

Examining Racial Disparities in Capital Punishment

Zoe Williams¹, Nathan Alexander, PhD^{2, 3}

¹ Department of Political Science, College of Arts and Sciences

² Department of Curriculum and Instruction, School of Education

³ Program in Applied Data Science and Analytics, The Graduate School



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Abstract

We explore disparities in U.S. capital punishment. Our hypotheses align with studies indicating that Black Americans are incarcerated at higher rates than other groups. We examine measures of difference in administrative data on life in prison and the death penalty.

Overview

Bohm (2016), in *Deathquest*, presents a foundational analysis of capital punishment theories and practices in the United States, while scholars like Alexander (2021) extensively examined mass incarceration’s historical roots and racialized impacts (e.g., *The New Jim Crow*). However, systematic research on contemporary capital punishment remains comparatively limited. This gap underscores the need for more empirical studies to establish baseline data on sentencing disparities, and prosecutorial decision-making.

Research Questions

- What are the sentencing outcome distributions: Executed, Exonerated, Resentenced, Sentence Commuted, and Died?
- Are defendants proportionally represented across sentencing outcomes, or do disparities exist indicating that one racial group (Black or White) is overrepresented or underrepresented?

Method

We conduct an exploratory analysis on capital punishment.

We use computational methods in R and Python to gather and clean data sets. We integrate data from the Death Penalty Information Center (DPIC) and the U.S. Census Bureau to analyze disparity ratios between Black and White individuals. The DPIC provides comprehensive data, reports, and analyses on capital punishment trends and issues. Census data provides population estimates.

Analytic Model

We use a disparity ratio to compare difference in outcomes between Black and White sentences, which is defined as follows:

$$\frac{\text{Capital Sentencing Proportion}}{\text{Population Proportion}} = \frac{\frac{n}{\sum n}}{\frac{\text{estimate}}{\sum \text{estimate}}}$$

The capital sentencing proportion is divided by the population proportion for each group. The capital sentencing proportion is the ratio of sentences for a group (n) over the total ($\sum n$); a similar ratio is computed for the population proportion estimates, which is a population estimate of a group over the total population estimate.

