Changes to the Household Relationship Data in the Current Population Survey

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Overview

- Describe changes to the CPS household relationship data
  - Direct cohabitation question
  - Expansion of the "husband or wife" and "unmarried partner" categories
  - Edit procedures for same-sex couples
  - Changes to parent identification questions

- Show results illustrating the changes

Background: Changes to CPS Family Data

- 2007
  - Added a direct cohabitation question
  - Added a second parent identification question
- 2010
  - Those reported as same-sex spouses edited and shown as *same-sex unmarried partners*.
    - Previously, the sex of one was changed to show them as *opposite-sex married couples*.

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Background: Data Quality Challenges

- A statistical problem: a low rate of random error in a large group (opposite-sex married couples) creates issues in the estimates of a small group (same-sex married couples)

  - There are some 57 million opposite-sex married couple households. (ACS 2017 1-year file)

  - Only a small proportion mismark their response, but it is enough to create significant error in the estimate of same-sex married couples.

A small proportion of opposite-sex married couples mismark their response, which is enough to create significant error in the estimate of same-sex married couples.
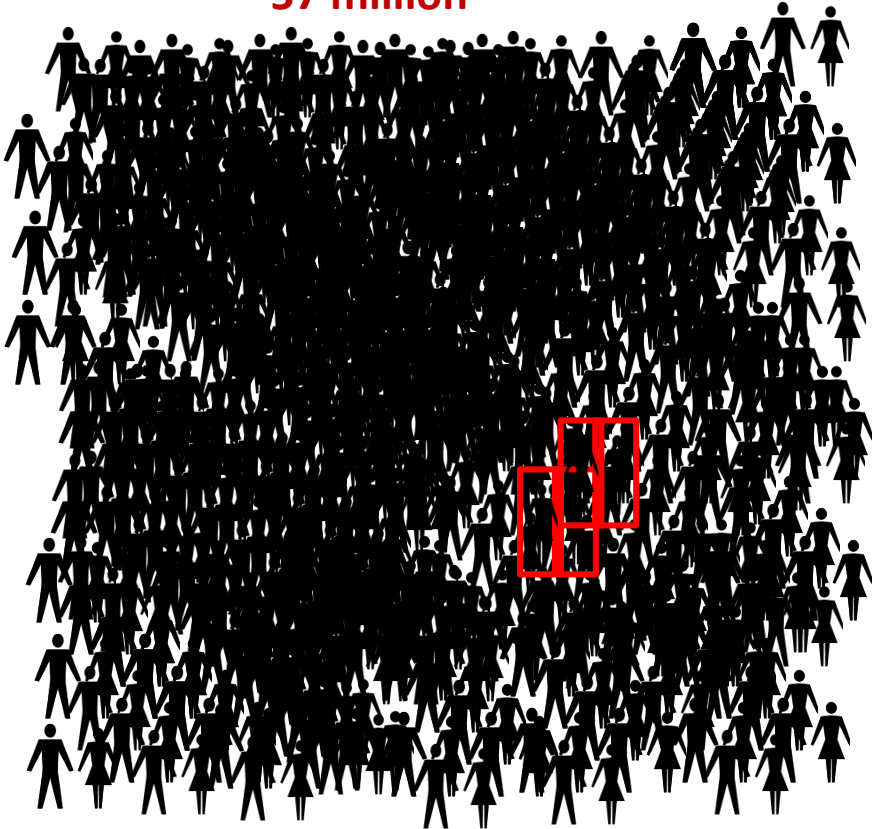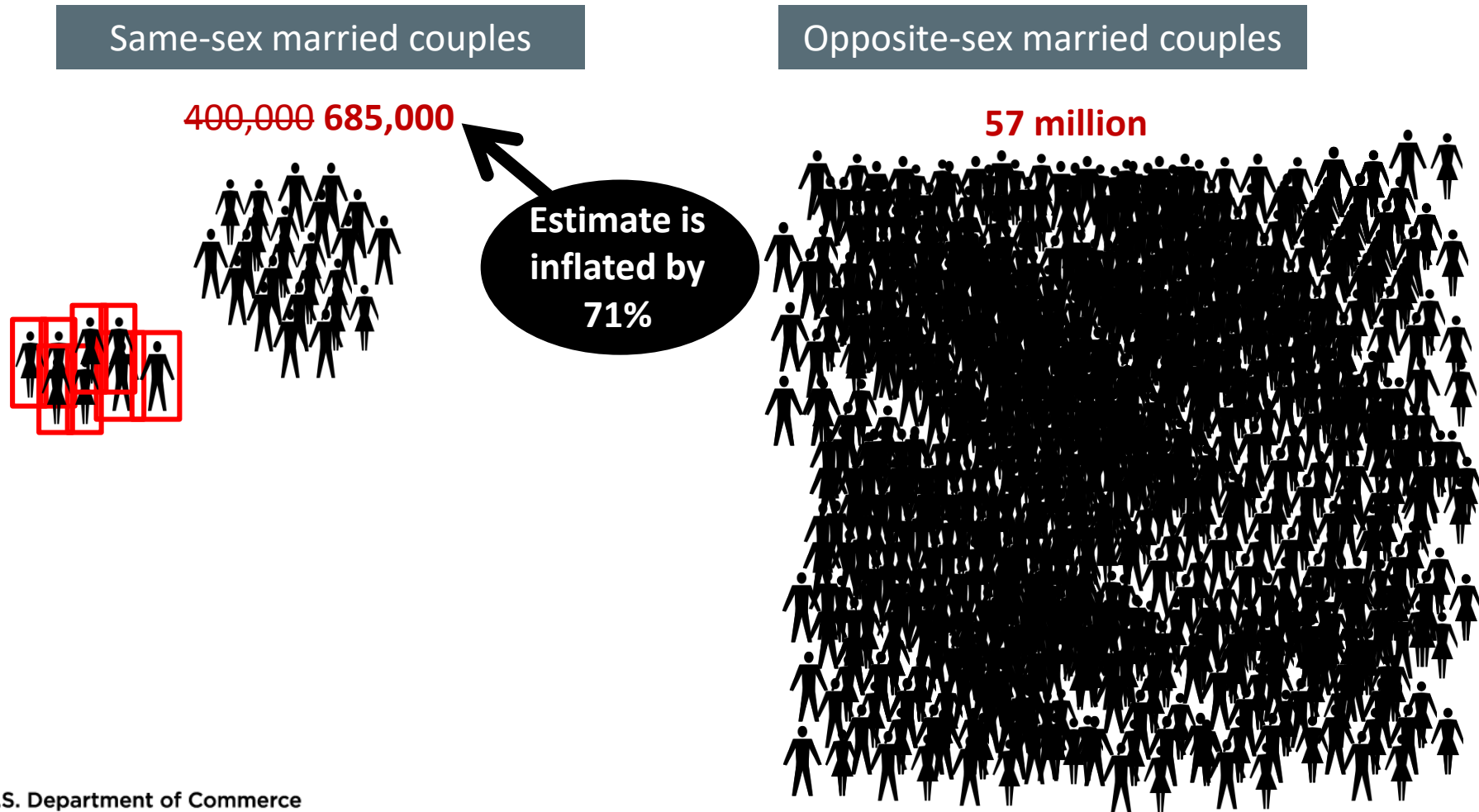
Same-sex married couples

400,000
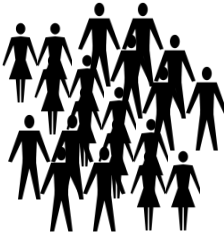
Opposite-sex married couples

57 million

If 0.5% of opposite-sex couples misreported sex for one of the spouses, the number of same-sex married couples increases by 285,000.

