

Connecting social and economic trends to political outcomes in Orange County, CA

Neva Flaherty

November 17-18, 2020

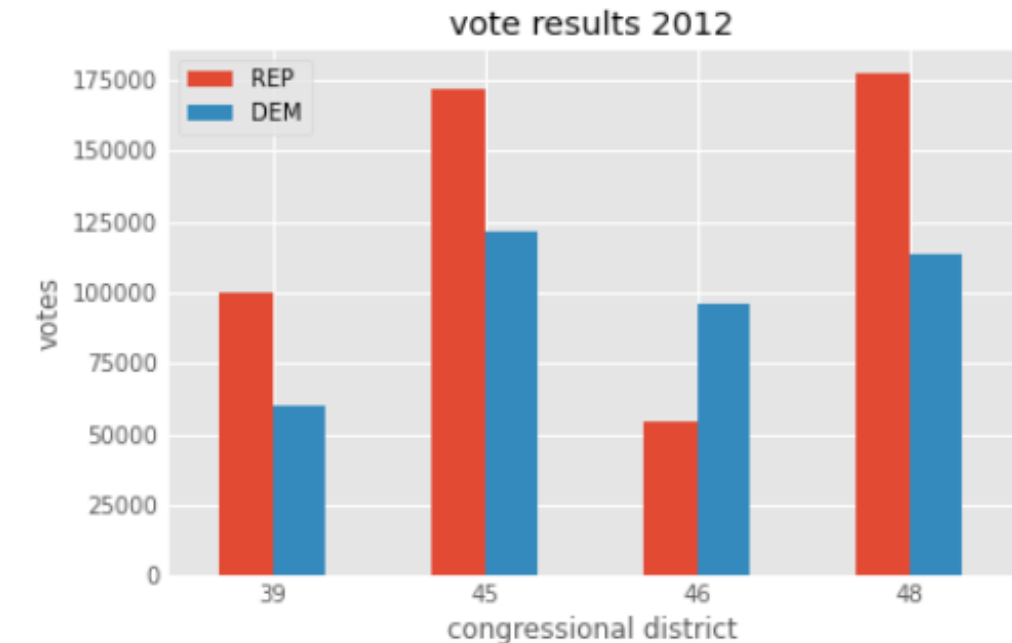
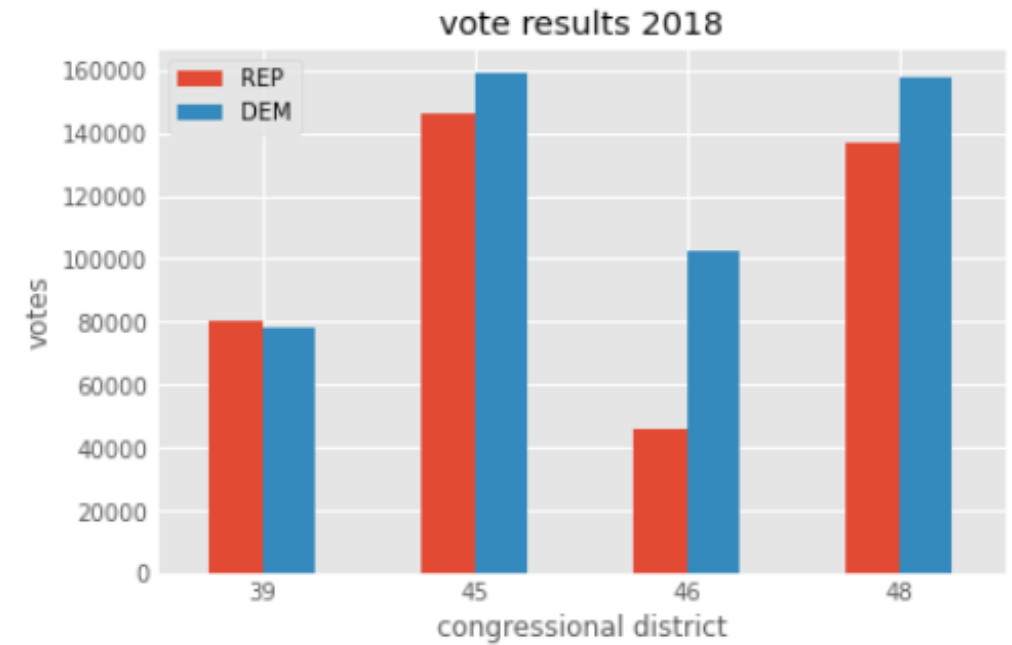




