

Take-Home Final

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I started in Python3 and then finished in R. I found that all the urls were the same with the exception of the year, so I made a list of all the urls by adding the appropriate number to the year for the census and election urls.

After that I used BeautifulSoup and made functions to grab the needed table from a url and then looped through it for them all. Because the length for the election tables were not all the same I made the range for the loop very long but had it break when it hit the total at the bottom of the tables. Also, I had to make sure that the democrat and republican data went in the correct columns by having the function check if the first column had democratic or not. The census table was much nicer with the exception of the column for population sometimes swapping.

Then the nested lists that the functions gave me were insterted into a SQL database using sqlite3 and an index was made to make sure I did not insert the data twice by accident.

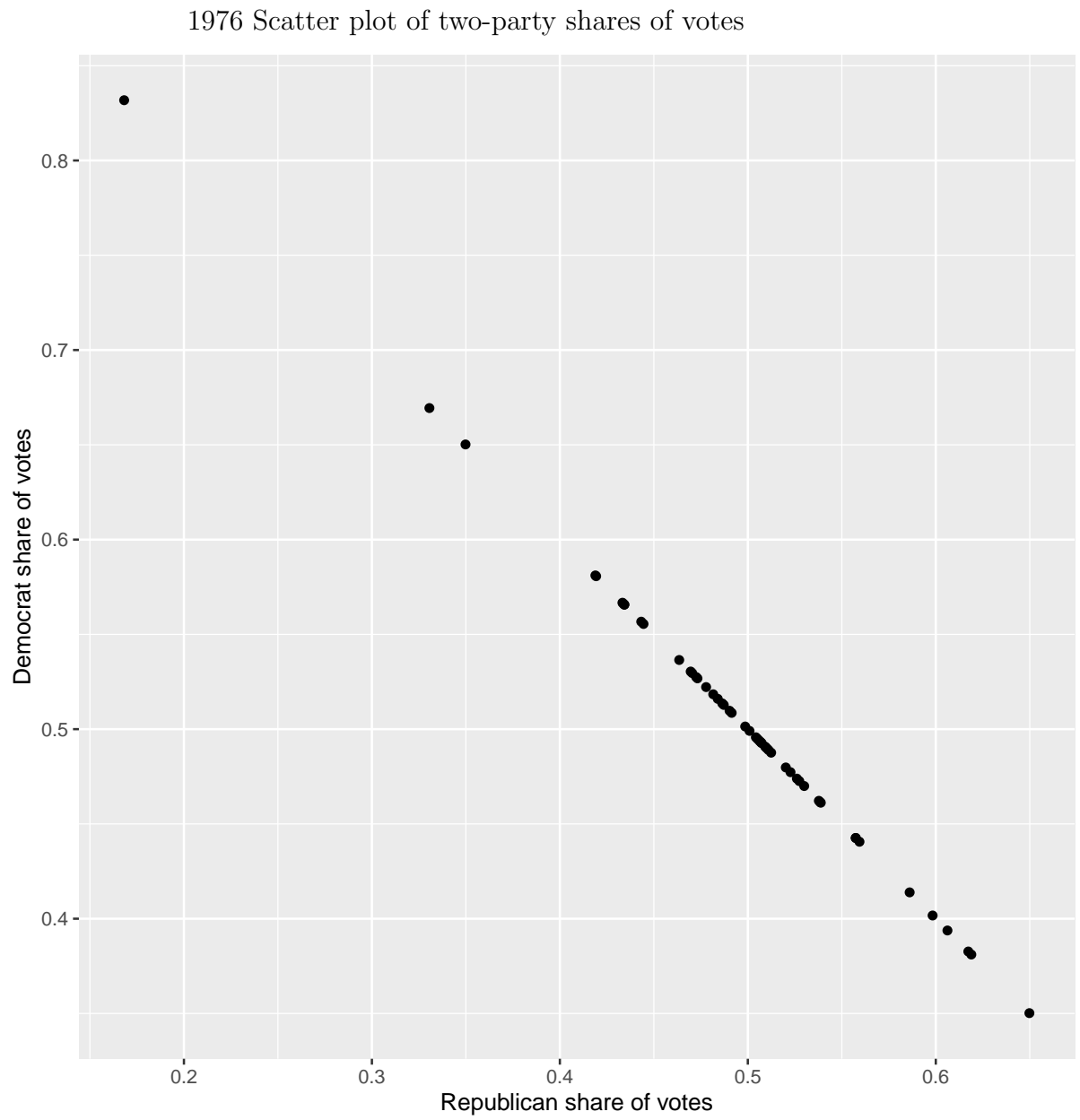
Lastly, I selected the asked for results and used Rstudio's ggplot2, dplyr, and RSQLite packages to make the graphs.

