



Who Wanted to 'Make America Great Again'?

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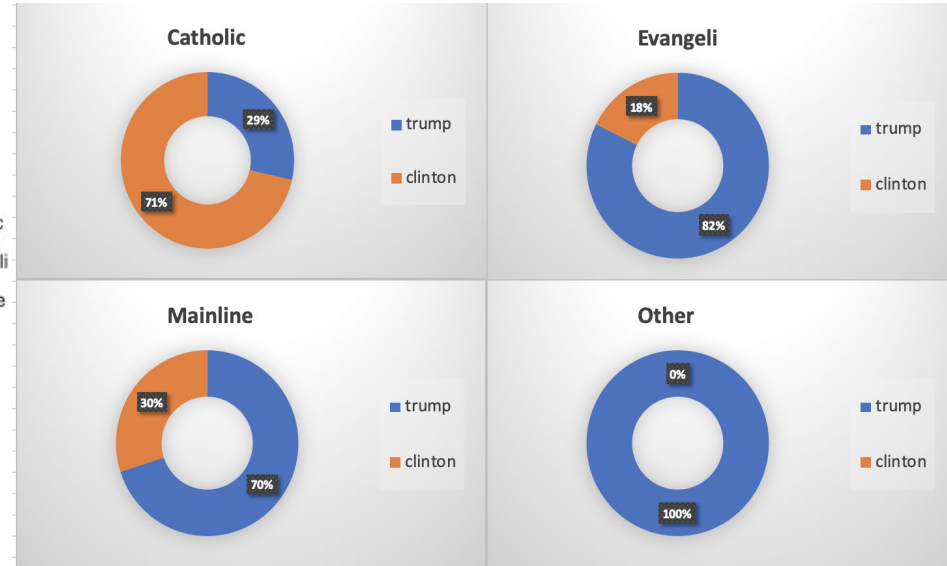
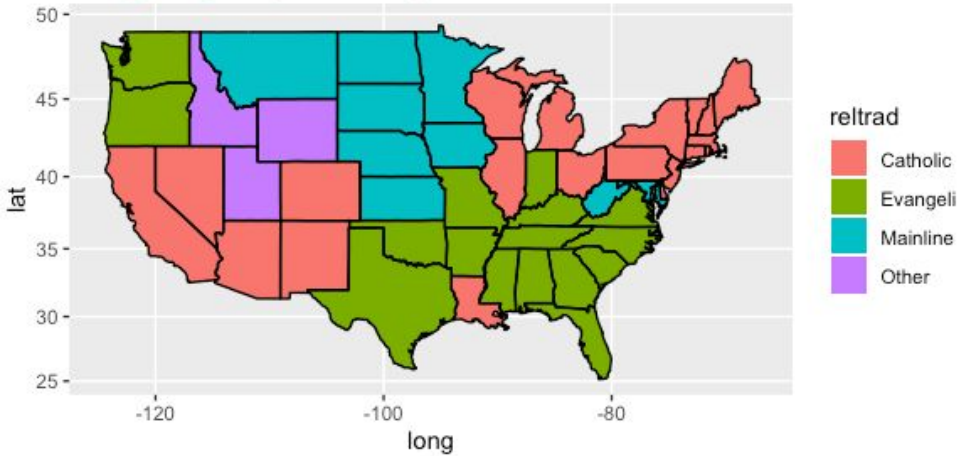


