Final Presentation

Seattle Needles
Friday, December 4th

Presentation Roadmap

- Introduction to Problem
- Approach
- Results
- Conclusions
- Limitations and Further Steps

Presentation Roadmap

- **Introduction to Problem**
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To what extent can social media predict the 2020 presidential election?

Our Motivation

Why do we care about answering this question?

- Learn how democracy works in practice
- Results could affect how politicians conduct campaigns
- This is a long-standing problem in social media analysis

- We hope to combine state-of-the-art methods we read about in the literature
  - Demographic analyses
  - Electoral college based prediction
  - Sentiment analysis

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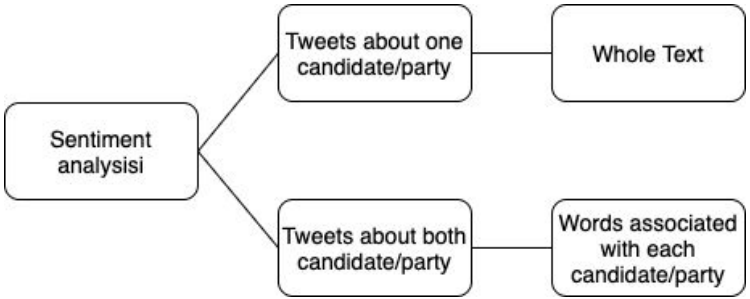
Twitter Data Collection

- **2016 Twitter data collection**:
- **Queries**: “trump” and “clinton” and “hillary”
- **Window**: August 6, 2016 to November 8, 2016
- **Locations**: All cities & states in the USA
- 67867 Tweets
- 40% Neutral, 29% Democrat, 26% Republican, 5% Unknown
- Breakdowns by race/ethnicity, gender, race/ethnicity x gender shown better on website

- **2020 Twitter data collection**:
- **Queries**: “trump” and “biden”
- **Window**: August 1, 2020 to November 3, 2020
- **Locations**: All cities & states in the USA
- 247,837 Tweets
- 28% Neutral, 36% Democrat, 34% Republican, 2% Unknown
- Breakdowns by race/ethnicity, gender, race/ethnicity x gender shown better on website

Sentiment Analysis

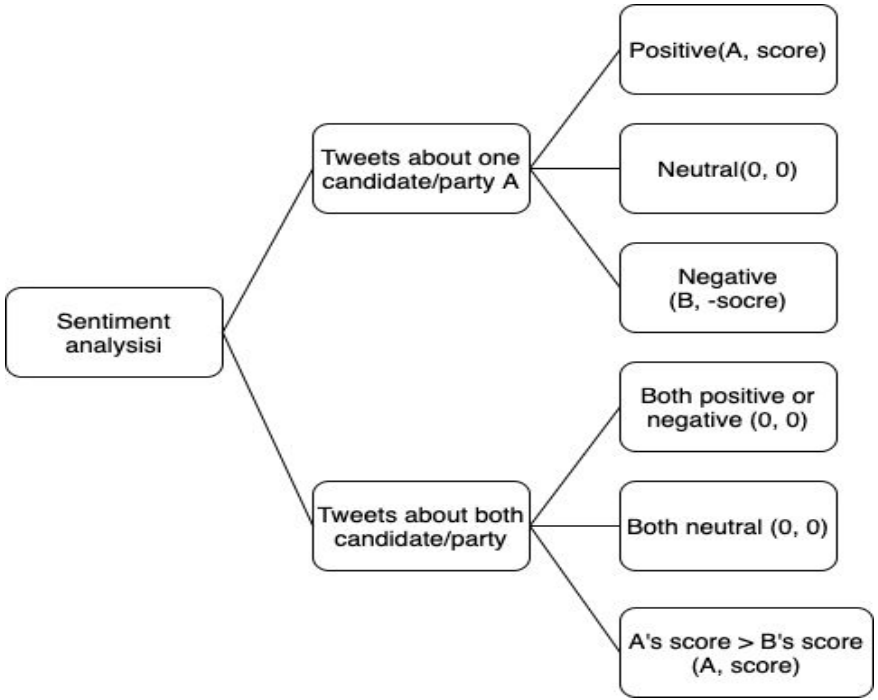
1. Political Analysis :
   a. The tweet targets at least one candidate or party; (Trump, #Trump)
   b. The tweet mentions at least one candidate or party; (@realDonaldTrump)
   c. The tweet has a candidate's proper name or party; (DT)
2. Pre Sentiment Analysis:



(Use nlp parser to extract the relevant words)

Sentiment Analysis

3. User Sentiment Analysis: *return* (political preference, preference score)



E.g.

```
1.
Donald Trump is the worst president of
USA, but Biden is better than him
-> (dem, 0.89)

Extracted words:
[
Donald Trump is the worst president,
Biden is better
]

2.
Donald Trump is the worst president of
USA, and Biden is also bad.
-> (0, 0)

Extracted words:
[
Donald Trump is the worst president,
Biden is also bad
]
```

User Profiling

- After reviewing the literature, we decided to profile users by gender and race/ethnicity
  - Male or female
    - First name - US baby names from 1880 - 2010
  - White, Black, Asian/Pacific Islander, American Indian/Alaska Native (all non-Hispanic), Hispanic
    - Last name - 2010 US Census data

Bot Detection

- Botometer API (limited access)
- Run on 434 user accounts (responsible for 1000 tweets in our dataset)
- Only 11 of them are >80% likely to be bots
- Only 13 of them are >50% likely to be bots
- Meaning:
  - Less than 3% users are likely to be bots
  - Not likely to make an impact on our prediction result

Approach to Answer our Question

1. Collect Twitter data
    a. 2016 and 2020
2. Label users with gender, race/ethnicity
    a. 2016 and 2020
3. Label tweets with party preference
    a. 2016 and 2020
4. Examine state-specific predictions without any corrections
    a. 2016 and 2020
5. If predictions are off, use various corrections
    a. Correct 2020 users based on 2016 data
6. Determine best method for correcting prediction
    a. Is this feasible/reproducible?
    b. Which groups are we accurately predicting?

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Correction Approaches

We will discuss two correction approaches

1. Correcting with under/over sampling of key demographic groups (poor performance)
2. Correcting with political bias (decent performance)

Correcting Under/Over Sampling of Key Demographic Groups

- As you will see, our uncorrected prediction was not very good
- One possible explanation for a poor prediction is that certain demographic groups are not fairly represented in the Twitter sample
- We used national 2016 demographic data to weight each demographic group according to who voted in 2016

Removing Neutral Designation

- We used “neutral” for a user when a majority of their tweets had neutral or mixed sentiment
- 2016 tweets had a large amount of neutral users
- We removed neutral and instead labeled states with Democrat or Republican according to the next highest count

2016 Results

	state	uncorrected_	gender_corre	race_correct	race_gender_	true_vote
0	Alabama	D	D	D	D	R
1	Alaska	R	R	D	D	R
2	Arizona	D	D	R	R	R
3	Arkansas	D	D	D	D	R
4	California	D	D	D	R	D
5	Colorado	D	D	D	D	D
6	Connecticut	D	D	D	R	D
7	District of Columbia	D	D	D	D	D
8	Delaware	D	D	R	D	D
9	Florida	R	D	D	D	R
10	Georgia	D	D	D	D	R
11	Hawaii	R	R	D	R	D
12	Idaho	D	D	D	D	R
13	Illinois	D	D	D	D	D
14	Indiana	D	D	D	R	R
15	Iowa	D	D	D	D	R
16	Kansas	D	D	D	D	R
17	Kentucky	D	D	D	D	R
18	Louisiana	D	D	D	D	R
19	Maine	D	D	D	D	D
20	Maryland	D	D	R	R	D
21	Massachusetts	D	D	D	D	D
22	Michigan	D	D	D	D	R
23	Minnesota	D	D	D	D	D
24	Mississippi	D	D	R	R	R
25	Missouri	D	D	D	D	R
26	Montana	R	R	D	D	R
27	Nebraska	D	D	D	D	R
28	Nevada	R	D	R	R	D
29	New Hampshire	D	D	D	D	D
30	New Jersey	D	D	D	D	D
31	New Mexico	D	D	D	D	D
32	New York	D	D	D	D	D
33	North Carolina	R	R	R	R	R
34	North Dakota	D	D	D	D	R
35	Ohio	D	D	D	D	R
36	Oklahoma	D	D	D	D	R
37	Oregon	R	R	R	R	D
38	Pennsylvania	D	D	R	R	R
39	Rhode Island	D	D	D	D	D
40	South Carolina	D	D	D	D	R
41	South Dakota	R	D	D	D	R
42	Tennessee	D	D	D	D	R
43	Texas	R	D	R	R	R
44	Utah	D	D	D	D	R
45	Vermont	D	D	D	D	D
46	Virginia	R	D	D	R	D
47	Washington	R	D	D	D	D
48	West Virginia	R	R	R	R	R
49	Wisconsin	D	D	D	D	R
50	Wyoming	D	D	D	D	R
	Count Correct		23	23	23	23	50
	Rep Electoral Votes		138	37	121	208	304
	National Prediction	D	D	D	D	R

