

Title of Your Report

Your subtitle

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Abstract

First sentence. Second sentence. Third Sentence. Fourth Sentence.

key words: USA 2020 election

Please click ["here"](#) to access the [GitHub repository](#) for all work.

Title of your Report

Name(s) of Author(s)

Date

Model

This is my first line. This is my second line. This is my third line.

Model Specifics

```
##      sex      age_group      race      hispan
## Length:3467      Length:3467      Length:3467      Length:3467
## Class :character      Class :character      Class :character      Class :character
## Mode  :character      Mode  :character      Mode  :character      Mode  :character
##
##
##      education      state      vote_trump
## Length:3467      Length:3467      Min.    :0.0000
## Class :character      Class :character      1st Qu.:0.0000
## Mode  :character      Mode  :character      Median :1.0000
##                                     Mean   :0.5097
##                                     3rd Qu.:1.0000
##                                     Max.   :1.0000
##
##      sex      age_group      race
## female:1591  >= 70 :381      american indian or alaska native: 24
## male :1876    18 ~ 20: 23      asian or pacific : 136
```

```

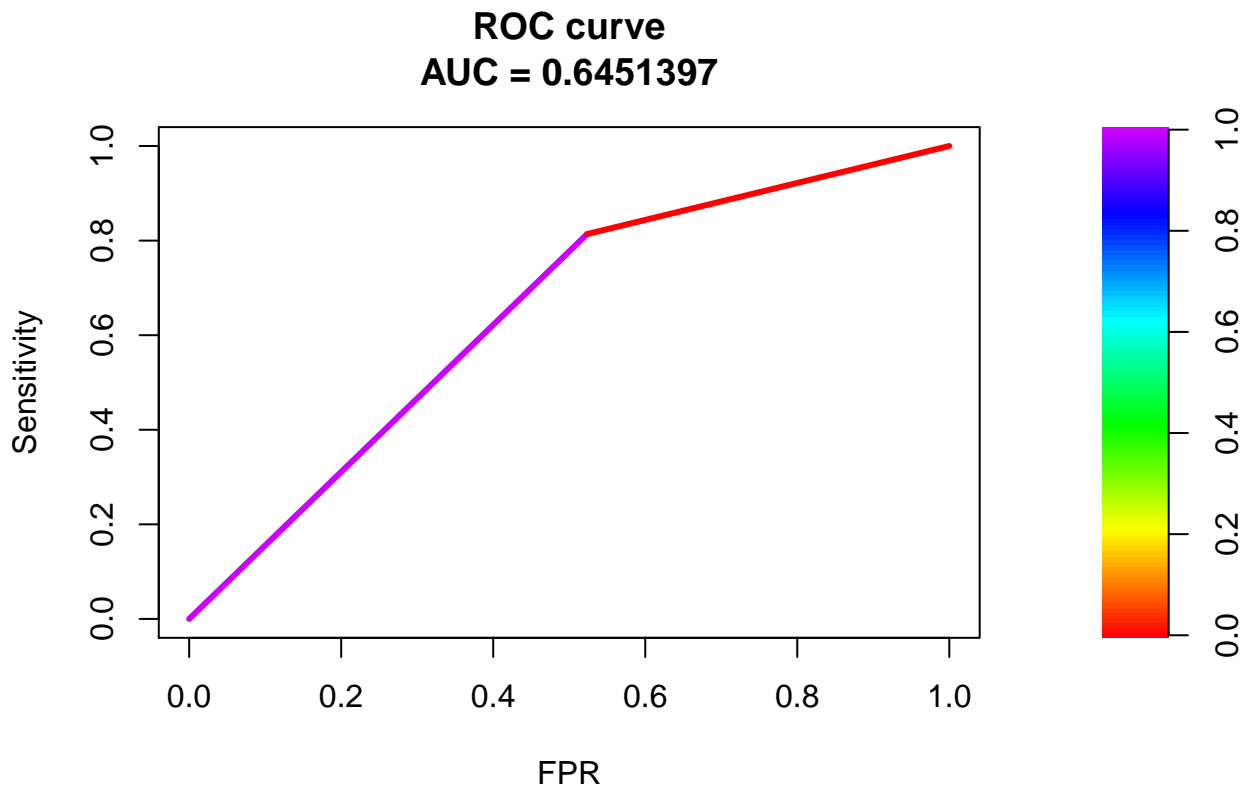
##           20 ~ 30:328   black           : 366
##           30 ~ 40:697   other           : 174
##           40 ~ 50:701   white           :2767
##           50 ~ 60:590
##           60 ~ 70:747
##           hispan        education        state
## cuban      : 19   at most high school    : 584   CA      : 376
## mexican    : 238  bachelor                :1620   NY      : 314
## not hispanic:3059 graduate                : 757   FL      : 292
## other      : 148  tertiary (not bachelor): 506   TX      : 226
## puerto rican: 3                                IL      : 157
##                                           OH      : 155
##                                           (Other):1947
## vote_trump
## Min.      :0.0000
## 1st Qu.:0.0000
## Median :1.0000
## Mean      :0.5097
## 3rd Qu.:1.0000
## Max.      :1.0000
##
## # A tibble: 1 x 1
##   prop_vote_trump
##   <dbl>
## 1         0.510
## Generalized linear mixed model fit by maximum likelihood (Laplace
## Approximation) [glmerMod]
## Family: binomial ( logit )
## Formula: vote_trump ~ sex + age_group + race + hispan + education + (1 |
## state)
## Data: survey_set
##
##      AIC      BIC    logLik deviance df.resid
## 4335.9  4458.9 -2147.9  4295.9     3447
##
## Scaled residuals:
##      Min       1Q   Median       3Q      Max
## -2.2688 -1.0089  0.5580  0.8129  4.6751
##
## Random effects:
## Groups Name      Variance Std.Dev.
