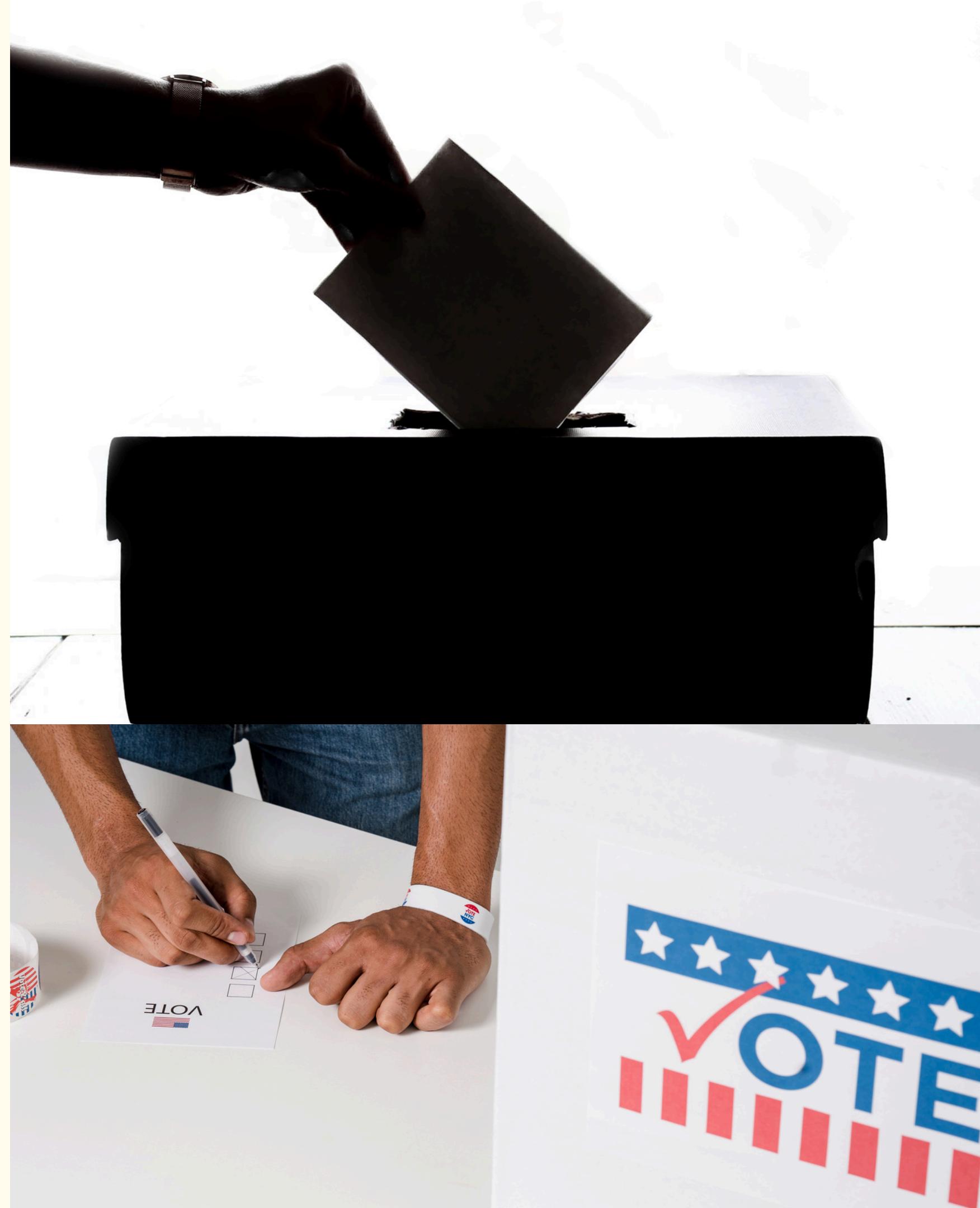


# U.S. Elections Analysis/ Modeling

## Overview and Recommendations



# Summary

**Analysis and predictive modeling  
of winning political party by  
Congressional district.**

- **Electoral Predictions**
- **Strongest Indicators of winning party**
- **Dynamics of each district & state**
- **Recommendations**



# Content

- Data Analysis
- Model Evaluation
- Results
- Recommendations
- Next Steps
- Contact



