

Measuring the High School Graduation Rate in the Ninth Federal Reserve District

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High school graduation measure depends on

- Data source (CPS or CCD)
- Counting GEDs as high school graduates
- Treatment of ninth grade retention
- Treatment of migration

High school graduation measures

- **High School Status Completion Rate, 2008: 89.9%**
 - Percentage of adults age 18-24 who have left high school and earned a high school diploma or equivalent, such as GEDs
 - Based on October Current Population Survey (CPS)

- **Averaged freshman graduation rate, 2008: 74.9%**
 - Percentage of public high school students who graduate with a regular diploma 4 years after starting 9th grade
 - Based on Common Core of Data (CCD), annual survey of state-level education agencies

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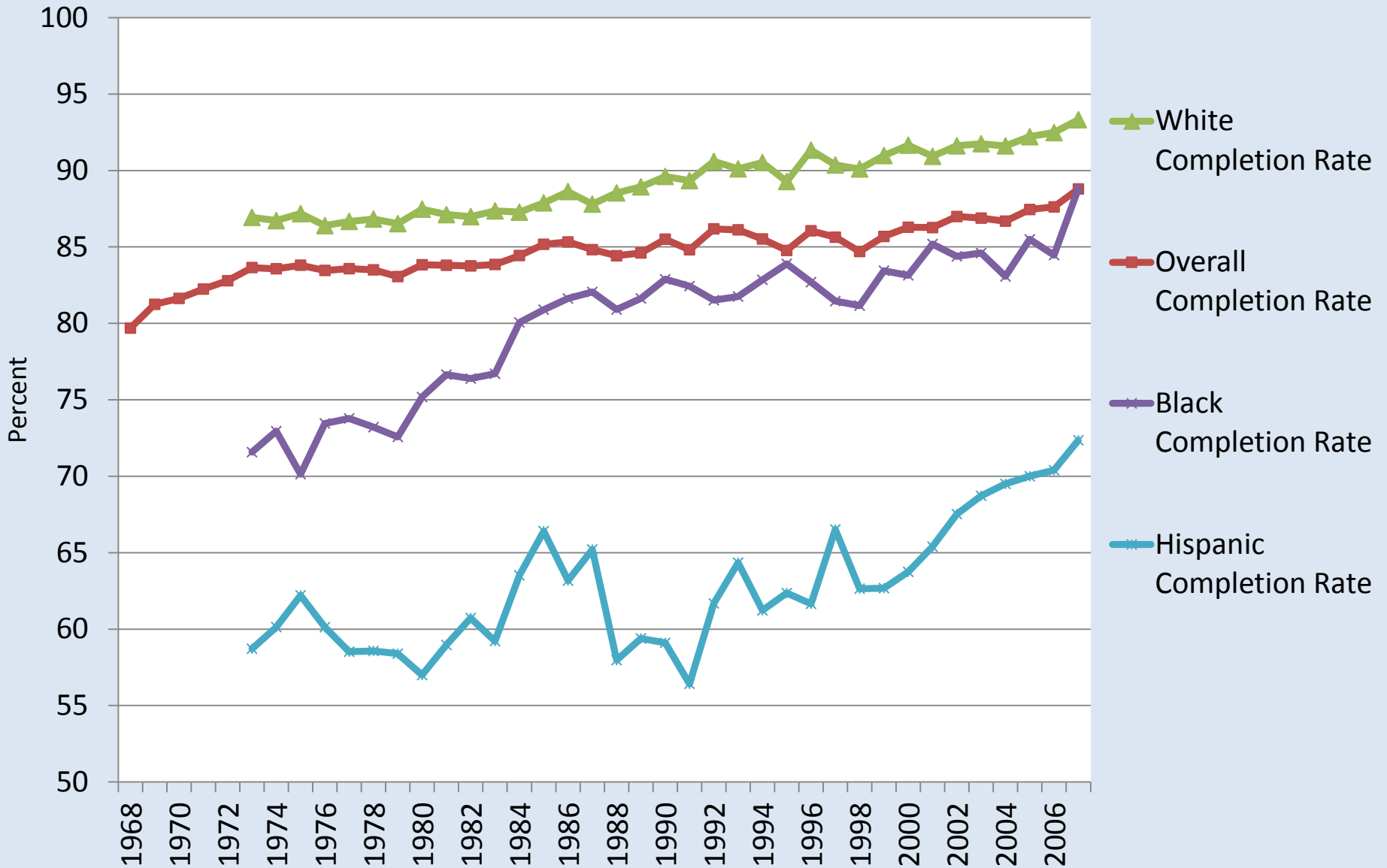
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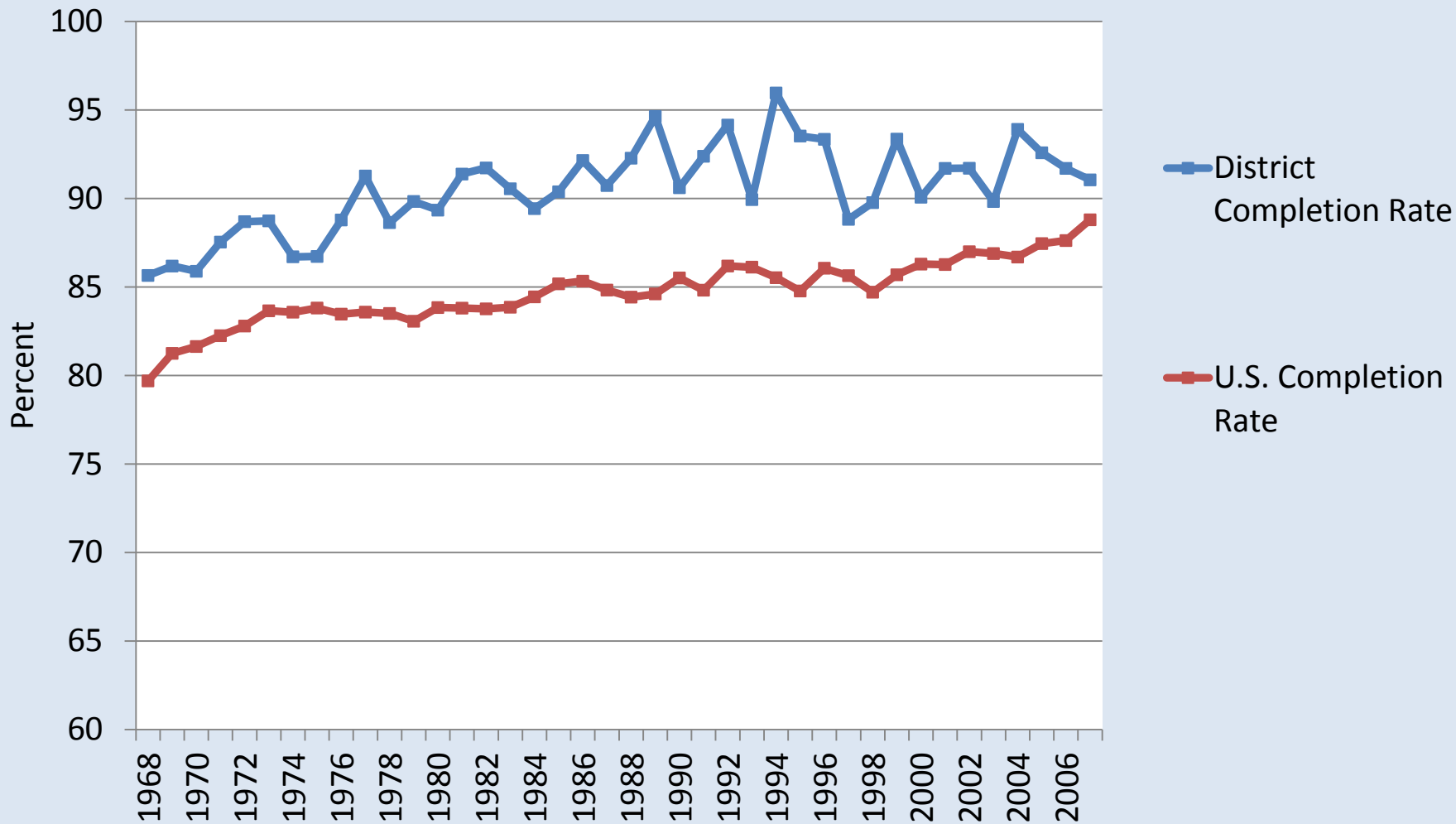
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U.S. High School Status Completion Rate



