

National Academies of Sciences, Engineering, and Medicine
Roundtable on Population Health Improvement • June 21, 2023 • Oakland, CA
Moving from Disparities to Equity to Solutions: Metrics that Matter

Some current issues in federal data on race and ethnicity

Carolyn A. Liebler, Ph.D.
Department of Sociology & ISRDI • University of Minnesota
liebler@umn.edu

Race is socially
constructed

Data about race
are socially constructed

Current Situation

- 1) Individuals change their race/ethnicity responses
- 2) Federally-defined race/ethnicity categories change
- 3) 2020 Census data race/ethnicity coding changes
- 4) 2020 Census data differential privacy debacle

1) Individuals change their race/ethnicity responses

	Number in <u>2000</u>	Number in <u>2010</u>
<i>Non-Hispanic</i>		
Any race	149,144,790	148,741,083
White	124,765,953	124,156,954
Black	15,454,761	15,284,628
AIAN	1,045,627	1,042,724
Asian	5,599,943	5,575,803
NHPI	152,640	154,925
SOR	207,906	149,739
White & black	416,956	498,448
White & AIAN	575,680	650,450
White & Asian	499,837	591,442
White & NHPI	56,300	63,917
Black & AIAN	79,222	98,921
Black & Asian	50,482	58,313
Black & NHPI	10,640	12,529
AIAN & Asian	21,344	15,968
AIAN & NHPI	2,393	2,666
Asian & NHPI	66,814	64,673

For example:

Of people (in linked data) who **reported non-Hispanic White & Asian** in Census 2000 or the 2010 Census, **only 35%** of them reported this race/ethnicity in **both** 2000 and 2010.

Excerpt from Figure 3 in “America’s Churning Races: Race and Ethnicity Response Changes Between Census 2000 and the 2010 Census” by Liebler, Porter, Fernandez, Noon, and Ennis (2017) in *Demography*.

1) Individuals change their race/ethnicity responses

Table 3 Non-Hispanic white (W), black (B), and/or American Indian/Alaska Native (AIAN) response stability and change

	Race/Ethnicity Response in 2010 Census Linked Data							
Race/Ethnicity Response in 2000 Census Linked Data	Non-Hispanic							Total
	W	B	AIAN	W and B	W and AIAN	B and AIAN	Any Other Response	
Non-Hispanic								
W	122,765,113	102,464	173,415	67,879	404,209	1,144	1,251,729	124,765,953
B	112,882	14,881,514	22,793	130,788	1,910	71,382	233,492	15,454,761
AIAN	158,178	16,307	723,326	790	99,910	4,948	42,168	1,045,627
W and B	35,837	90,086	454	249,359	488	851	39,881	416,956
W and AIAN	339,481	1,074	87,809	642	134,523	213	11,938	575,680
B and AIAN	785	50,000	3,713	1,226	252	16,433	6,813	79,222
Any Other Response	744,678	143,183	31,214	47,764	9,158	3,950	18,382,039	19,361,986
Total	124,156,954	15,284,628	1,042,724	498,448	650,450	98,921	19,968,060	161,700,185

Note: Case counts include only people in the linked data.

Stable responses are more common in some groups than others, but never guaranteed!

Table 3 in "America's Churning Races: Race and Ethnicity Response Changes Between Census 2000 and the 2010 Census" by Liebler, Porter, Fernandez, Noon, and Ennis (2017) in *Demography*.

2) Federally-defined race/ethnicity categories change

1977

Federal government defined race & ethnicity groups so it could enforce civil rights laws. Before 1977, data on BIPOC populations was not reported systematically.



