

Black Women & Policing

By Lily Yao & Srinidhi Muralidharan

Overview

- Readings
- Background on Data
- Data Analysis



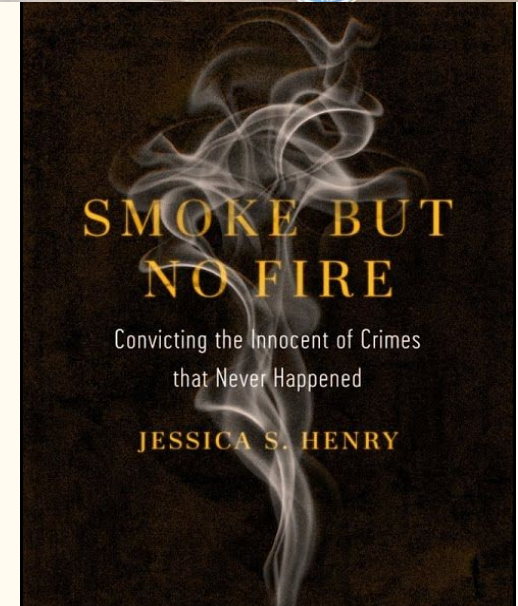
Readings

The Innocence Project

Smoke But No Fire by Jessica S. Henry

Reasons

- Police Misconduct
- Forensic Errors
- Witness Misidentification
- False Confessions