Source: National Center for Education Statistics

High School Status Completion Rate



District includes Minnesota, Montana, North Dakota, South Dakota, and Wisconsin

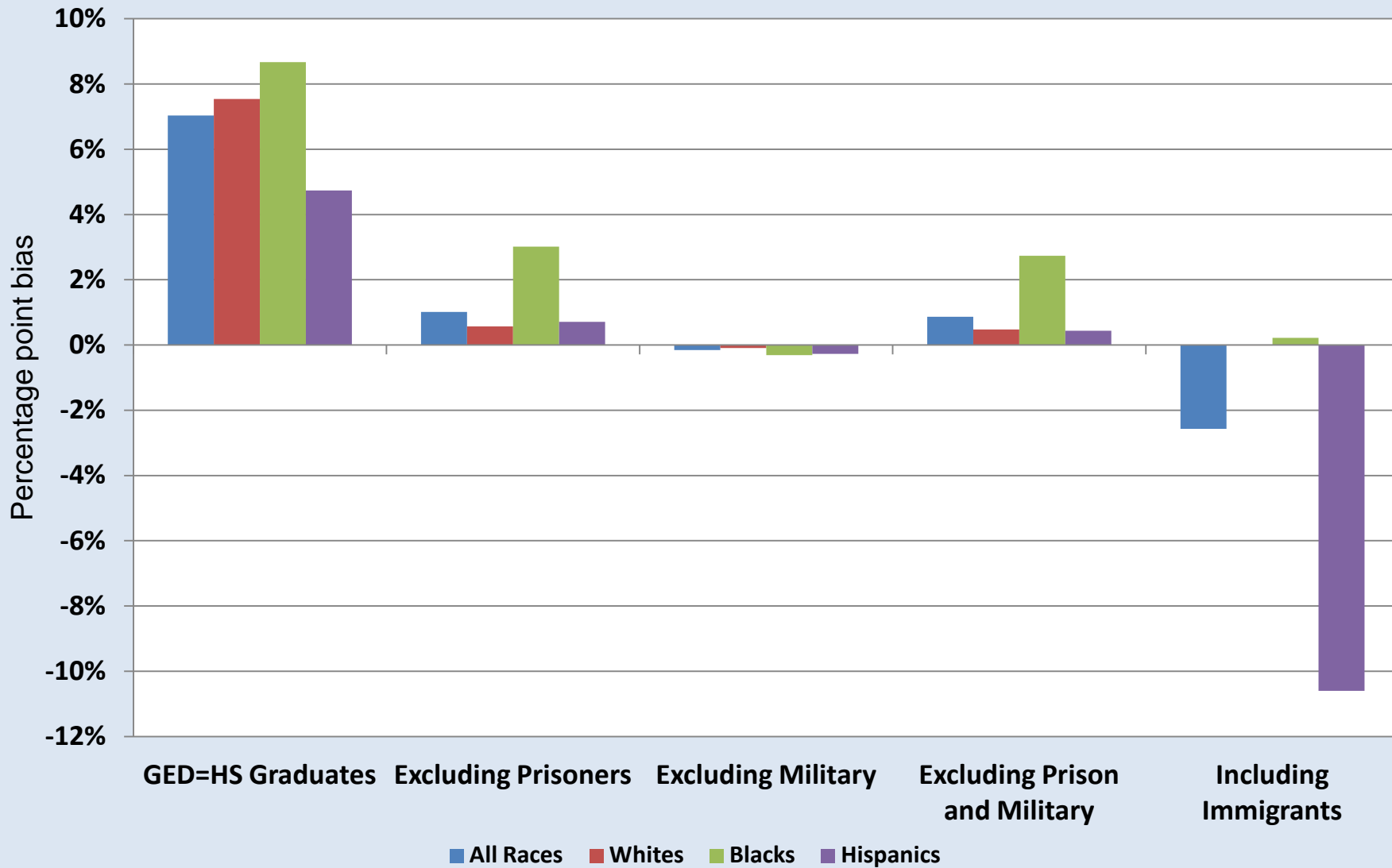
Source: National Center for Education Statistics and U.S. Census Bureau, Current Population Survey