Same-sex married couples

Opposite-sex married couples

400,000 **685,000**

57 million

Estimate is inflated by 71%

Background: Changes to CPS Family Data

- 2007
  - Added a direct cohabitation question
  - Added a second parent identification question
- 2010
  - Those reported as same-sex spouses edited and shown as *same-sex unmarried partners*.
    - Previously, the sex of one was changed to show them as *opposite-sex married couples*).
- **2017**
  - **Added separate opposite-sex and same-sex categories for the spouse and unmarried partner categories**

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Revising the Relationship Categories

Production Categories | **Research File Categories**

Spouse (Husband/Wife)

Unmarried Partner

Opposite-sex Spouse (Husband/Wife)

Same-sex Spouse (Husband/Wife)

Opposite-sex Unmarried Partner

Same-sex Unmarried Partner

Production Categories	Research File Categories
Child	Child
Grandchild	Grandchild
Parent	Parent
Brother/Sister	Brother/Sister
Other relative	Other relative
Foster Child	Foster Child
Housemate/Roommate	Housemate/Roommate
Roomer/Boarder	Roomer/Boarder
Other nonrelative	Other nonrelative

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Source: U.S. Census Bureau, Current Population Survey, Annual Social and Economic Supplement, 2017

Revising the Relationship Categories

How (is/are) (name/you) related to (you/reference person's name)?

Production Categories		Research File Categories	
Spouse (Husband/Wife)	19.2%	Opposite-sex Spouse (Husband/Wife)	19.0%
Unmarried Partner	2.1%	Same-sex Spouse (Husband/Wife)	0.1%
		Opposite-sex Unmarried Partner	2.2%
		Same-sex Unmarried Partner	0.2%
Child	29.3%	Child	29.2%
Grandchild	2.0%	Grandchild	2.0%
Parent	1.8%	Parent	1.8%
Brother/Sister	1.4%	Brother/Sister	1.4%
Other relative	1.9%	Other relative	1.9%
Foster Child	0.1%	Foster Child	0.1%
Housemate/Roommate	1.7%	Housemate/Roommate	1.6%
Roomer/Boarder	0.3%	Roomer/Boarder	0.3%
Other nonrelative	0.9%	Other nonrelative	0.8%

Source: U.S. Census Bureau, Current Population Survey, Annual Social and Economic Supplement, 2017
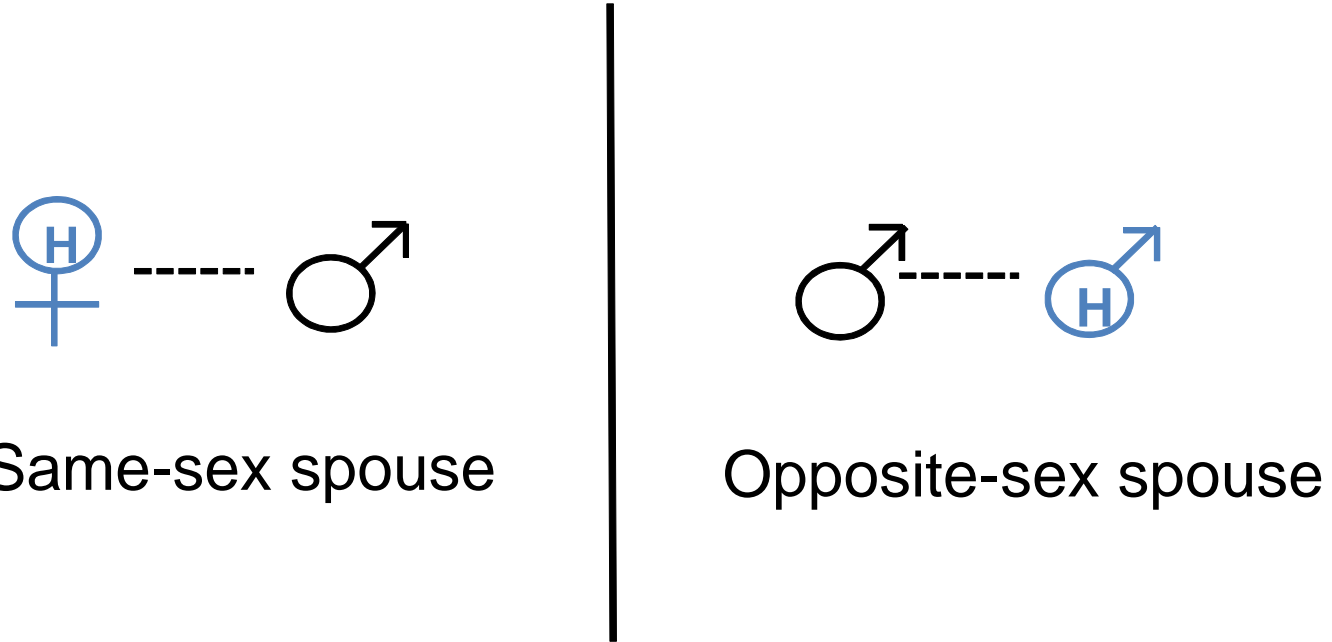
Edit Changes

