Lev

5. Uses at Place/County/MSA Level-Required

6. Uses at State/Nation Level-Required

7. Uses at Block Group/Tract Level-Programmatic

8. Uses at Place/County/MSA Level-Programmatic

ion Level-

rquartile

ame for a

Federal Survey

12. Other Data Sources Exist

13. Median County-Level Coefficients of Variation

Eight of the 13 measures of benefits concern uses of the data for small area analysis, but the marriage questions were not designed for small-area analysis and cannot be used for that purpose.

Calculating overall benefit

- Each of the 13 benefits was weighted equally
- For example, “programmatic uses at the place level” is worth 5 points, and if “no other data source exists” that is also worth 5 points
- Overall benefit was just the sum of the points
- Out of 65 possible points, the maximum score for a question not used below the state level was 25

ACS Topic	Q#	Federal Data Uses								
		Block Group/ Tract Level			Place/County/MSA Level			State/Natl. Level		
		M	R	P	M	R	P	M	R	P
Building/Structure Type and Units	H1	5	5	5	0	5	5	0	5	5
Year Built	H2	5	5	5	5	5	5	5	0	5
Year Moved in	H3	5	0	5	5	0	5	0	0	5
Acreage	H4	0	5	5	0	5	5	0	0	5
Agriculture Sales	H5	0	0	5	0	0	5	5	0	5

Calculating overall benefit

There was no consideration of:

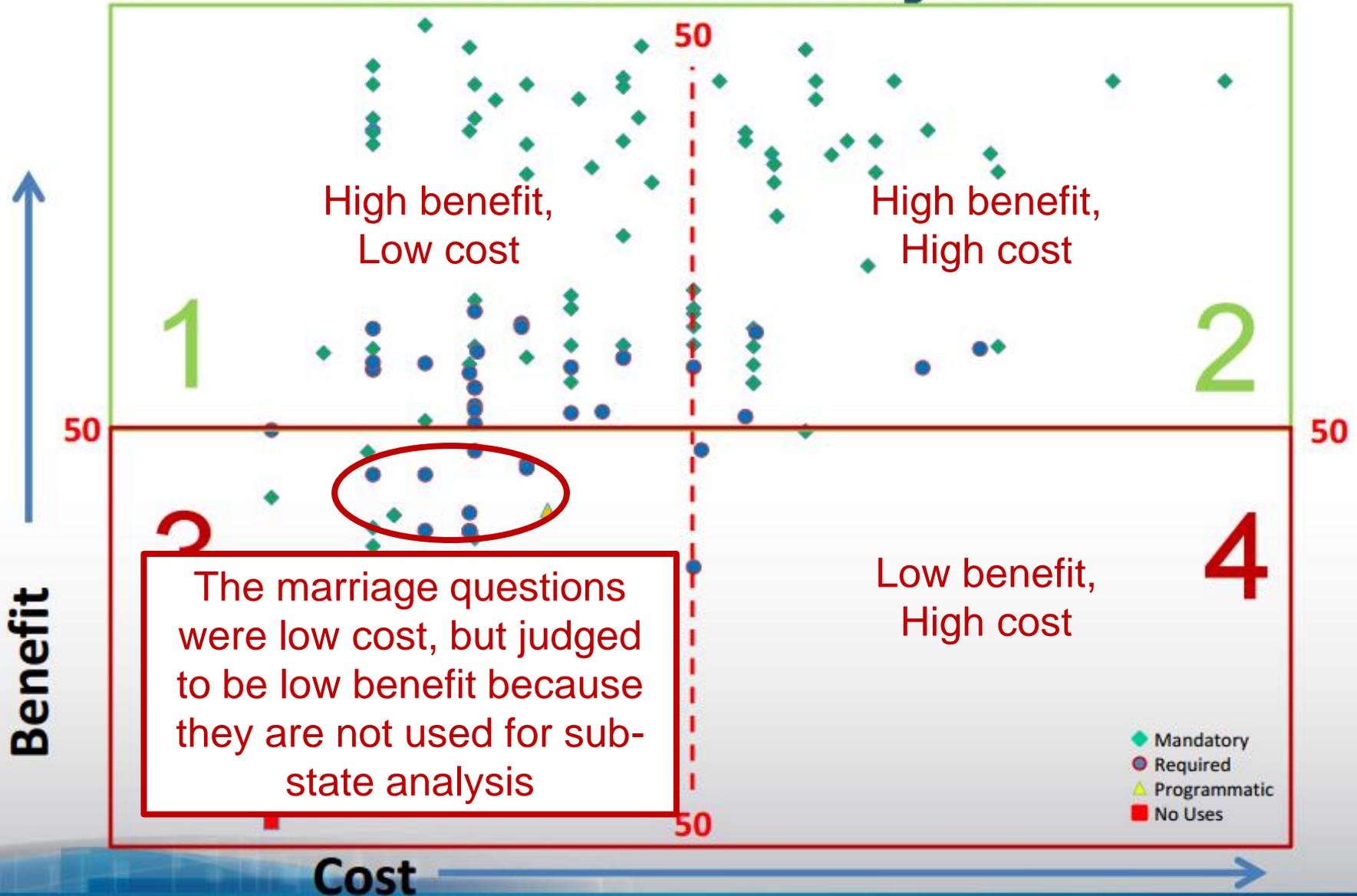
- Number of federal uses
- Importance of federal uses
- Federal uses for small population subgroups (other than those defined by geography)
- Non-federal uses
- Cost of alternative sources