**Kwame
Ajamu**



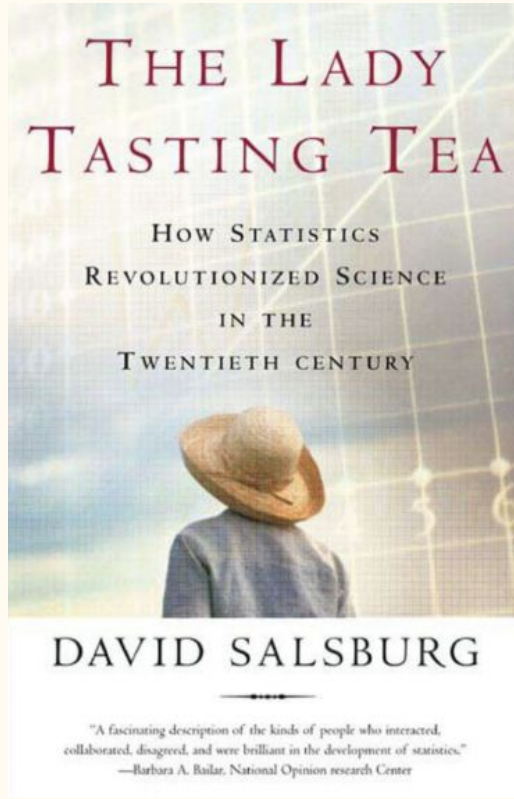
Sabrina Butler



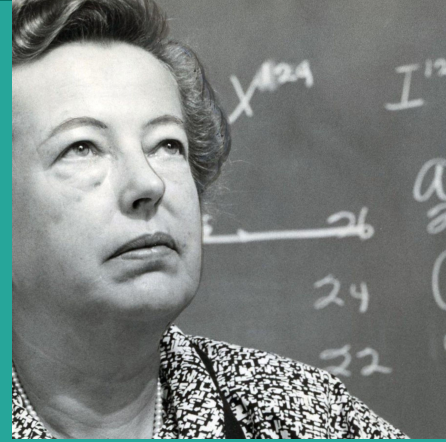
**Randal
Padgett**

Women in Statistics

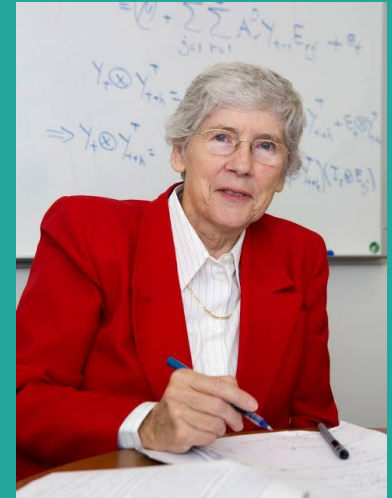
The Lady Tasting Tea by David Salsburg



Florence Nightingale



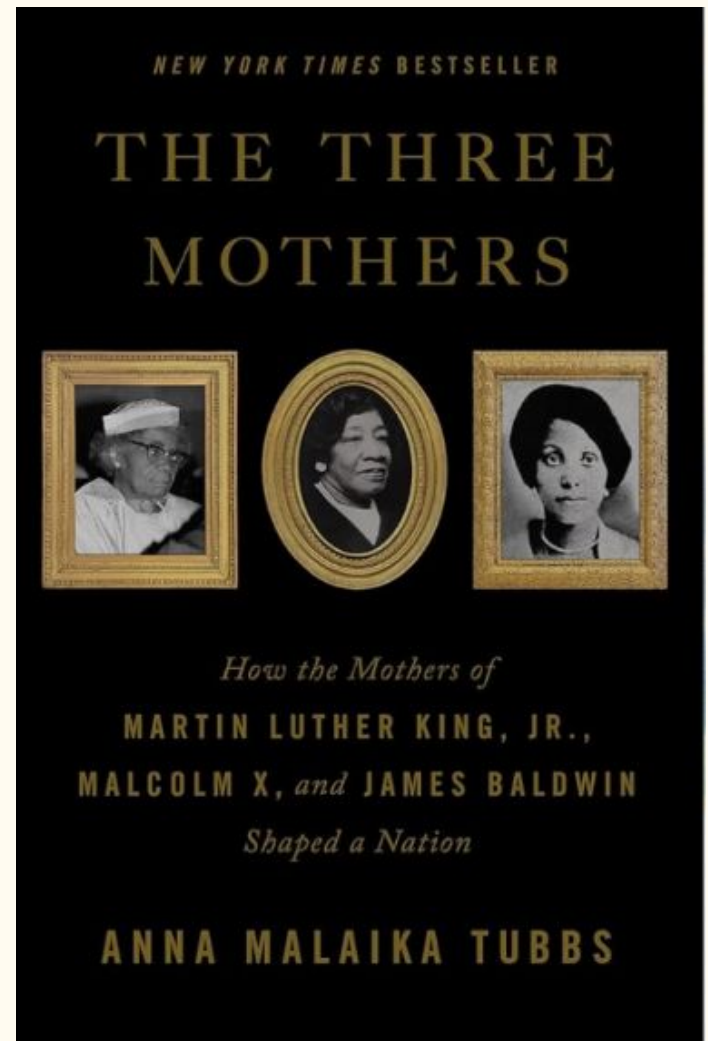
Maria Goeppert Mayer



FN David

The Three Mothers

- **11 times** more partner violence
- More likely to **not** report domestic violence
- Imprisoned at **twice** the rate



Dataset & Background

In Her Place Survey Data



- Survey Details
- Authors
- Columns



Yasmin Irizarry



Shannon Malone Gonzalez

Methods & Challenges

1. Exploratory Data Analysis

- a. Data Restrictions: 1532/1698 columns are restricted
- b. Sampling Bias

2. Data Cleaning and Manipulation using the Pandas library

- a. Dropped the rows with NA, negative, and invalid values.