1. We accept the stated relationship of those who report as same-sex married couples

- Data will now show same-sex married couples as well as same-sex unmarried partners
- Previously (2010-present), those reported as same-sex spouses were edited and shown as *same-sex unmarried partners*
- Processing code that referenced husbands and wives was updated to recognize same-sex spouses

Edit Changes

2. Inconsistent reports of relationship and sex (e.g., Opposite-sex spouse, but householder and spouse are both male) will be resolved in the edit

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Mismatched Couples

- Relationship and Sex reports are inconsistent

Same-sex spouse | Opposite-sex spouse

Is this a same-sex or opposite-sex couple?

Mismatched Couples

Household	Relationship to Householder	Sex	Name
A	Householder	Male	**John**
A	Same-sex Spouse	Female	**Mary**

Based on sex assigned based on first names in the 2015 National Content Test data …
70% of the time, they are opposite-sex couples.

Edit Changes

- 2. Inconsistent reports of relationship and sex (e.g., Opposite-sex spouse, but householder and spouse are both male) will be edited so that 70% of mismatched cases will be opposite-sex, 30% will be same-sex

  - Rationale based on 2015 National Content Test (NCT)

Edit Changes

- 3. Parent identification questions:

  - Beginning in 2017, parent identification questions are now gender neutral – parent 1 and parent 2. In past these categories represented "mother" and "father"

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Parent Identification Questions

Production Question   **_Research File Question_**

Is (name's/your) *mother* a member of this household? →	Is (name's/your) *parent* a member of this household?
Is (name's/your) *father* a member of this household? →	Is (name's/your) *other parent* a member of this household?

Source: U.S. Census Bureau, Current Population Survey, Annual Social and Economic Supplement, 2017

Edit Changes

- 3. Parent identification questions:

    - Beginning in 2017, parent identification questions are now gender neutral – parent 1 and parent 2. In past these categories represented "mother" and "father."
  - Now edited to identify cohabiting parents in the edit who are not measured in the direct cohabitation question.
  - Now edited so that parent 1 is mom if present and parent 2 is dad, if present.

Results

Table 1. Coupled Households by Type: 2017 Production vs. Research Estimates

	Production Coupled Households (*perrp* + *a_sex*)		Research Coupled Households (revised *perrp*)		Change in Totals?	Change in Distribution %?
Total (in thousands)	68,080	100.0%	68,860	100.0%	↑	N/A
Opposite-sex Married	60,800	89.3%	60,920	88.5%	N.S.	↓
Opposite-sex Unmarried	6,383	9.4%	6,876	10.0%	↑	↑
Same-sex Married			445	0.7%		
Same-sex Unmarried	375	0.6%	622	0.9%	↑	↑

Note: Arrows represent significant difference from production estimate at 90% Confidence Level. N.S. = Not significant. N/A = Not applicable.

Table 1. Coupled Households by Type: 2017 Production vs. Research Estimates

	Production Coupled Households **(EXTRACT)** (*perrp + a_sex*)		Research Coupled Households (revised *perrp*)		Change in Totals?	Change in Distribution %?
Total (in thousands)	68,080	100.0%	68,860	100.0%	↑	N/A
Opposite-sex Married	60,800	89.3%	60,920	88.5%	N.S.	↓
Opposite-sex Unmarried	6,383	9.4%	6,876	10.0%	↑	↑
Same-sex Married*	522	0.8%	445	0.7%	↓	↓
Same-sex Unmarried	375	0.6%	622	0.9%	↑	↑

Note: Arrows represent significant difference from production estimate at 90% Confidence Level.