High School Status Completion Rate

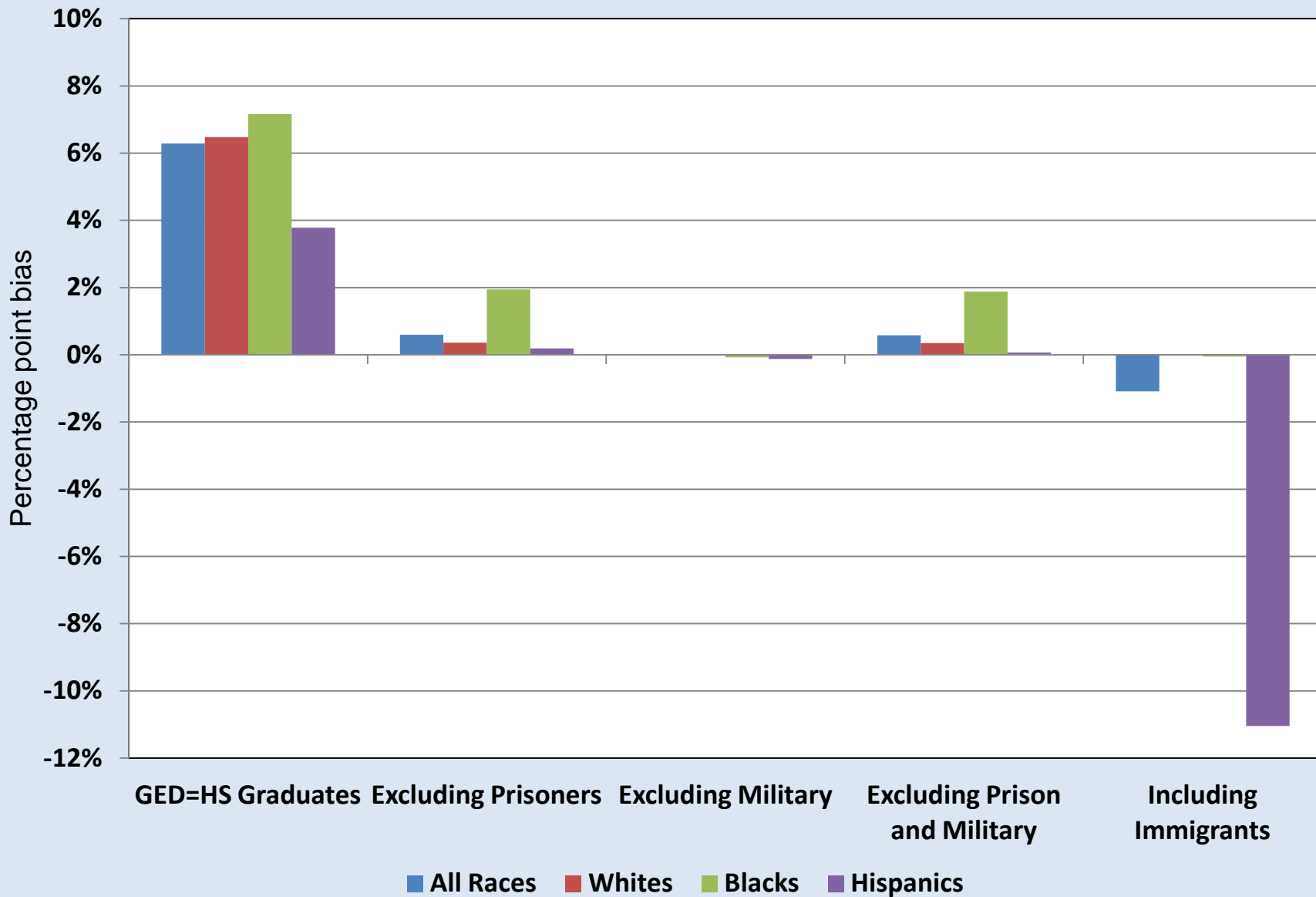
Potential biases:

- Includes GED holders
- Excludes institutionalized population – people in military and prisons
- Includes immigrants
- Responses to CPS survey question on education attainment

