

# The Association between Low Self-Control and Incarceration within the Context of Structural and Demographic Disadvantage

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## Introduction

- While the overall U.S incarceration rate has declined in recent years, the United States continues to rank among the highest in the world, and incarceration remains a defining feature of the American criminal justice system (Bureau of Justice Statistics, 2023).
- Socioeconomic disadvantage and systemic disparities are among the most consistent indicators of incarceration outcomes and risk, as individuals from lower-income households and marginalized communities are disproportionately subject to over-policing, higher arrest rates, and harsher sentencing decisions (The Sentencing Project, 2024).
- Gottfredson and Hirschi's *General Theory of Crime* identifies lack of self-control as a trait developed early in life that underlies a broad range of criminal and delinquent behavior and a characteristic that remains relatively stable across the course of life (Gottfredson & Hirschi, 1990).

## Methods

### Sample

- Respondents (n=6503) were drawn from the National Longitudinal Study of Adolescent to Adult Health (Add Health), a nationally representative longitudinal study of adolescents in the United States followed into their adulthood.

### Measures

- Adolescent **self-control** was created by summing and averaging questions about *impulsivity* and *emotional regulation*, ranging from 1 (strongly agree) to 5 (strongly disagree), with higher scores indicating lower self-control in adolescence.
- **Socioeconomic status (SES)** was created by summing questions about *household income*, *welfare benefits*, and *self-recorded financial strain* - 1 (yes), 0 (no), a higher score indicating a higher socioeconomic status and a lower score indicating a lower socioeconomic status.
- **Sex** was assessed with the question, "Please confirm that R's sex is male or female."
- **Race** was assessed with the question, "Interviewer: Please code the race of the respondent from your observation alone."

## Research Questions

- Is low self-control in adolescence associated with an increased likelihood of incarceration?
- Does the relationship between low self-control in adolescence and incarceration rates vary across different levels of socioeconomic status, that is, do structural inequalities amplify the effects proposed by the General Theory of Crime?

## Results

### Univariate

- 22.4% of respondents have been incarcerated

### Bivariate

- A Chi-Square test of independence indicated a **significant association** between racial group and incarceration probability ( $\chi^2(4) = 107.92, p < 0.001$ ).
- Analysis showed that incarceration probability **is significantly larger** for **Native Americans** and **Black** respondents. Conversely, the analysis showcases a lower incarceration probability for **Asian** and **White** respondents (Fig. 1)

