# Voter Turnout

## IPUMS-ASA U.S Voting Behaviors

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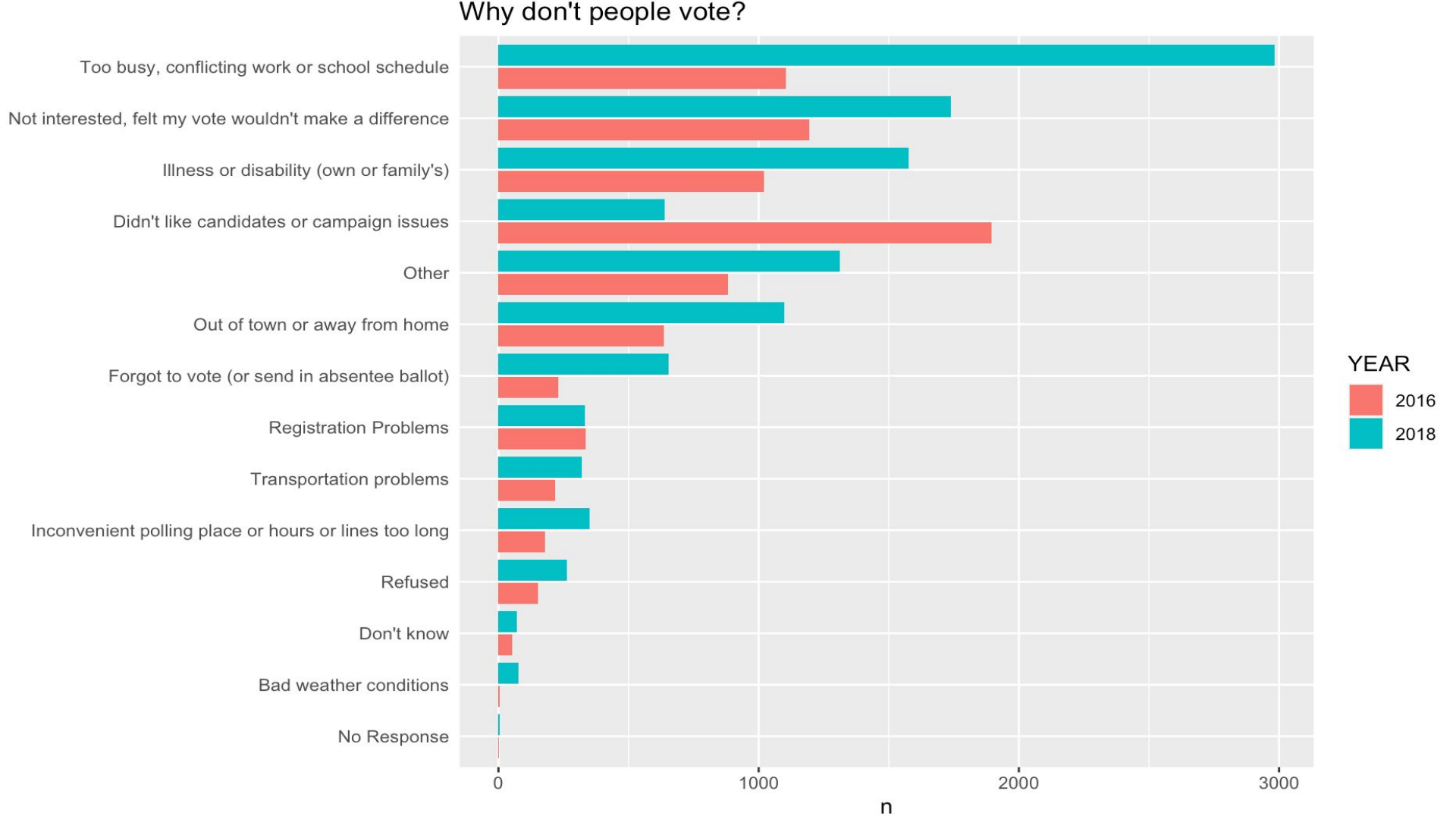
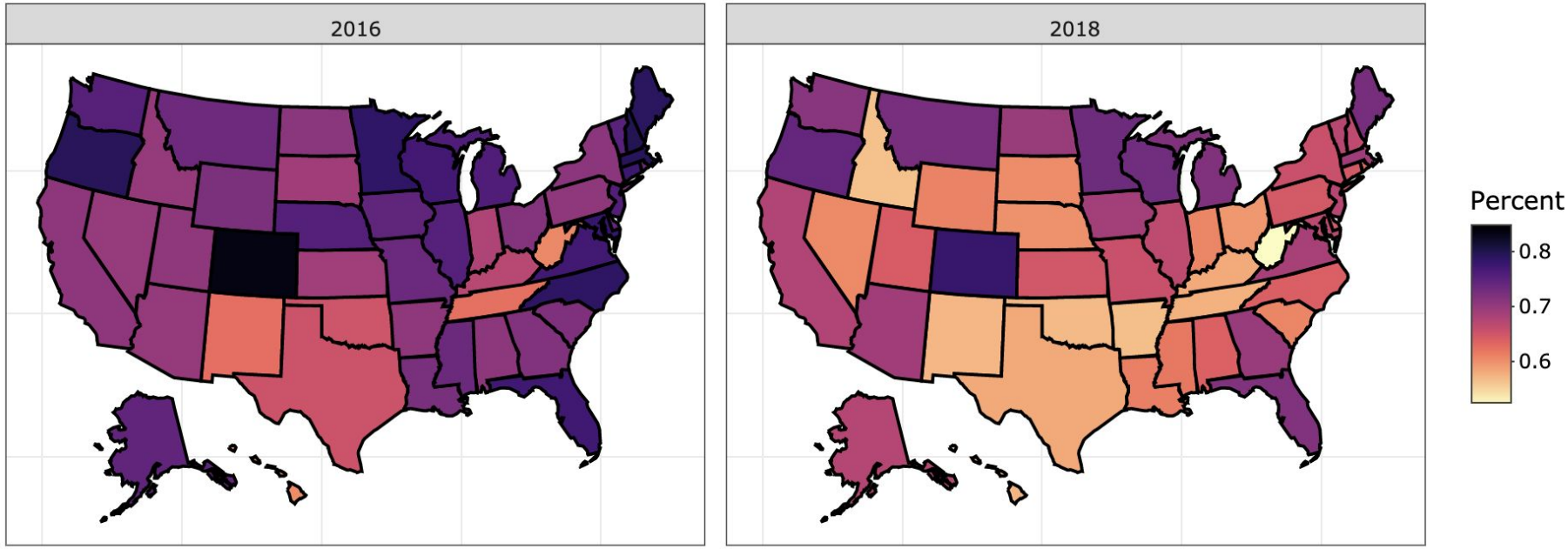

