State Presidential

2024-10-26

```
elector <- read.csv("Voting Data - PresidentialResults District.csv")</pre>
elector_condensed <- elector %>%
  group_by(state) %>%
  reframe(
   dem_votes_2016 = dpres_vote[year == 2016],
   dem votes 2020 = dpres vote[year == 2020],
   predicted_dem = round(1.10 * dpres_vote[year == 2020] - 0.15 * dpres_vote[year == 2016], 0),
   rep_votes_2016 = rpres_votes[year == 2016],
   rep_votes_2020 = rpres_votes[year == 2020],
   predicted_rep = round(1.10 * rpres_votes[year == 2020] - 0.15 * rpres_votes[year == 2016], 0),
   oth_votes_2016 = opres_vote[year == 2016],
   oth_votes_2020 = opres_vote[year == 2020],
   predicted_oth = round(0.7 * opres_vote[year == 2020] + 0.3 * opres_vote[year == 2016], 0),
   predicted_total = predicted_rep + predicted_dem + predicted_oth
  ) %>%
  mutate(
   predicted_dem_share = round(predicted_dem/predicted_total, 4)*100,
   predicted_rep_share = round(predicted_rep/predicted_total, 4)*100,
   predicted_oth_share = round(predicted_oth/predicted_total, 4)*100
  )
elector_results <- subset(elector_condensed, select = c("state", "predicted_rep_share", "predicted_dem_
# Republican analyzed data
elector_results <- elector_results %>%
  filter(state != "Maine" & state != "Nebraska") %>%
   predicted_rep_share = case_when(
     state == "Arizona" ~ 48.43,
     state == "Georgia" ~ 50.18,
     state == "Florida" ~ 52.52,
     state == "Michigan" ~ 48.37,
      state == "Nevada" ~ 47.09,
     state == "North Carolina" ~ 50.10,
     state == "Pennsylvania" ~ 48.36,
      state == "Wisconsin" ~ 48.95,
     TRUE ~ predicted_rep_share
   predicted_dem_share = case_when(
     state == "Arizona" ~ 50.00,
```

```
state == "Georgia" ~ 48.55,
    state == "Florida" ~ 46.80,
    state == "Michigan" ~ 50.09,
    state == "Nevada" ~ 50.40,
    state == "North Carolina" ~ 48.93,
    state == "Pennsylvania" ~ 50.02,
    state == "Wisconsin" ~ 49.34,
   TRUE ~ predicted_dem_share
  ),
  predicted_oth_share = case_when(
    state == "Arizona" ~ 1.56,
    state == "Georgia" ~ 1.26,
    state == "Florida" ~ 0.684,
    state == "Michigan" ~ 1.54,
    state == "Nevada" ~ 2.51,
    state == "North Carolina" ~ 0.93,
    state == "Pennsylvania" ~ 1.62,
    state == "Wisconsin" ~ 1.71,
   TRUE ~ predicted_oth_share
)
```

```
elector_popular <- subset(elector_condensed, select = c("state", "predicted_dem", "predicted_rep", "pre-</pre>
elector_popular <- elector_popular %>%
  filter(state != "Nebraska" & state != "Maine") %>%
  mutate(
   predicted_rep = case_when(
      state == "Arizona" ~ 1597090,
      state == "Georgia" ~ 2468882,
      state == "Florida" ~ 5656163,
      state == "Michigan" ~ 2686928,
      state == "Nevada" ~ 659338,
      state == "North Carolina" ~ 2760412,
     state == "Pennsylvania" ~ 3140167,
     state == "Wisconsin" ~ 1619994,
     TRUE ~ predicted_rep
   ),
   predicted_dem = case_when(
     state == "Arizona" ~ 1648664,
      state == "Georgia" ~ 2388833,
      state == "Florida" ~ 5040368,
     state == "Michigan" ~ 2782086,
      state == "Nevada" ~ 705627,
      state == "North Carolina" ~ 2697887,
      state == "Pennsylvania" ~ 3247857,
      state == "Wisconsin" ~ 1633160,
     TRUE ~ predicted_dem
    predicted_oth = case_when(
     state == "Arizona" ~ 51466,
      state == "Georgia" ~ 62139,
      state == "Florida" ~ 73701,
```

```
state == "Michigan" ~ 85406,
    state == "Nevada" ~ 35096,
    state == "North Carolina" ~ 51363,
    state == "Pennsylvania" ~ 105292,
    state == "Wisconsin" ~ 56613,
    TRUE ~ predicted_oth
),
    predicted_total = predicted_rep + predicted_dem + predicted_oth
)
```

