Predicting Nonvoters and Third-Party Voters in the 2020 Presidential Election

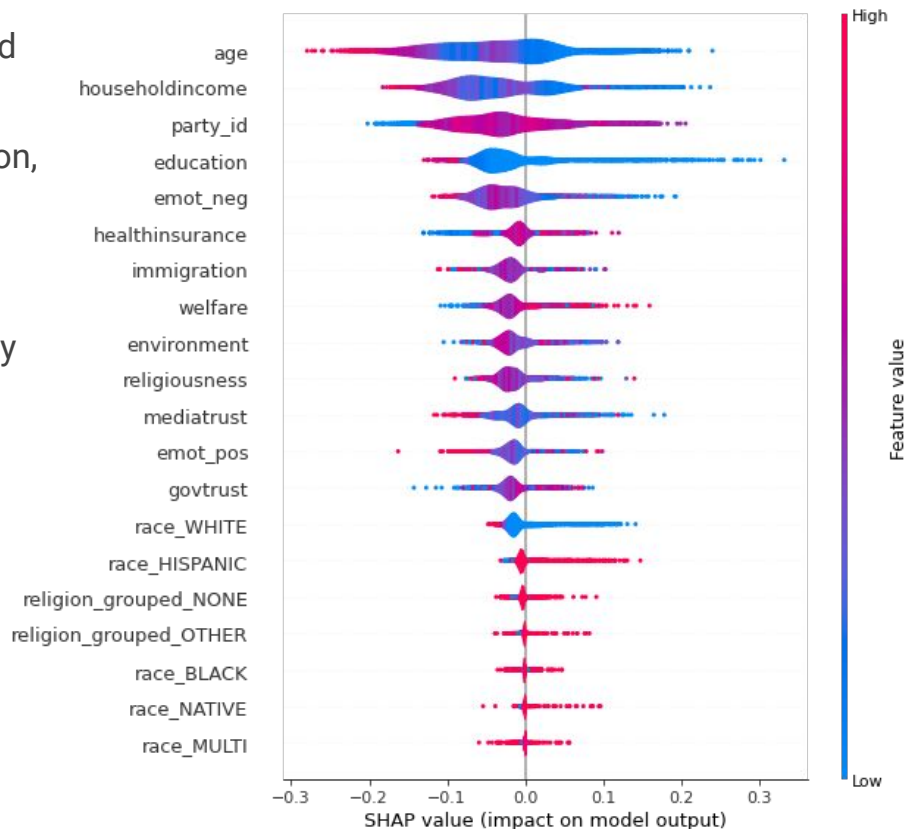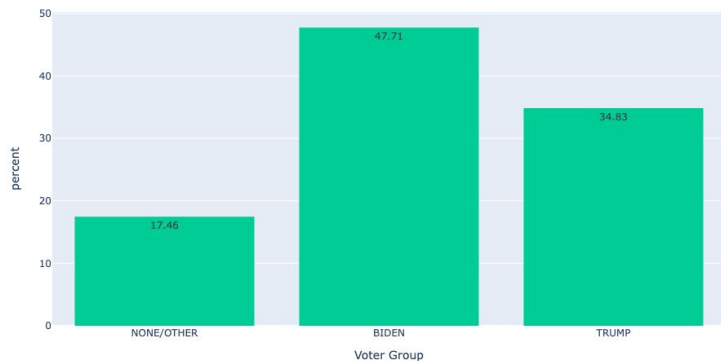Record High Turnout in 2020 General Election