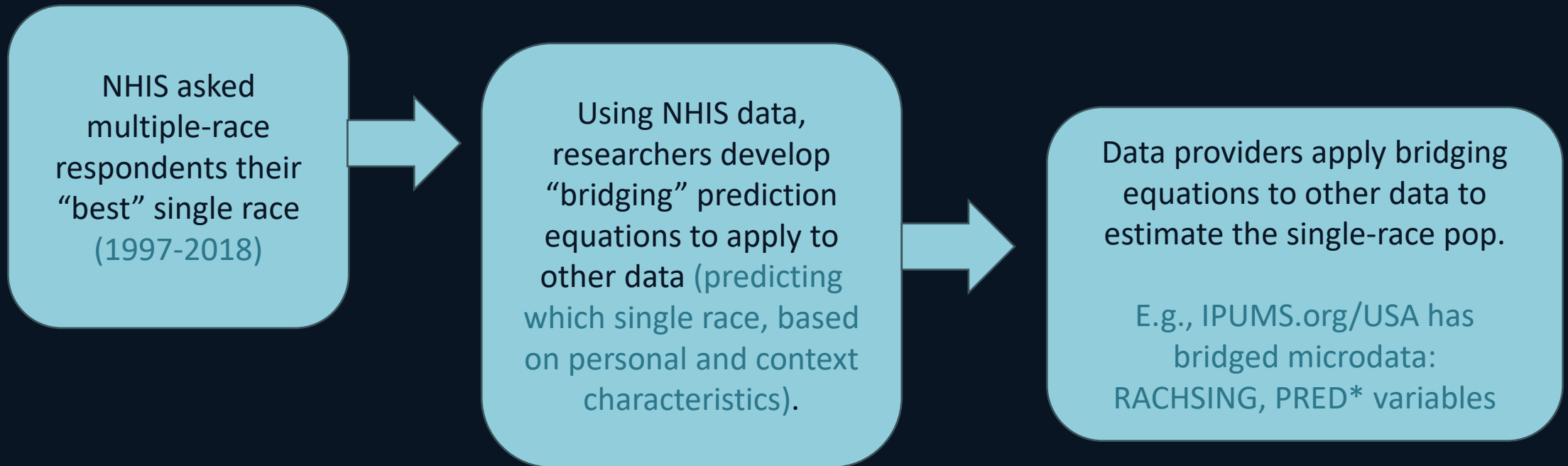
“Bridging” new responses into old categories – needed when data sources use different standards. E.g., census data uses 1997 standard, but death certificates use 1977 standard.

1997

- ✓ Multiple race responses are allowed.
- ✓ Pacific Islander separated from Asian.
- ✓ Hispanic / Latino remains separate.

2) Federally-defined race/ethnicity categories change

Simplified example of how “bridged” race data are created



2) Federally-defined race/ethnicity categories may change soon

Current RACE

MARK ONE OR MORE

- 1) American Indian / Alaska Native
- 2) Asian
- 3) Black or African American
- 4) Native Hawaiian / Pacific Islander
- 5) White (including Middle Eastern / North African)