Question and Data Sets

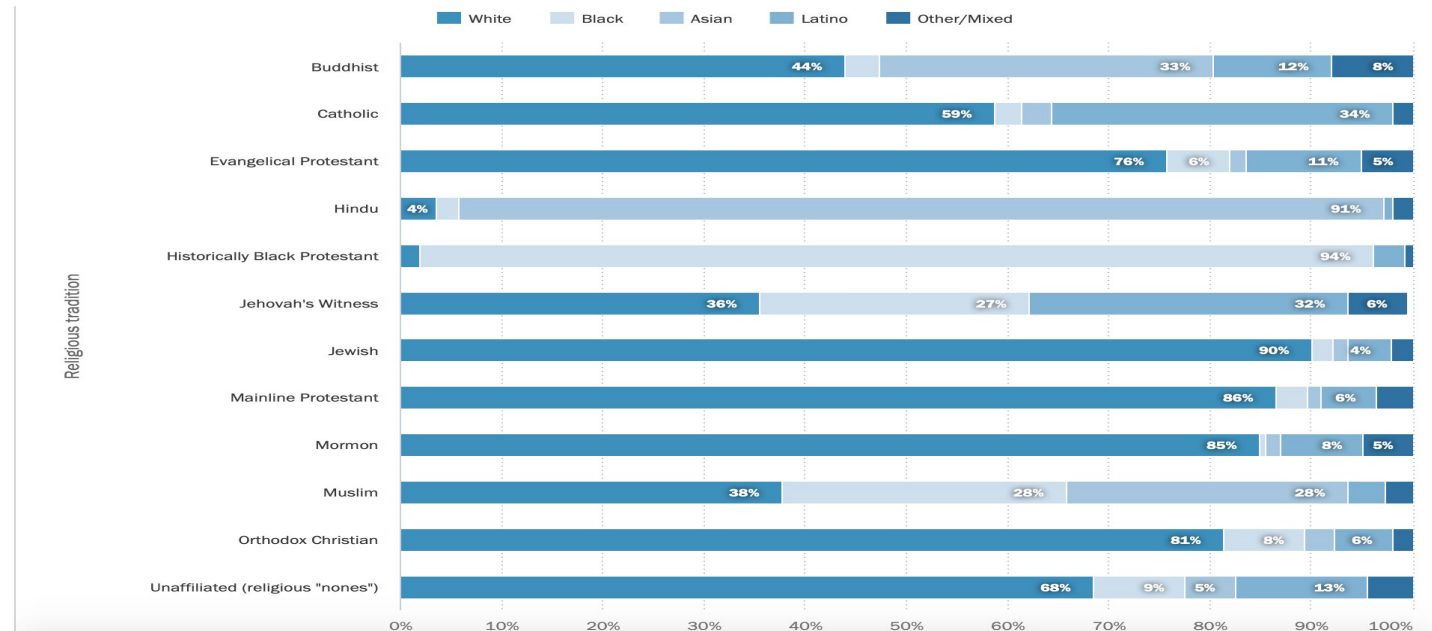
- What factors contributed to if a county went Trump or Clinton?
- Data comes from
 - US Census Bureau Data for 2010
 - Association of Religion Data Archives data for 2010
 - MEDSL County Presidential Election Returns for 2016
- Normalized most values to percents or per-capita, 75 Predictors
 - Income, Race, Religion, Social Spending

Preliminary Analysis - Religion

Religion group Heatmap



Preliminary Analysis - Race and Religion

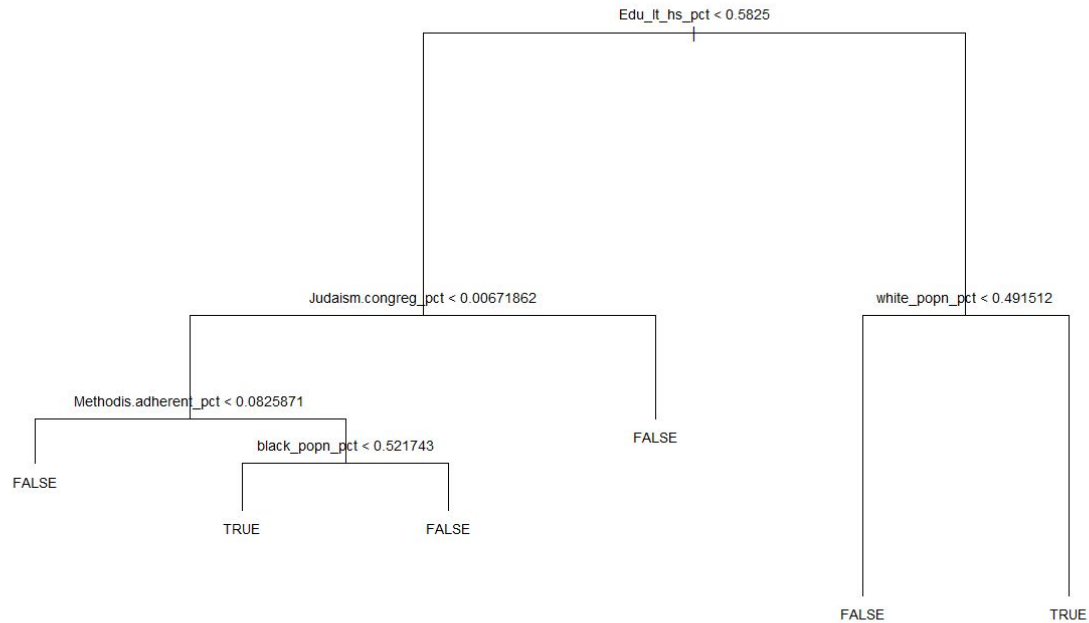




Methods and Results

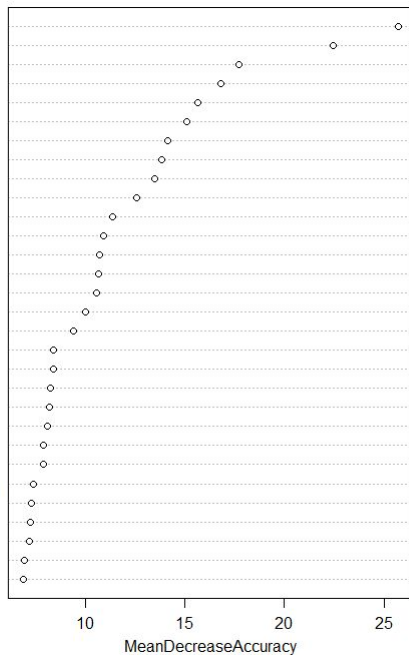
- Pruned Decision Tree (6 Terminal Nodes)
- Random Forest (Default Parameters)
- Decision Tree: 10.13% Test Error
- Random Forest: 6.998% Test Error