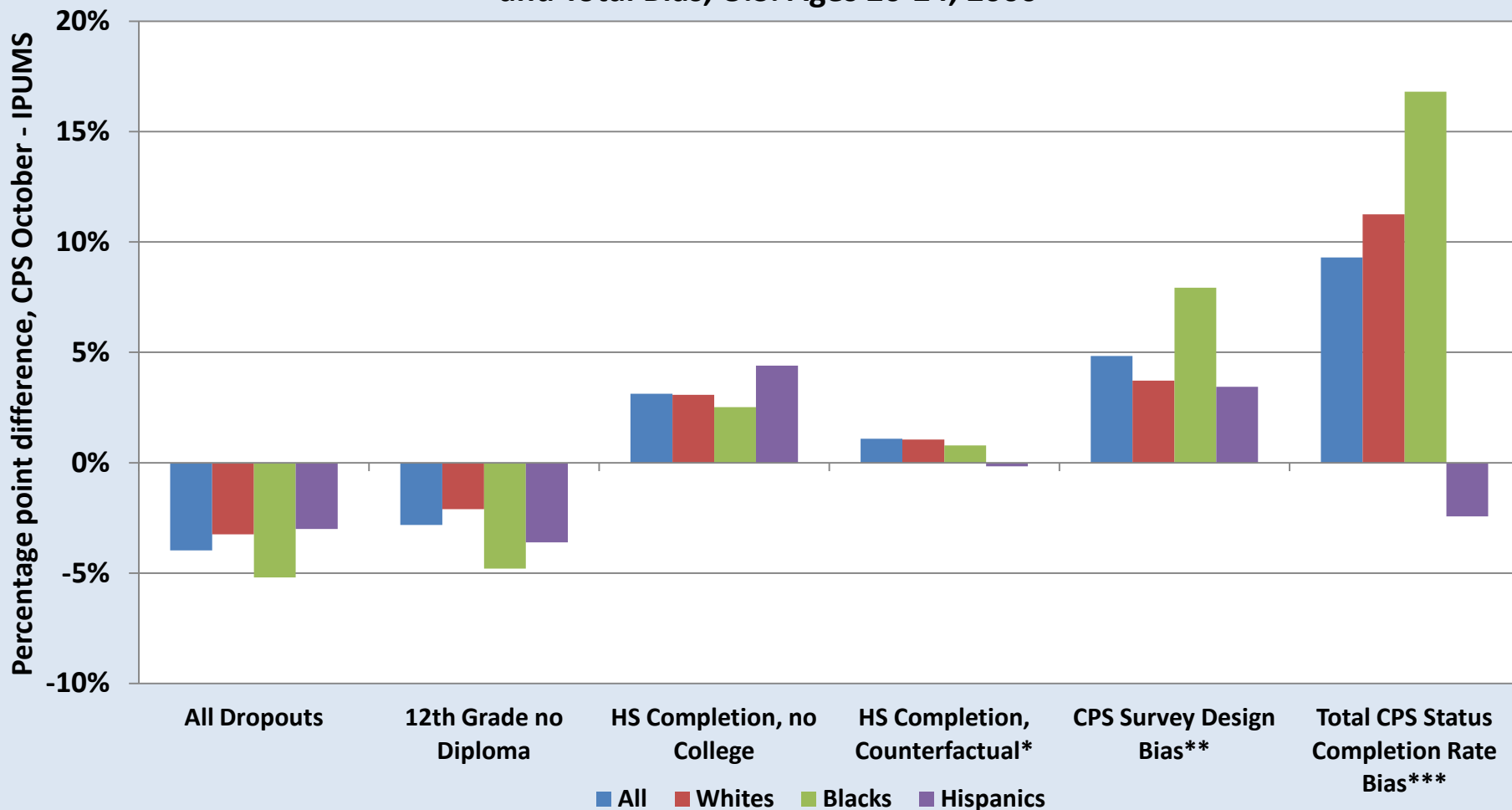
Bias in the U.S. High School Status Completion Rate IPUMS 2000



Bias in the Estimated District High School Completion Rate, IPUMS 2000



CPS October vs. IPUMS Comparison of Education Attainment Question Response and Total Bias, U.S. Ages 20-24, 2000