Figure 1. Incarceration Status by Racial Groups

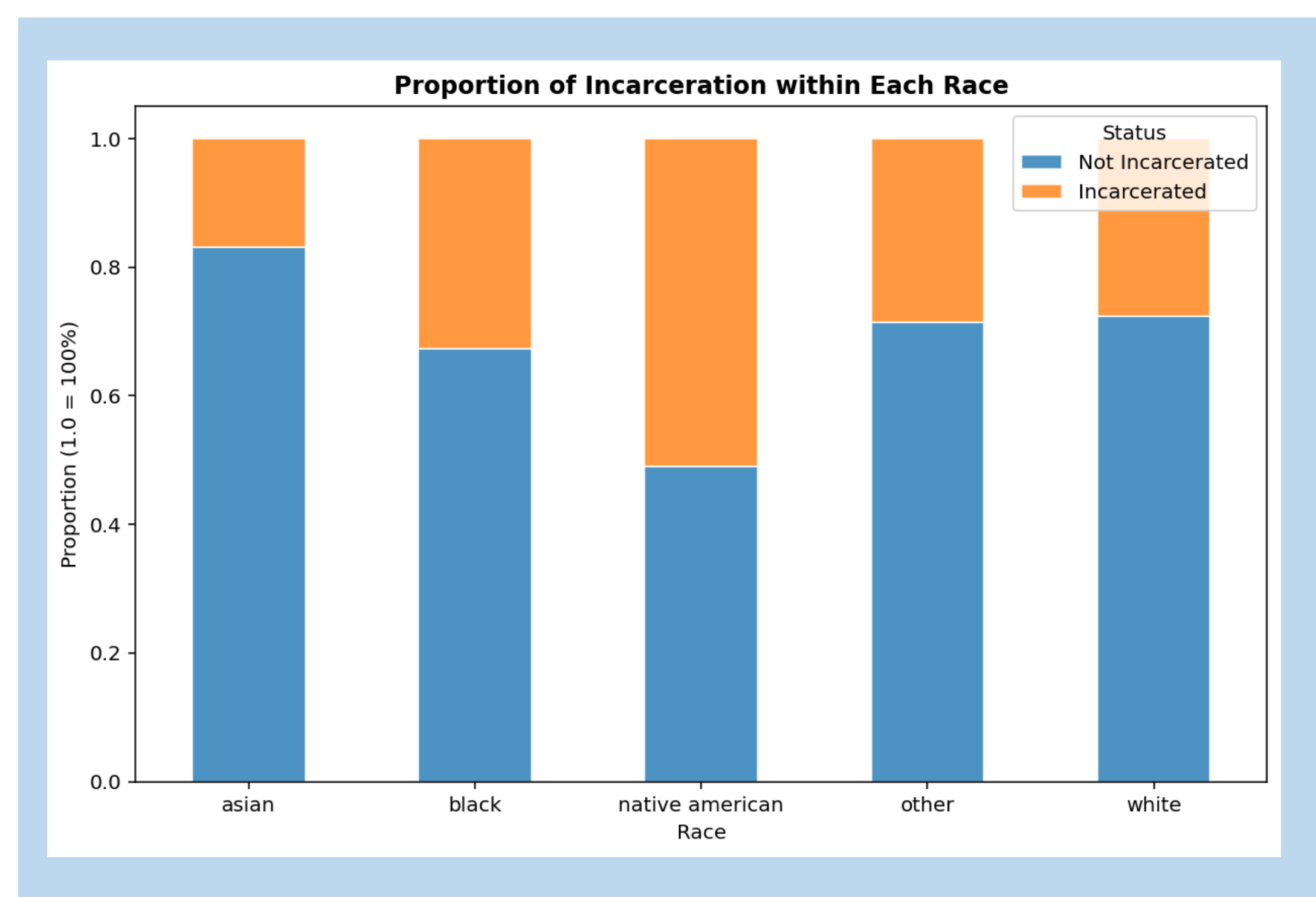
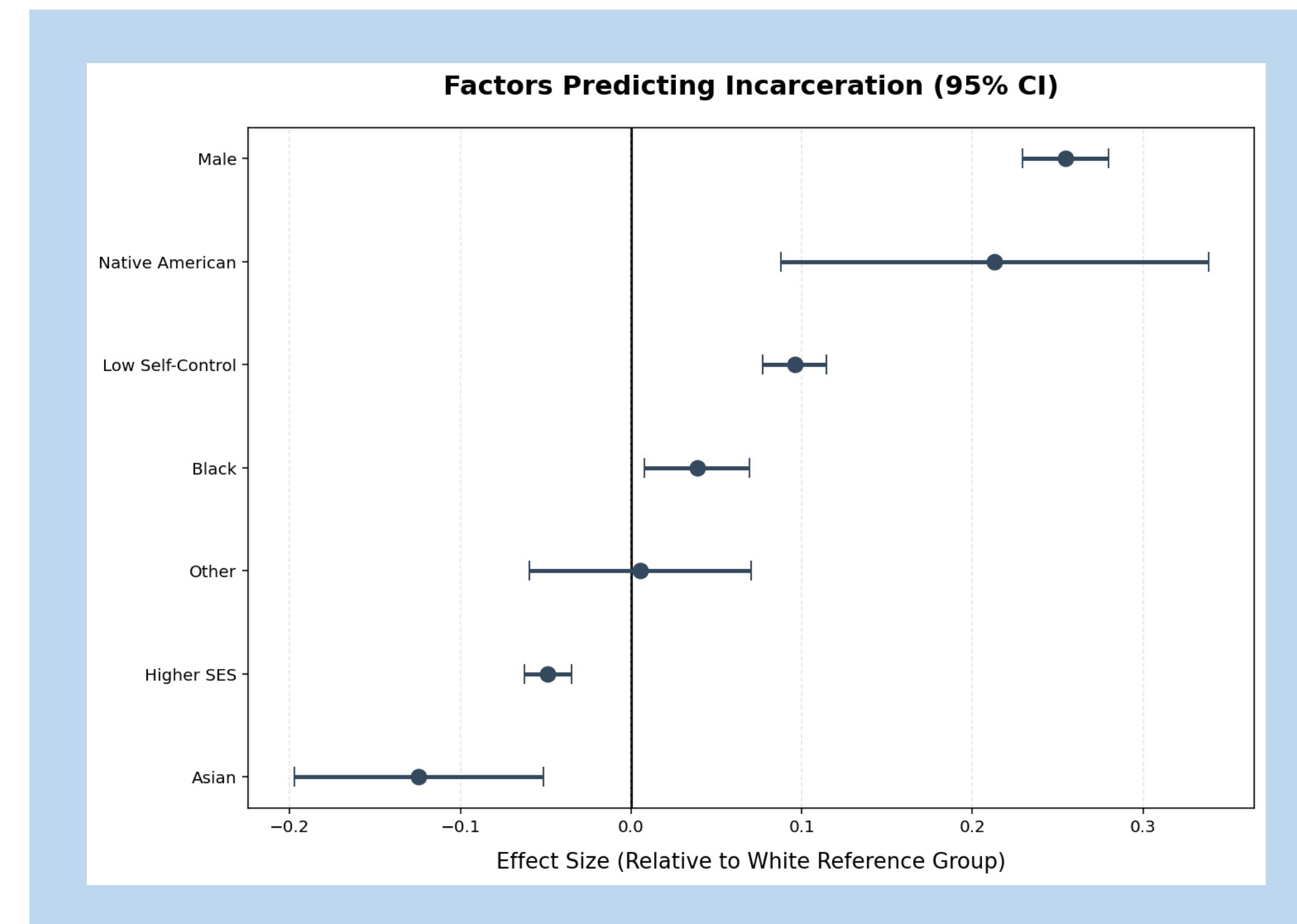