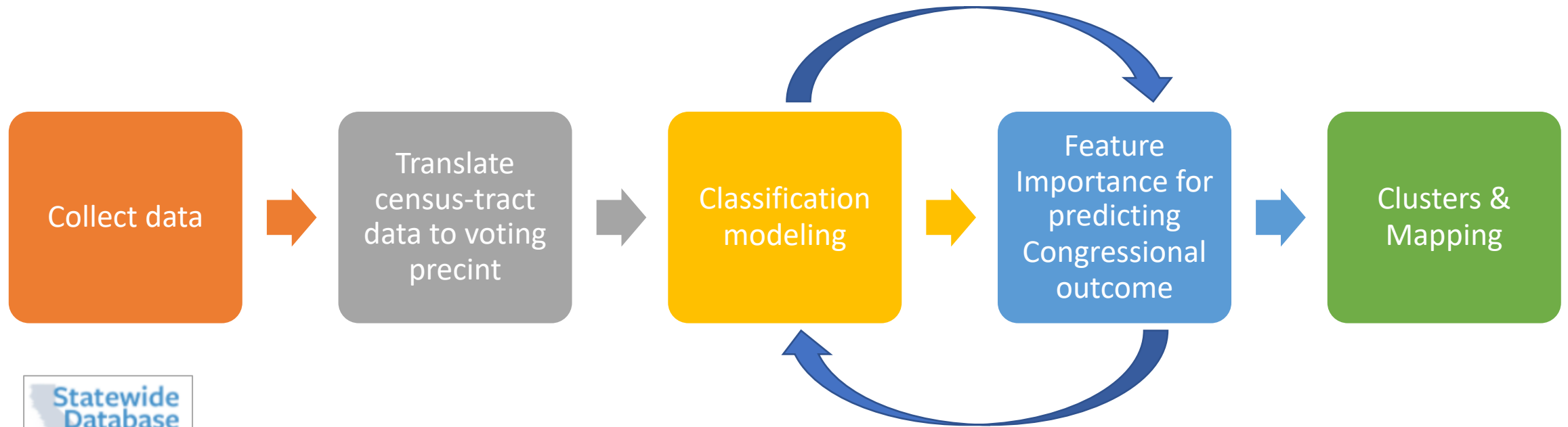
What's going on in "The OC"?

- Understand social and economic drivers that are connected with political shifts in Orange County, California
- Map demographic clusters