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Year Built	H2	5	5	5	5	5	5	5	0	5
Year Moved in	H3	5	0	5	5	0	5	0	0	5
Acreage	H4	0	5	5	0	5	5	0	0	5
Agriculture Sales	H5	0	0	5	0	0	5	5	0	5

Number of marriages and divorces
of women in the full 2013 ACS data:
Selected States

	<u>Marriages</u>	<u>Divorces</u>
Vermont	45	32
Alaska	51	27
Wyoming	66	29
North Dakota	74	23
South Dakota	81	21
Delaware	83	38
District of Columbia	87	38
Rhode Island	96	44
Montana	98	50

Quadrant Analysis



The analysis classified many of the most critical ACS questions as low benefit:

- High cost, low benefit:
 - Migration (residence 1 year ago)
 - Weeks worked in past year
- Low cost, low benefit
 - School enrollment
 - Educational attainment
 - Food stamp benefits
 - Hours worked last week
 - Marriage questions
 - Field of degree

Quadrants 3 & 4 Analysis

- Begin with full array of M, R, P, and X (no uses)
- Exclude M from consideration for removal
- Exclude R with Sub-state Uses from consideration for removal

The marriage questions were targeted for removal simply because they have no official sub-state uses.

These questions *are not designed* for sub-state analysis and usually *cannot be used* for that purpose.

The cost-benefit analysis was irrelevant to the outcome of the review

Costs were not a factor in the outcome: all questions targeted for removal were judged low cost.