Data

- **ANES 2020 Time Series Study** (Aug - Dec 2020)
- **8,280** pre-election and **7,449** post-election interviews
- **Method:** interviews conducted by web, phone, and video
- **Target population:** Eligible U.S. voters
- **Survey content:** Questions about demographics, opinions on various issues, candidate choice
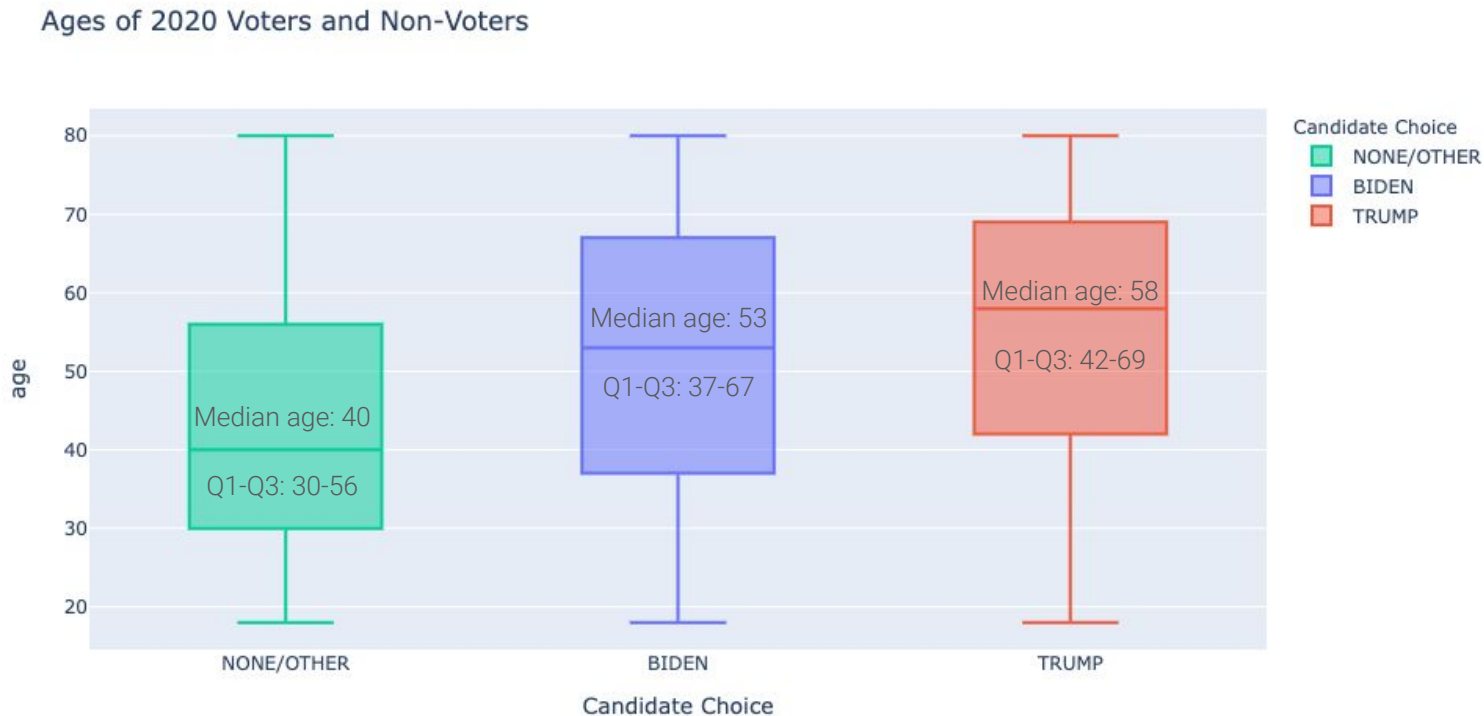
Random Forest Classification

- **Binary classification** to predict whether a survey respondent voted for Biden/Trump or None/Other (3rd party candidate)

- **Models tried:** KNN, Decision Trees, Logistic Regression, XGBoost

- **5,755 data points** after dropping missing values

- **Random oversampling** (2x) to increase target minority class (nonvoters/other voters)