N.S. = Not significant. N/A = Not applicable.

Estimate created using extract file that identifies who reported as same-sex spouse.

Source: U.S. Census Bureau, Current Population Survey, Annual Social and Economic Supplement, 2017

Table 2. Coupled Households by Type: 2017 ACS vs. Research Estimates

	ACS 2017 Coupled Households (rel + *sex*)		Research Coupled Households (revised *perrp*)		Totals Differ?	Distribution % Differs?
Total (in thousands)	65,210	100.0%	68,860	100.0%	↑	N/A
Opposite-sex Married	57,290	87.9%	60,920	88.5%	↑	↑
Opposite-sex Unmarried	6,986	10.7%	6,876	10.0%	N.S.	↓
Same-sex Married	555	0.9%	445	0.7%	↓	↓
Same-sex Unmarried	380	0.6%	622	0.9%	↑	↑

<u>Note:</u> Arrows represent significant difference from production estimate at 90% Confidence Level. N.S. = Not significant. N/A = Not applicable.
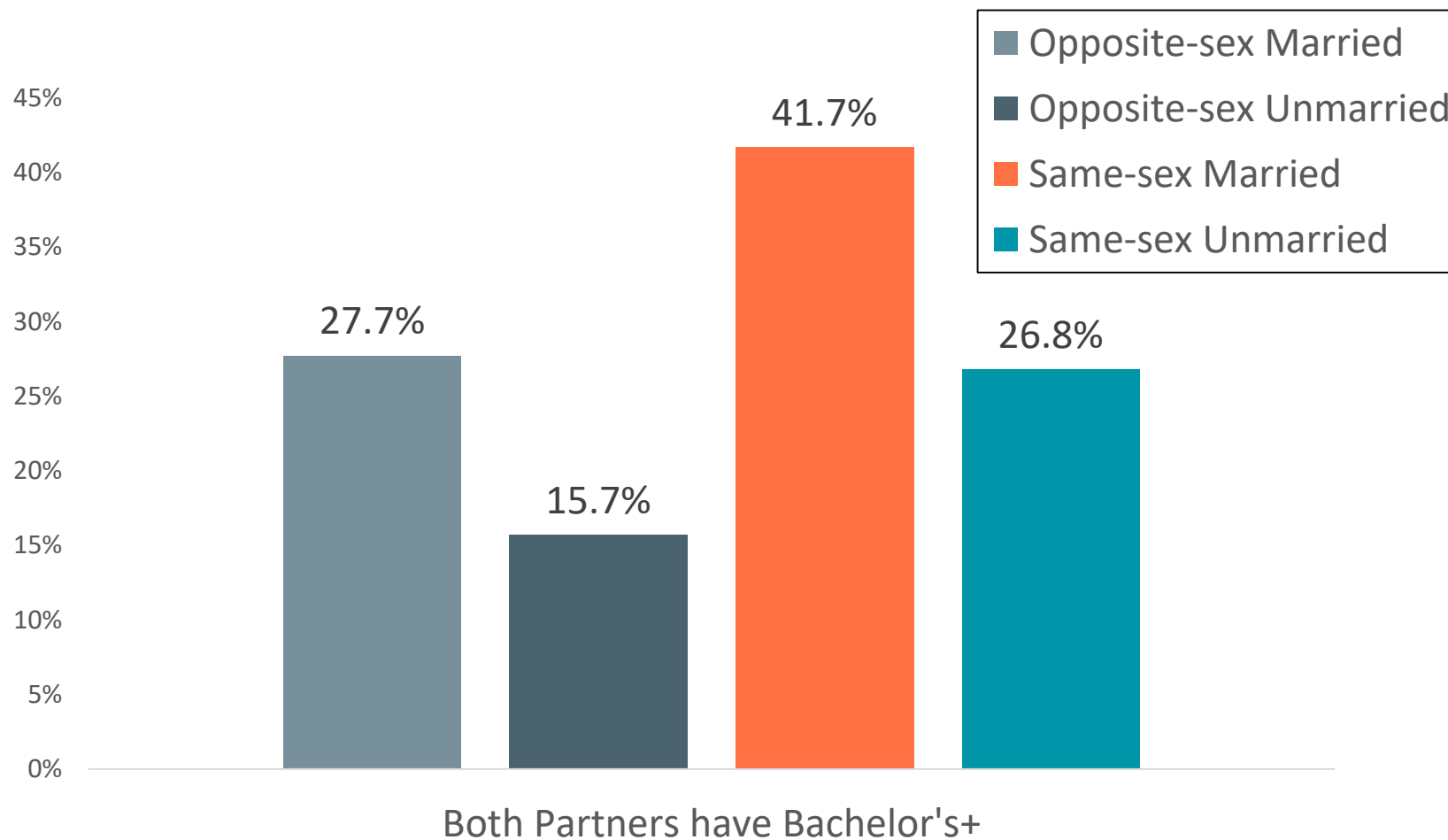
Table 3a. Coupled Households by Type, Research File Estimates: Education