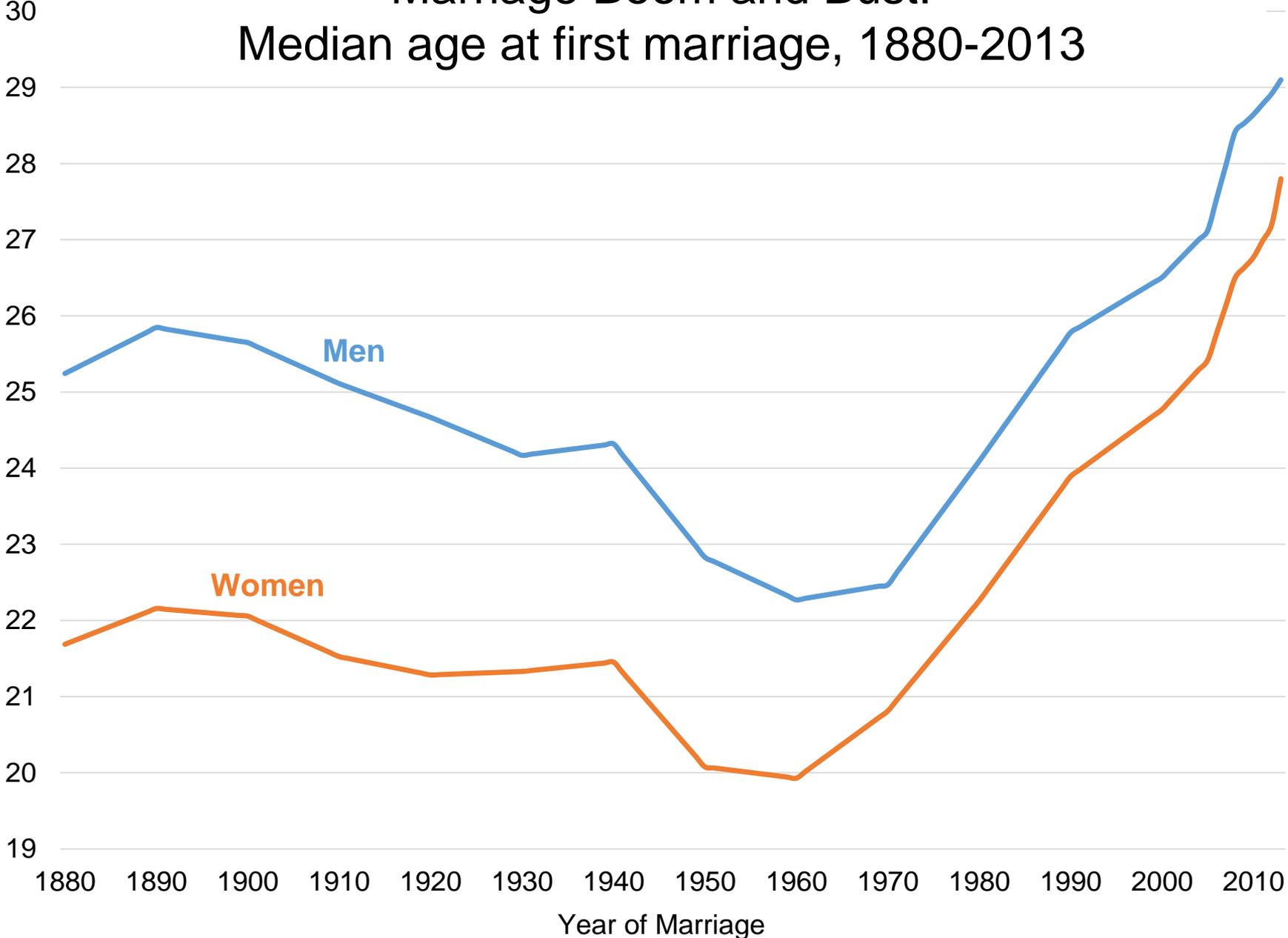
Only one benefit affected the outcome: whether there were required federal uses for sub-state geographies.