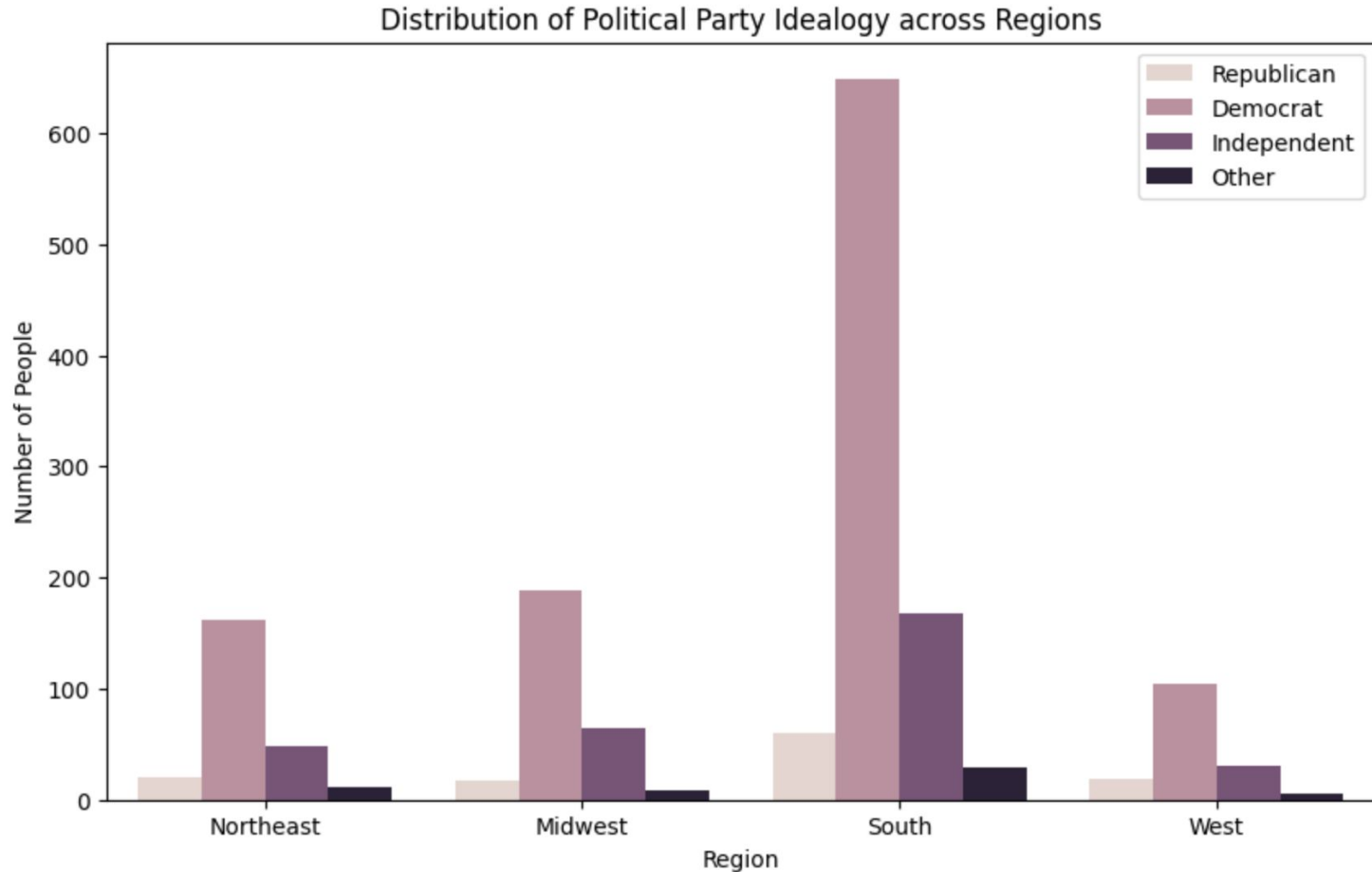
3. Data Visualization using the Seaborn library

