

Homework Assignment #3

Due March 3, 2016

The purpose of this assignment is for you to analyze the Electoral College voting system that is used to elect the President of the United States and to make a recommendation to modify the weights assigned to each state in order to correct some of the “flaws” of the Electoral College. Of course, you must first identify these “flaws”.

In this assignment, use the electoral votes and apportionment populations derived from the 2010 census and assume that all of the electoral votes from any state go to a single candidate (although this is not the case in Nebraska and Maine). If needed, you should do some background reading on how the Electoral College works. The best source for data for the 50 states is the apportionment populations given in Table 1 at the Census Bureau’s website:

<http://www.census.gov/2010census/news/press-kits/apportionment/apport.html>

You will also need that the District of Columbia’s 2010 census population is 601,723.

1. (7 pts) Using the concepts we have discussed so far this semester, analyze the Electoral College as a two-tier voting system. In particular, be certain to calculate the Penrose measure, Banzhaf index, and equitability measure for every state; calculate the indirect voting power for the citizens in each state; and calculate the mean majority deficit for the system overall. Comment on your findings, paying special attention to any “flaws” you see, including any bias for particular states.
2. (14 pts) Make a proposal for modifying the weights assigned to the states to address the problems you identified in the first part. Do the same analysis for this system that you did for the Electoral College, compare your results, and make a case that your proposal should be adopted.

Note: You can change the total weight of the Electoral College from 538, if you want. You should treat this as just a change in the weights in the Electoral College, not as a change the number of representatives in Congress. i.e. Do not treat this question as a reapportionment problem.
3. (7 pts) Do you think that your proposal could be implemented? Since this would require amending the US Constitution, do a careful analysis state-by-state to determine which states you believe would support for your proposal and compare to the requirements for amending the Constitution.

Notes:

- For your calculations to be valid, we are assuming that the Electoral College represents a yes/no voting system – i.e. there are only two options. While this is not strictly true, it is extremely rare for any candidate other than a Democrat or Republican to receive any electoral votes.
- We’ll talk later in the semester about why the voting system in the United States reinforces a two-party structure.