Why don't people vote?
Too busy, conflicting work or school schedule
Not interested, felt my vote wouldn't make a difference
Illness or disability (own or family's)
Didn't like candidates or campaign issues
Other
Out of town or away from home
Forgot to vote (or send in absentee ballot)
Registration Problems
Transportation problems
Inconvenient polling place or hours or lines too long
Refused
Don't know
Bad weather conditions
No Response
0
1000
2000
3000
n
YEAR
2016
2018

## Voter Turn-out is Higher in Presidential Election Years



# Most Popular Method of Voting in 2016

Voting by mail is more popular in the West Coast (Based on data from IPUMS)

# GLM

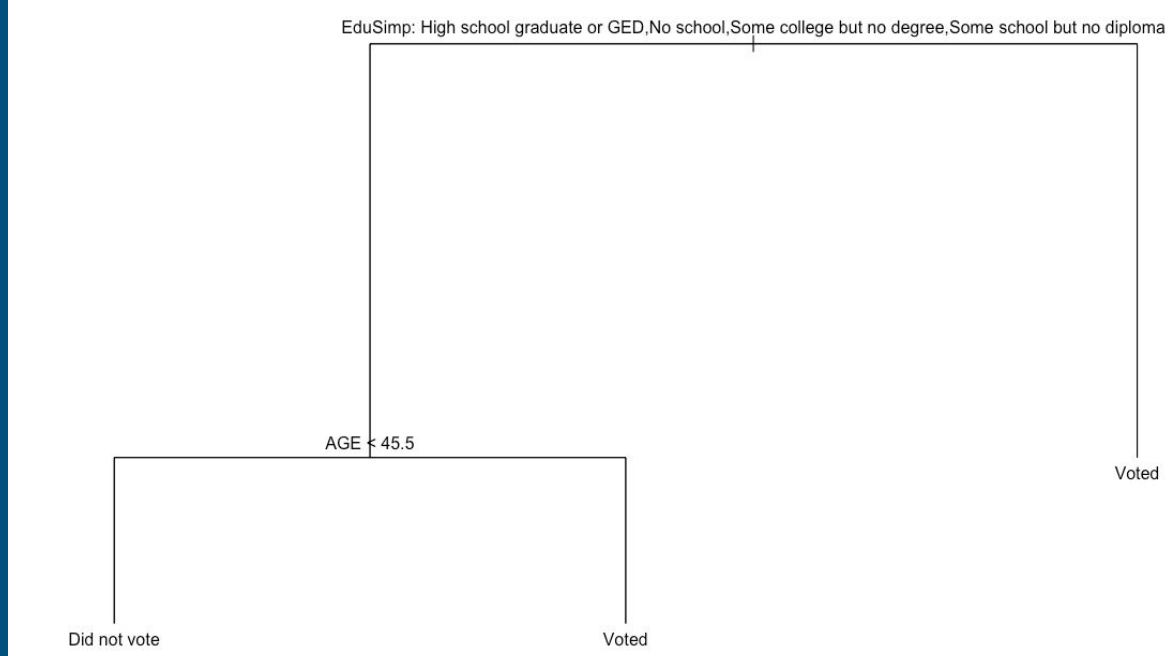
A General Linear Model of voting as a function of all the variables.

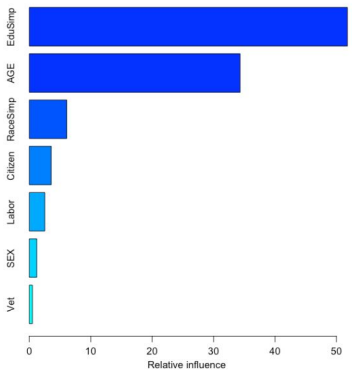
```
Call:
glm(formula = as.factor(Voted) ~ AGE + as.factor(SEX) + Metro +
    RaceSimp + Vet + Citizen + Labor + EduSimp, family = "binomial",
    data = trim1618)

Deviance Residuals:
    Min       1Q   Median       3Q      Max
-2.6034  -1.0212   0.5681   0.8140   2.2363

Coefficients:
                                          Estimate Std. Error z value Pr(>|z|)
(Intercept)                             -1.228732   0.086803 -14.155  < 2e-16 ***
AGE                                      0.031703   0.000388  81.699  < 2e-16 ***
as.factor(SEX)2                          0.117764   0.012720   9.258  < 2e-16 ***
MetroCentral city status unknown        -0.130950   0.019700  -6.647 2.99e-11 ***
MetroNot identifiable                   -0.105859   0.059319  -1.785 0.074330 .
MetroNot in metro area                  -0.090859   0.019002  -4.782 1.74e-06 ***
MetroOutside central city                0.001972   0.016463   0.120 0.904652
RaceSimpAsian or Pacific Islander       -0.108298   0.058756  -1.843 0.065305 .
RaceSimpBlack                            0.738456   0.053357  13.840  < 2e-16 ***
RaceSimpMore than one race               0.338411   0.067257   5.032 4.86e-07 ***
RaceSimpWhite                            0.437931   0.050100   8.741  < 2e-16 ***
VetYes                                   0.088528   0.023876   3.708 0.000209 ***
CitizenBorn in U.S                       0.101335   0.064150   1.580 0.114183
CitizenBorn in U.S. outlying            -0.357707   0.100756  -3.550 0.000385 ***
CitizenNaturalized citizen              -0.268012   0.067519  -3.969 7.21e-05 ***
LaborYes, in the labor force             0.307313   0.014359  21.402  < 2e-16 ***
EduSimpBachelors degree                  0.615521   0.023892  25.762  < 2e-16 ***
EduSimpHigh school graduate or GED      -0.729573   0.021088 -34.597  < 2e-16 ***
EduSimpMasters degree                    0.928978   0.032670  28.435  < 2e-16 ***
EduSimpNo school                        -2.038980   0.160287 -12.721  < 2e-16 ***
EduSimpProfessional or Doctoral degree   1.039923   0.050507  20.590  < 2e-16 ***
EduSimpSome college but no degree       -0.096620   0.022770  -4.243 2.20e-05 ***
EduSimpSome school but no diploma       -1.498158   0.027548 -54.383  < 2e-16 ***
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

(Dispersion parameter for binomial family taken to be 1)
```