2020 Results

	state	uncorrected_	gender_corre	race_correct	race_gender	true_vote
0	Alabama	R	R	R	R	R
1	Alaska	D	D	R	R	R
2	Arizona	D	D	R	D	D
3	Arkansas	D	D	D	D	R
4	California	D	D	D	D	D
5	Colorado	D	D	R	D	D
6	Connecticut	D	D	R	D	D
7	District of Columbia	D	D	D	D	D
8	Delaware	D	D	D	D	D
9	Florida	D	D	D	D	R
10	Georgia	D	D	D	D	D
11	Hawaii	R	D	D	R	D
12	Idaho	D	R	R	R	R
13	Illinois	D	D	D	D	D
14	Indiana	D	D	D	D	R
15	Iowa	D	D	D	D	R
16	Kansas	D	D	D	D	R
17	Kentucky	D	D	R	R	R
18	Louisiana	D	D	D	D	R
19	Maine	D	D	D	D	D
20	Maryland	D	D	D	D	D
21	Massachusetts	D	D	D	D	D
22	Michigan	D	D	D	D	D
23	Minnesota	D	D	R	D	D
24	Mississippi	D	D	D	R	R
25	Missouri	D	D	D	D	R
26	Montana	D	R	D	D	R
27	Nebraska	R	D	D	D	R
28	Nevada	R	R	R	D	D
29	New Hampshire	R	R	R	R	D
30	New Jersey	D	D	D	D	D
31	New Mexico	D	D	D	R	D
32	New York	D	D	D	D	D
33	North Carolina	D	R	R	R	R
34	North Dakota	D	D	D	D	R
35	Ohio	D	D	D	R	R
36	Oklahoma	D	D	D	D	R
37	Oregon	D	D	D	D	D
38	Pennsylvania	D	D	D	D	D
39	Rhode Island	D	D	D	D	D
40	South Carolina	D	D	R	D	R
41	South Dakota	D	D	D	D	R
42	Tennessee	R	R	R	R	R
43	Texas	D	D	D	R	R
44	Utah	D	D	D	D	R
45	Vermont	D	D	D	D	D
46	Virginia	D	D	D	D	D
47	Washington	D	D	D	D	D
48	West Virginia	R	R	R	R	R
49	Wisconsin	D	D	R	R	D
50	Wyoming	D	D	D	R	R
	Count Correct	27	30	27	33	50
	Dem Electoral Votes	494	481	417	395	306
	National Prediction	D	D	D	D	D

Swing States vs. Non-swing States

Do our 2020 predictions differ in accuracy for each state type?

- **Swing states:** Wisconsin, Pennsylvania, Arizona, Georgia, Florida, Michigan, North Carolina, Ohio, Indiana, Iowa
    - Did not support only one party in the last 4 elections (2008-2020)
- **Red states:** Alabama, Alaska, Arkansas, Idaho, Kansas, Kentucky, Louisiana, Mississippi, Missouri, Montana, Nebraska, North Dakota, Oklahoma, South Carolina, South Dakota, Tennessee, Texas, Utah, West Virginia, Wyoming
- **Blue States:** California, Colorado, Connecticut, Delaware, DC, Hawaii, Illinois, Maine, Maryland, Massachusetts, Minnesota, Nevada, New Hampshire, New Jersey, New Mexico, New York, Oregon, Rhode Island, Vermont, Virginia, Washington