	Opposite-sex Married	Opposite-sex Unmarried	Same-sex Married	Same-sex Unmarried
Both Partners Have Bachelor's+	27.7%[1]	15.7%	41.7%	26.8%

Note: The research file estimates did not differ statistically from the production estimates at the 90% confidence level.
[1] Does not differ statistically from same-sex unmarried research file estimate at the 90% confidence level.

Source: U.S. Census Bureau, Current Population Survey, Annual Social and Economic Supplement, 2017

Figure 1. Percent of Coupled Households by Type: Research File Estimates: Education

Both Partners have Bachelor's+

- Opposite-sex Married: 27.7%
- Opposite-sex Unmarried: 15.7%
- Same-sex Married: 41.7%
- Same-sex Unmarried: 26.8%

Source: U.S. Census Bureau, Current Population Survey, Annual Social and Economic Supplement, 2017

Table 3b. Percent of Coupled Households by Type, Research File Estimates: Employment

	Opposite-sex Married	Opposite-sex Unmarried	Same-sex Married	Same-sex Unmarried
Both Partners Employed	48.5%	59.1%	66.7%[1]	69.1%

Note: The research file estimates did not differ statistically from the production estimates at the 90% confidence level.
[1] Does not differ statistically from same-sex unmarried research file estimate at the 90% confidence level.

