

PS5

Amir Tayebi

March 5, 2019

1 Cleaning the data and plotting the associated party and gender against voting behavior

Once again, I'm using the same website that I used for the previous homework assignment, but the data I scrapped is different. Here is my step by step explanations:

1. getting the list of all candidates for all the states
2. getting bills from US Congress in year 2012 for all the states
3. looking for the term "Education" in the title column
4. getting details of the bill
5. getting the actionId related to the passage of the bill
6. removing absentees
7. getting all the biographical data on all legislators associated with the bills
8. merging the biographical data with the votes
9. introducing some binary variable's additional variables for statistical analysis
10. plotting the relationship between the gender of a legislator and their voting behavior
11. plotting the relationship between the associated party of a legislator and their voting behavior

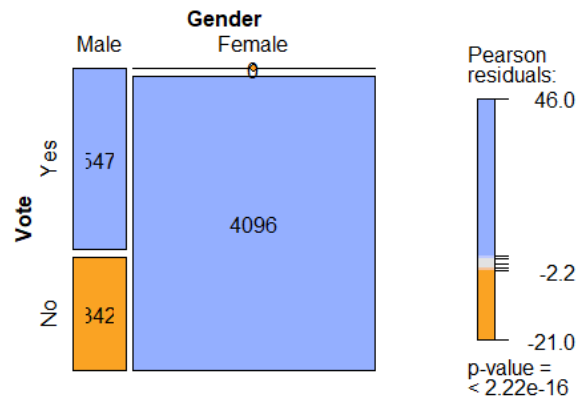
The first graph shows the relationship between the gender of a legislator and their voting behavior in bills related to education. The width of the boxes represents the relative share of the each gender, while the height of the boxes shows the proportion of votes in each category(Yea or Nay). The second graph shows the relationship between the associated party of a legislator and their voting behavior in bills related to education. Once again,the width of the boxes

represents the relative share of the Democratic party relative to other parties, while the height of the boxes shows the proportion of votes in each category (Yes or No). Since the two variables are binary variables, the mosaic plot is really useful in understanding the relationship between the two variables.

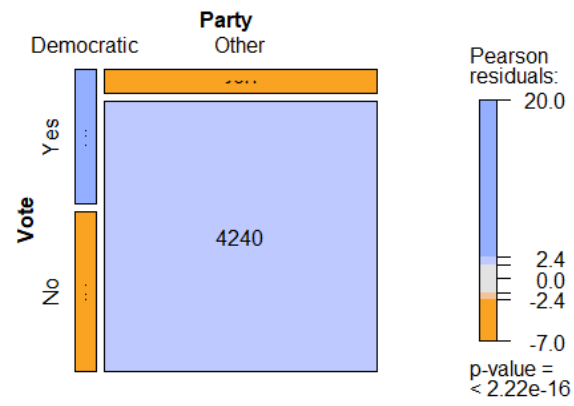
2 Mapping the share of female legislator

This graph shows the share female politicians by state. The mapped descriptive statistics show that in most states males are dominated in terms of county legislative offices.

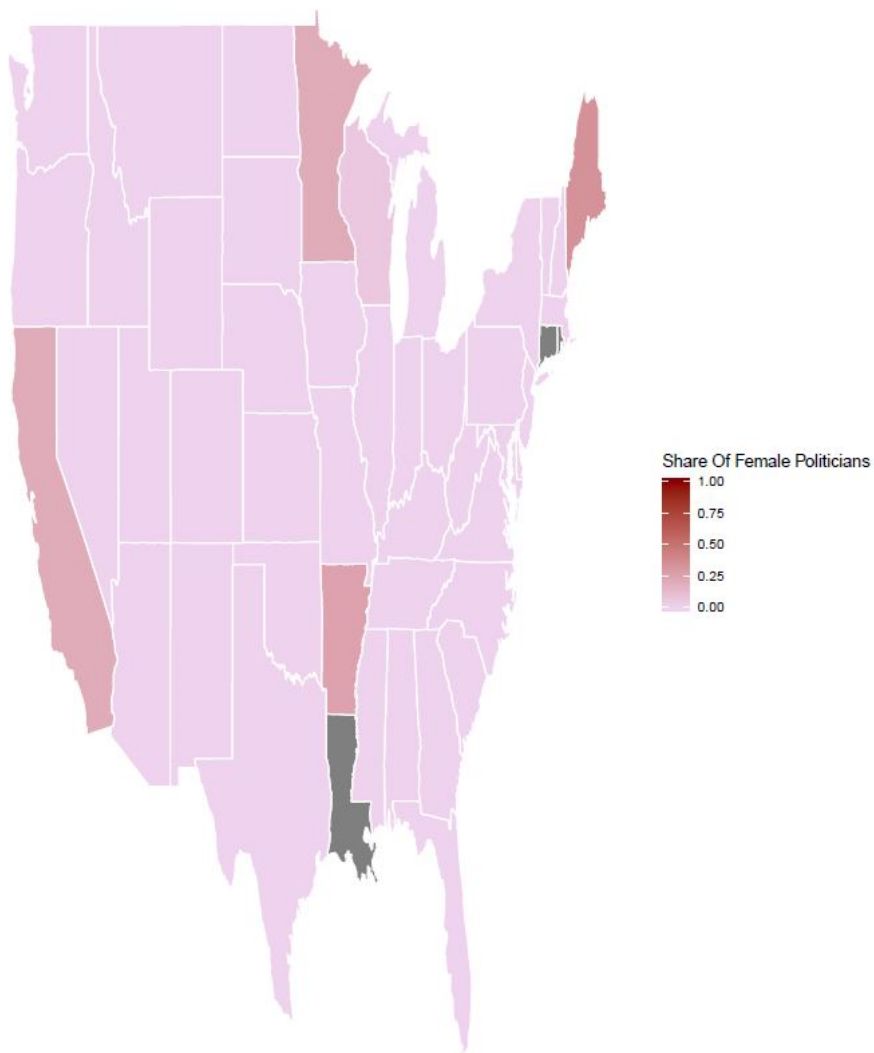
The universe is immense and it seems to be homogeneous, in a large scale, everywhere we look at.



Gender and Voting behavior



Party and voting behavior



Female Share in Politics