2020 Results - Red States

	state	uncorrected_	gender_corre	race_correct	race_gender	true_vote	electoral votes
0	Alabama	R	R	R	R	R	9
1	Alaska	D	D	R	R	R	3
3	Arkansas	D	D	D	D	R	6
12	Idaho	D	R	R	R	R	4
16	Kansas	D	D	D	D	R	6
17	Kentucky	D	D	R	R	R	8
18	Louisiana	D	D	D	D	R	8
24	Mississippi	D	D	D	R	R	6
25	Missouri	D	D	D	D	R	10
26	Montana	D	R	D	D	R	3
27	Nebraska	R	D	D	D	R	5
34	North Dakota	D	D	D	D	R	3
36	Oklahoma	D	D	D	D	R	7
40	South Carolir	D	D	R	D	R	9
41	South Dakota	D	D	D	D	R	3
42	Tennessee	R	R	R	R	R	11
43	Texas	D	D	D	R	R	38
44	Utah	D	D	D	D	R	6
48	West Virgini	R	R	R	R	R	5
50	Wyoming	D	D	D	R	R	3
	Count Correc	4	5	7	9	20	

45% of red states correctly predicted

2020 Results – Blue States

	state	uncorrected_	gender_corre	race_correct	race_gender_	true_vote	electoral votes
4	California	D	D	D	D	D	55
5	Colorado	D	D	R	D	D	9
6	Connecticut	D	D	R	D	D	7
7	District of Co	D	D	D	D	D	3
8	Delaware	D	D	D	D	D	3
11	Hawaii	R	D	D	R	D	4
13	Illinois	D	D	D	D	D	20
19	Maine	D	D	D	D	D	4
20	Maryland	D	D	D	D	D	10
21	Massachuset	D	D	D	D	D	11
23	Minnesota	D	D	R	D	D	10
28	Nevada	R	R	R	D	D	6
29	New Hampsl	R	R	R	R	D	4
30	New Jersey	D	D	D	D	D	14
31	New Mexico	D	D	D	R	D	5
32	New York	D	D	D	D	D	29
37	Oregon	D	D	D	D	D	7
39	Rhode Island	D	D	D	D	D	4
45	Vermont	D	D	D	D	D	3
46	Virginia	D	D	D	D	D	13
47	Washington	D	D	D	D	D	12
	Count Correc		18	19	16	18	21

90.4% of blue states correctly predicted

2020 Results - Swing States

	state	uncorrected_	gender_corre	race_correct	race_gender_	true_vote	electoral votes
2	Arizona	D	D	R	D	D	11
9	Florida	D	D	D	D	R	29
10	Georgia	D	D	D	D	D	16
14	Indiana	D	D	D	D	R	11
15	Iowa	D	D	D	D	R	6
22	Michigan	D	D	D	D	D	16
33	North Carolir	D	R	R	R	R	15
35	Ohio	D	D	D	R	R	18
38	Pennsylvania	D	D	D	D	D	20
49	Wisconsin	D	D	R	R	D	10
	Count Correc	5	6	4	6	10	

60% of red states correctly predicted

Correcting for Political Bias

- We found that correcting for the representation of demographic group **was not enough to achieve a successful prediction**
- Predictions were still clearly in favor of a democratic candidate, so we also **corrected for political bias of Twitter users**

Using Exit Polls for Corrections and Evaluation

- Since voting is anonymous, we get **demographic voting info for each state from exit polls**
- **Exit polls only survey 25/50 states + nation** on who each demographic group voted for
- We used these exit polls to correct political bias of Twitter users due to self selection
- Approach for addressing bias of internet surveys using a reference sample from Bethlehem, Jelke. "Selection bias in web surveys." *International Statistical Review* 78.2 (2010): 161-188. Cited by 538 papers.
- We used 2016 Twitter data (internet survey) and 2016 exit polls (reference sample) to find a weight to correct our new observations 2020 Twitter data (new internet survey)

*menPercentDemocrat_2020predicted = menPercentDemocrat_2020twitter * menPercentDemocrat_2016exitPoll / menPercentDemocrat_2016twitter*

- Using 2020 exit polls we calculated the absolute error for each state election, then calculated the mean absolute error for each demographic group across the states

menPercentDemocrat_2020absoluteError = | menPercentDemocrat_2020predicted - menPercentDemocrat_2020exitPoll |

menPercentDemocrat_2020meanAbsoluteError = mean of menPercentDemocrat_2020absoluteError for all state elections