Pruned Decision Tree

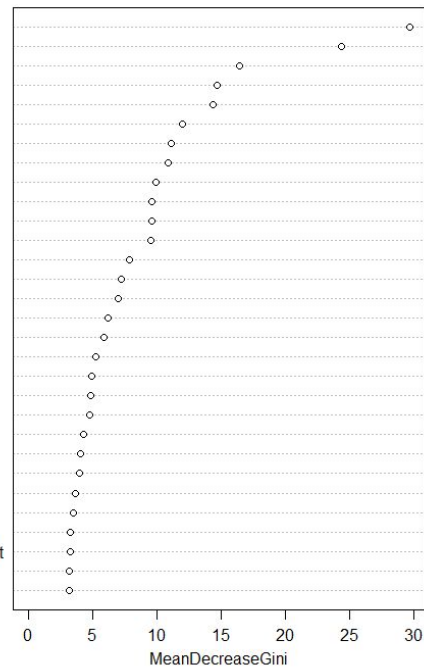


Random Forest - Accuracy and Node Purity

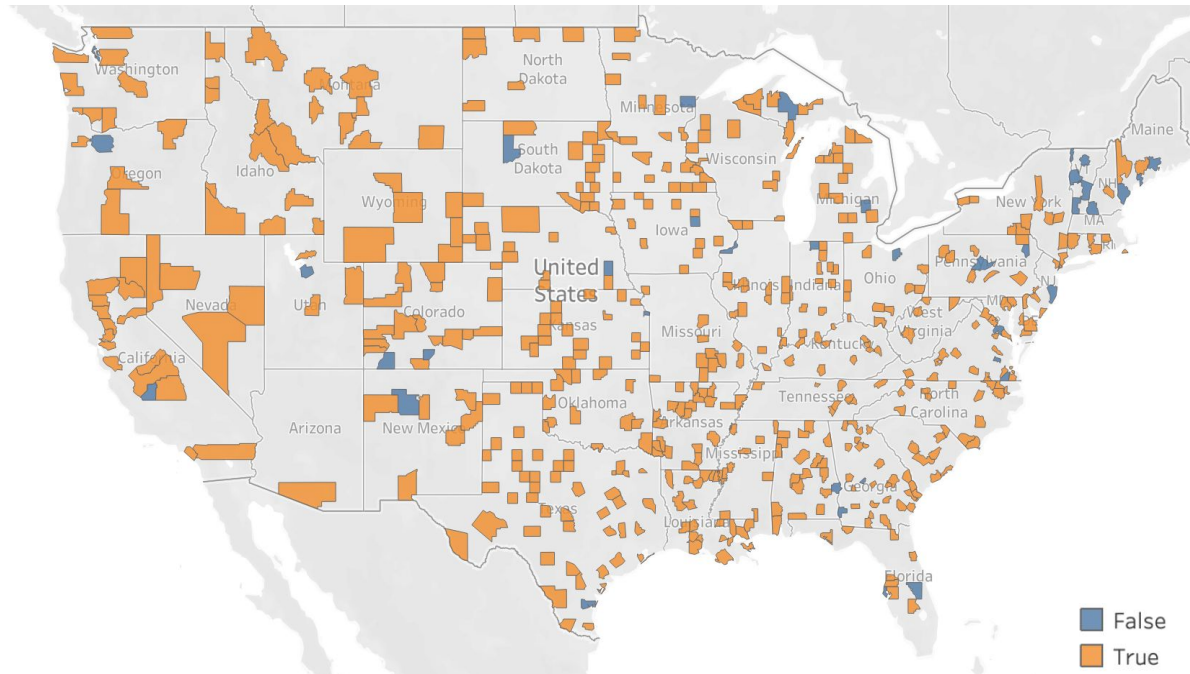
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black_popn_pct
hispanic_pct
Edu_lt_hs_pct
Other.gr.congreg_pct
Edu_geq_bachelors_pct
asian_pfcisld_pct
Catholic.adherent_pct
Judaism.adherent_pct
expend_local_govt
Other.gr.adherent_pct
resident_popn_geq_20_lt_24_pct
expend_fed_govt
Judaism.congreg_pct
popn_sq_mile
Liberal.adherent_pct
resident_popn_total
Restorat.congreg_pct
resident_popn_geq_25_lt_29_pct
adherent_per_congreg
hshld_income_lt_10_1979_pct
median_income_1979
Restorat.adherent_pct
resident_popn_geq_65_pct
hshld_income_geq_40_lt_50_1979_pct
resident_popn_geq_45_lt_54_pct
Methodis.adherent_pct
Liberal.congreg_pct
expend_police_prot_percapita
female_popn_pct