Importance of Federal Uses

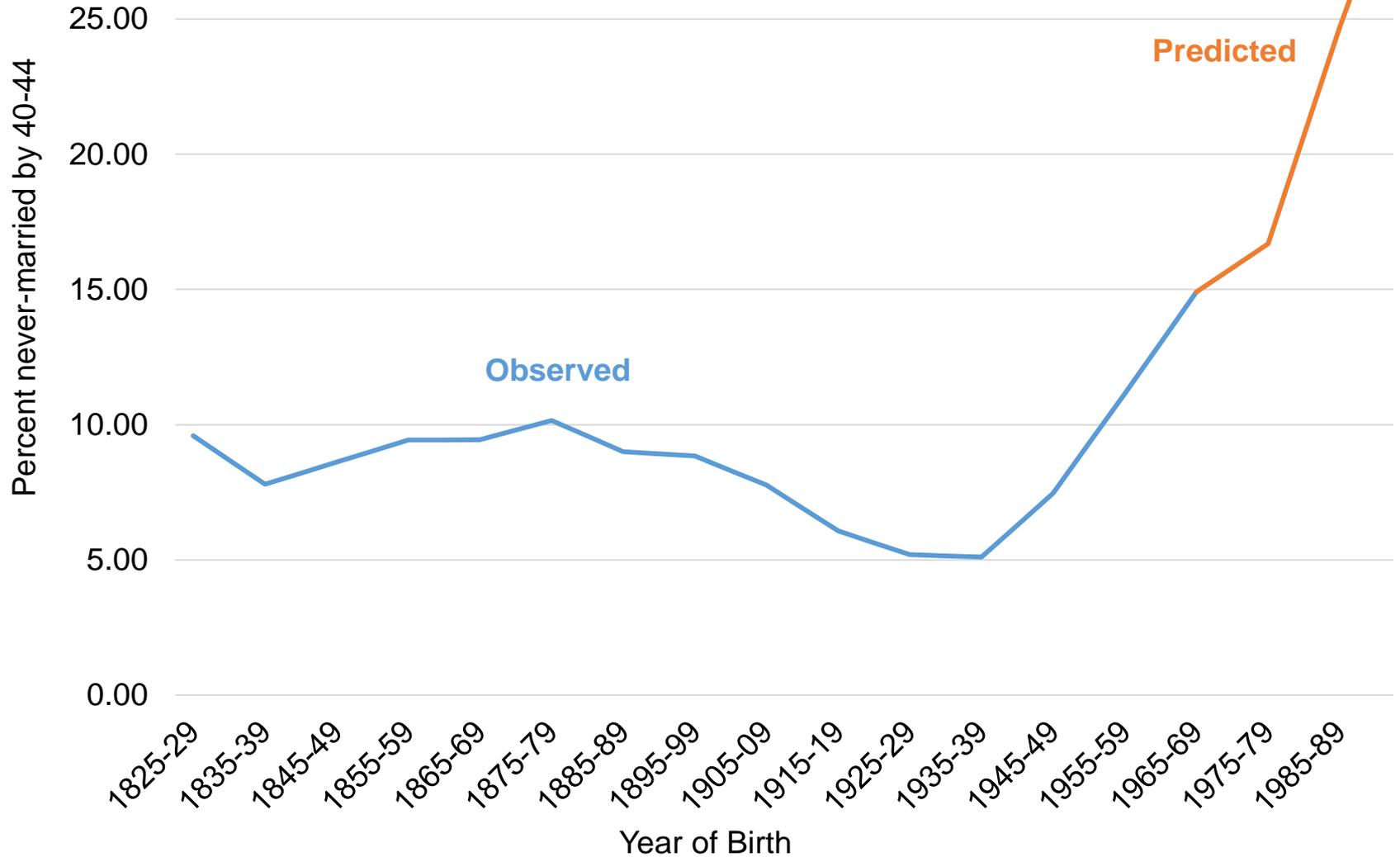
- The questions are needed for projections of future entitlements to Social Security retirement and disability benefits as the baby boomers retire.
- Any effort to project future benefits for retirees must take marriage, divorce, widowhood, and remarriage into account, which requires current rates broken down by age, marriage duration, and marriage order.
- The variables are used by both SSA and CBO to develop and calibrate models of future program revenues and costs.
- There is no other source for these data.

Why do we need data to understand ongoing changes in marriage behavior?