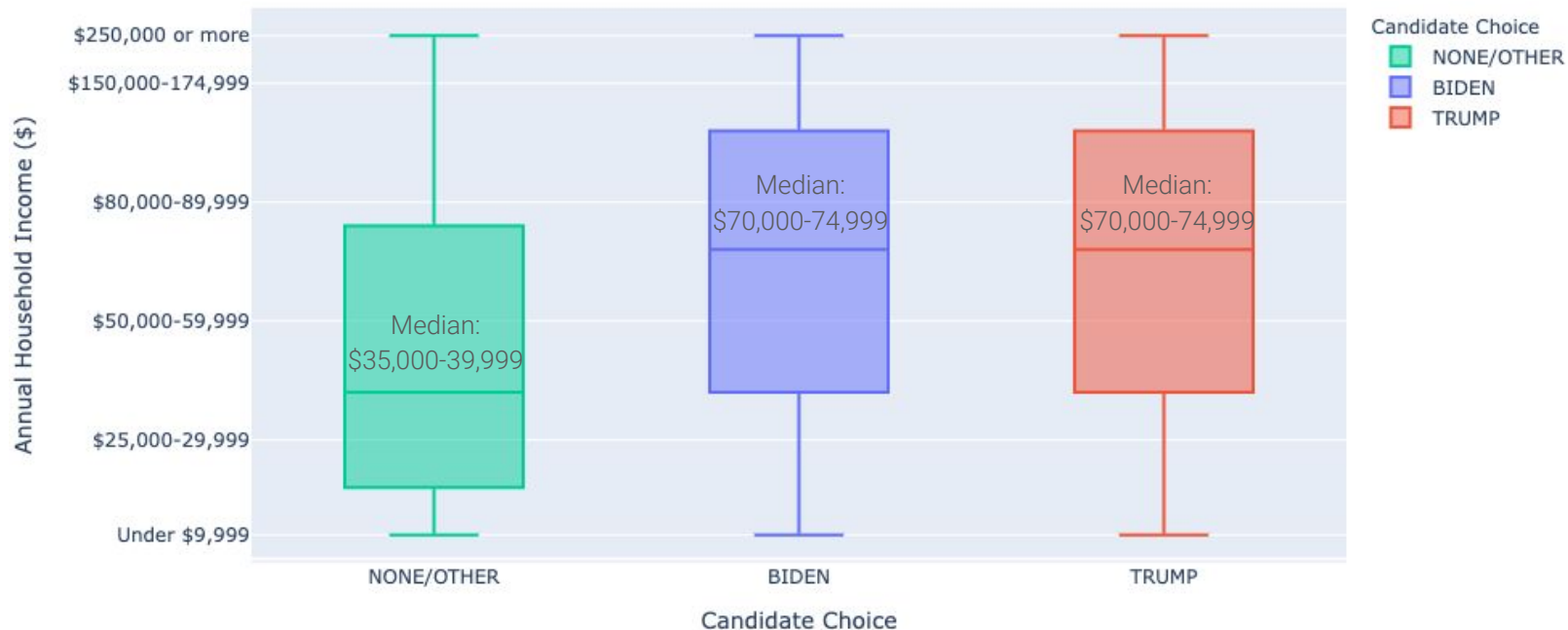- Test Data Accuracy Score: **0.87**

Results: Age

None/Other voters are significantly younger than Trump/Biden Voters

Results: Household Income

None/Other voters have much lower household incomes than Trump/Biden Voters (across age groups)

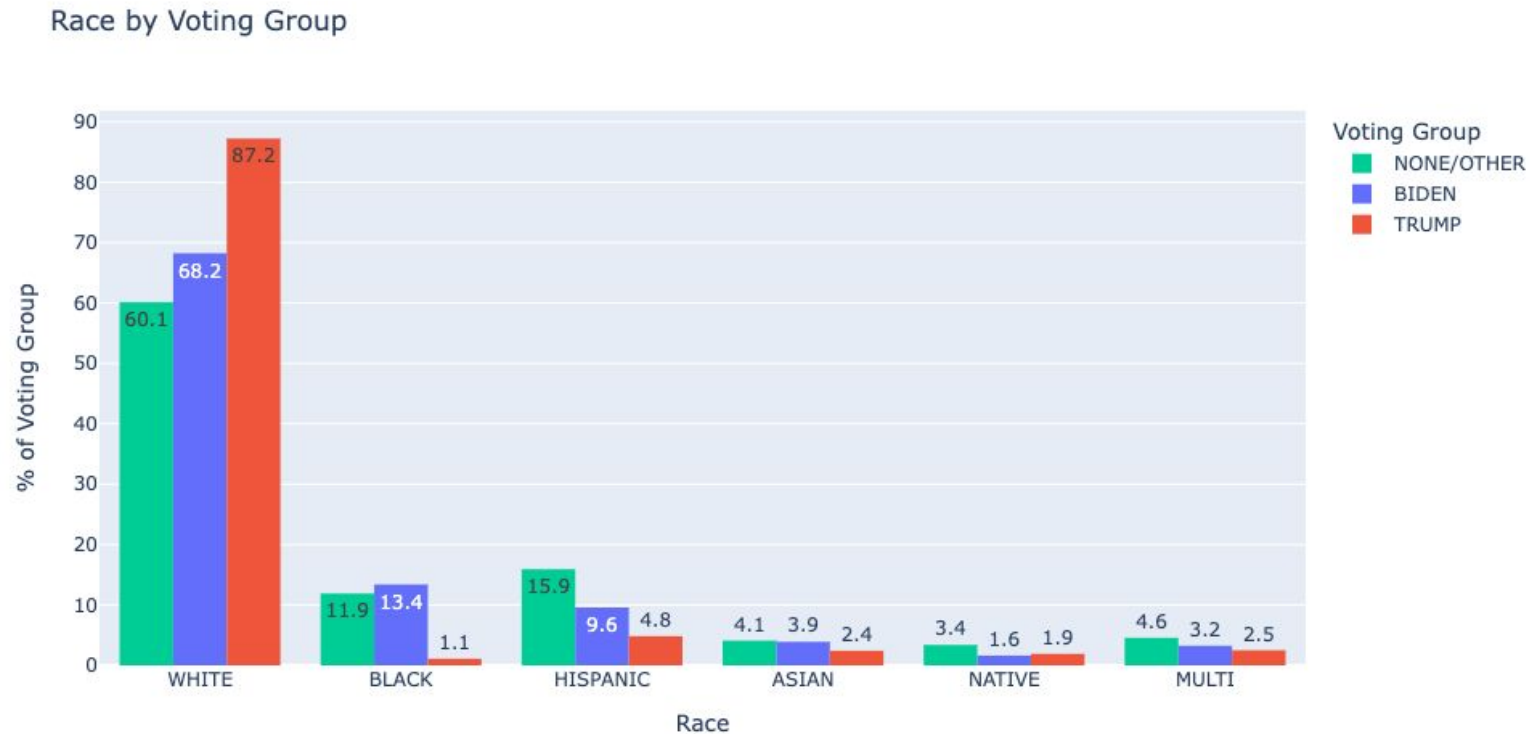## Annual Household Income of 2020 Voters and Nonvoters