Current ETHNICITY

MARK ONLY ONE

- A) Hispanic / Latino
- B) NOT Hispanic / Latino

Proposed RACE / ETHNICITY

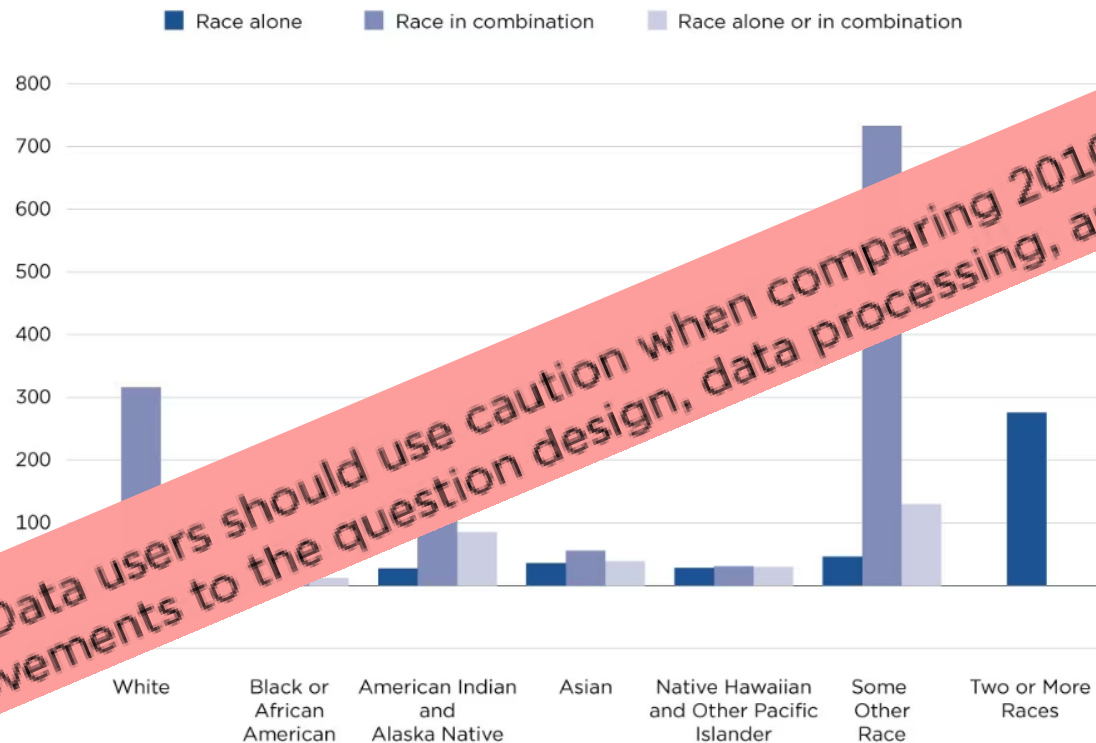
MARK ONE OR MORE

- 1) American Indian / Alaska Native
- 2) Asian
- 3) Black or African American
- 4) Hispanic / Latino
- 5) Native Hawaiian / Pacific Islander
- 6) White (not including Middle Eastern / North African)
- 7) Middle Eastern / North African

3) 2020 Census data race/ethnicity coding changes

Figure 3.

Percentage Change in Race Groups: 2010 and 2020



Note: Data users should use caution when comparing 2010 Census and 2020 Census race data because of improvements to the question design, data processing, and coding procedures for the 2020 Census.

Information on confidentiality protection, nonsampling error, and definitions is available at <https://www2.census.gov/programs-surveys/decennial/2020/technical-documentation/complete-tech-docs/summary-file/>.

Source: U.S. Census Bureau, 2010 Census Redistricting Data (Public Law 94-171) Summary File; 2020 Census Redistricting Data (Public Law 94-171) Summary File.

increased the number of characters captured from 30 to 200, which allowed us to capture and fully recognize longer write-in responses.”

“Instead of prioritizing multiple responses into only two codes, we coded up to six detailed codes for each write-in area.”

“We used a single code list for coding data from the Hispanic origin question and the race question.”

* Excerpts from:

<https://www.census.gov/newsroom/blogs/random-samplings/2021/08/improvements-to-2020-census-race-hispanic-origin-question-designs.html>

4) 2020 Census data differential privacy debacle

“Differential privacy” is the Census Bureau’s way of protecting the 2020 Census data. It is a **mathematical algorithm** applied by a computer program.

Differential privacy was used on the 2020 results that are out.

The Census Bureau is thinking of using DP on other Census data, like the American Community Survey

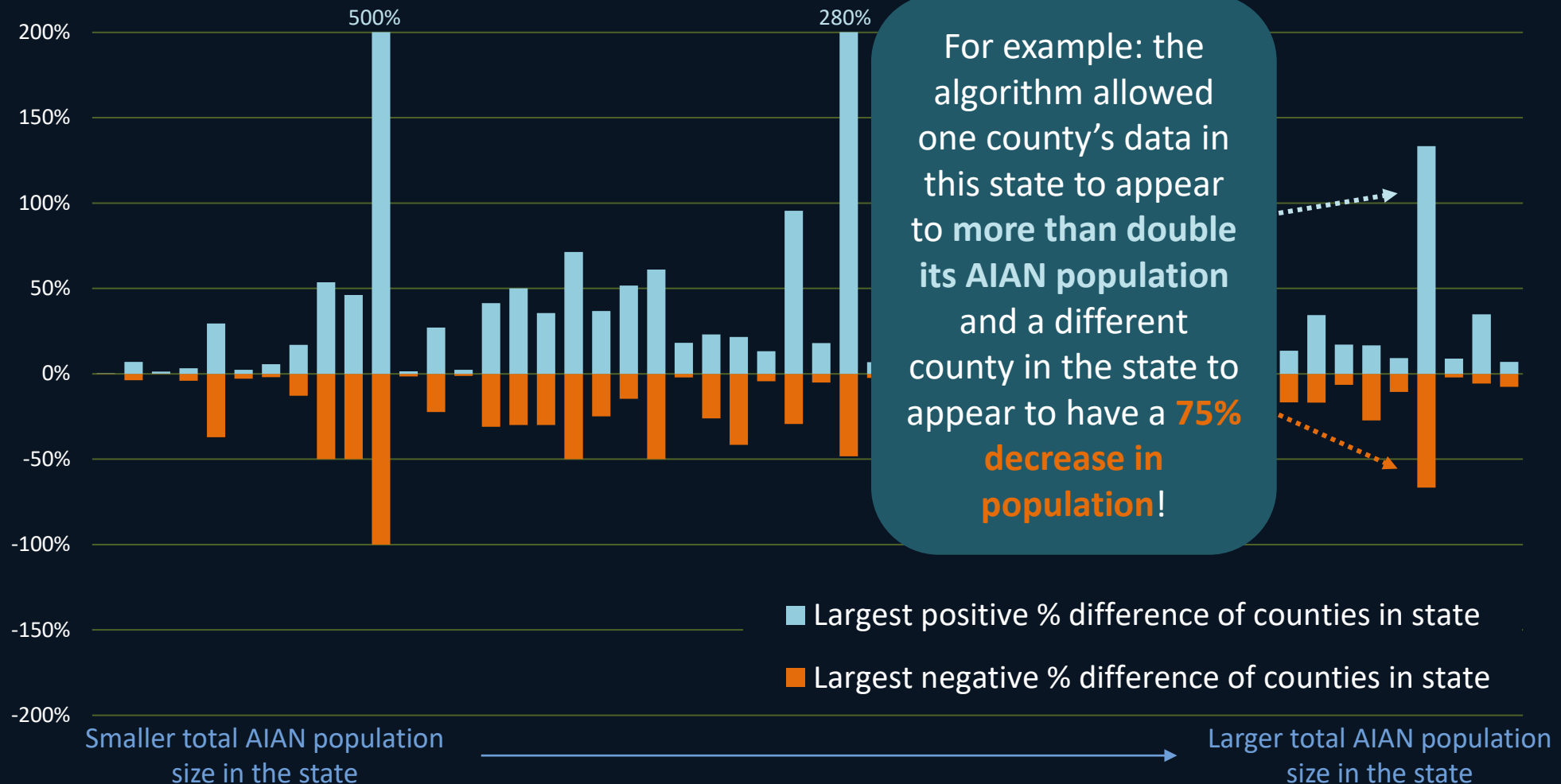
Simplified example of Differential Privacy: American Indian/Alaska Native (AIAN) populations in counties