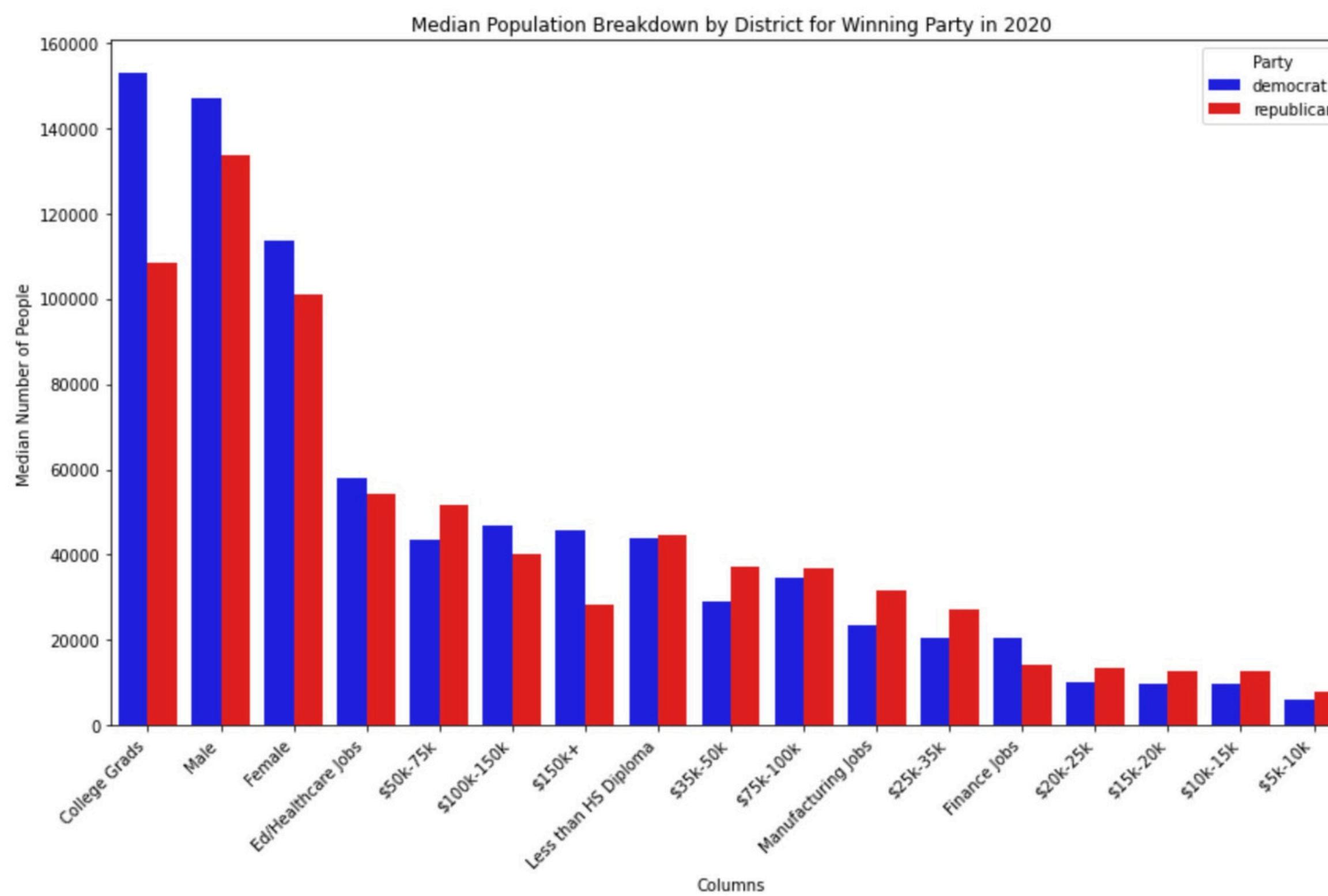
# Data & Methods

## Dataset:

- Winning party by district from 1952-2020
- 2020 Census information by district

	Year	district	d_percent	r_percent	other_percent	total_votes	Bachelors_degree_or_higher	winner	swing_district	r_total_votes	d_total_votes
0	2020	AK-00	42.77	52.83	4.40	359530.0	121098	republican	no	189939	153770
1	2020	AL-01	35.19	63.53	1.28	332777.0	96025	republican	no	211413	117104
2	2020	AL-02	34.62	64.16	1.22	307431.0	109032	republican	no	197247	106432
3	2020	AL-03	34.08	64.67	1.25	325631.0	77833	republican	no	210585	110975
4	2020	AL-04	17.87	80.96	1.17	321470.0	69353	republican	no	260262	57446