#Raw Numbers

```
print(elector_popular, n = Inf)
```

```
## # A tibble: 54 x 5
##
      state
                      predicted_dem predicted_rep predicted_oth predicted_total
##
      <chr>
                              <dbl>
                                                            <dbl>
                                             <dbl>
                                                                             <dbl>
   1 Alabama
                             825154
                                           1387549
                                                            36082
                                                                           2248785
## 2 Alaska
                             151688
                                                            16678
                                                                            352804
                                            184438
   3 Arizona
##
                            1648664
                                           1597090
                                                            51466
                                                                           3297220
## 4 Arkansas
                             409251
                                            733981
                                                            33092
                                                                           1176324
## 5 California
                           10908207
                                           5934500
                                                           412491
                                                                          17255198
## 6 Colorado
                            1783957
                                           1320695
                                                           104831
                                                                           3209483
## 7 Connecticut
                            1054112
                                            685838
                                                            34419
                                                                           1774369
## 8 DC
                             306631
                                             18536
                                                             7385
                                                                            332552
## 9 Delaware
                             290554
                                            192894
                                                             9424
                                                                            492872
## 10 Florida
                            5040368
                                           5656163
                                                            73701
                                                                          10770232
## 11 Georgia
                                           2468882
                                                            62139
                                                                           4919854
                            2388833
## 12 Hawaii
                             362709
                                            197223
                                                            12819
                                                                            572751
## 13 Idaho
                             287258
                                            548173
                                                            27311
                                                                            862742
## 14 Illinois
                            3355497
                                                           143335
                                                                           5868510
                                           2369678
## 15 Indiana
                            1211689
                                           1668878
                                                            83028
                                                                           2963595
## 16 Iowa
                                                                           1645861
                             736917
                                            867292
                                                            41652
## 17 Kansas
                             563305
                                            747894
                                                            38024
                                                                           1349223
## 18 Kentucky
                             755393
                                           1278865
                                                            42479
                                                                           2076737
## 19 Louisiana
                                           1204558
                                                            36770
                                                                           2065942
                             824614
## 20 ME-1
                             252785
                                            155774
                                                            12691
                                                                            421250
## 21 ME-2
                                                                            358295
                             160488
                                            186846
                                                            10961
## 22 Maryland
                            1931836
                                            932580
                                                            76797
                                                                           2941213
## 23 Massachusetts
                            2321143
                                           1120288
                                                            98805
                                                                           3540236
## 24 Michigan
                            2782086
                                           2686928
                                                            85406
                                                                           5554420
## 25 Minnesota
                            1683627
                                           1434029
                                                            87112
                                                                           3204768
## 26 Mississippi
                                                            16648
                             520568
                                            727333
                                                                           1264549
## 27 Missouri
                            1217655
                                           1651433
                                                            67156
                                                                           2936244
## 28 Montana
                             242608
                                            336076
                                                            19088
                                                                            597772
## 29 NE-1
                             130468
                                            174525
                                                            10744
                                                                            315737
## 30 NE-2
                             174460
                                                            10148
                                            149180
                                                                            333788
## 31 NE-3
                                                                            287150
                              64446
                                            214448
                                                             8256
## 32 Nevada
                             705627
                                            659338
                                                            35096
                                                                           1400061
## 33 New Hampshire
                             415152
                                                            20159
                                                                            785669
                                            350358
## 34 New Jersey
                            2546927
                                           1831311
                                                            62164
                                                                           4440402
## 35 New Mexico
                             493990
                                            394134
                                                            36682
                                                                            924806
## 36 New York
                            5080405
                                           3150767
                                                           135815
                                                                           8366987
```