- a. Categorical Data: Bar graphs
- b. Trend analysis: Simple linear regression

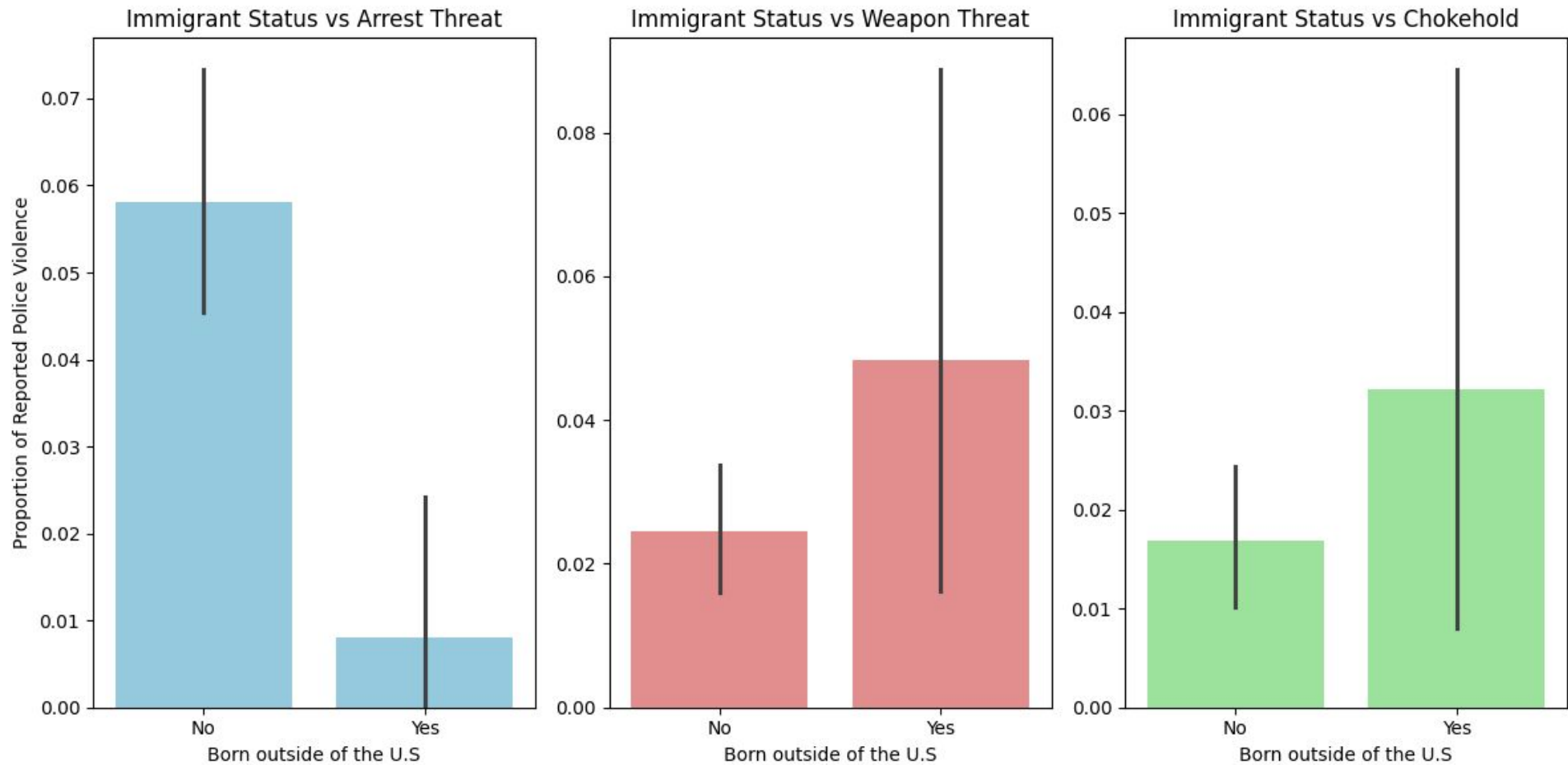
Data Visualizations

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How does the region of US compare with the Political Ideology of Black Women?



How does police interaction differ between immigrant statuses?



Simple Linear Regression

$$\hat{y} = b_0 + b_1 X_1$$

The diagram illustrates the components of the Simple Linear Regression equation $\hat{y} = b_0 + b_1 X_1$. Each term in the equation is underlined and connected by a vertical line to its corresponding label below. The labels are: 'Dependent variable' for \hat{y} , 'y-intercept (constant)' for b_0 , 'Slope coefficient' for b_1 , and 'Independent variable' for X_1 . The lines are color-coded: a purple line for \hat{y} , a blue line for b_0 , an orange line for b_1 , and a grey line for X_1 .