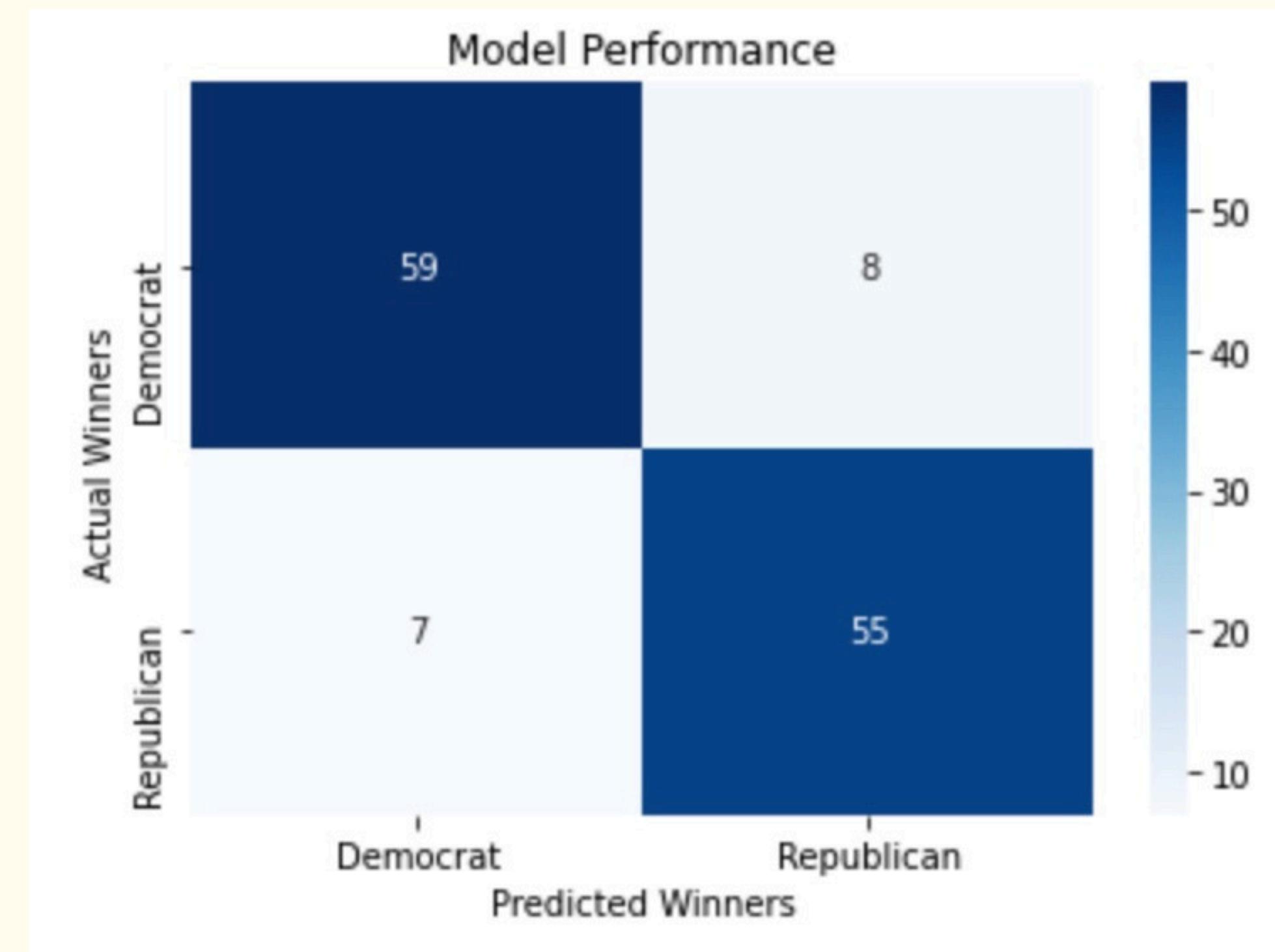
# Data & Methods



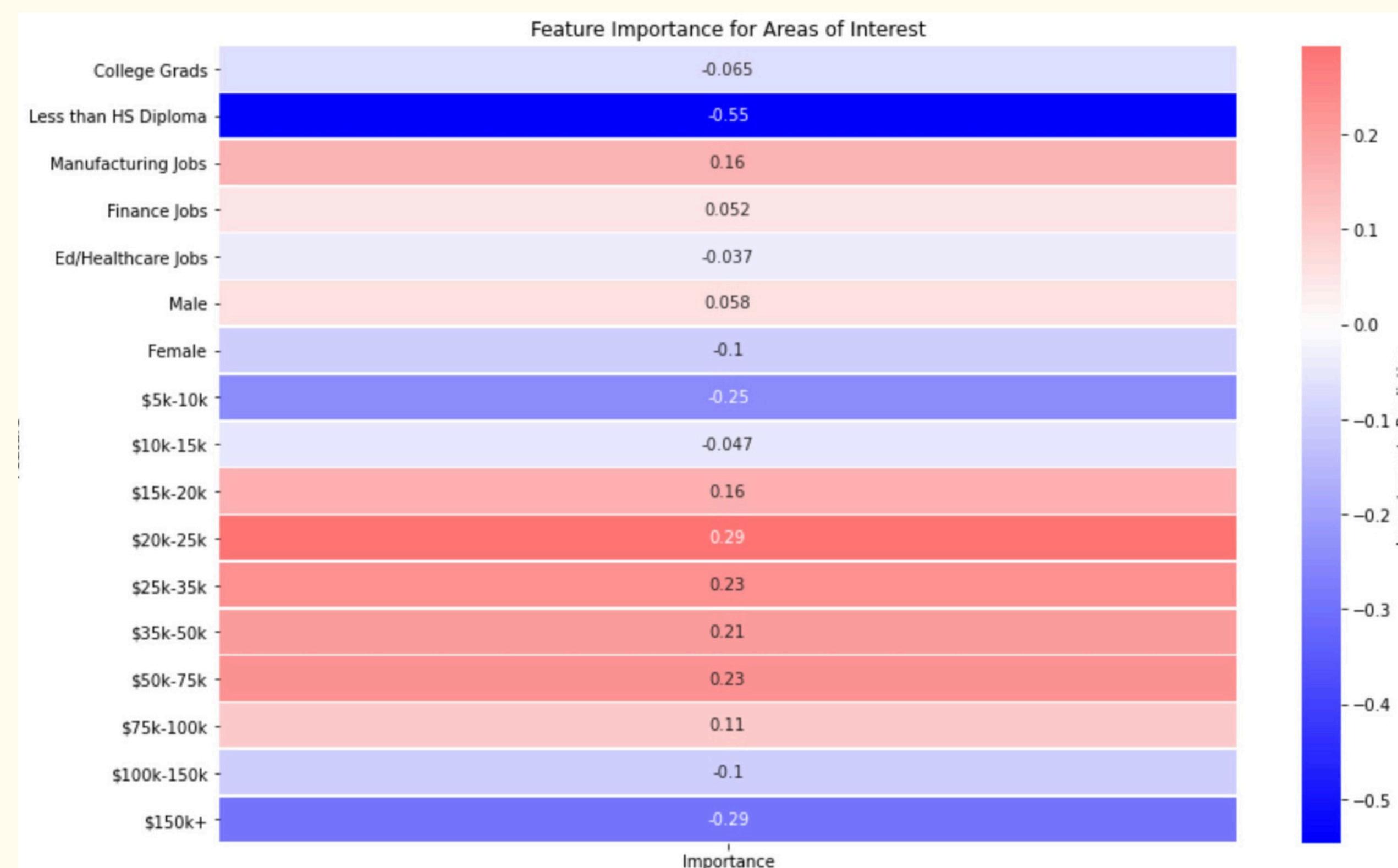
- Largely based on Democrat and Republican parties
- D: College Grads
- R: Manufacturing

# Model Performance

- High Success Rate Predicting Republican (88% Recall Score)
- High Success Rate on Predicting Democrat too (88% Precision Score)



# Results



- **Less than High School Diploma strongest Democratic Feature**
- **\$20k-25k income strongest Republican Feature**
- **Manufacturing: Republican**
- **Education/Healthcare: Democrat**

# Recommendations

Sharpen  
economic  
message.