Results from the SQL select for the fraction of the 1980 population that voted for Ronald Regan (Republican).

state	Rfraction
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Georgia	0.1197
Hawaii	0.1349
South Caro	0.1413
North Caro	0.1556
Maryland	0.1614
Rhode Isla	0.1634
New York	0.1648
Alabama	0.168
West Virgi	0.1714
Tennessee	0.1716
Kentucky	0.1735

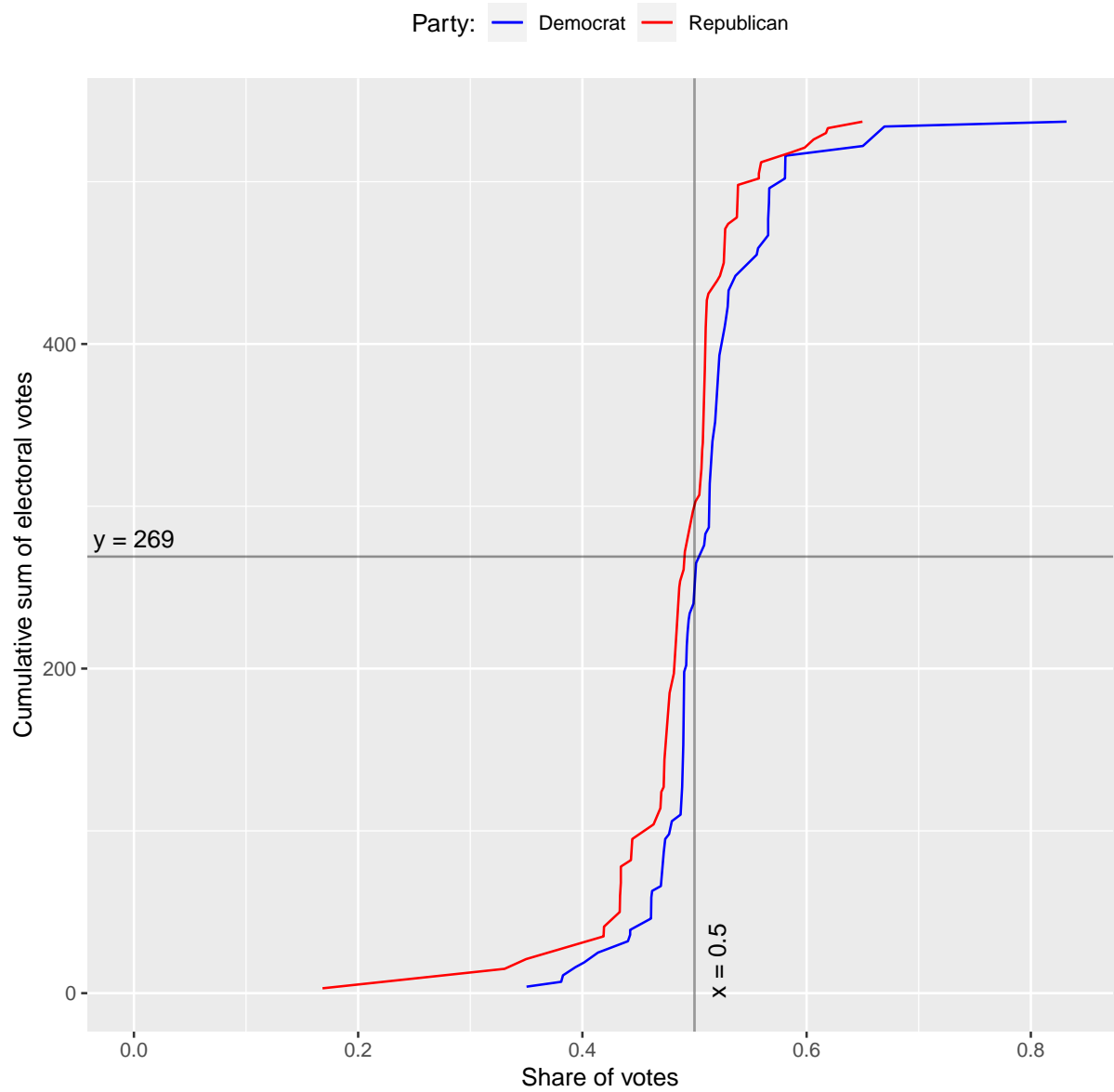
Mississippi	0.175
Arkansas	0.1763
Texas	0.1764
Massachuse	0.1844
Vermont	0.185
Virginia	0.1851
Delaware	0.1872
Louisiana	0.1885
Pennsylvan	0.1907
California	0.1912
New Mexico	0.1925
Nevada	0.1937
Arizona	0.1949
Ohio	0.2044
Illinois	0.2064
Michigan	0.2068
Washington	0.2094
Florida	0.21
New Jersey	0.21
Maine	0.2121
Minnesota	0.2142
Oregon	0.2169
Connecticu	0.2179
Missouri	0.2185
Colorado	0.2257
Indiana	0.2287
Oklahoma	0.2299
Wisconsin	0.2314
Iowa	0.232
Wyoming	0.2358
Kansas	0.2398
New Hampsh	0.2408
Montana	0.2629
Nebraska	0.2675
South Dako	0.2871
North Dako	0.2968
Utah	0.3009
Idaho	0.308

1.