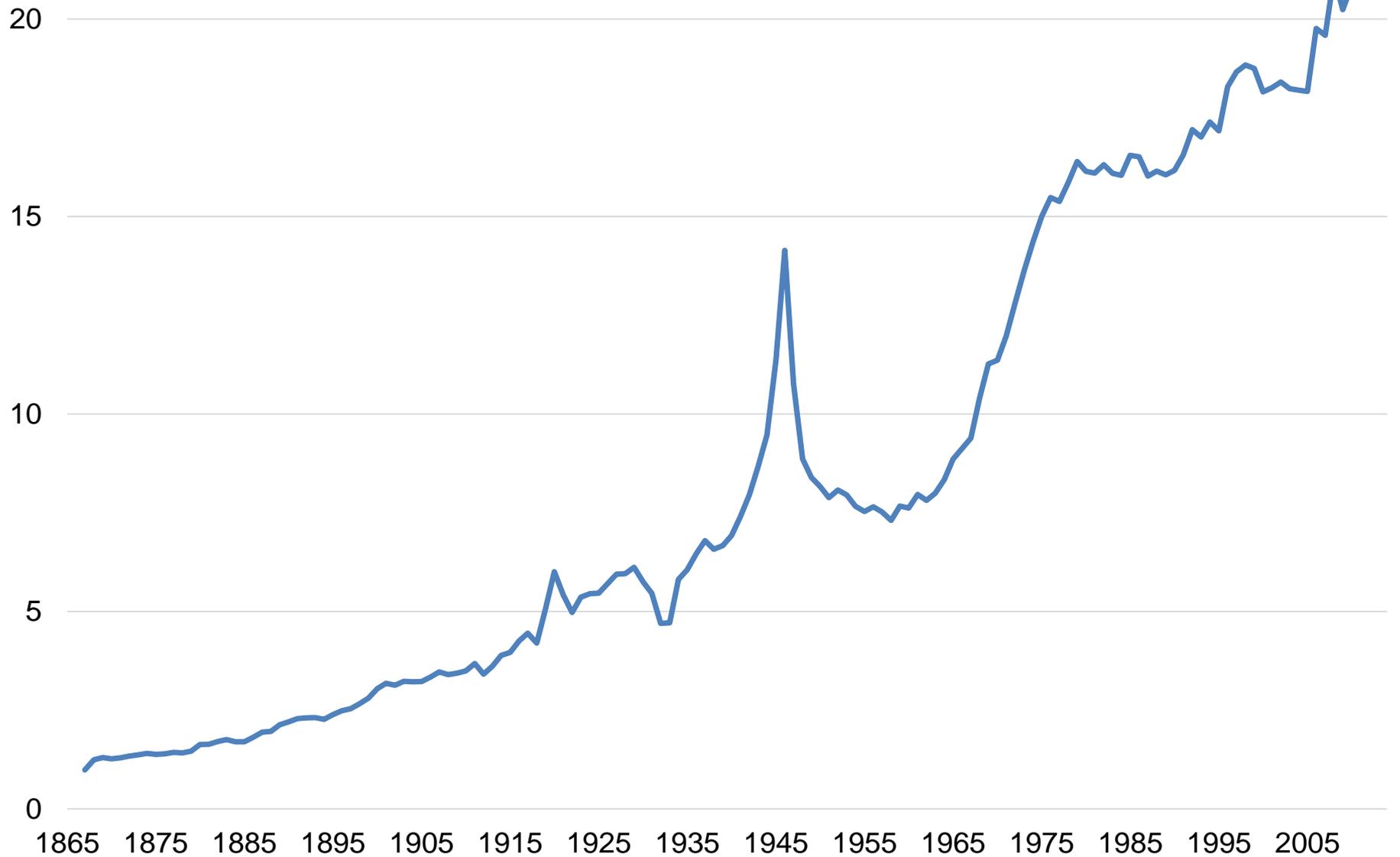
Marriage Boom and Bust: Median age at first marriage, 1880-2013



