



# The Relationship Between Drug Use and Income, Sex and Racial Background



Hunter Wright, Applied Data Analysis, Wesleyan University

## Introduction

- 38.2% of White young adults reported drug use in the last year, compared to African-American (30.6%) and Hispanic (27.5%). (NSDUH, 2003).
- Marijuana use disorders were more common in men than women (Compton, 2004) and Men are more likely to use nearly all types of illicit drugs
- Young Adults with the highest socio-economic status (SES) are the most prone to alcohol and drug use (Patrick, Wrightman, Shoeni and Schulenberg, 2012)

## Research Question

- Is there a significant relationship between SES and the likelihood of marijuana, cocaine, and heroin use dependency?
- Does the relationship between socio-economic status and substance use/dependency differ depending on race or gender?

## Methods

### Sample

- Respondents (n=39,507) were drawn from the NESARC study, a nationally representative sample of non-institutionalized adults in the U.S. This is a longitudinal study in which respondents were interviewed twice, 11 years apart.

### Measures

- Socio-economic status is estimated by the 'family income' variable which sorts respondents into 20 different categories conditional on family income.
- Race was estimated by collapsing responses to the 'ethnic background' variable. Africans and African Americans were categorized as 'Black', Europeans were categorized as 'White' and Latin Americans were categorized as 'Latino'.

## Results

### Multivariate

- Family Income has a positive relationship cannabis use (fig 1). The beta was 0.006 with the p value < 0.0001. Every increase in family income, there is roughly a 0.5% increase in probability of cannabis use. A similar relationship was observed for cocaine (Beta = 0.001, p value = 0.0003).
- As for race, Whites were more likely to use cannabis than Latinos and Blacks (Beta = 0.09, p value = <0.0001) and Blacks more likely than Latinos (Beta = 0.04, p value = <0.0001). Similarly, Whites were more likely to use cocaine (Beta = 0.02, P value <0.001) compared to Blacks and Latinos. However, Blacks were found to be more likely to use heroin (Beta = 0.003, p value <0.001) than Whites and Latinos. (figure 2)
- When it came to sex men were more likely to all drugs, starting with cannabis (Beta = 0.08, p value < 0.001). Followed by cocaine (Beta = 0.04, , p value < 0.001) and heroin (Beta = 0.003, , p value < 0.001).