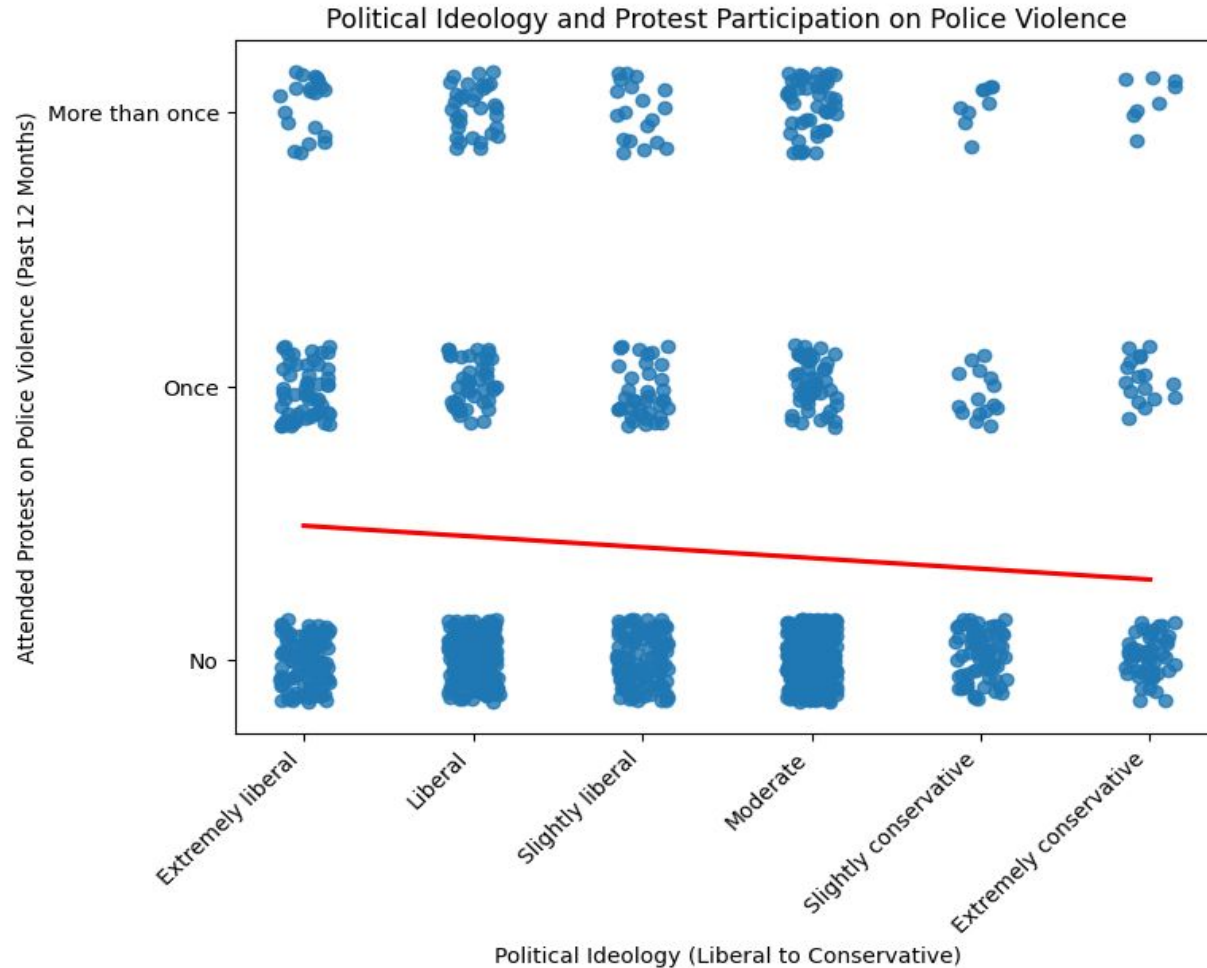
Dependent variable

y-intercept (constant)