Figure 2. Percent of Coupled Households by Type, Research File Estimates: Interracial
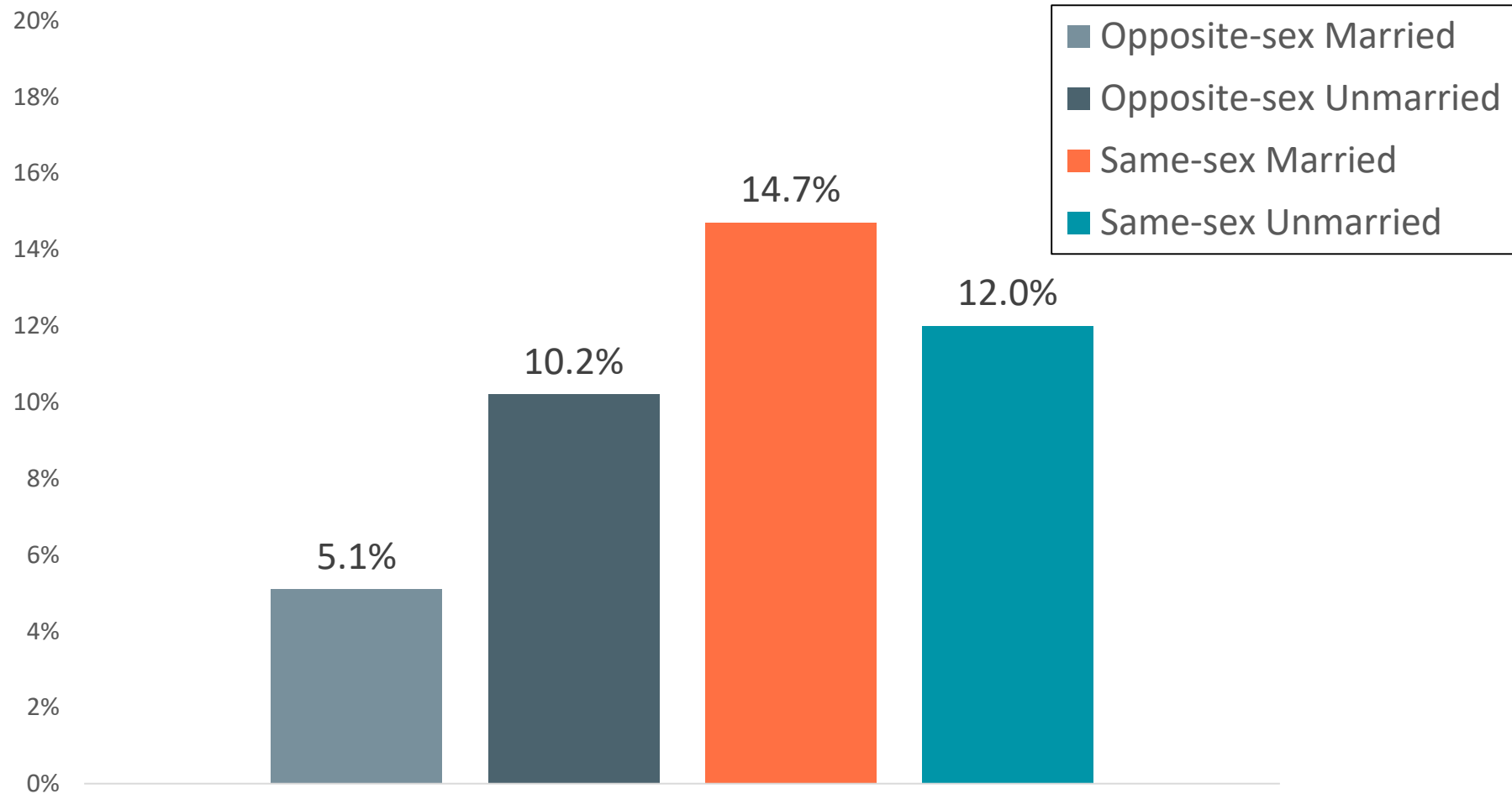
Table 4. Parents: Production vs. Research Estimates

	Production 2017 Estimates		Research 2017 Estimates	
All Coresident Parents (in thousands)	91,580	28.6%	91,900	28.7%
Parents of Coresident Children Under 18 (in thousands)	64,220	20.1%	64,520	20.2%

Note: The research file estimates did not differ statistically from the production estimates at the 90% confidence level.

Source: U.S. Census Bureau, Current Population Survey, Annual Social and Economic Supplement, 2017

Table 5. Parents by Couple Type

	Production Coresident Parents		Research Coresident Parents	
Total (in thousands)	91,580	100.0%	91,900	100.0%
No Partner Present	20,260	22.1%	20,310	22.1%
Opposite-sex Married	66,280	72.4%	66,330	72.2%
Opposite-sex Unmarried	4,786	5.2%	4,867	5.3%
Same-sex Married	184	0.2%	↑ 275	0.3%
Same-sex Unmarried	65	0.1%	↑ 115	0.3%

Note: Arrows represent significant difference from production estimate at 90% Confidence Level.

Source: U.S. Census Bureau, Current Population Survey, Annual Social and Economic Supplement, 2017

Implications for Family Measures

- No changes are proposed for the Census Bureau's definition of family:

  - *A family is a group of two persons or more (one of whom is the householder) residing together and related by birth, marriage or adoption.*

- Married-couple families now include same-sex married couples

Conclusion

- Changes made to relationship to householder and parent identification questions allow better measurement of the specific type of family/living arrangement, especially for same-sex couples and their children

- At the same time, we don't see wide differences in the characteristics of coupled households in the research file

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Current Population Survey

http://www.census.gov/programs-surveys/cps.html

To see papers about the testing of the new relationship questions, please see: https://www.census.gov/topics/families/same-sex-couples/library/working-papers.html

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