Fig 1: Cannabis Use by Income

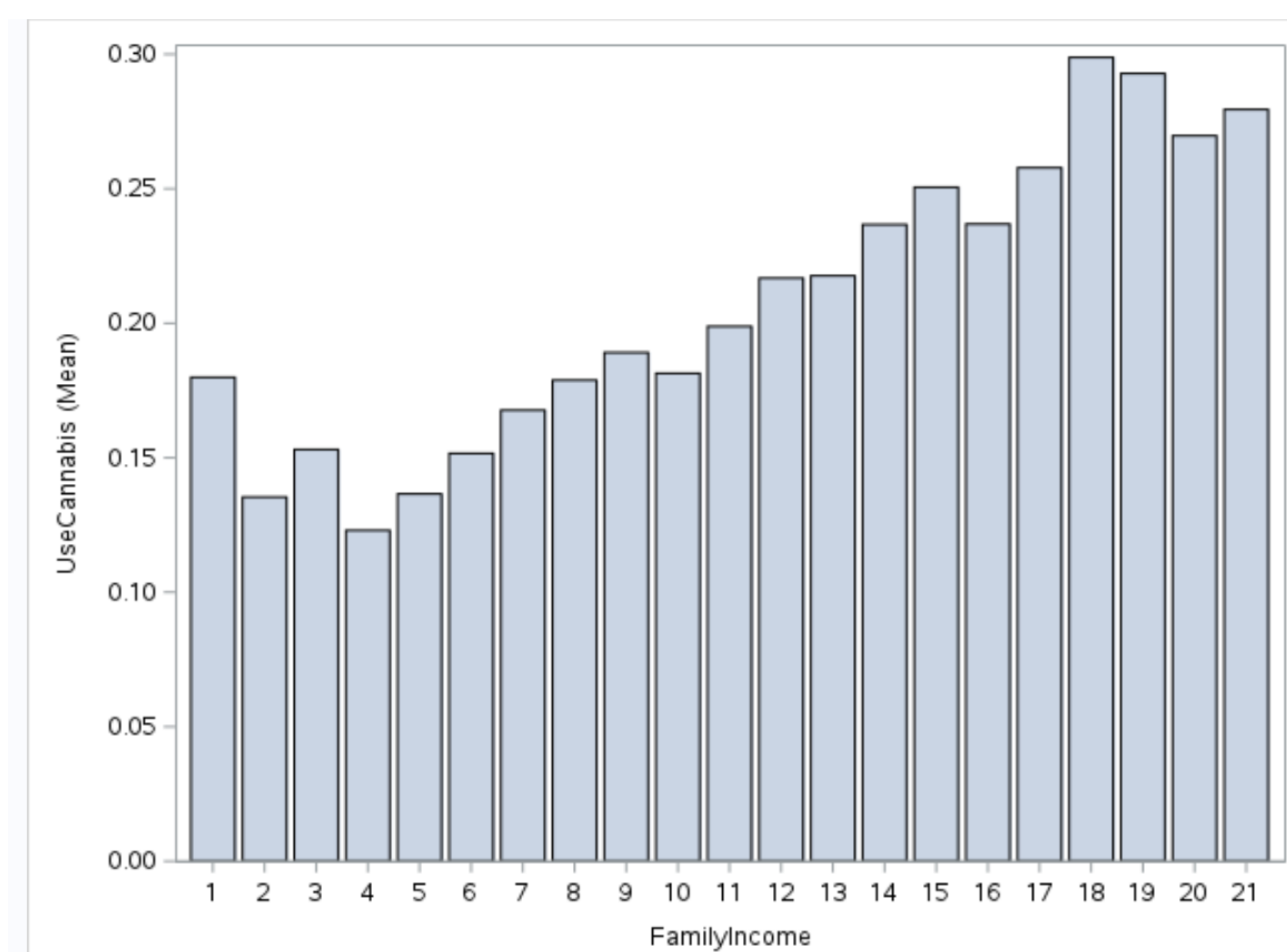
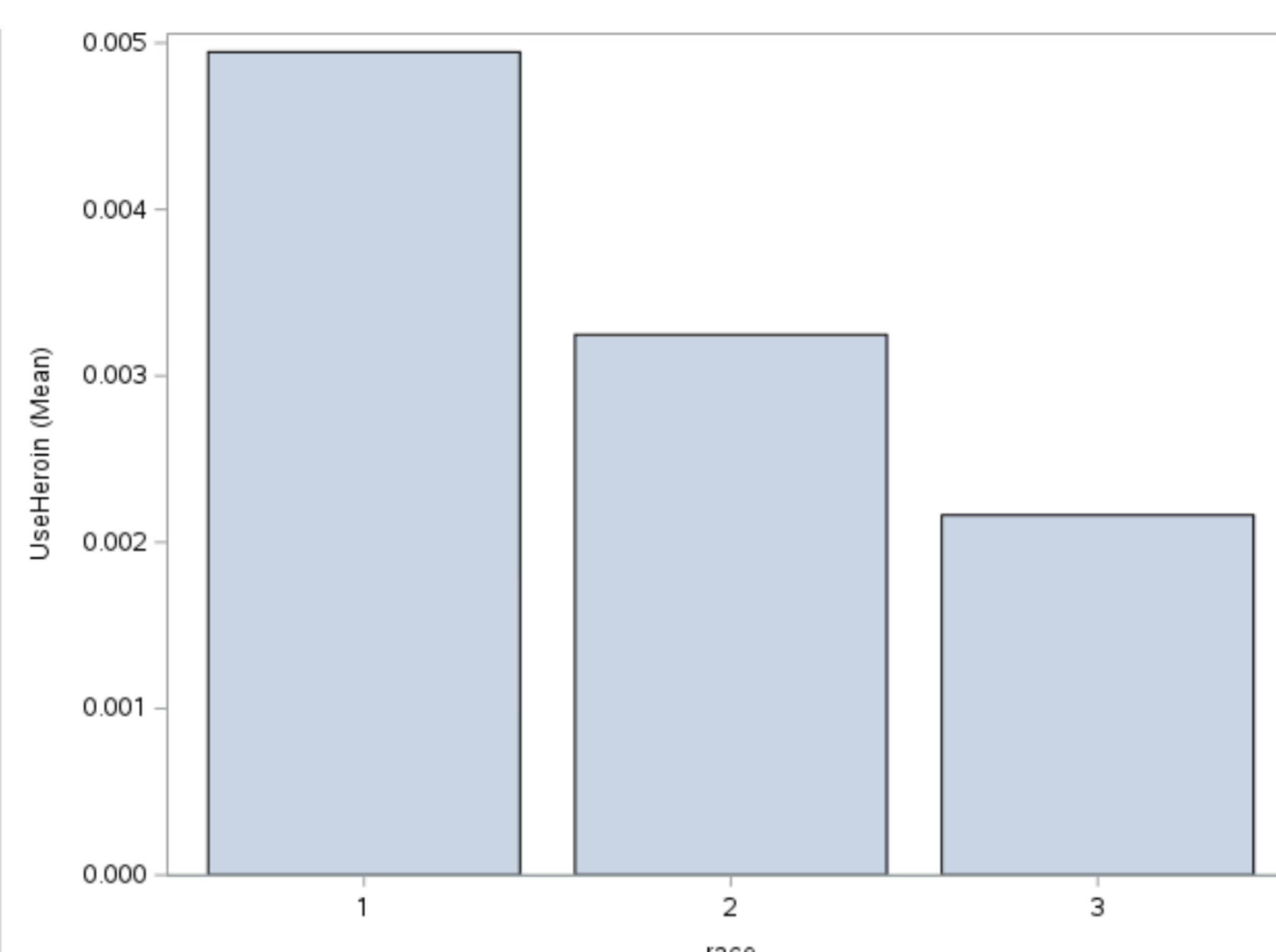


Fig 2: Race vs Heroin Use



## Discussion

- The results largely mirror the findings of the existing literature on the topic. Men were more likely to use all three drugs, but notably, 8% more likely to use cannabis.
- A surprising result with the racial analysis was that Blacks were about 0.3% more likely to use Heroin. This was not a result observed in the existing literature.
- The only notable relationship for income was with cannabis with a 0.5% increase in likelihood by income group. This reflects the findings of previous literature.

## References

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