Slope coefficient

Independent variable

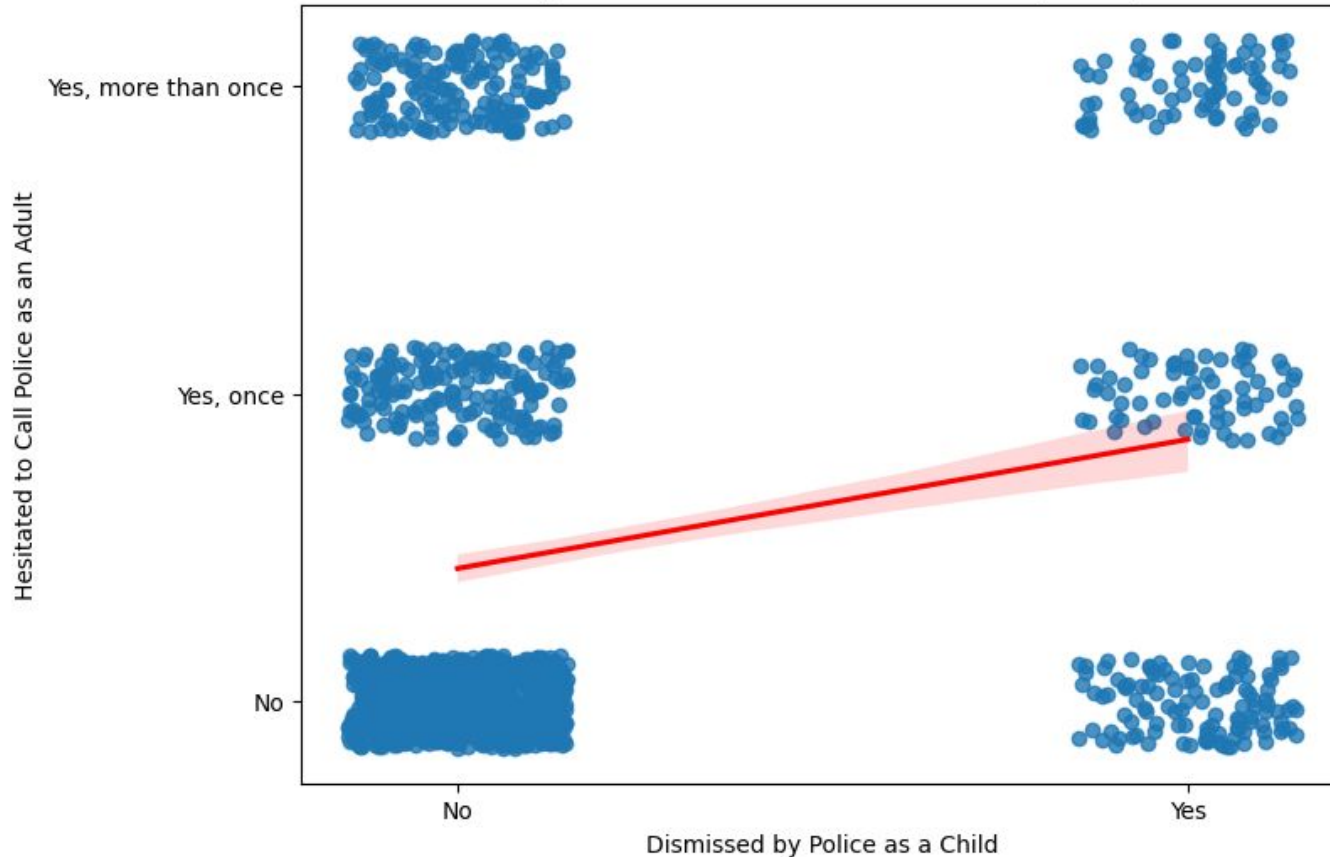
Do political views correlate with attending a police violence protest in the past year?



Intercept: 0.5096975332074305
Coefficient: -0.039639634422109896
R-squared: 0.00695641531725355

Does being ignored by police when reporting an issue as a child impact willingness to seek police help in adulthood?