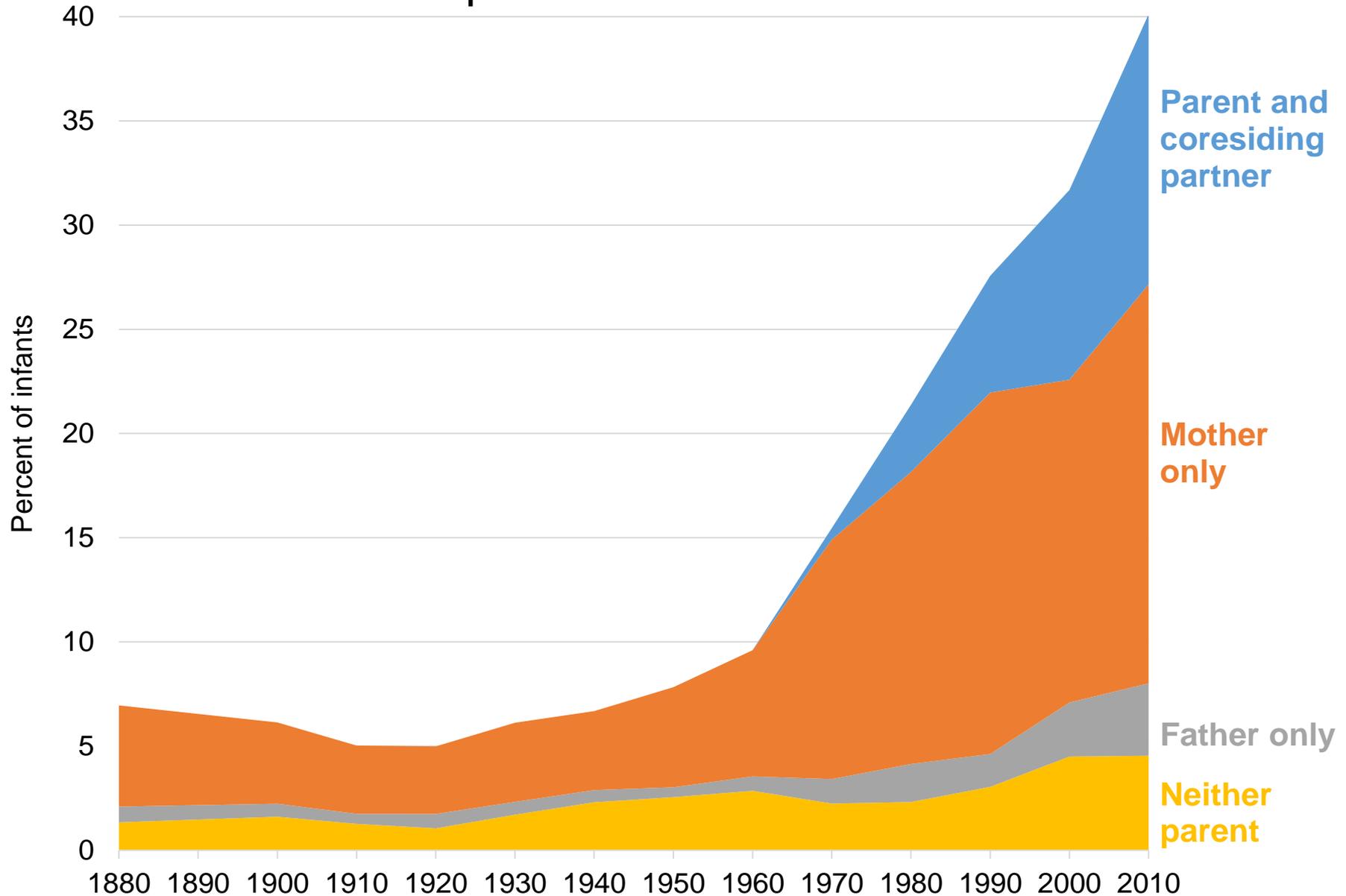
Percent of women never married by age 40-44: U.S. women born 1825-1989



Divorces per 1000 married women Age-standardized, U.S. 1867-2012



Living arrangements of infants residing without married parents: U.S. 1880-2010



Is this a good moment to stop collecting data on marriage and divorce?

