

Projecting Voter Turnout in Midterm Elections

Presented by **David White**

General Assembly Data Science

June 22, 2022

01 The Lingo

First, let's make sure we're all speaking the same language

Registered Voters

People who are legally eligible to vote and have enrolled with their local election board.

Turnout Percentage

The turnout percentage is the percentage of registered voters who actually cast a ballot in a given election.

GOTV

GOTV is an acronym that stands for “get out the vote”. It refers to the final weeks of a political campaign where the main focus is on increasing the turnout percentage.

02 The Situation

Here's the problem that needs to be solved

**In 2018, in the state of Georgia,
there were 6,428,581 registered voters
for the general election.**

The turnout percentage was 61.4%.

**How could we have
predicted this result?**

The Traditional Method

Predicted turnout =

(election 1 + election 2 + election 3)

3

Can we use **machine learning** to make a better prediction?

03 The Data

Here's the data we collected and what it means

demographic data



Election Returns

via Georgia Secretary of State

- **number of registered voters**
- **number of ballots cast**
- **each row is a precinct**

Demographic Data

via US Census Bureau (ACS)

- **age, race, gender, education**
- **household income**
- **available transportation**

Characterizations

via domain knowledge and experience

- **relative recency of the election**
- **up-ballot effects on turnout**

04 The Results

Here's what we learned from the data we collected

The **traditional method** of prediction yielded a **RMSE of 24,079** voters per county.

The **machine learning method** of prediction yielded a **RMSE of 2,123** voters per county.

Based on these results, we can conclude the **machine learning method produces **more accurate** predictions of turnout.**

05 The Plan

Based on what we learned, here's what we should do next

Based on what we learned, I recommend using the **machine learning method to **predict turnout in the 2022** election.**

I recommend that we use these predictions to **allocate our resources accordingly.**

Tier 1 GOTV Plan

projected high turnout precincts

Recommendation:
use **peer-to-peer texting** to recruit
volunteers from this group

Tier 2 GOTV Plan

projected medium turnout precincts

Recommendation:
use **pledge-to-vote postcards** to
help voters solidify commitment

Tier 3 GOTV Plan

projected low turnout precincts

Recommendation:

use **door-to-door canvassing** to

increase awareness and motivation

Questions?

Thank You!

David White

david@msmdesign.nyc

msmdesign.nyc