Limitations of Political Bias Corrections

- **Exit polls are incomplete**
- Only **20/50 states + nation** are surveyed for 2016 and 2020
- All 2**0/50 states + nation** have complete data gender
- Only **3 states** have complete data for all races/ethnicities
- Only **1 state** has complete data for all gender x race/ethnity combinations
- Most states **only have complete data for** white people, men, women, white men, and white women
- As a result, we could **only predict 20/50 states** by breaking the electorate down into men and women
- **Not enough exit poll data** to predict the election across all states using race/ethnicity x gender or race/ethnicity
- Weighting with a reference sample is **one of the simplest approaches** to correct for bias in a web survey
- **Propensity weighting** is a more sophisticated approach (that we did not implement) that attempts to make the two populations comparable by simultaneously controlling for all variables that were thought to explain the differences. In the case of a web survey, there are also two populations: those who participate in the web survey (if asked), and those who will not participate

Predictions - Political Bias Correction

Green - correctly predicted
Red - incorrectly predicted
Note: this prediction is using the gender breakdown of the electorate into men and women. There was not enough exit poll data to separately break down the by race/ethnicity and gender x race/ethnicity for each state

National popular vote correctly predicted

6/11 swing states correctly predicted

9/9 non-swing states correctly predicted

Election	Predicted Party Winner	Democrat Absolute Error	Republican Absolute Error
National	Democrats	1.624534172	2.013612075
Arizona	Republicans	4.186633357	1.772344673
Colorado	Democrats	15.81542592	14.30424906
Florida	Republicans	1.186563683	11.88747336
Georgia	Republicans	13.52073699	1.277503599
Iowa	Republicans	3.74487781	11.73186314
Kentucky	Republicans	8.293127602	14.90693585
Maine	Republicans	10.02244115	8.938231786
Michigan	Democrats	8.288204467	6.388857116
Minnesota	Democrats	2.745881007	7.944711385
Nevada	Republicans	9.64450996	20.26965688
New Hampshire	Democrats	6.525037594	10.60013103
North Carolina	Republicans	0.576719545	7.063449802
Ohio	Republicans	4.908268662	0.700476973
Oregon	Democrats	5.562491603	4.742165299
Pennsylvania	Republicans	2.031276103	3.735331655
South Carolina	Republicans	5.739884487	3.049984899
Texas	Republicans	0.253495329	5.013906609
Virginia	Democrats	2.489944458	2.028357665
Washington	Democrats	13.66652343	18.11535433
Wisconsin	Democrats	2.74553701	0.814733339

Further Analysis - Political Bias Correction

demographicGroup	percentDemNationalPredicted	percentDemNationalActual	absoluteErrorDemNational	meanDemAbsoluteErrorAllStates
men	39.55803615	47	7.441963854	10.33679337
women	57.95336284	55	2.953362841	12.88028542
white	40.89317618	41	0.106823822	6.891772823
black	100	87	13	18.11842105
hispanic	95.53620993	65	30.53620993	27.1210175
asian	100	61	39	20.23951638
whiteMen	33.17367151	38	4.826328486	9.267430888
whiteWomen	48.35895403	44	4.358954031	10.16306399
blackMen	100	79	21	21
blackWomen	69.11764706	90	20.88235294	50.84117647
hispanicMen	88.75277968	59	29.75277968	28.59572815
hispanicWomen	100	69	31	16.281479

demographicGroup	percentRepubNationalPredicted	percentRepubNationalActual	absoluteErrorRepubNational	meanRepubAbsoluteErrorAllStates
men	54.75814306	51	3.758143057	12.23825192
women	44.13172309	44	0.131723089	10.75730494
white	71.84740803	58	13.84740803	19.06027933
black	8.231563636	12	3.768436364	6.85998439
hispanic	38.13247389	32	6.13247389	5.918733669
asian	26.79088722	34	7.209112778	5.077314271
whiteMen	74.65962028	61	13.65962028	21.37866146
whiteWomen	57.92323236	55	2.923232362	12.30219873
blackMen	14.62044818	19	4.379551821	4.379551821
blackWomen	2.823529412	9	6.176470588	4.945378151
hispanicMen	41.33031269	36	5.330312689	4.397025663
hispanicWomen	43.04295061	30	13.04295061	10.69657025