# Tree Models

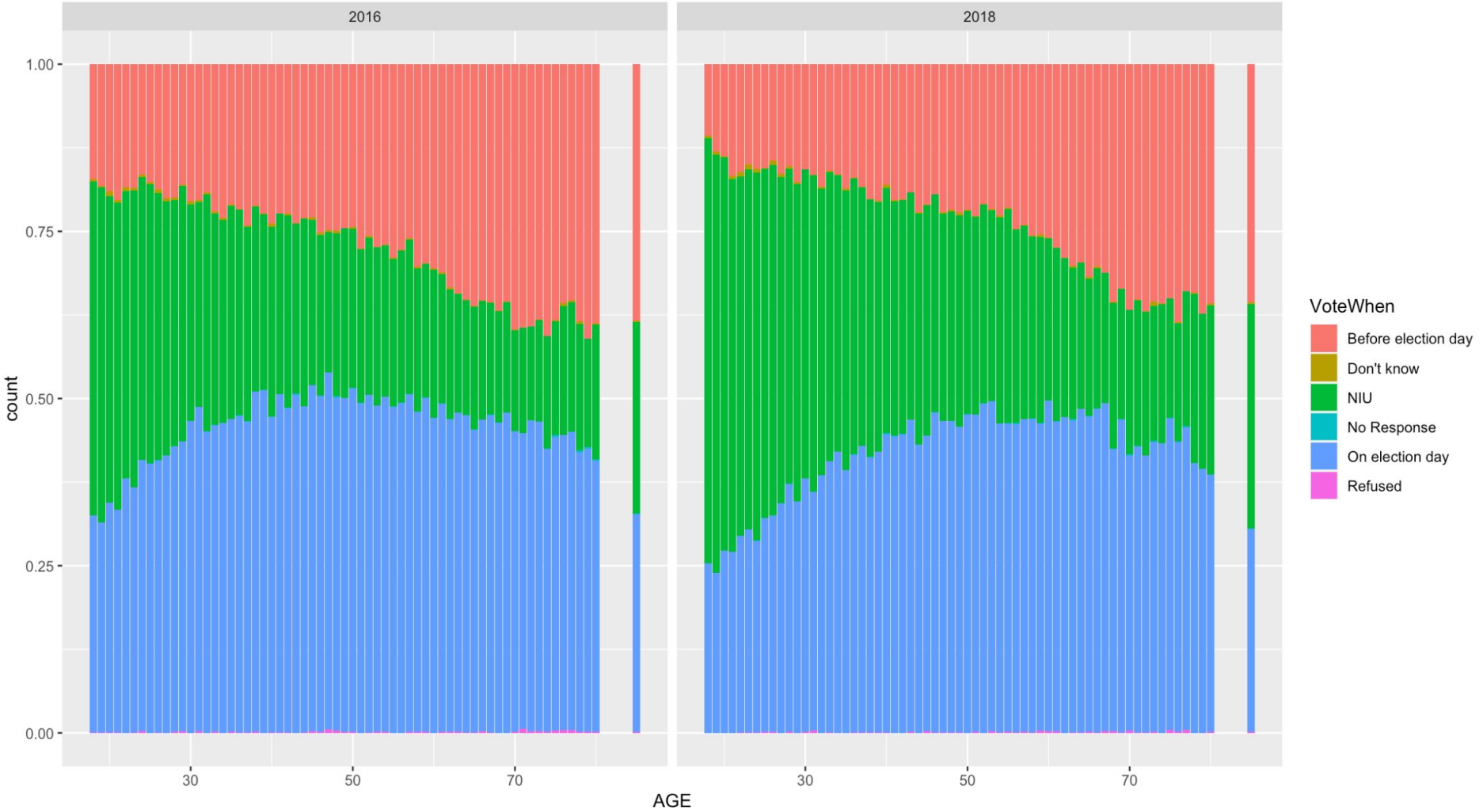
1) Classification tree only uses age and education attainment