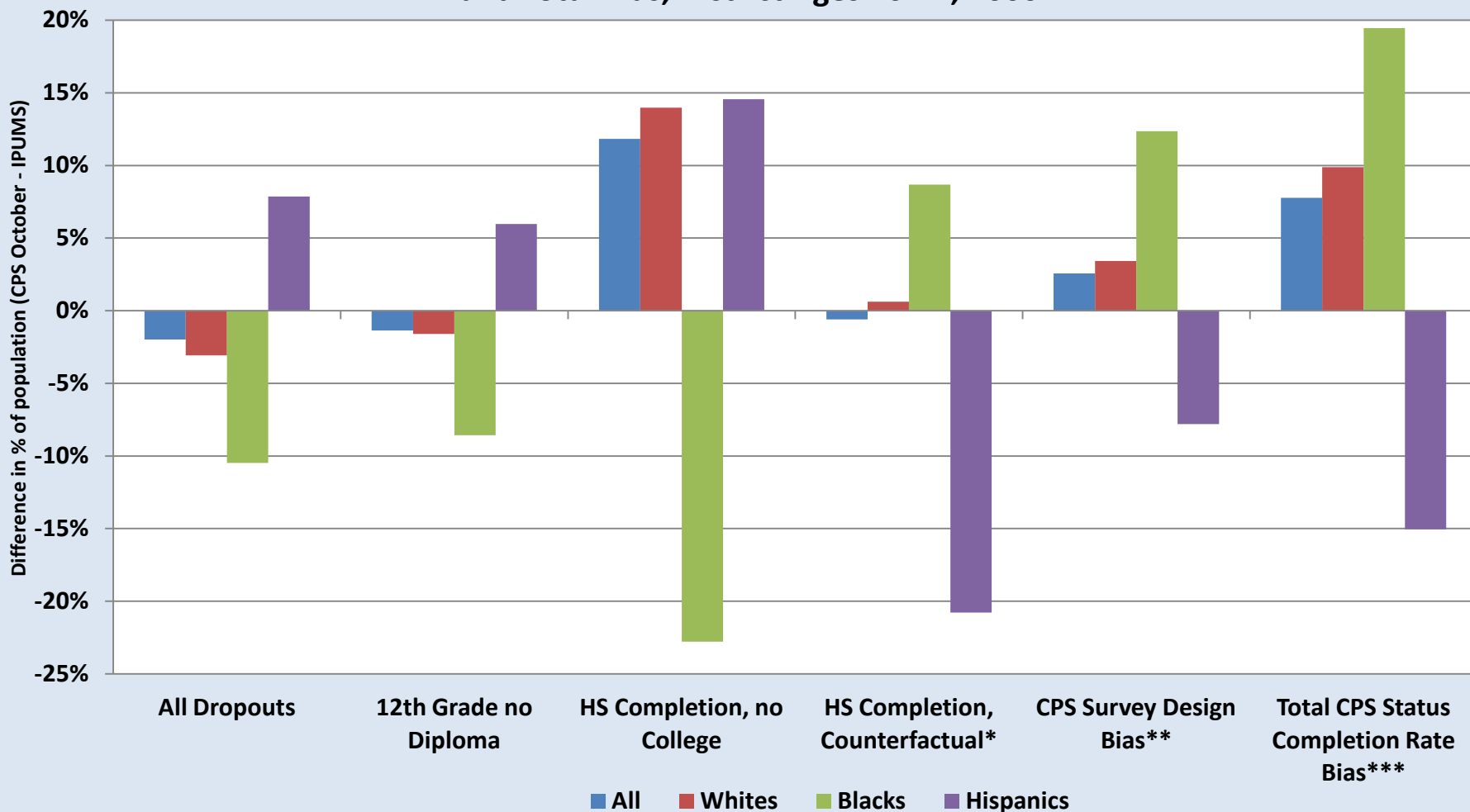


* The HS counterfactual shows the impact of changing the percentage of population reporting "12th grade, no diploma" and "HS Completion, no College" in the CPS October survey to the same percents reported in the IPUMS estimate. This calculation is slightly different from Heckman and LaFontaine.

** Computed as the bias from the undercount of dropouts and the exclusion of the institutionalized and military population in the CPS.

*** Total bias from the undercount of dropouts, the exclusion of the institutionalized and military populations, the inclusion of immigrants

CPS October vs. IPUMS Comparison of Education Attainment Question Response and Total Bias, District Ages 20-24, 2000