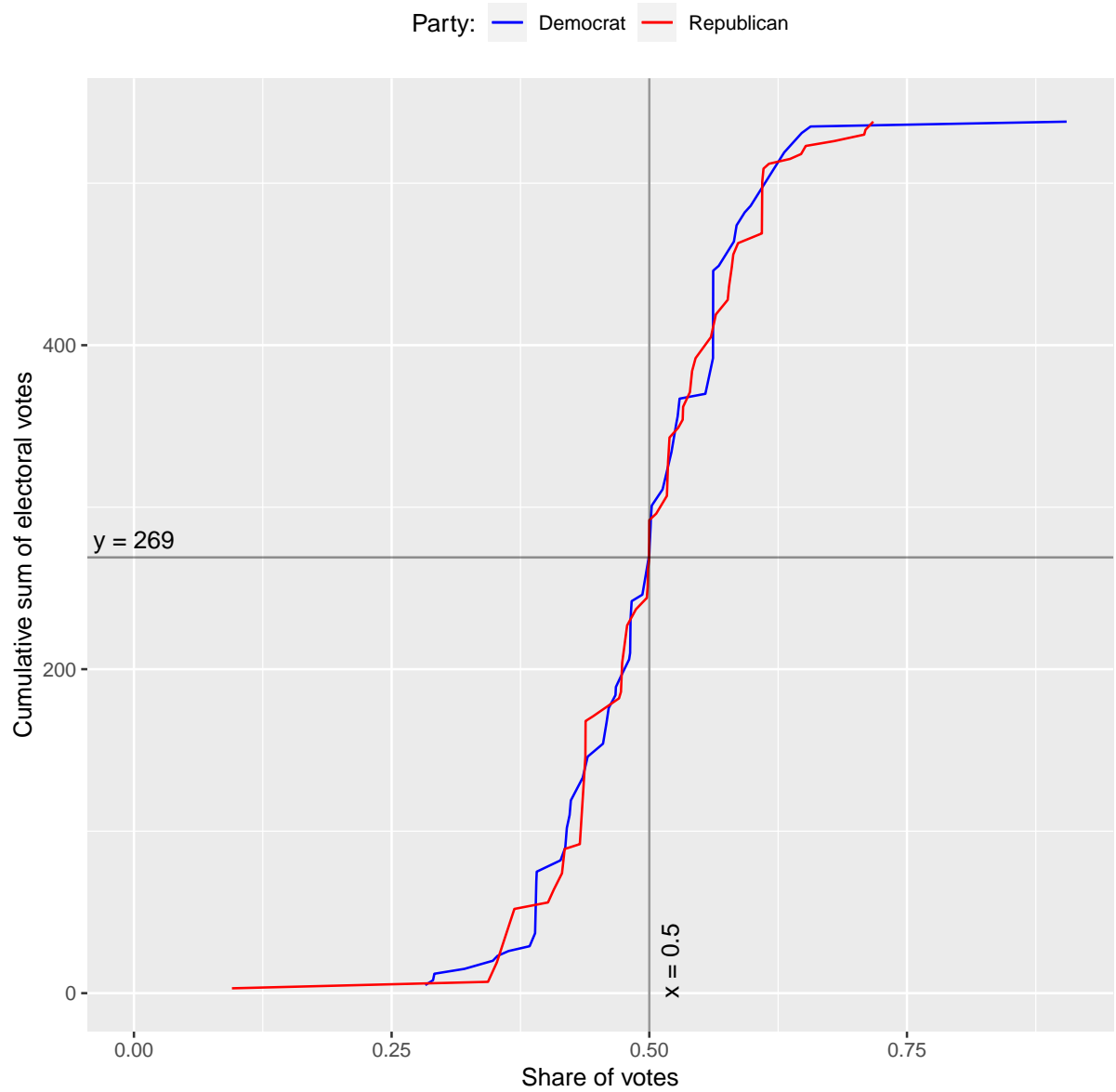
2. a)

1976 Cumulative distribution of electoral votes over vote-shares



2. b)

2000 Cumulative distribution of electoral votes over vote-shares



2. c)

2016 Cumulative distribution of electoral votes over vote-shares