Website

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Conclusions from Corrections

- We conclude that correcting raw tweet sentiment based on demographic groups **is not sufficient** to predict the 2020 election because sentiment is still too skewed toward Democrats - we are predicting Democratic for most states (Our prediction was correct for 90.4% of blue states, 60% of swing states, and 45% of red states)
- In the case of the 2020 election, **correcting our prediction based on political bias** yielded the best results (**National popular vote correctly predicted, 6/11 swing states correctly predicted, 9/9 non-swing states correctly predicted**)
- Mean average error for some groups is within than the margin of error for traditional surveys
- These results may not be generalizable to other elections (2016, 2018, etc) because they rely on 2016 Twitter data and 2016 exit polls

To what extent can social media predict the 2020 presidential election?

- The ability of social media to predict election outcomes in states **depends on the demographic group and the state that the user is in**
- **Not all demographic groups are represented well on Twitter and exit polls** (white men, white women, and white people are represented well on Twitter and exit polls)
- **As shown previously, the political bias correction with the gender breakdown of the electorate into men and women works best** (as opposed to breaking it down by race/ethnicity or race/ethnicity x gender). We suspect this is due to black, hispanic, asian, and “other” race/ethnicity category are not represented well on Twitter or exit polls.
- **For predicting the voter share of Democrats**: white people, men, women, white men, and white women have the lowest mean average error across all states + national election
- **For predicting the voter share of Republicans**: black people, hispanic people, asian people, men, women, white women, black men, black women, and hispanic men have the lowest mean average error across all states + national election

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Limitations of Twitter Data Collection

- **Had to simplify number of queries** because of the prohibitive time complexity O(#locations x #queries) which still took 6-7 days to complete even after simplifying
- **Twitter limits the amount of tweets** requested by your IP address, so we had to use time.sleep() a lot
- **Couldn't get county-level results** in time because Twitter API approved late, so we didn't have the ability to query county-specific tweets using geo-polygons
- **Many states have relatively few tweets** compared to California, New York, etc
- 2016 has 25% of the total number of tweets that 2020 has
  - 2016: 67,867 tweets
  - 2020: 247,837 tweets
- Political tweet distributions are different
  - 2016: 40% Neutral, 29% Democrat, 26% Republican, 5% Unknown
  - 2020: 28% Neutral, 36% Democrat, 34% Republican, 2% Unknown
  - Some demographic groups (black women) tweet much differently w.r.t political views in 2020 than in 2016, which leads to much worse predictions than others (whites, men, women)
  - Tweets are more "polarized" in 2020 than in 2016

Sentiment Analysis and Profiling Limitations

- Sentiment analysis model **not built on the data from 2020 election domain**
  - No human-labeled tweets about 2020 election
  - Use general result instead of data oriented result
- **Unknown accuracy of demographic data** of users (no “true” labels to evaluate with)

Further Steps

- **Estimation of voter turnout**, rather than only voter share for each demographic group
- **More comprehensive Twitter queries** using online LDA to find new search terms
- **Get county-specific results** using geo-polygons with the Twitter API
- **Neighborhood types** (suburban, urban, rural designations)
- Characterization of users into **age groups and potential voters**
- Train a **more accurate sentiment analysis** model using human-labeled tweets
- Take into account **linguistic differences** among groups and locations
- Use the **communication network** to cluster more users. The Base users are the ones who have high political preference score from sentiment analysis.
- **Different corrections for incumbent candidates & interesting candidates** (more tweets about incumbent candidates and “interesting” candidates like Trump)

Thank you!