## state (Intercept) 0.0565   0.2377
## Number of obs: 3467, groups: state, 51
##
## Fixed effects:
##
##              Estimate Std. Error z value Pr(>|z|)
## (Intercept)      2.10152    0.73666   2.853 0.004334 **
## sexmale           0.41511    0.07578   5.478 4.30e-08 ***
## age_group18 ~ 20  -1.62472    0.66708  -2.436 0.014868 *
## age_group20 ~ 30  -0.23053    0.17010  -1.355 0.175340
## age_group30 ~ 40  -0.01900    0.13696  -0.139 0.889689
## age_group40 ~ 50   0.20558    0.13742   1.496 0.134634
## age_group50 ~ 60   0.15819    0.14086   1.123 0.261423

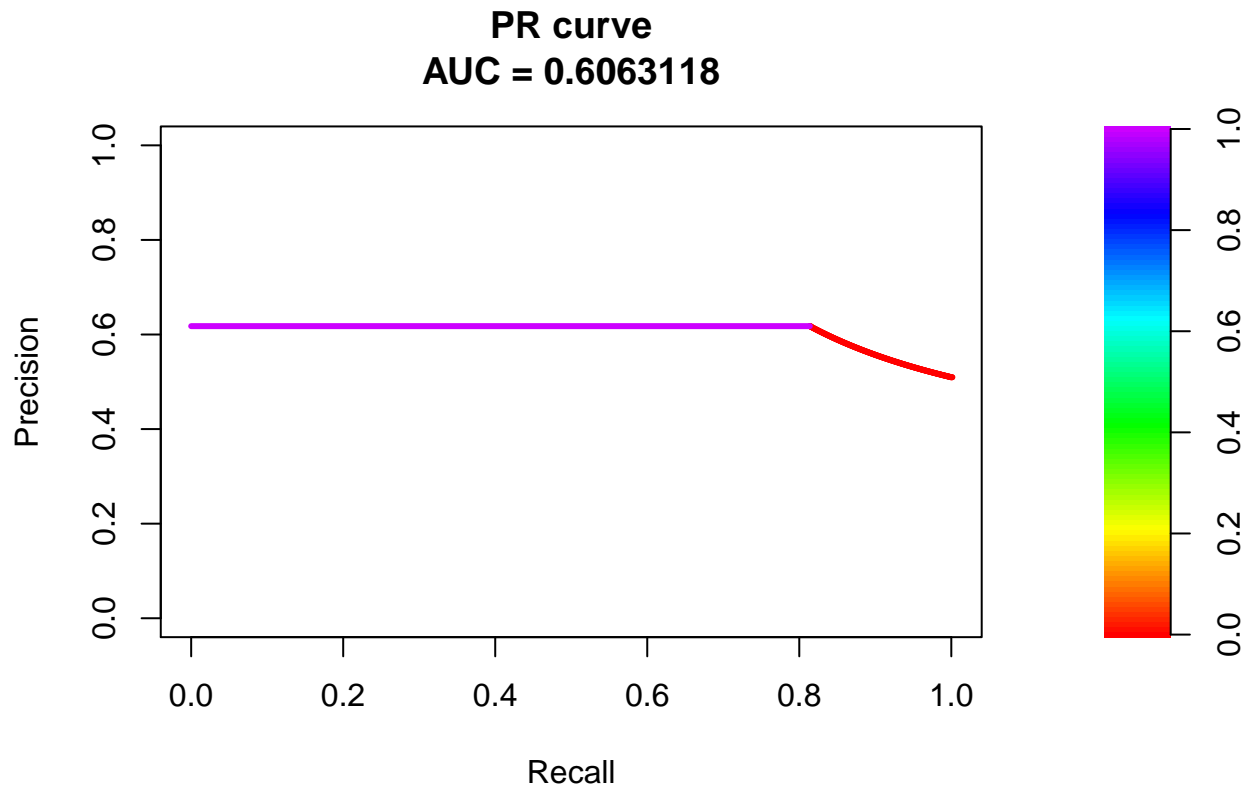
```

```
## age_group60 ~ 70          0.02292    0.13392    0.171 0.864082
## raceasian or pacific     -1.50903    0.49078   -3.075 0.002107 **
## raceblack                -3.21613    0.49016   -6.561 5.33e-11 ***
## raceother                -1.00184    0.48213   -2.078 0.037715 *
## racewhite                -0.48299    0.45368   -1.065 0.287054
## hispanmexican           -1.74771    0.58520   -2.987 0.002822 **
## hispannot hispanic      -1.11824    0.56529   -1.978 0.047908 *
## hispanother             -1.30600    0.59093   -2.210 0.027100 *
## hispanpuerto rican    -1.54304    1.45366   -1.061 0.288470
## educationbachelor       -0.49200    0.10938   -4.498 6.86e-06 ***
## educationgraduate       -0.46929    0.12589   -3.728 0.000193 ***
## educationtertiary (not bachelor) -0.45434    0.13576   -3.347 0.000818 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

##
## Correlation matrix not shown by default, as p = 19 > 12.
## Use print(x, correlation=TRUE) or
##   vcov(x)           if you need it

## convergence code: 0
## Model failed to converge with max|grad| = 0.00781382 (tol = 0.002, component 1)
```





```
## Confusion Matrix and Statistics
##
##           Reference
## Prediction    0    1
##           0  810  329
##           1  890 1438
##
##           Accuracy : 0.6484
##           95% CI : (0.6322, 0.6643)
##           No Information Rate : 0.5097
##           P-Value [Acc > NIR] : < 2.2e-16
##
##           Kappa : 0.2921
##
## Mcnemar's Test P-Value : < 2.2e-16
##
##           Sensitivity : 0.4765
##           Specificity : 0.8138
##           Pos Pred Value : 0.7112
##           Neg Pred Value : 0.6177
##           Prevalence : 0.4903
##           Detection Rate : 0.2336
##           Detection Prevalence : 0.3285
##           Balanced Accuracy : 0.6451
##
##           'Positive' Class : 0
##
```