Sharpen  
industrial  
labor  
message.

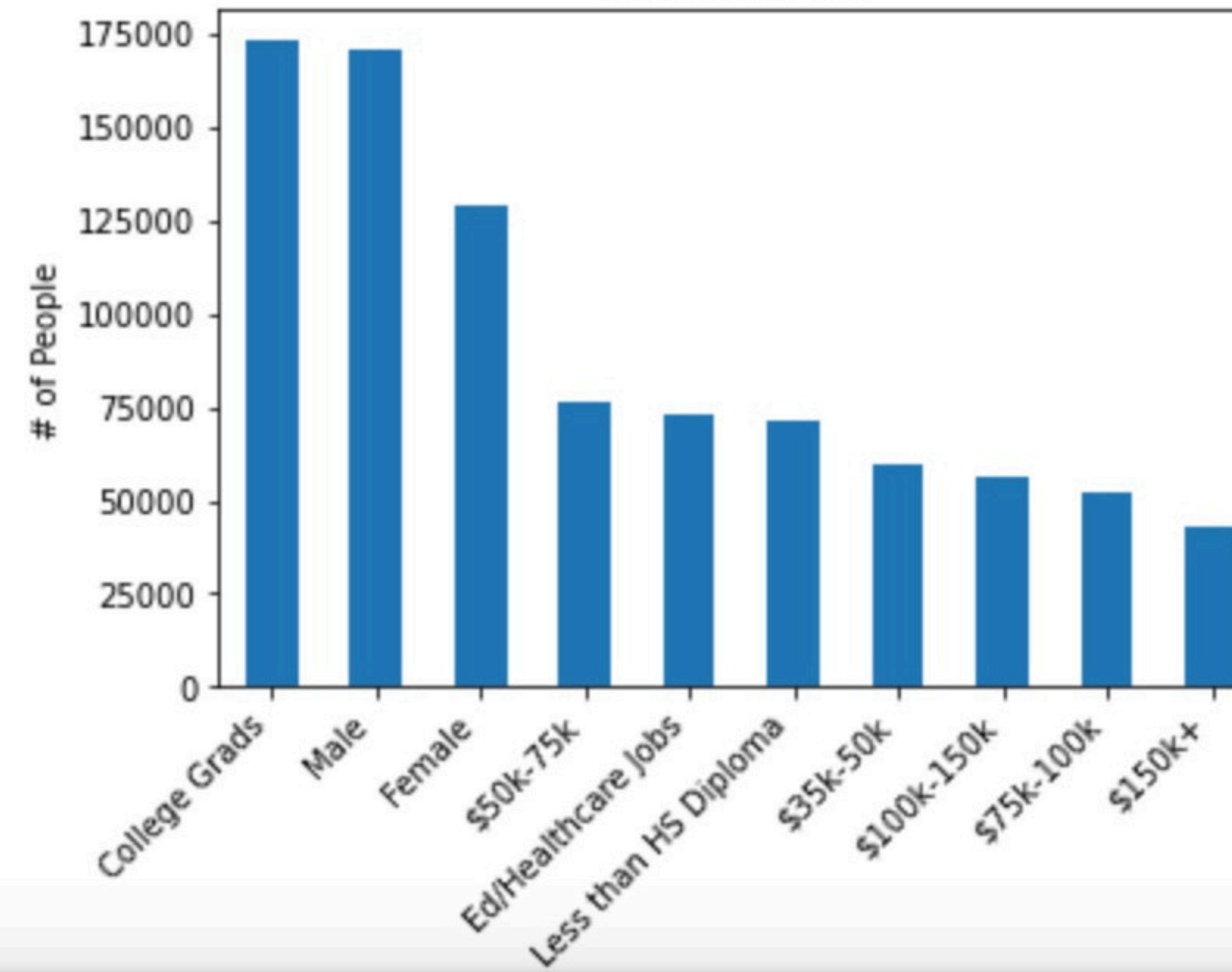
Appeal to  
Education  
& Healthcare

# Recommendations

Targeted campaign based on strongest features.