Results: Education
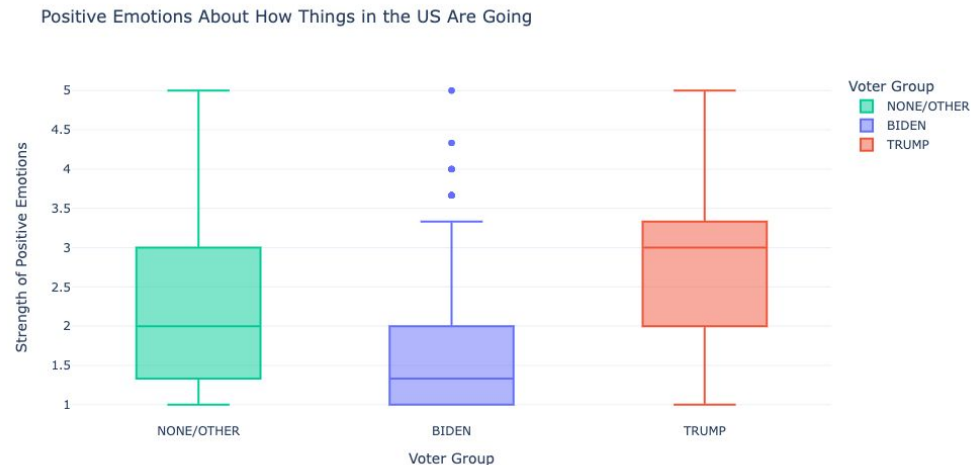
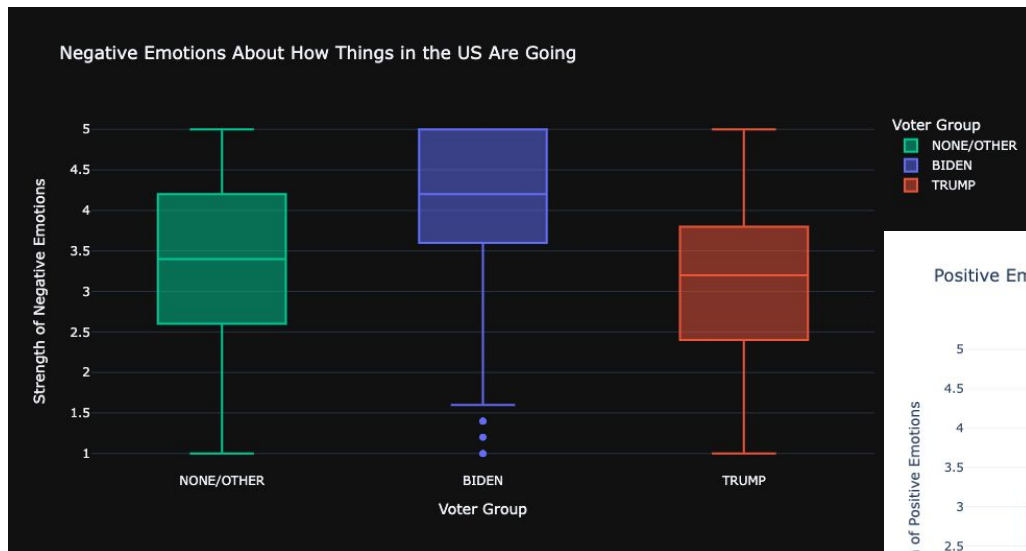None/Other voters have achieved lower levels of education