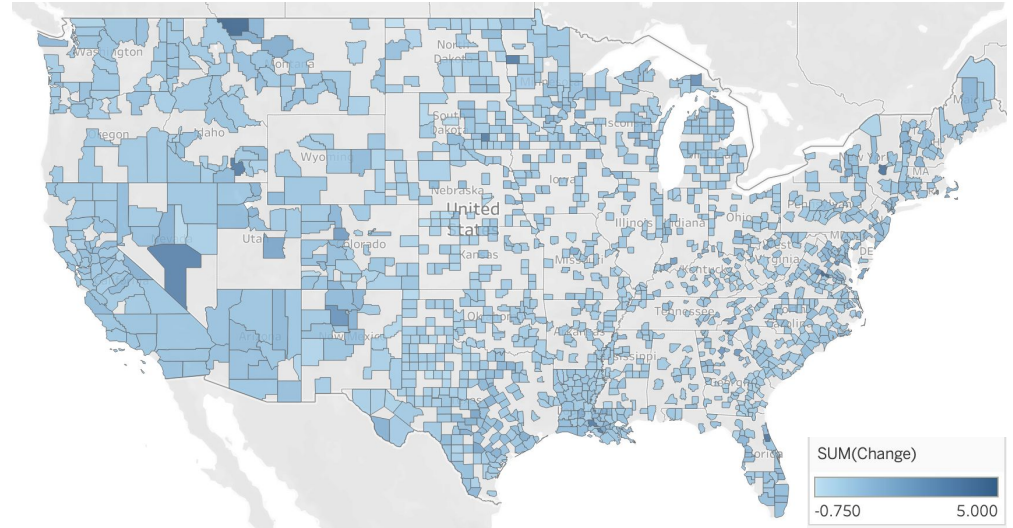
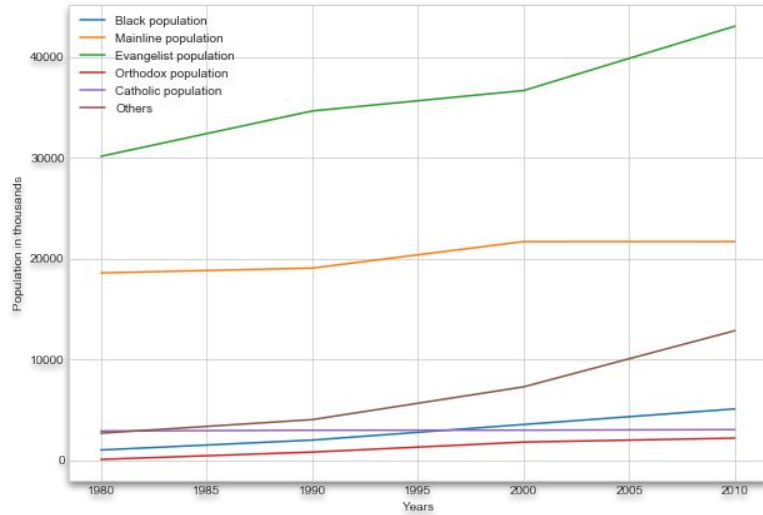
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black_popn_pct
Edu_lt_hs_pct
Other.gr.congreg_pct
asian_pfcisld_pct
Judaism.adherent_pct
Catholic.adherent_pct
Edu_geq_bachelors_pct
expend_fed_govt
popn_sq_mile
hispanic_pct
expend_local_govt
Judaism.congreg_pct
resident_popn_total
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expend_police_prot_percapita
female_popn_pct
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resident_popn_geq_25_lt_29_pct
male_popn_pct
Methodis.adherent_pct
resident_popn_geq_65_pct
Edu_geq_hs_pct
hshld_income_geq_50_lt_75_1979_pct
Catholic.congreg_pct
expend_local_govt_edu_perstudent



Prediction Results



Potential Concerns



**Religious factors appear to be
secondary to socio-economic
factors in determining if Trump
won a county**



References

2016 Election county level data:

<https://dataverse.harvard.edu/dataset.xhtml?persistentId=doi:10.7910/DVN/VOQCHQ>

A description of religious factors in our analysis:

http://thearda.com/Archive/Files/Downloads/RCMSMGCY_DL2.asp

Race composition of each religious group:

<https://www.pewforum.org/religious-landscape-study/racial-and-ethnic-composition/>