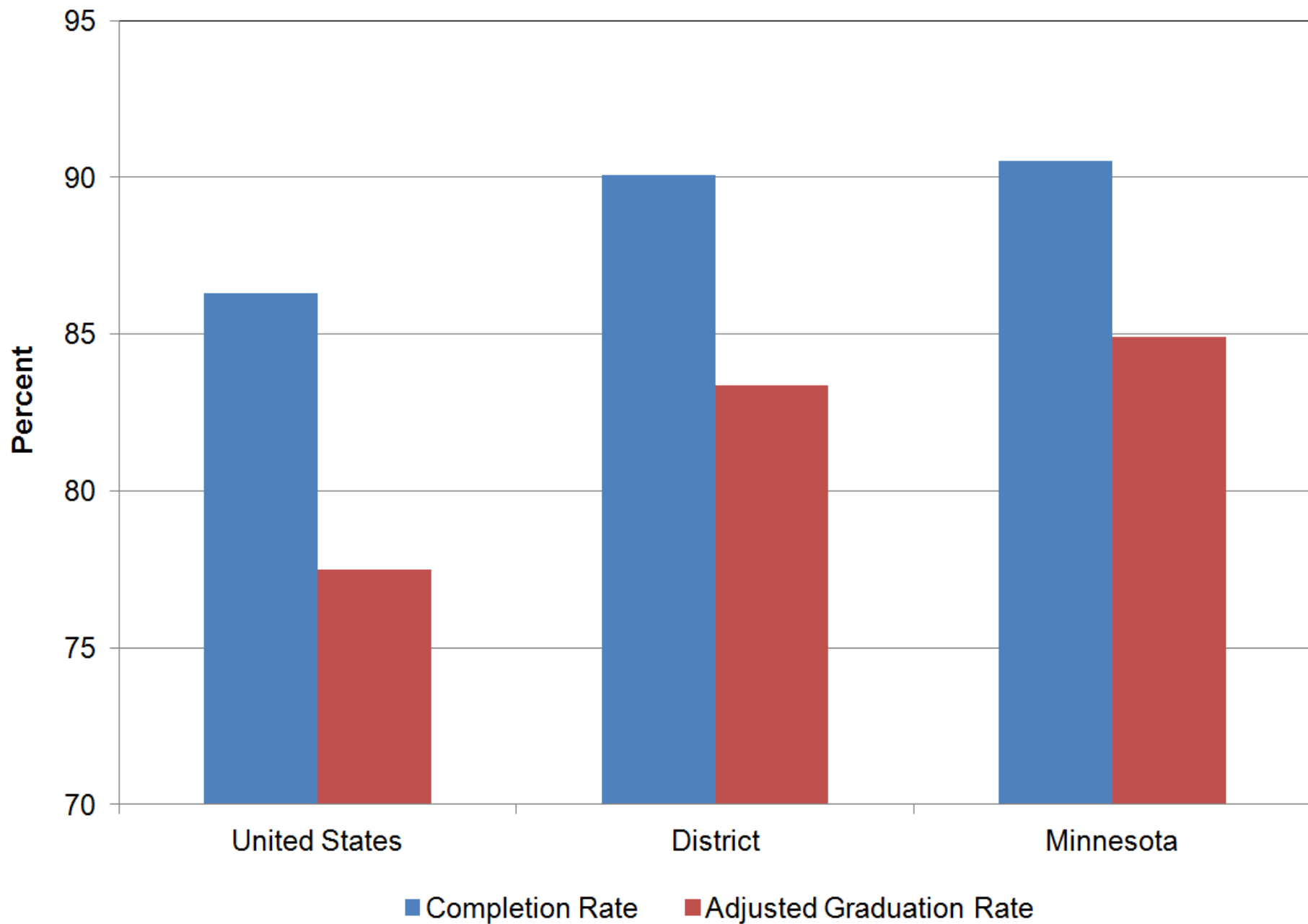


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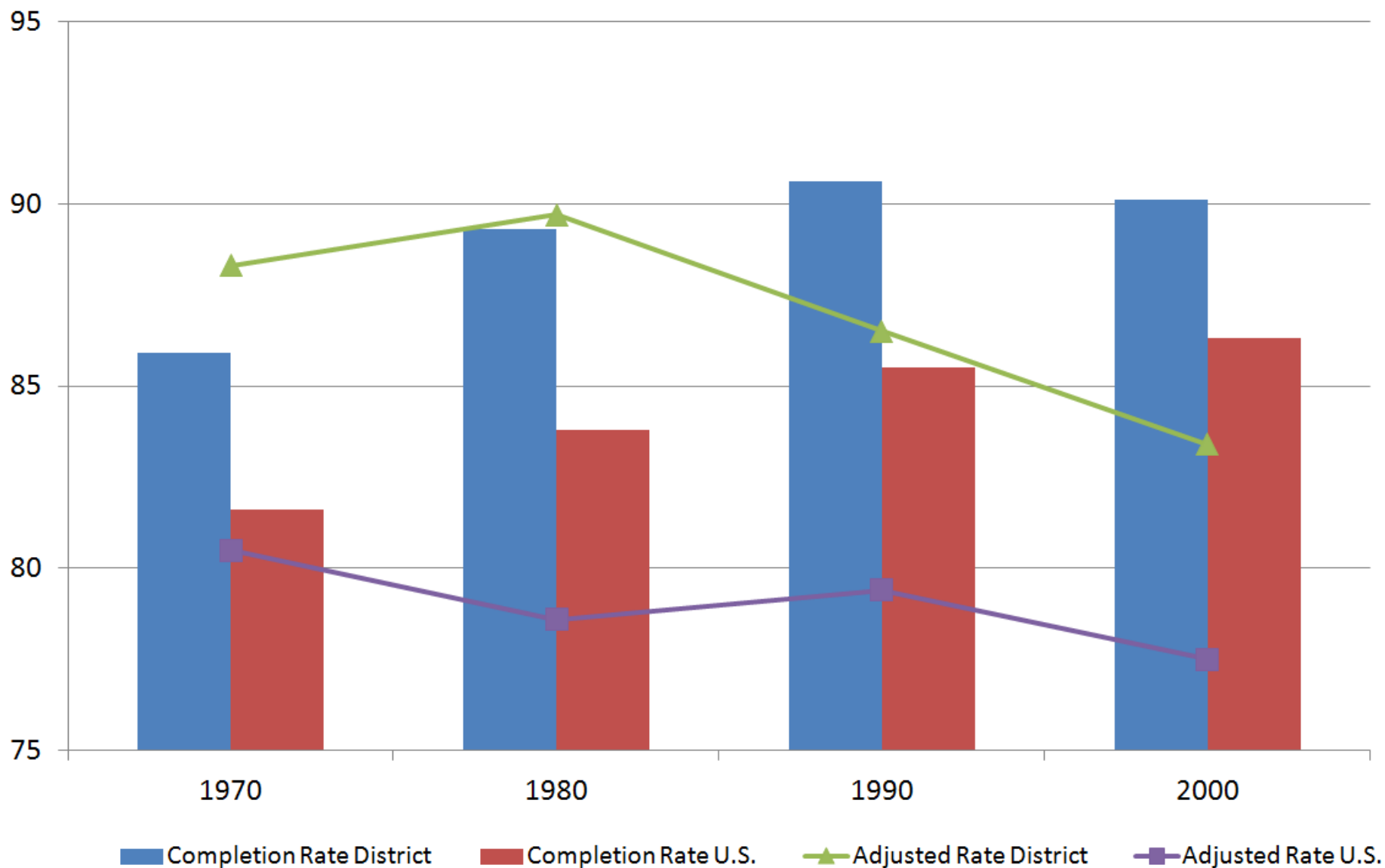
*** Total bias from the undercount of dropouts, the exclusion of the institutionalized and military populations, the inclusion of immigrants and counting

High School Status Completion Rates and Adjusted Graduation Rates, 2000



U.S. and district adjusted graduation rates fall over time

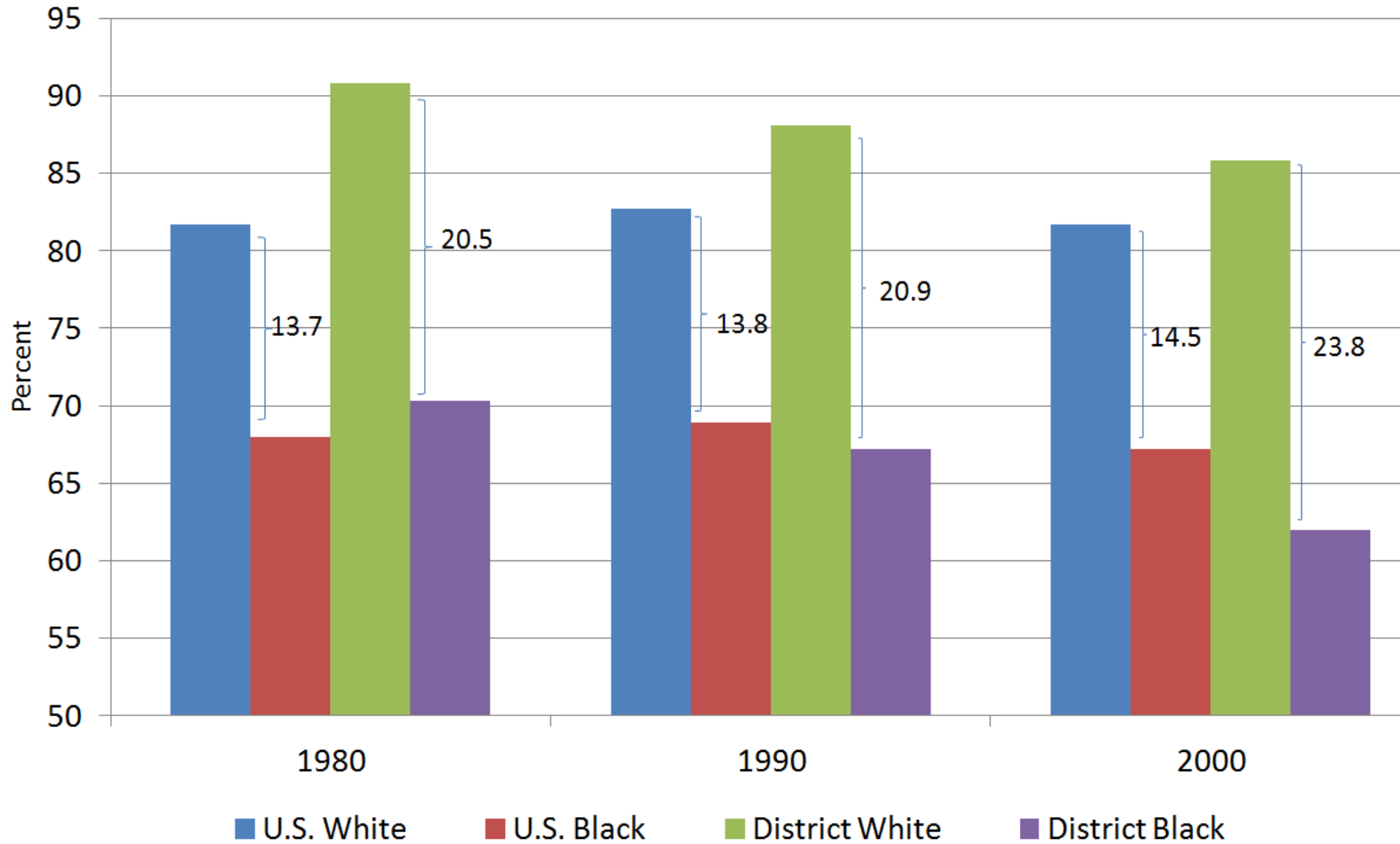
High school completion rates and adjusted high school graduation rates