Orange County's conservative bias weakened in 2018



Combine Census data and Voting results to understand drivers of results



Started with “kitchen table” economic data

Median Household Income

Occupation

Office worker
Service worker
Construction/Natural resources
Transportation

Employment Status

Un/Employed

Both parents work outside the home

Health Insurance

Public

Private

None



Political Affiliation

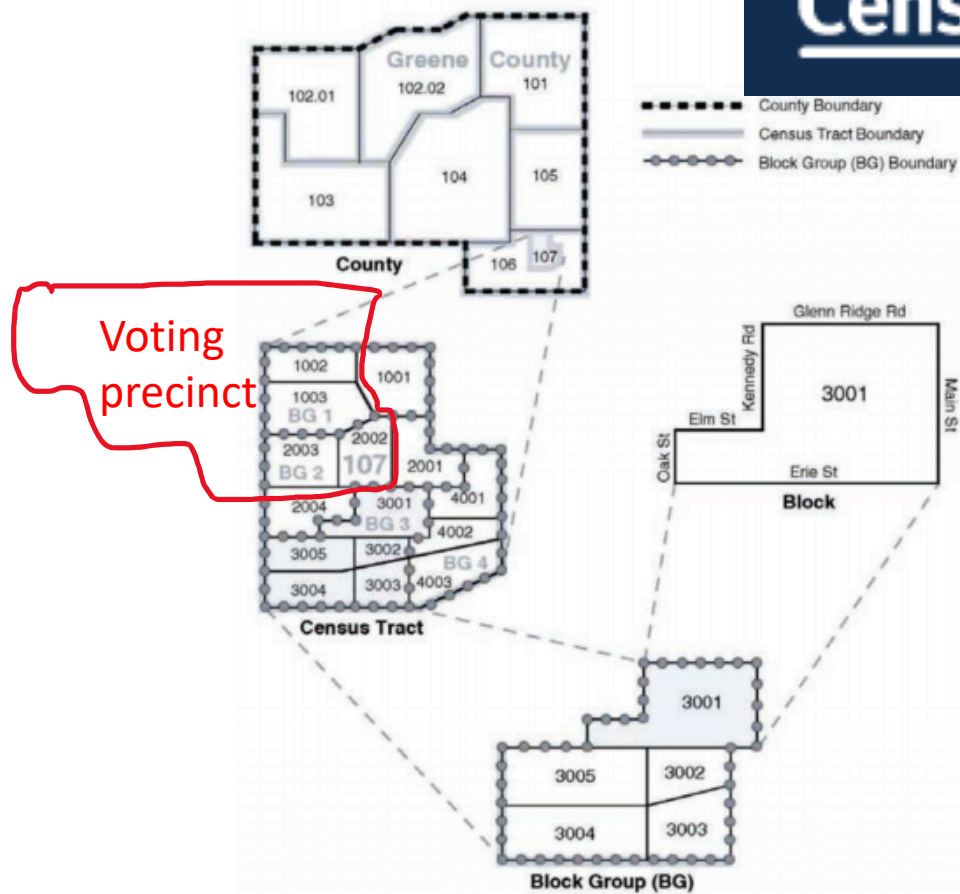
Detail on Hispanic voters



Voting precincts, Census boundaries, and county boundaries do not align



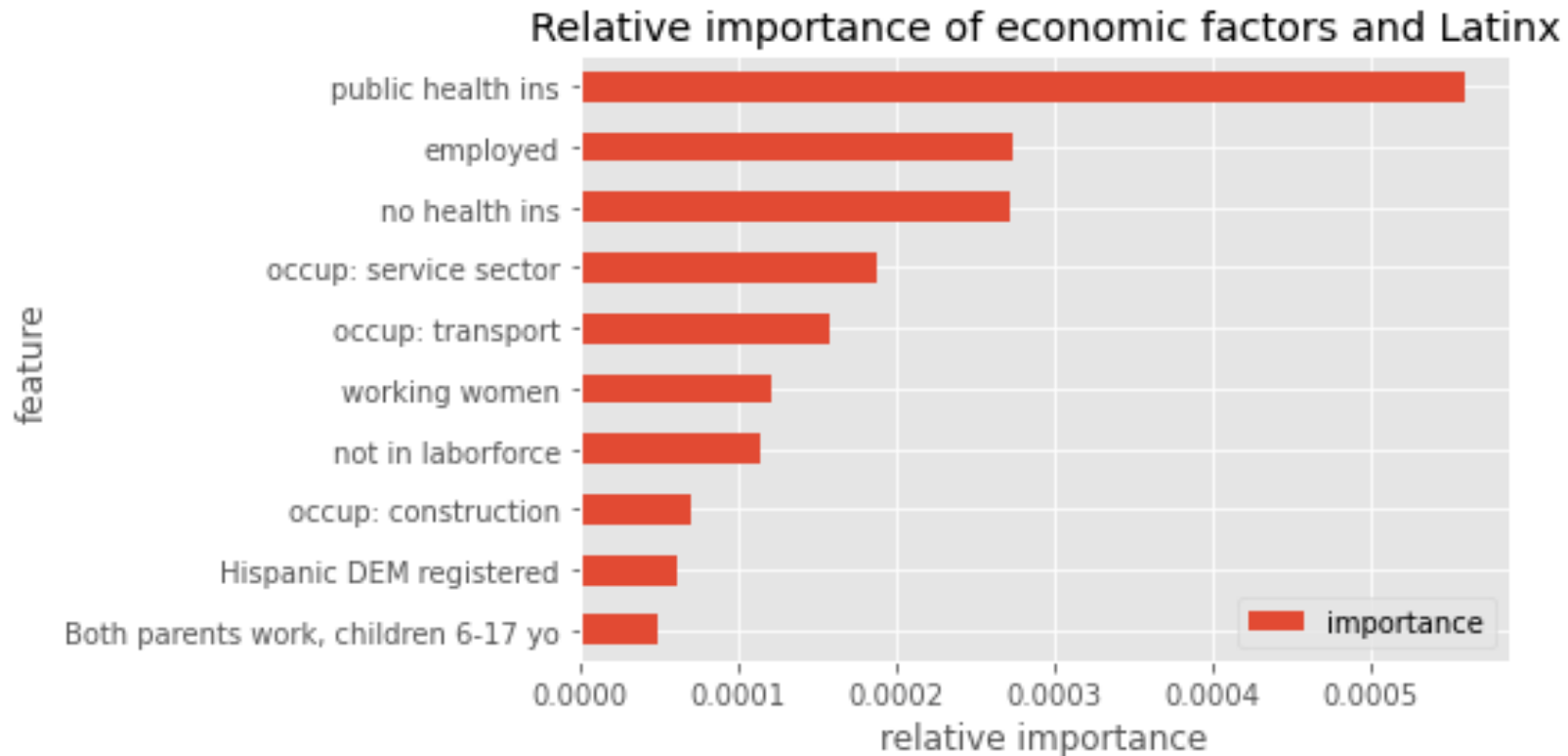
srprec_orig	tract	pctsrprec_tract
7701	110304	100.000000
75702	75809	97.095134
75702	75814	2.904866
75701	75810	100.000000
75122	75810	100.000000