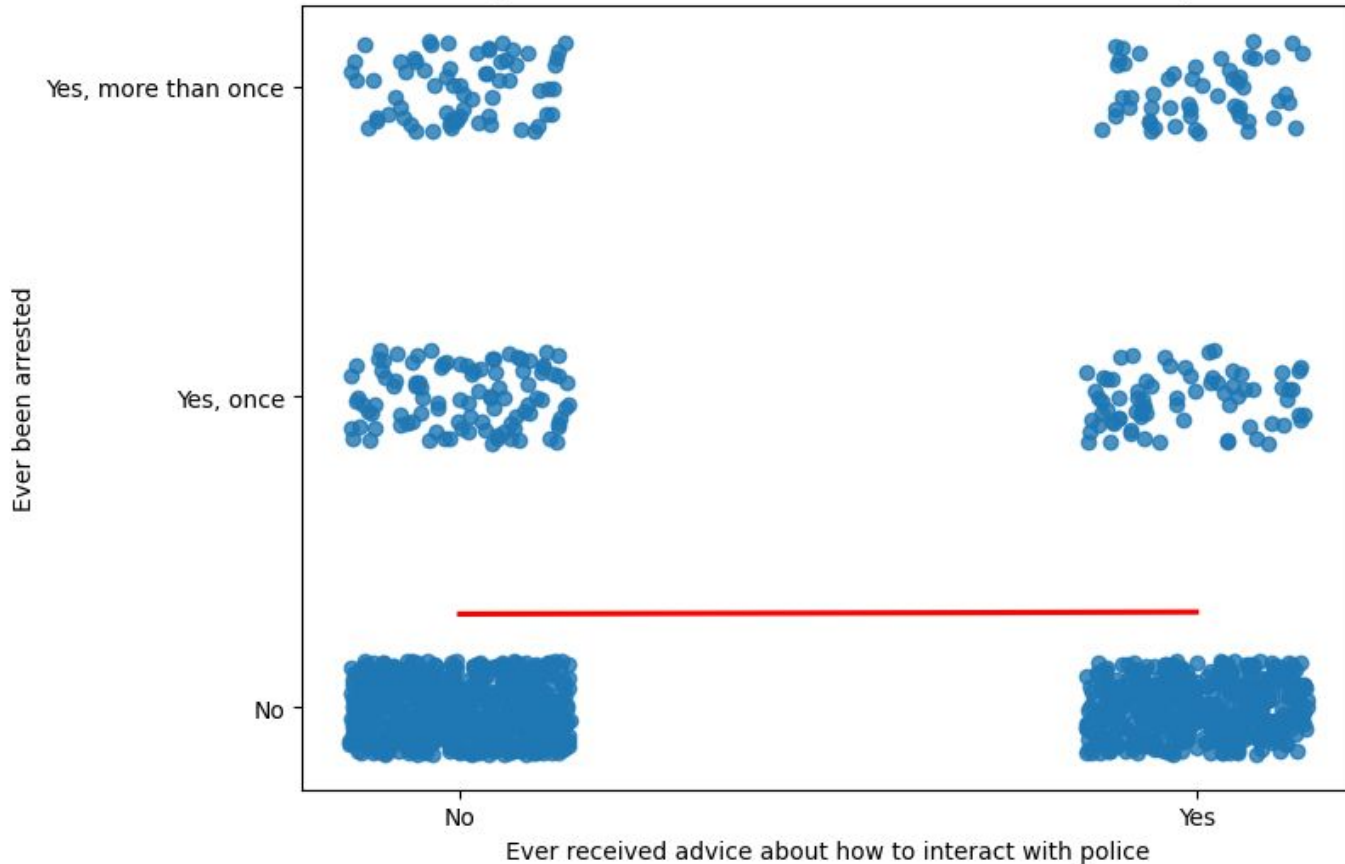
Police Dismissal during childhood VS Hesitant to seek help from police in adulthood



Intercept: 0.4224598930481285
Coefficient: 0.4034660328777969
R-squared: 0.04001207732588763

Does experiencing a police talk at a young age impact arrest rates in adulthood?

Impact of Police Interaction Advice on Arrest History



Intercept: 0.3003851091142488
Coefficient: 0.006528887513070286
R-squared: 2.6984493695314526e-05

Work Cited

HENRY, JESSICA S. *Smoke but No Fire: Convicting the Innocent of Crimes That Never Happened*. UNIV OF CALIFORNIA PRESS, 2021.

Tubbs, A. M. (2021). *The three mothers: How the mothers of Martin Luther King, Jr., Malcolm X, and James Baldwin shaped a nation*. Flatiron Books.

Salsburg, D. (2001). *The lady tasting tea: How statistics revolutionized science in the twentieth century*. W. H. Freeman.

Malone Gonzalez, Shannon; Irizarry, Yasmiyn, 2024, "In Her Place Survey on Black Women and Policing", <https://doi.org/10.7910/DVN/UXTOVN>, Harvard Dataverse, V1

Thank you!