Education Level by Candidate Choice

Results: Race

None/Other voters less likely to be white than Biden/Trump voters

Race by Voting Group

Results: Emotions

Relative to Biden/Trump voters, None/Other voters less likely to report strong positive or negative emotions about how they feel things are going
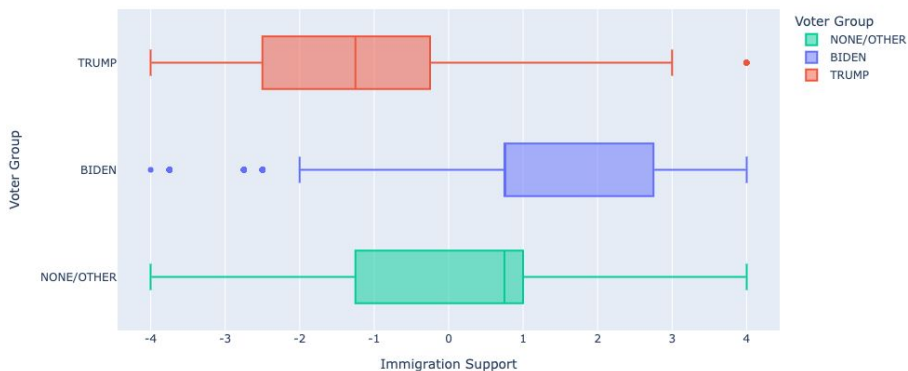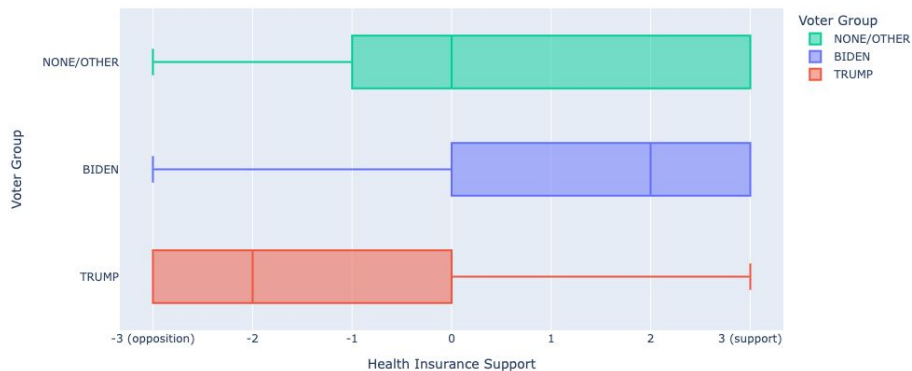
Results: Issues

None/Other voters overlap with Biden voters on some issues (like government-provided welfare and health insurance)
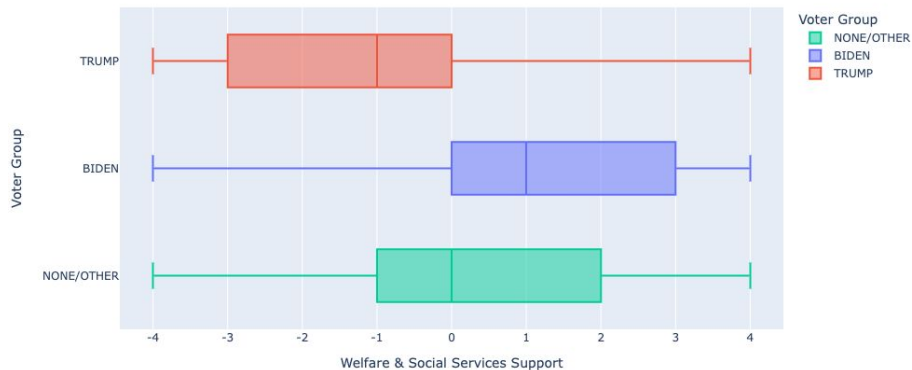
Mixed opinions on others (immigration)