Undergraduate field of study

- Introduced in 2008 following the recommendation of the National Academy of Sciences.
- Primary source of data on characteristics of the STEM workforce
- 22,000 requests for this variable by IPUMS users
- Hundreds of studies on the impact of college majors on lifetime earnings and demographic behavior

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This question focuses on this person's BACHELOR'S DEGREE. Please print below the specific major(s) of any BACHELOR'S DEGREES this person has received. (For example: chemical engineering, elementary teacher education, organizational psychology)



National Science Foundation
WHERE DISCOVERIES BEGIN

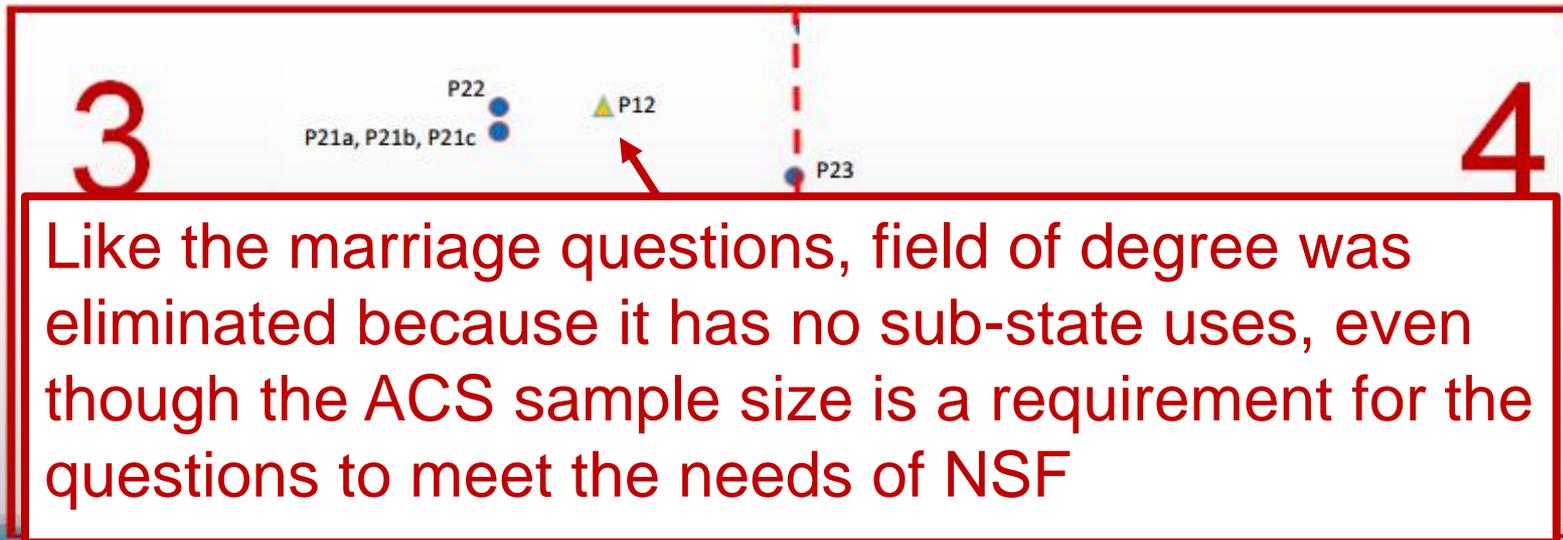
NCSES Redesigns SESTAT

Starting in 2013, the Scientists and Engineers Statistical Data System (SESTAT) consolidated the number of demographic surveys. SESTAT now includes data from the Survey of Doctorate Recipients (SDR) and the National Survey of College Graduates (NSCG) and no longer reports data for the National Survey of Recent College Graduates (NSRCG). NSRCG was discontinued after the 2010 survey because estimates of recent college graduates are now available through the NSCG.