Data

Death Penalty Information Center: Death Penalty Census Database

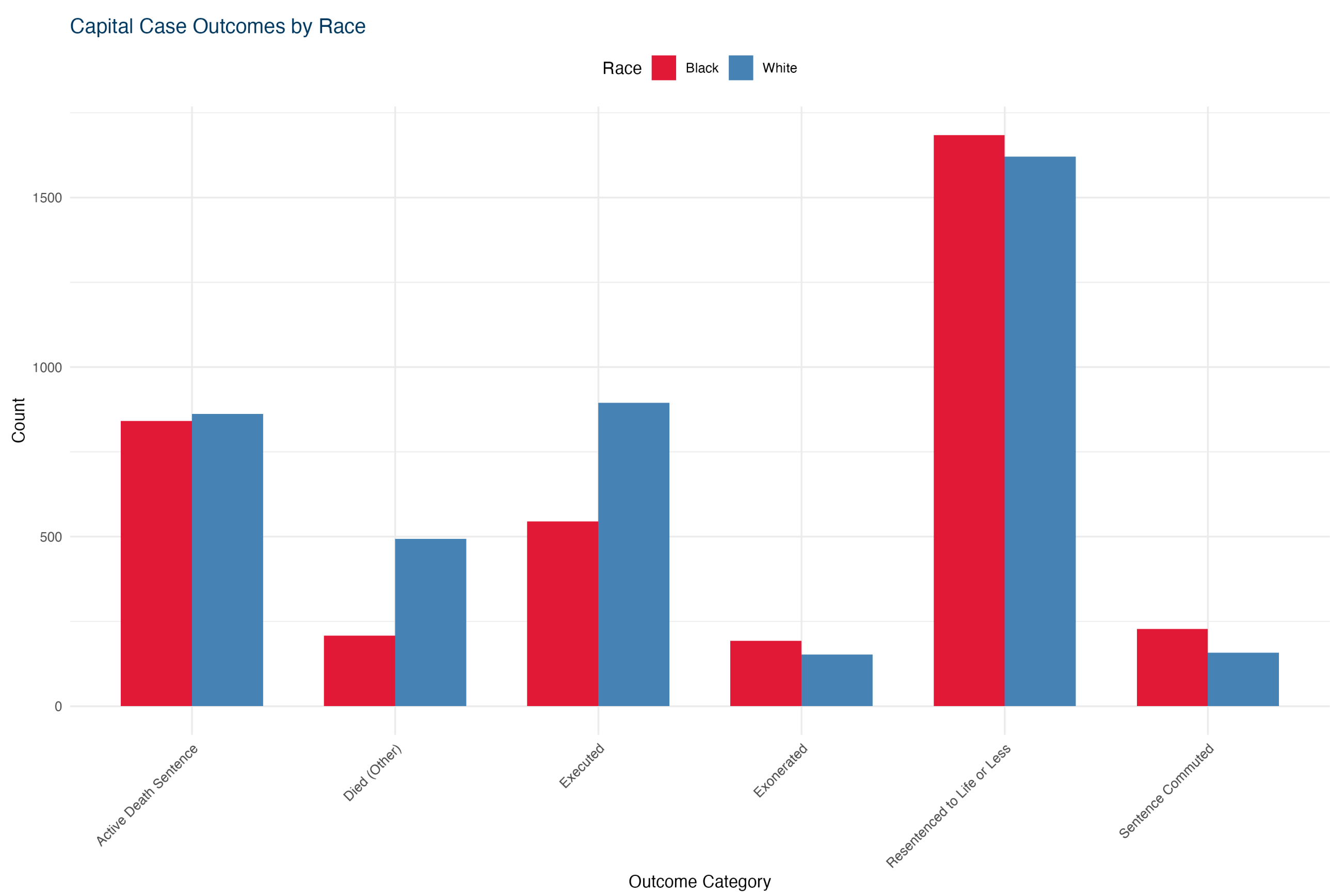
U.S. Census Data: 2023 ACS 5-year Estimates

Collapsed categories in capital punishment data guided the analysis:

- Executed:** The legal process by which a person sentenced to death is put to death as a form of punishment.
- Exonerated:** A legal declaration that a person previously convicted of a crime is officially cleared of all charges.
- Resentenced to Life or Less:** A judicial action where a defendant’s original sentence—often a death sentence or a lengthy prison term—is reduced to a lesser sentence, such as life imprisonment without the possibility of parole or life with the possibility of parole.
- Sentence Commuted:** The reduction or alteration of a defendant’s original sentence by a executive authority (such as a governor or president), which shortens the length of imprisonment or changes the nature of the punishment.
- Died (Other):** Death by means other than execution.