2) Variable importance measured using random forests



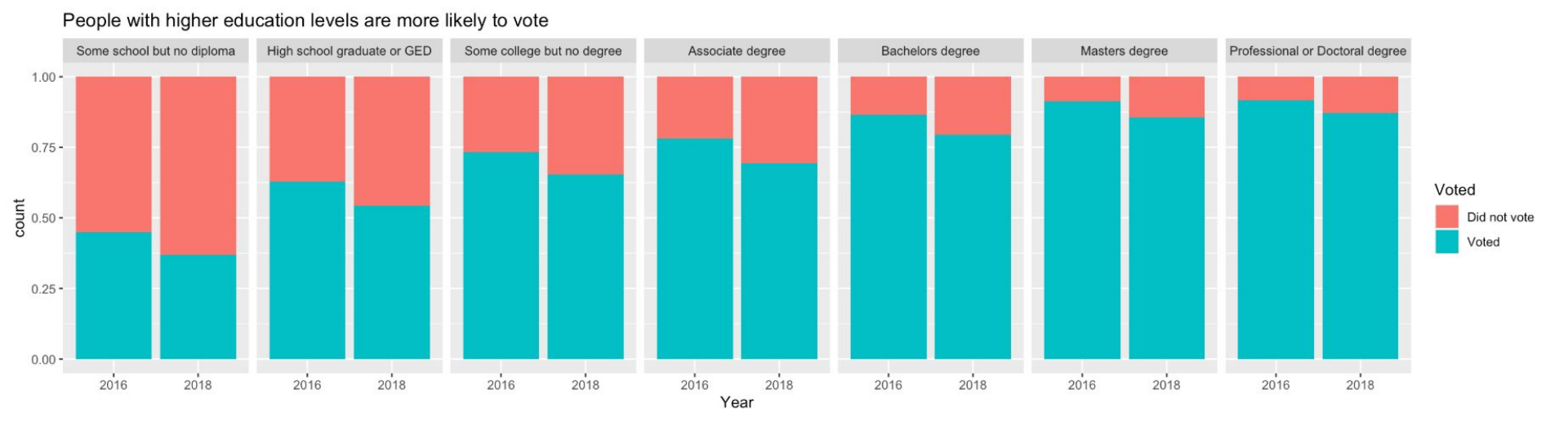




```
> summary(boost.boston)
                var    rel.inf
EduSimp   EduSimp 51.7916124
AGE           AGE 34.3207506
RaceSimp RaceSimp  6.0846555
Citizen   Citizen  3.5619955
Labor       Labor  2.5220871
SEX           SEX  1.2140185
Vet           Vet  0.5048803
```