Post-Stratification

```
##      sex      age_group      race
## female:23559  >= 70 :8211  american indian or alaska native: 117
## male :19888   18 ~ 20: 596  asian or pacific           :13784
##                                     20 ~ 30:3203  black                   : 3706
##                                     30 ~ 40:5419  other                    : 5017
##                                     40 ~ 50:8260  white                    :20823
##                                     50 ~ 60:9541
##                                     60 ~ 70:8217
##      hispan      education      state
## cuban      : 1474  at most high school :21528  CA      :11347
## mexican    : 6264  bachelor           :11340  NY      : 4836
## not hispanic:30272 graduate           : 5746  FL      : 4710
## other      : 5277  tertiary (not bachelor): 4833  TX      : 3600
## puerto rican: 160                                     NJ      : 2153
##                                                         IL      : 1636
##                                                         (Other):15165
##      perwt
## Min.    : 5.23
## 1st Qu.: 308.57
## Median : 444.55
## Mean    : 568.17
## 3rd Qu.: 679.90
## Max.    :9607.51
##
## # A tibble: 51 x 2
##   state trump_predict
##   <fct>      <dbl>
## 1 AK          0.468
## 2 AL          0.500
## 3 AR          0.560
## 4 AZ          0.484
## 5 CA          0.402
## 6 CO          0.487
## 7 CT          0.381
## 8 DC          0.370
## 9 DE          0.379
## 10 FL         0.545
## # ... with 41 more rows
```

Results

```
## # A tibble: 2 x 2
##   elected      total_electoral_votes
##   <chr>      <dbl>
## 1 Donald Trump      116
## 2 Joe Biden        422
```

Discussion

Weaknesses

Next Steps

References

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