Reasons for the change. A major impetus for this decision was the availability of the American Community Survey (ACS) as a sampling frame for NSCG. The National Center for Science and Engineering Statistics (NCSES) leveraged the use of ACS to add a large number of young graduates to the NSCG sample, which then offset the need to conduct NSRCG. The decision to redesign SESTAT was also based on the limited use of NSRCG as a stand-alone data file and the cost savings associated with discontinuing NSRCG and simplifying the SESTAT integration processes.

Quadrants 3 & 4 Analysis

- Begin with full array of M, R, P, and X (no uses)
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Criteria for inclusion in ACS

- Small-area analysis is not the sole purpose of the ACS.
- Large samples are needed for study of any small population subgroup, not just small geographic areas.
- Small population subgroups include:
 - People with a marriage or divorce in the past year
 - recent college graduates in STEM fields.

Alternative candidates for elimination

Cost of Utilities (H14):

- Very annoying
- Low accuracy
- Imputations based on local degree days, price data by fuel type, and data from AHS could actually improve accuracy.

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a. LAST MONTH, what was the cost of electricity for this house, apartment, or mobile home?
Last month's cost – Dollars

\$.00

OR

Included in rent or condominium fee
 No charge or electricity not used

b. LAST MONTH, what was the cost of gas for this house, apartment, or mobile home?
Last month's cost – Dollars

\$.00

OR

Included in rent or condominium fee
 Included in electricity payment entered above
 No charge or gas not used

c. IN THE PAST 12 MONTHS, what was the cost of water and sewer for this house, apartment, or mobile home? If you have lived here less than 12 months, estimate the cost.
Past 12 months' cost – Dollars

\$.00

OR

Included in rent or condominium fee
 No charge

d. IN THE PAST 12 MONTHS, what was the cost of oil, coal, kerosene, wood, etc., for this house, apartment, or mobile home? If you have lived here less than 12 months, estimate the cost.
Past 12 months' cost – Dollars

\$.00

OR

Included in rent or condominium fee
 No charge or these fuels not used

Alternative candidates for elimination

Acres and agricultural production H4-5):

Designed to identify farms.
Could be replaced with state and local tax records available from commercial data aggregators such as Corelogic or RealtyTrac.

- 4** How many acres is this house or mobile home on?
- Less than 1 acre → *SKIP to question 6*
 - 1 to 9.9 acres
 - 10 or more acres
- 5** IN THE PAST 12 MONTHS, what were the actual sales of all agricultural products from this property?
- None
 - \$1 to \$999
 - \$1,000 to \$2,499
 - \$2,500 to \$4,999
 - \$5,000 to \$9,999
 - \$10,000 or more

Alternative candidates for elimination

Number of Rooms (H7a)

Given that we know the number of bedrooms from H7b, it is unlikely that H7a provides additional meaningful information.

7 a. How many separate rooms are in this house, apartment, or mobile home?
Rooms must be separated by built-in archways or walls that extend out at least 6 inches and go from floor to ceiling.

- *INCLUDE bedrooms, kitchens, etc.*
- *EXCLUDE bathrooms, porches, balconies, foyers, halls, or unfinished basements.*

Number of rooms

b. How many of these rooms are bedrooms?
Count as bedrooms those rooms you would list if this house, apartment, or mobile home were for sale or rent. If this is an efficiency/studio apartment, print "0".

Number of bedrooms

Summary

The Census Bureau is proposing to remove six low cost, highly successful, and crucially-important questions solely because they are not being used for the study of small geographic areas, even though these questions were never intended for small-area analysis.

Questions for discussion:

- Why didn't the ACS content review process include consultation with experts in the relevant subject areas?
- Has the Census Bureau identified a strategy to replace the lost information if it is removed from ACS?
- Wouldn't it make sense to replace the 8 separate small-area use criteria with a more appropriate criterion focusing on the need for large sample size?

Questions for discussion:

- In light of the profound flaws in the content review methodology, shouldn't the OMB submission simply be cancelled?