Source: National Center for Education Statistics (completion rates); U.S. calculations by Heckman and LaFontaine (2009), District calculations by Chung and Grunewald (2011) (adjusted rates)

White-black graduation rates gap widens in the U.S. and district

Adjusted high school graduation rates
Numbers denote white-black differences



Source: U.S. calculations by Heckman and LaFontaine (2009), district calculations by Chung and Grunewald (2011)

Adjusted High School Graduation Rates: Differences Between Majority and Minority, Ages 20-24

	United States					District				
Year	White	Black	Hispanic	White-Black	White-Hisp	White	Black	Hispanic	White-Black	White-Hisp
1970*	83.6	62.8	58.6	20.7	24.9	89.2	67.2	76.6	22.0	12.6
1980	81.7	68.0	64.7	13.7	17.0	90.8	70.3	72.9	20.5	17.9
1990	82.7	68.9	66.0	13.8	16.7	88.1	67.2	71.9	20.9	16.2
2000	81.7	67.2	64.3	14.4	17.4	85.8	62.0	63.1	23.8	22.7

Averaged freshman graduation rate

$$\frac{\text{Regular Public High School Diplomas Awarded}_{\text{Spring of Year } X}}{\text{Enrollment in (Grade 8}_{\text{Fall of Year } X - 5} + \text{Grade 9}_{\text{Fall of Year } X - 4} + \text{Grade 10}_{\text{Fall of Year } X - 3})/3}$$

AFGR addresses 9th grade retention bubble, but not migration

Warren's ECR

$$\frac{\text{Regular Public High School Diplomas Awarded}_{\text{Spring of Year } X}}{\text{Estimated Number of First Time Ninth Graders}_{\text{Fall of Year } X - 4} X}$$