Figure 2. Estimated Effect Sizes of Demographic and Behavioral Factors on Incarceration



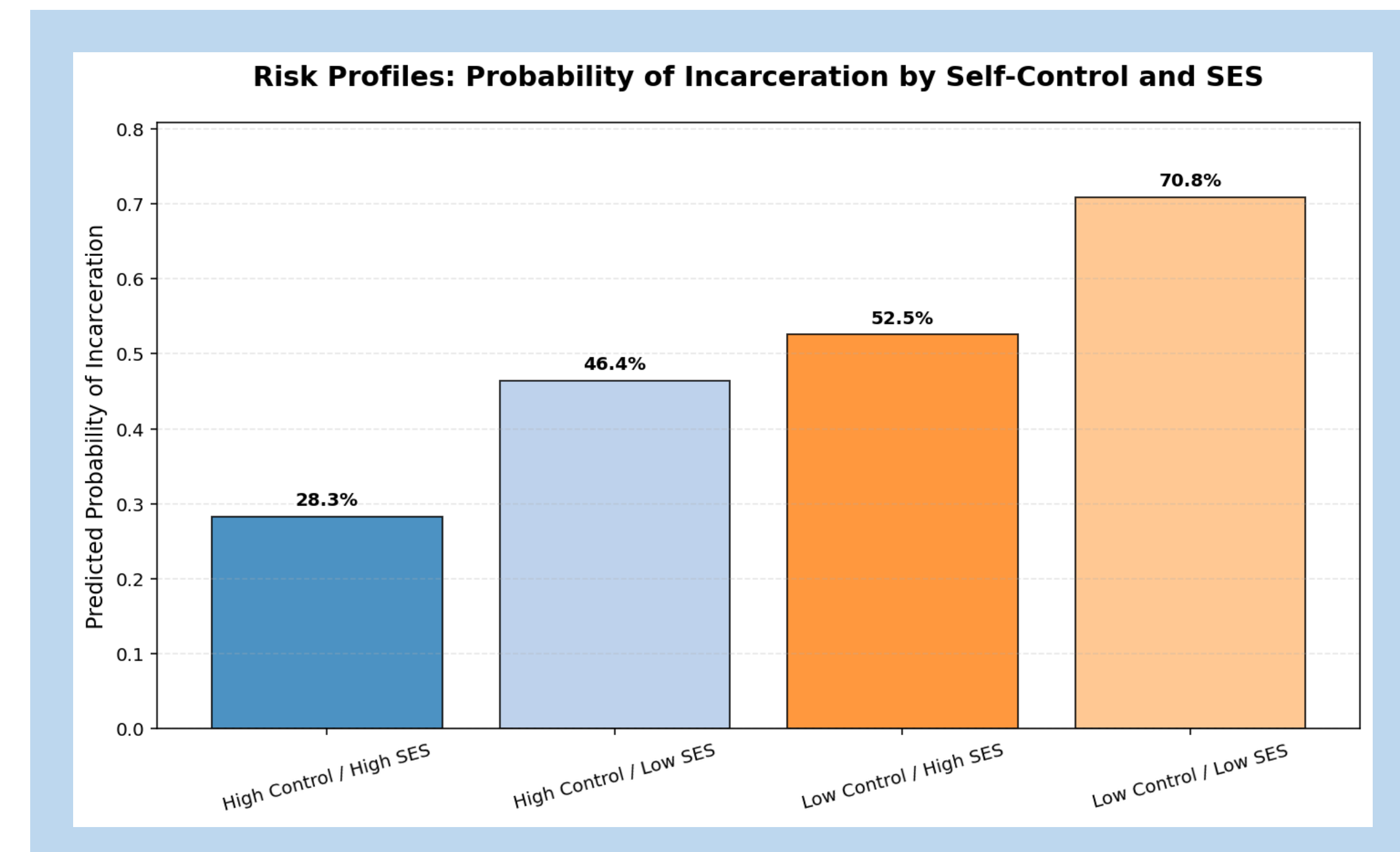
### Multivariate

- A logistic regression model was used to estimate effect sizes while controlling for **race, sex, socioeconomic status, and self-control** simultaneously.
- **Male status** is the strongest predictor of incarceration risk, followed closely by **Native American identity** (Fig. 2).
- **Black** and **Native American** respondents face a significantly higher risk than the **White** reference group (Fig. 2).
- While **low self-control** is a significant risk factor, its effect is notably smaller than the impact of sex and particular racial identities, suggesting that systemic status often outweighs individual agency.

### Multivariate Continued

- After controlling for race and sex, logistic regression analyses revealed that incarceration risk is cumulative.
- While respondents with **high self-control** and **high SES** faced the lowest probability of incarceration (**28.3%**), those with both **low self-control** and **low SES** faced an elevated risk of **70.8%** (Fig. 3).
- The interaction between self-control and SES was **not statistically significant** ( $p = 0.317$ ), suggesting that these variables act independently
- When comparing individuals with high self-control, those in low-SES environments face a risk (**46.4%**), nearly double that of their high-SES counterparts (**28.3%**) (Fig. 3).

Figure 3. Cumulative Effects of Low Self-Control and Socioeconomic Status on Incarceration Risk



## Discussion

- High self-control serves as a "protective factor", allowing individuals to better navigate high-risk environments; however, this "buffer effect" is influenced by the surrounding social context.
- Demographic identities, specifically race and sex, carry more predictive impact than individual behavior traits, suggesting that the justice system focuses and responds to structural position rather than individual behavior alone.
- These findings highlight the necessity of balancing individual-level interventions with systemic policy shifts to create more effective criminal justice reform.

## References

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