2016 Results

	state	uncorrected_	gender_corre	race_correct	race_gender_	true_vote
0	Alabama	N	N	D	N	R
1	Alaska	N	N	N	D	R
2	Arizona	N	N	N	N	R
3	Arkansas	N	N	N	N	R
4	California	N	D	N	N	D
5	Colorado	N	N	N	N	D
6	Connecticut	N	N	N	N	D
7	District of Columbia	N	N	N	N	D
8	Delaware	N	N	N	N	D
9	Florida	N	N	D	N	R
10	Georgia	N	N	N	N	R
11	Hawaii	N	N	D	R	D
12	Idaho	N	D	D	D	R
13	Illinois	N	N	N	N	D
14	Indiana	N	N	N	N	R
15	Iowa	N	N	N	N	R
16	Kansas	N	N	N	N	R
17	Kentucky	N	N	N	N	R
18	Louisiana	N	N	N	N	R
19	Maine	N	N	N	N	D
20	Maryland	N	N	N	N	D
21	Massachusetts	N	N	N	N	D
22	Michigan	N	N	N	N	R
23	Minnesota	N	N	D	D	D
24	Mississippi	N	N	N	N	R
25	Missouri	N	N	N	N	R
26	Montana	N	N	N	N	R
27	Nebraska	N	N	N	N	R
28	Nevada	N	N	R	N	D
29	New Hampshire	N	N	N	D	D
30	New Jersey	N	N	N	N	D
31	New Mexico	N	D	D	D	D
32	New York	N	N	N	N	D
33	North Carolina	N	N	N	N	R
34	North Dakota	N	N	D	D	R
35	Ohio	N	N	N	N	R
36	Oklahoma	N	N	D	D	R
37	Oregon	N	N	N	N	D
38	Pennsylvania	N	N	N	N	R
39	Rhode Island	N	N	N	N	D
40	South Carolina	N	N	N	N	R
41	South Dakota	N	N	N	D	R
42	Tennessee	N	N	N	N	R
43	Texas	N	N	N	N	R
44	Utah	N	N	N	N	R
45	Vermont	N	N	D	D	D
46	Virginia	N	N	N	N	D
47	Washington	N	N	N	N	D
48	West Virginia	N	N	N	N	R
49	Wisconsin	N	N	N	N	R
50	Wyoming	N	D	N	N	R
	Count Correct	0	1	4	4	50
	Rep Electoral Votes	0	0	6	4	304
	National Prediction	N	N	D	D	R

2020 Results

	state	uncorrected_	gender_corre	race_correct	race_gender	true_vote
0	Alabama	R	R	R	R	R
1	Alaska	D	D	R	R	R
2	Arizona	D	D	R	D	D
3	Arkansas	D	D	D	D	R
4	California	D	D	D	D	D
5	Colorado	D	D	R	D	D
6	Connecticut	D	D	R	D	D
7	District of Columbia	D	N	D	N	D
8	Delaware	D	D	D	D	D
9	Florida	D	D	D	D	R
10	Georgia	D	D	D	D	D
11	Hawaii	R	D	N	N	D
12	Idaho	D	R	R	R	R
13	Illinois	D	D	D	D	D
14	Indiana	D	D	D	D	R
15	Iowa	D	D	D	D	R
16	Kansas	D	D	D	D	R
17	Kentucky	D	D	R	R	R
18	Louisiana	D	D	D	D	R
19	Maine	D	D	D	D	D
20	Maryland	D	D	D	D	D
21	Massachusetts	D	D	D	D	D
22	Michigan	D	D	D	D	D
23	Minnesota	D	D	R	D	D
24	Mississippi	D	D	D	R	R
25	Missouri	D	D	D	D	R
26	Montana	D	R	D	D	R
27	Nebraska	R	D	D	D	R
28	Nevada	R	R	N	D	D
29	New Hampshire	R	R	R	R	D
30	New Jersey	D	D	N	D	D
31	New Mexico	D	D	D	R	D
32	New York	D	D	D	D	D
33	North Carolina	D	R	R	R	R
34	North Dakota	D	D	D	D	R
35	Ohio	D	D	D	R	R
36	Oklahoma	D	D	D	D	R
37	Oregon	D	D	D	D	D
38	Pennsylvania	D	D	D	D	D
39	Rhode Island	D	D	D	D	D
40	South Carolina	D	D	R	D	R
41	South Dakota	D	D	D	D	R
42	Tennessee	R	R	R	R	R
43	Texas	D	D	D	R	R
44	Utah	D	D	D	D	R
45	Vermont	D	D	D	D	D
46	Virginia	D	D	D	D	D
47	Washington	D	D	D	D	D
48	West Virginia	R	R	R	R	R
49	Wisconsin	D	D	R	R	D
50	Wyoming	D	D	D	R	R
	Count Correct		27	29	25	32	50
	Dem Electoral Votes		494	478	399	392	306
	National Prediction	D	D	D	D	D	