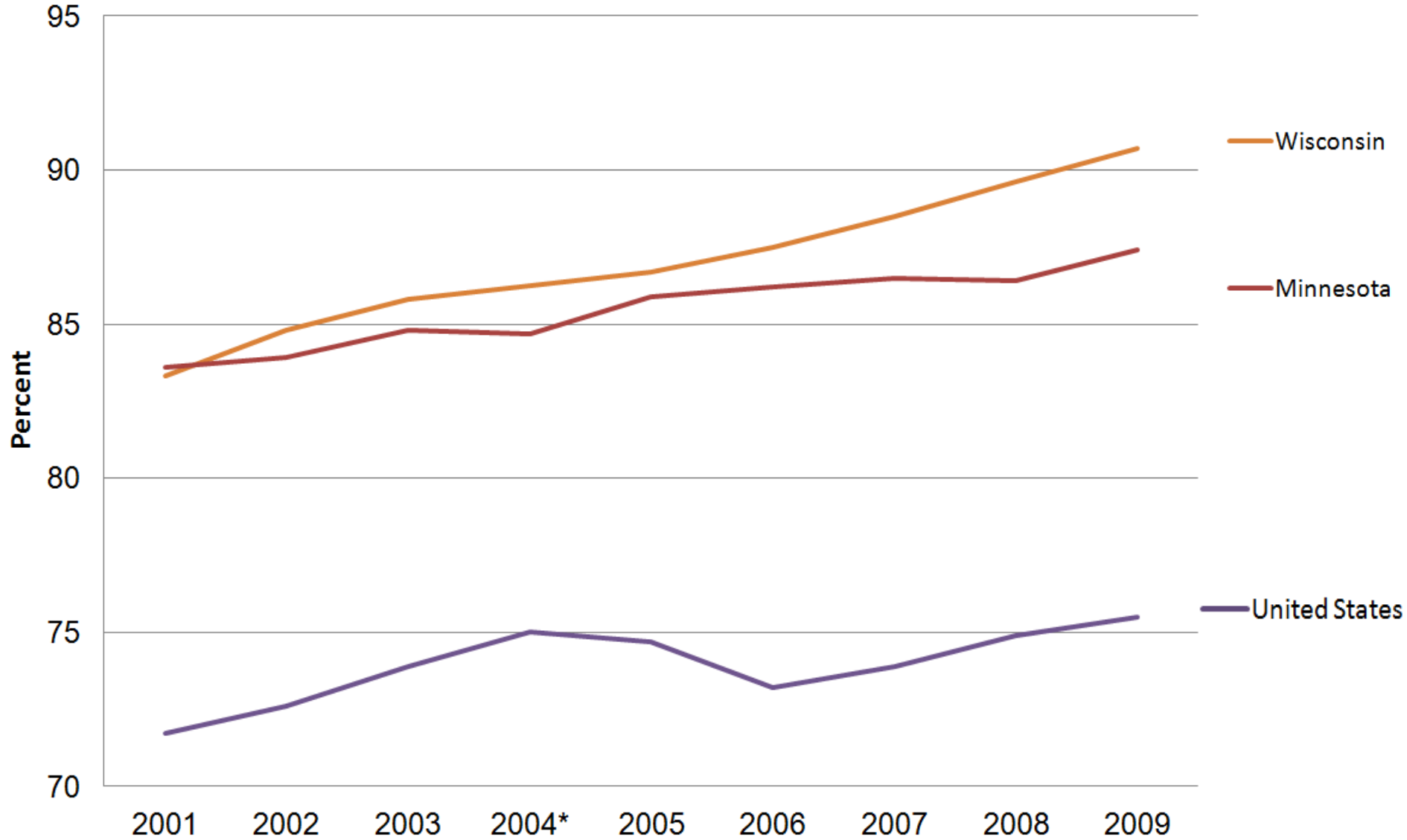
Migration Adjustment

Migration adjustment

$$1 + \frac{17\text{-Year-Olds}_{\text{Year } X - 1} - 13\text{-Year-Olds}_{\text{Year } X - 5}}{13\text{-Year-Olds}_{\text{Year } X - 5}}$$

Improvement since 2001

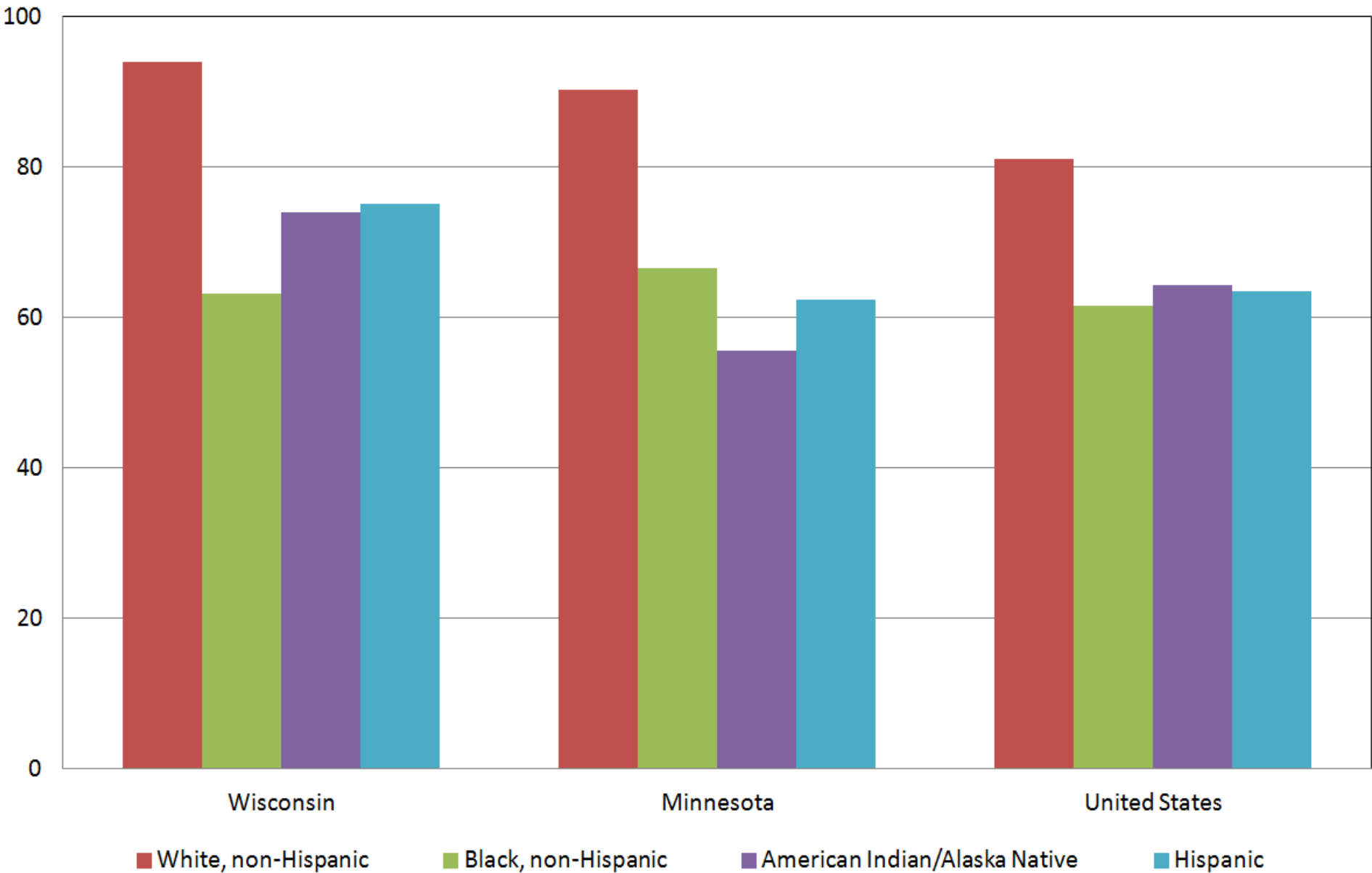
Averaged freshman graduation rate



*Wisconsin data imputed

Source: National Center for Education Statistics

Compared with U.S., WI and MN white grad rates high, MN American Indian rates low
Averaged freshman graduation rate, 2008



Sources: National Center for Education Statistics

High School Status Completion, Adjusted Graduation and Averaged Freshman Graduation Rates