| ## 39 Ohio 2587957 3044167 114092 5746216 ## 40 Oklahoma 491223 979938 50615 1521776 ## 41 Oregon 1324105 936932 81112 2342149 | ## | 37 | North Carolina | 2697887 | 2760412 | 51363 | 5509662 |
|--|----|----|----------------|---------|---------|--------|----------|
| ## 40 Oklahoma 491223 979938 50615 1521776 ## 41 Oregon 1324105 936932 81112 2342149 ## 42 Pennsylvania 3247857 3140167 105292 6493316 | ## | 38 | North Dakota | 112329 | 226635 | 14356 | 353320 |
| ## 41 Oregon 1324105 936932 81112 2342149 ## 42 Pennsylvania 3247857 3140167 105292 6493316 | ## | 39 | Ohio | 2587957 | 3044167 | 114092 | 5746216 |
| ## 42 Pennsylvania 3247857 3140167 105292 6493316 | ## | 40 | Oklahoma | 491223 | 979938 | 50615 | 1521776 |
| • | ## | 41 | Oregon | 1324105 | 936932 | 81112 | 2342149 |
| ## 43 Rhode Island 300356 192833 11668 504857 | ## | 42 | Pennsylvania | 3247857 | 3140167 | 105292 | 6493316 |
| | ## | 43 | Rhode Island | 300356 | 192833 | 11668 | 504857 |
| ## 44 South Carolina 1072389 1350305 40441 2463135 | ## | 44 | South Carolina | 1072389 | 1350305 | 40441 | 2463135 |
| ## 45 South Dakota 147902 252992 14020 414914 | ## | 45 | South Dakota | 147902 | 252992 | 14020 | 414914 |
| ## 46 Tennessee 1127478 1809284 61485 2998247 | ## | 46 | Tennessee | 1127478 | 1809284 | 61485 | 2998247 |
| ## 47 Texas 5203358 5776625 200956 11180939 | ## | 47 | Texas | 5203358 | 5776625 | 200956 | 11180939 |
| ## 48 Utah 569709 874369 55889 1499967 | ## | 48 | Utah | 569709 | 874369 | 55889 | 1499967 |
| ## 49 Vermont 240316 109669 11356 361341 | ## | 49 | Vermont | 240316 | 109669 | 11356 | 361341 |
| ## 50 Virginia 2357704 1893257 94650 4345611 | ## | 50 | Virginia | 2357704 | 1893257 | 94650 | 4345611 |
| ## 51 Washington 2345166 1559854 141621 4046641 | ## | 51 | Washington | 2345166 | 1559854 | 141621 | 4046641 |
| ## 52 West Virginia 231263 526515 16201 773979 | ## | 52 | West Virginia | 231263 | 526515 | 16201 | 773979 |
| ## 53 Wisconsin 1633160 1619994 56613 3309767 | ## | 53 | Wisconsin | 1633160 | 1619994 | 56613 | 3309767 |
| ## 54 Wyoming 72444 186752 10787 269983 | ## | 54 | Wyoming | 72444 | 186752 | 10787 | 269983 |

#Raw Share

print(elector_results, n = Inf)