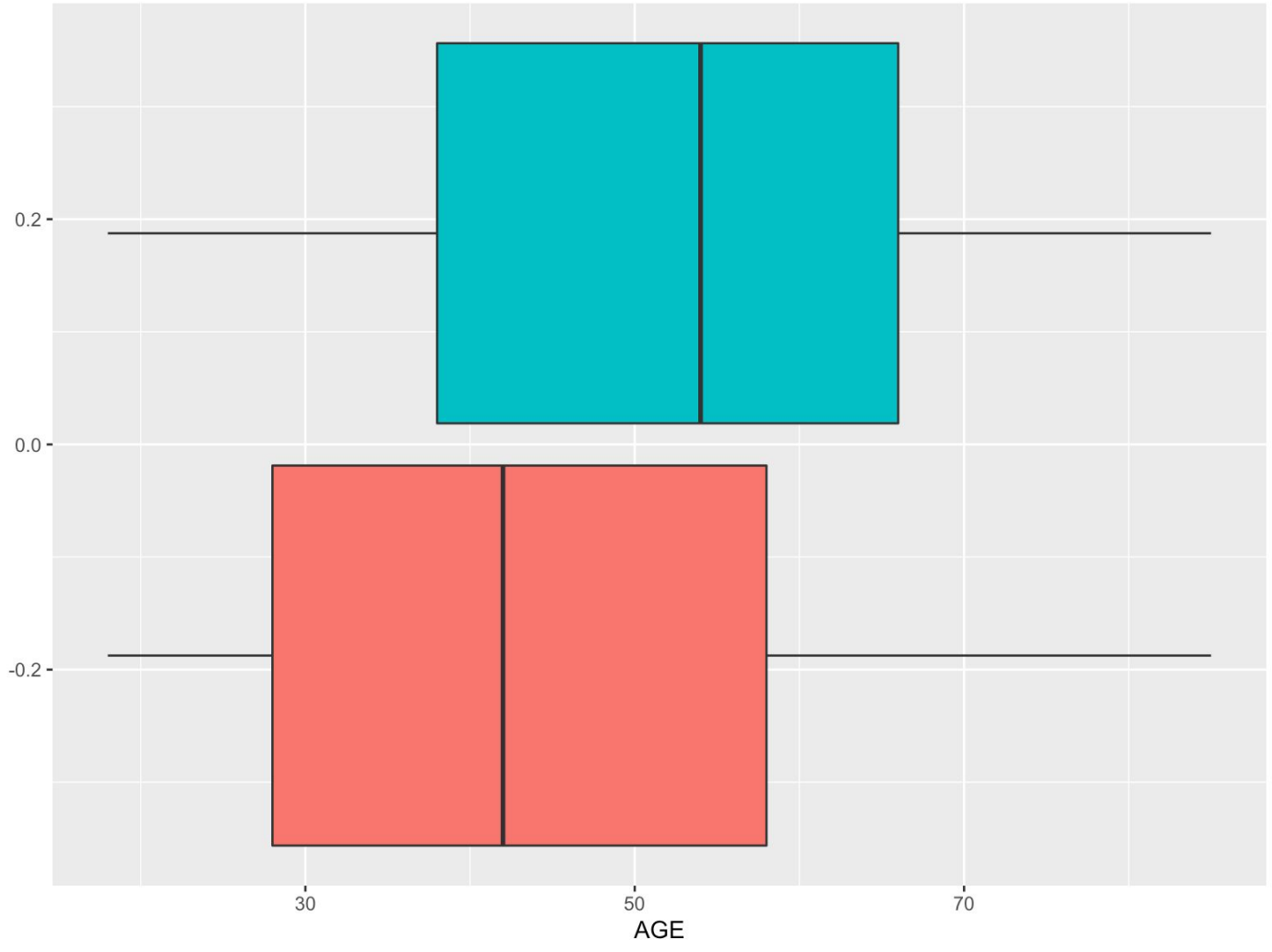

2016
2018
1.00
0.75
0.50
0.25
0.00
count
30
50
70
AGE
VoteWhen
Before election day
Don't know
NIU
No Response
On election day
Refused