Findings

Sentencing Outcome Distribution



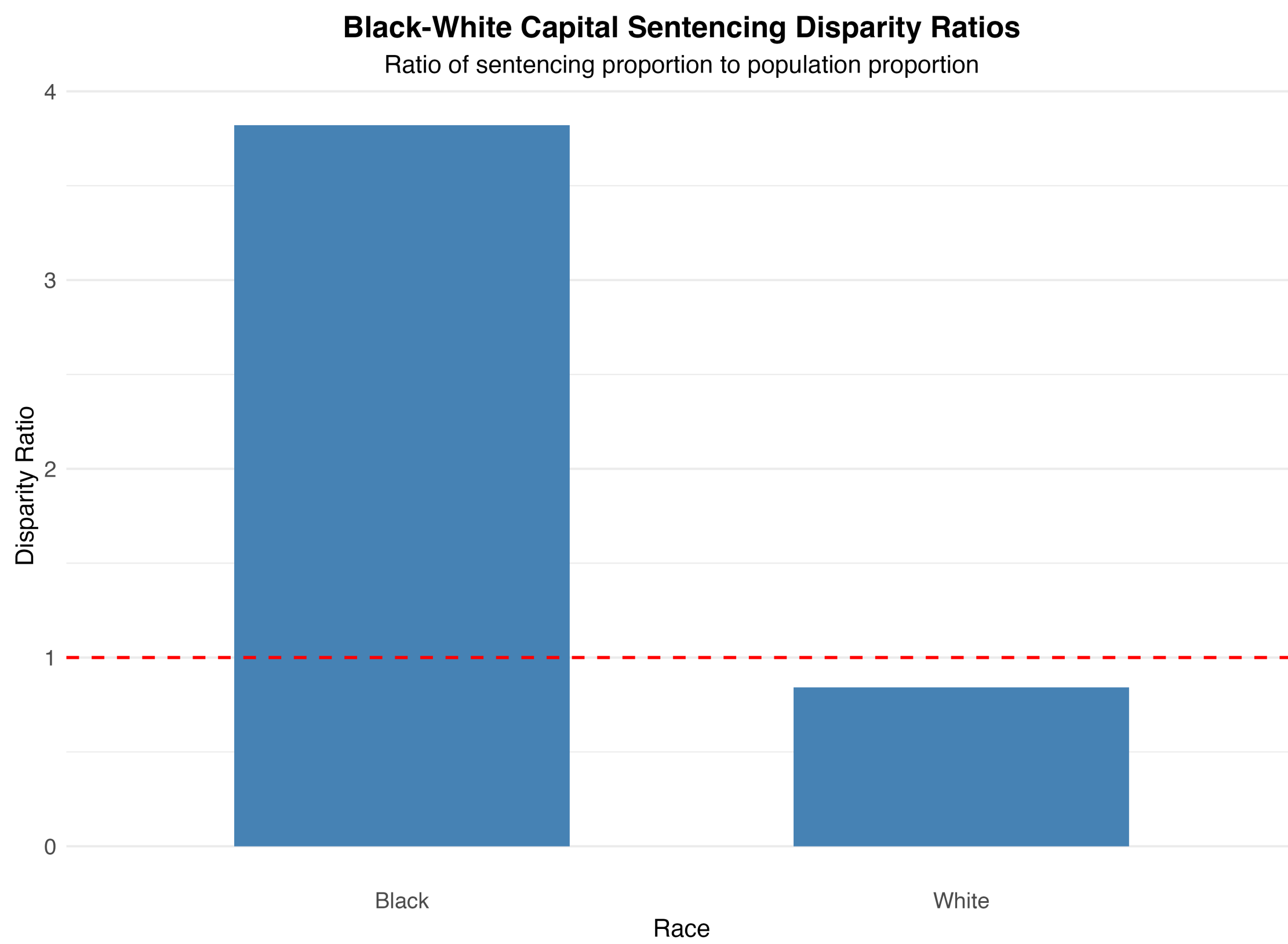
Limitations

Given the nature of the data, sentencing and population counts are not derived from the same jurisdiction or period. Confounding factors and statistical estimates (odds ratio) are not reported here.

Disparity Ratio

Race	Count	US Pop	US %	Sentenced %	Disparity Ratio
black	3705	41070890	0.12	0.47	3.82
white	4190	210875446	0.63	0.53	0.84

Black individuals make up 12.3% of the population but account for 46.9% of sentences (3.82× overrepresented).



- Black individuals** account for nearly half (48.9%) of all exonerations. **Black individuals** represent over half (52.8%) of sentences commuted, far surpassing white individuals at 36.4%.

Discussion and Conclusion

This study builds on prior work (Phillips 2008) to identify national disparities in sentencing outcomes and bias in the death penalty. The overrepresentation of Black individuals suggests that bias and injustice are not isolated incidents.

Acknowledgements

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References

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