| ## | # / | A tibble: 54 x | 4 | | |
|----|-----|----------------|--------------------------------|--------------------------------|-------------------------------|
| ## | | state | <pre>predicted_rep_share</pre> | <pre>predicted_dem_share</pre> | ${\tt predicted_oth_share}$ |
| ## | | <chr></chr> | <dbl></dbl> | <dbl></dbl> | <dbl></dbl> |
| ## | 1 | Alabama | 61.7 | 36.7 | 1.6 |
| ## | 2 | Alaska | 52.3 | 43.0 | 4.73 |
| ## | 3 | Arizona | 48.4 | 50 | 1.56 |
| ## | 4 | Arkansas | 62.4 | 34.8 | 2.81 |
| ## | 5 | California | 34.4 | 63.2 | 2.39 |
| ## | 6 | Colorado | 41.2 | 55.6 | 3.27 |
| ## | 7 | Connecticut | 38.6 | 59.4 | 1.94 |
| ## | 8 | DC | 5.57 | 92.2 | 2.22 |
| ## | 9 | Delaware | 39.1 | 59.0 | 1.91 |
| ## | 10 | Florida | 52.5 | 46.8 | 0.684 |
| | | Georgia | 50.2 | 48.6 | 1.26 |
| ## | 12 | Hawaii | 34.4 | 63.3 | 2.24 |
| | | Idaho | 63.5 | 33.3 | 3.17 |
| | | Illinois | 40.4 | 57.2 | 2.44 |
| | | Indiana | 56.3 | 40.9 | 2.8 |
| | | Iowa | 52.7 | 44.8 | 2.53 |
| | | Kansas | 55.4 | 41.8 | 2.82 |
| | | Kentucky | 61.6 | 36.4 | 2.05 |
| | | Louisiana | 58.3 | 39.9 | 1.78 |
| | | ME-1 | 37.0 | 60.0 | 3.01 |
| | | ME-2 | 52.2 | 44.8 | 3.06 |
| | | Maryland | 31.7 | 65.7 | 2.61 |
| | | Massachusetts | 31.6 | 65.6 | 2.79 |
| | | Michigan | 48.4 | 50.1 | 1.54 |
| | | Minnesota | 44.8 | 52.5 | 2.72 |
| | | Mississippi | 57.5 | 41.2 | 1.32 |
| ## | 27 | Missouri | 56.2 | 41.5 | 2.29 |

```
## 28 Montana
                                  56.2
                                                       40.6
                                                                         3.19
                                                       41.3
## 29 NE-1
                                  55.3
                                                                         3.4
## 30 NE-2
                                  44.7
                                                       52.3
                                                                         3.04
## 31 NE-3
                                  74.7
                                                       22.4
                                                                         2.88
## 32 Nevada
                                  47.1
                                                       50.4
                                                                         2.51
## 33 New Hampshire
                                 44.6
                                                       52.8
                                                                         2.57
## 34 New Jersey
                                41.2
                                                       57.4
                                                                         1.4
                                42.6
## 35 New Mexico
                                                       53.4
                                                                         3.97
## 36 New York
                                  37.7
                                                       60.7
                                                                         1.62
## 37 North Carolina
                                 50.1
                                                       48.9
                                                                         0.93
## 38 North Dakota
                                  64.1
                                                       31.8
                                                                         4.06
## 39 Ohio
                                  53.0
                                                       45.0
                                                                         1.99
## 40 Oklahoma
                                  64.4
                                                       32.3
                                                                         3.33
## 41 Oregon
                                  40
                                                       56.5
                                                                         3.46
## 42 Pennsylvania
                                  48.4
                                                       50.0
                                                                         1.62
## 43 Rhode Island
                                  38.2
                                                       59.5
                                                                         2.31
## 44 South Carolina
                                 54.8
                                                       43.5
                                                                         1.64
## 45 South Dakota
                                 61.0
                                                       35.6
                                                                         3.38
                                  60.3
## 46 Tennessee
                                                       37.6
                                                                         2.05
## 47 Texas
                                  51.7
                                                       46.5
                                                                         1.8
## 48 Utah
                                  58.3
                                                       38.0
                                                                         3.73
## 49 Vermont
                                 30.4
                                                       66.5
                                                                         3.14
## 50 Virginia
                                 43.6
                                                      54.2
                                                                         2.18
## 51 Washington
                                 38.6
                                                      58.0
                                                                         3.5
                                                      29.9
## 52 West Virginia
                                68.0
                                                                         2.09
## 53 Wisconsin
                                 49.0
                                                      49.3
                                                                         1.71
## 54 Wyoming
                                  69.2
                                                       26.8
\# National Vote Share
(rep_pop <- sum(elector_popular$predicted_rep))</pre>
## [1] 72459175
rep_pop/sum(elector_popular$predicted_total)
## [1] 0.4673452
(dem_pop <- sum(elector_popular$predicted_dem))</pre>
## [1] 79391675
dem_pop/sum(elector_popular$predicted_total)
```

[1] 0.5120583