County	Real # of AIAN counted	DP adds/sub	# AIAN in the public data	% difference
Ada County	550	+38	588	7%
Barhe County	1,234	-148	1,086	-12%

- The differential privacy algorithm adds or subtracts a number that's drawn at random from a distribution of numbers.
- This is done to every number; the results do not always make sense.

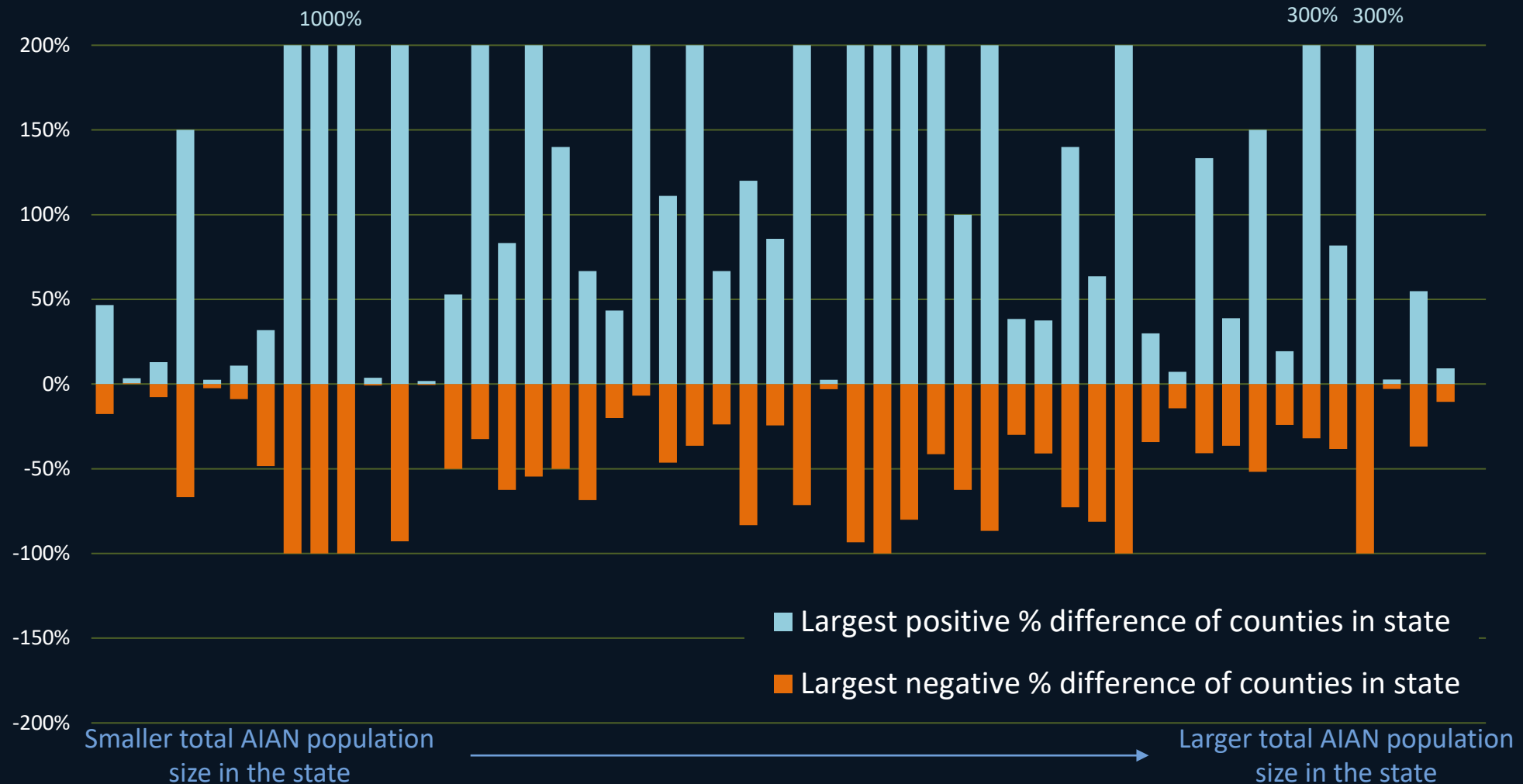
How different can the census numbers be while still being useful?