Support of Government-Provided Health Insurance

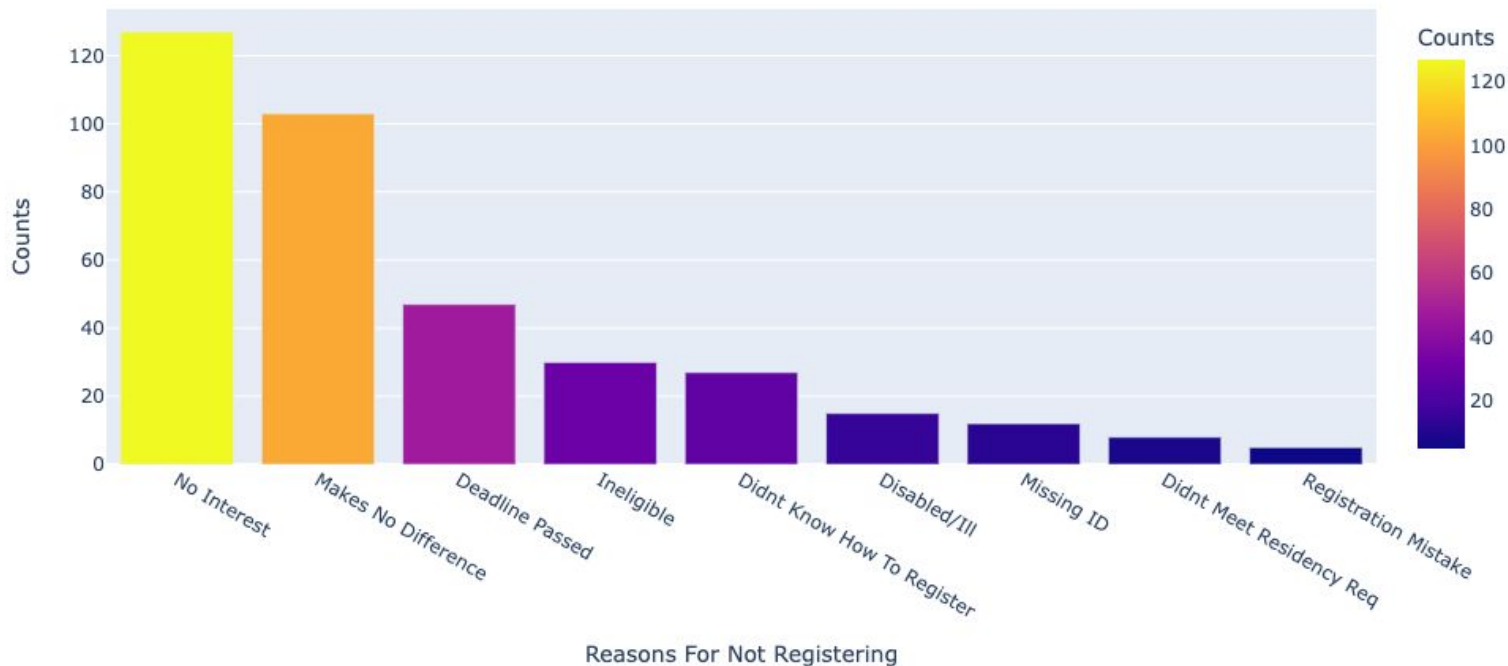

Support of Open Immigration Policies

Support of Welfare and Social Services

Results: Reasons for Not Registering to Vote

Many nonvoters said they were "not interested in the election" and mentioned their vote "would not make a difference"

Frequently-Mentioned Reasons for Not Registering to Vote

Conclusions

- Nonvoters more likely to be slightly younger, have lower incomes, and not have Bachelor's degrees

- Mixed/uncertain views on immigration, the environment, crime, abortion, LGBTQ rights; general support of government providing health insurance, welfare and social services

- Popular reasons for not voting: indifference and disillusionment

- Give people (especially working class and poor people) a reason to vote

- Improve voting access and ease of registration

- Make people feel like their vote matters

They're asking for their money, Joe

Future steps

- Try additional features; try looking specifically at non-voters (no third-party voters)

- Apply weights to certain features to make the data more representative of the target population (eligible U.S. voters)

- Compare 2016 and previous time series data—were there any changes?