Health insurance was an important factor in getting out the Dem vote for 2018

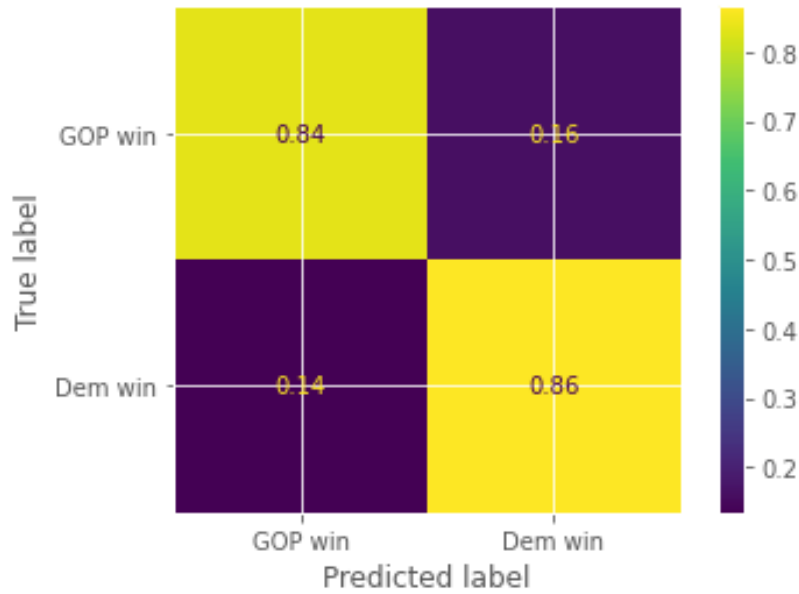
Logistic Regression Results

Accuracy: 85%

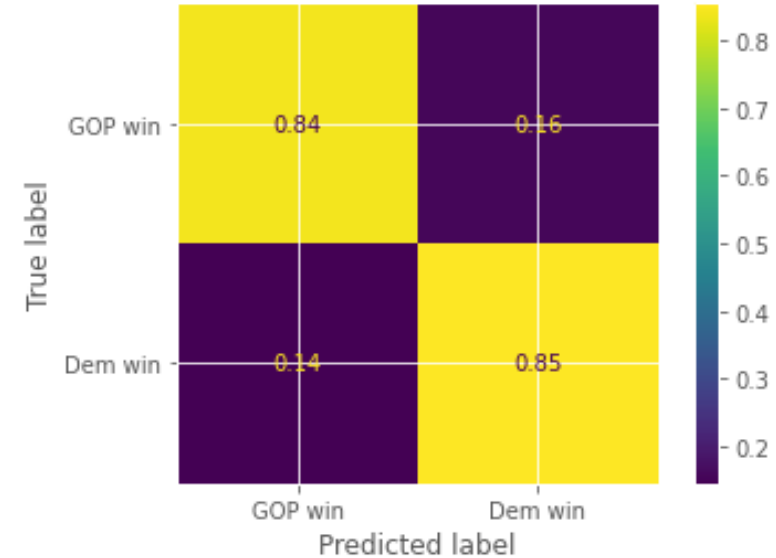


Logistic regression was the most successful model (by a hair)

Logistic regression
Accuracy = 0.853

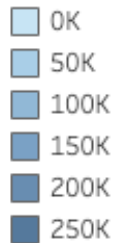


Gradient Boost
Accuracy = 0.850



What about
household
median
income?

Hh Med Inc Wgt



Hh Med Inc Wgt (Map1.Csv1) (bin): **250,000**
Srprec: **53146**

Conclusions and next steps

Reusable blueprint

Data collection

Mapping

Continue to test models and feature engineering

PCA

Random Forest

Continue to test clustering models

Agglomerative