The example data show that the differential privacy algorithm causes the 2020 Census **AIAN AOIC*** adult (age 18+) county population sizes to be mis-reported



* AIAN AOIC = American Indian / Alaska Native alone or in combination with other race groups.

The example data show the that differential privacy algorithm causes the 2020 Census **AIAN AOIC* child** (ages 0-17) county population sizes to be mis-reported



* AIAN AOIC = American Indian / Alaska Native alone or in combination with other race groups.

Race is socially
constructed

Data about race
are socially constructed

How can this social construction process be
more equitable than in the past?

What would **true equity** look like?

Resources & Citations

- **Race response change**
 - Liebler, Carolyn A., Sonya R. Porter, Leticia E. Fernandez, James M. Noon, and Sharon R. Ennis. 2017. "America's Churning Races: Race and Ethnic Response Changes between Census 2000 and the 2010 Census." *Demography*. 54(1):259-284.
- **Standards for minimum race/ethnicity groups in federal data collection**
 - 1977: <https://wonder.cdc.gov/wonder/help/populations/bridged-race/directive15.html>
 - 1997: <https://www.govinfo.gov/content/pkg/FR-1997-07-09/pdf/97-17664.pdf>
 - 2023: <https://www.federalregister.gov/documents/2023/01/27/2023-01635/initial-proposals-for-updating-ombs-race-and-ethnicity-statistical-standards>
- **Bridging race responses to the previous standard**
 - Ingram et al. 2003. https://www.cdc.gov/nchs/data/series/sr_02/sr02_135.pdf
 - Liebler, Carolyn A. and Andrew Halpern-Manners. 2008. "A Practical Approach to Using Multiple-Race Response Data: A Bridging Method for Public Use Microdata." *Demography* 45(1):143-55.
 - IPUMS variable RACHSING: https://usa.ipums.org/usa-action/variables/RACHSING#description_section
- **Changing race/ethnicity coding as of 2020 Census**
 - <https://www.census.gov/newsroom/blogs/random-samplings/2021/08/improvements-to-2020-census-race-hispanic-origin-question-designs.html>
- **Differential privacy**
 - <https://www.census.gov/data/tables/2023/dec/2020-census-dhc.html#data-confidentiality>
 - **Impact on data about American Indian and Alaska Native people and tribal lands:** Center for Indian Country Development presentation (starts at 2:46:00) - <https://www.minneapolisfed.org/events/2022/2022-center-for-indian-country-development-research-summit>
- **Some of my colleagues who investigate structural racism's impact on health**
 - Rachel Hardeman - <https://www.rachelhardeman.com/>
 - J'Mag Karbeah - <https://www.jmagkarbeah.com/>
 - Tongtan "Bert" Chantarat - <https://carhe.umn.edu/team/dr-tongtan-bert-chantarat-phd-mpH>