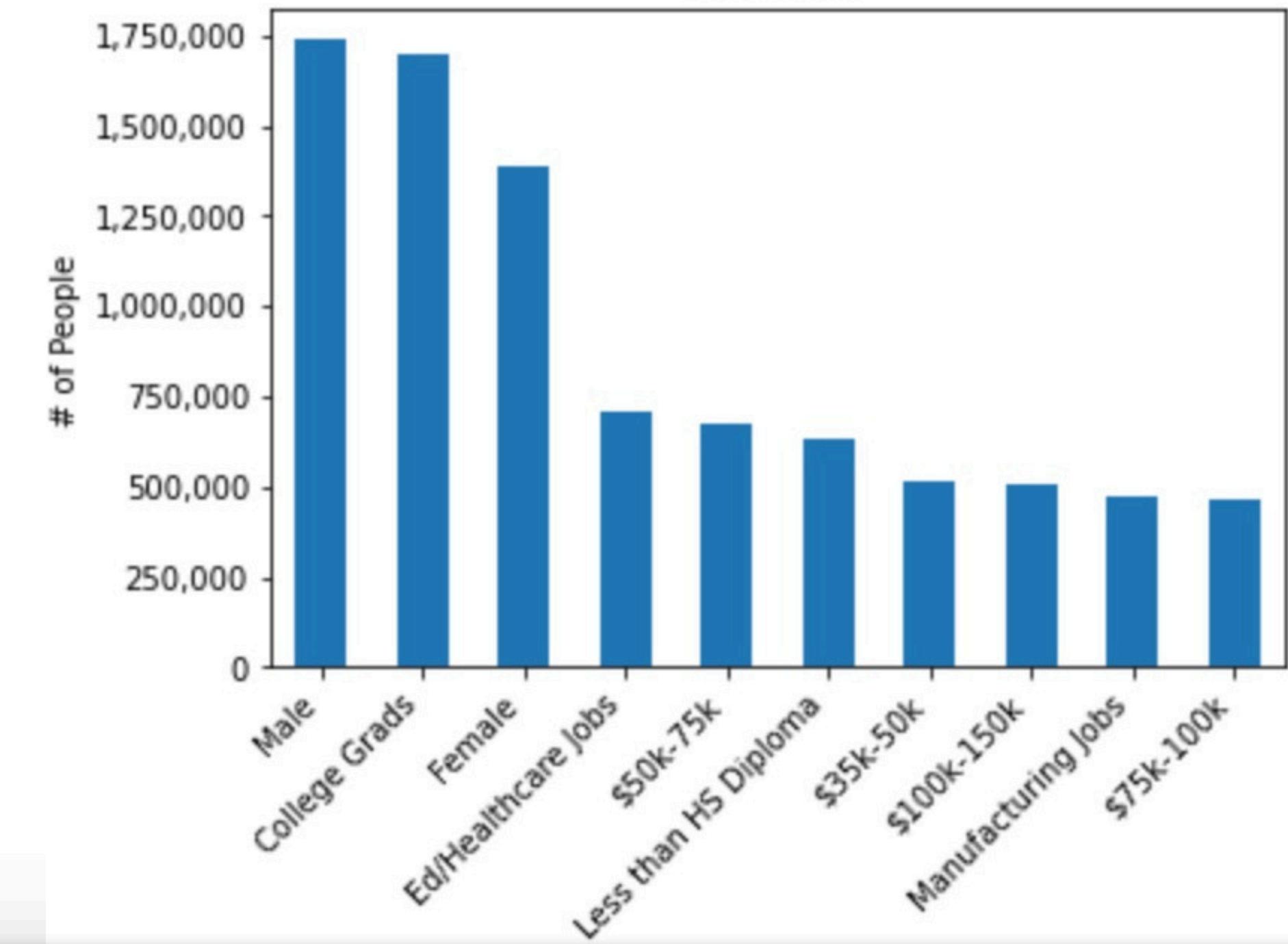
AZ-6: ~18k difference in 2020

District: AZ-06



NC: ~74k difference in 2020

State: NC



# Next Steps

- Find more data to improve the model's performance.
- Deeper analysis of the Census data to investigate surprising trends.
- Gather Census data from election years prior to 2020.

# Thank you!

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