# WE NEED TO TARGET PEOPLE WITH LOWER EDUCATION!!

- Help educate the uneducated on why it is important to vote

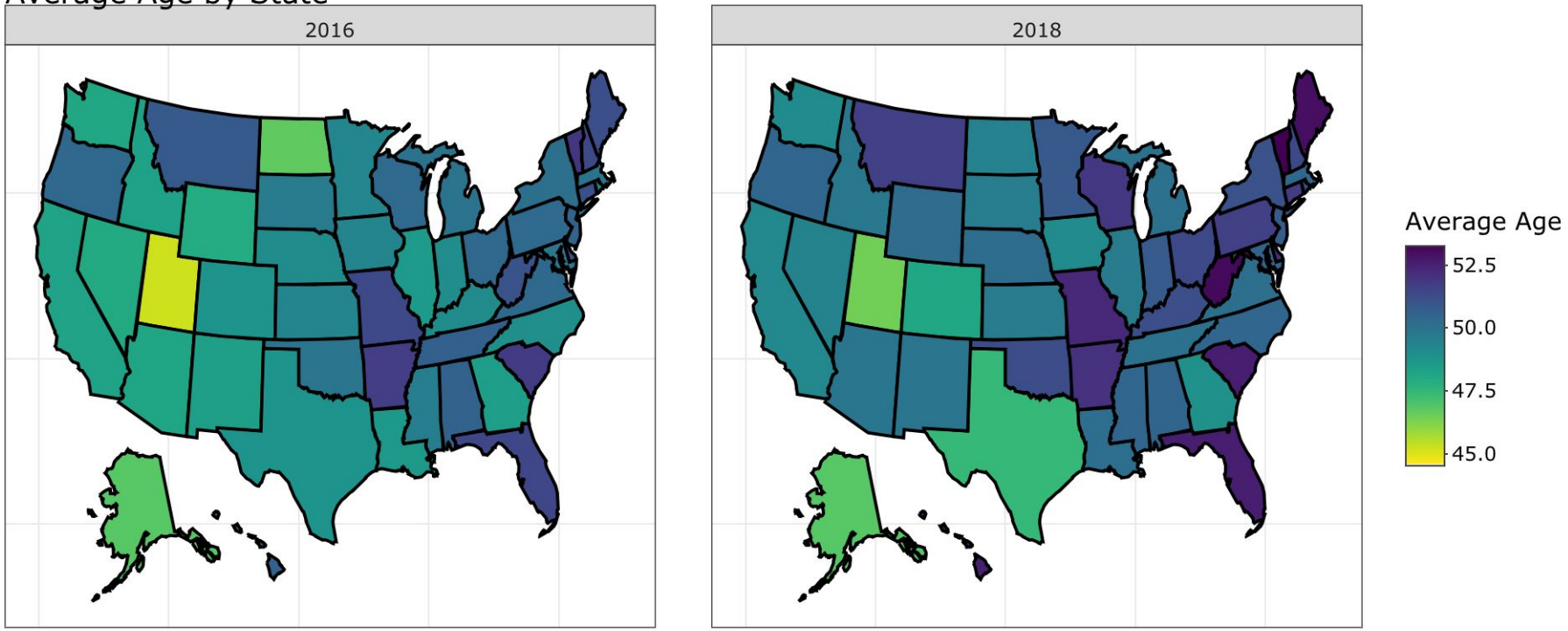


Older people are more likely to vote




We can see there is a correlation between age and voting. Older people tend to vote more, and thus we need to be encouraging the younger generations to get out and vote!

Average Age by State




Looking at the state map Utah, Colorado, Texas, and Alaska has a lower age population