**Abstract**

When the founding fathers of these United States came together to form the Articles of Confederation, and later the U.S. Constitution, they formed the structures of government in a way they deemed best for a country at the forefront of international freedoms, democracy, and progress. However, in recent times, through an increasingly partisan government, it seems our country’s leadership is losing its’ qualities of a representational democracy. I gathered data and researched the voting behaviors in both chambers of Congress over a period of 27 years, all the data that the government has made available in a machine readable format.

**Introduction**

I came up with the idea for this project on the night of the presidential election in 2016. The first thought that came to my mind was that the government could not fail at the hands of one presidential administration because the checks and balances were in place to prevent just that. However, many news sources continued to spread word that with a single party in charge of all three major decision making chambers of government, and I began to question the strength of the checks on power between the Executive and Legislative branches. I began to question whether Congress really represented their constituents or simply made decisions based on party lines. The results were demoralizing but it is something that we as constituents can fix by becoming more aware of the way our elected representatives vote. We can enact change by letting our congressmen and congresswomen know what our priorities are as citizens of this country, and by ensuring they indeed represent us and not the special interest groups or the party they align themselves with.

This is by no means meant to be a partisan report. I have taken extreme care to remove any political or party bias from this investigation. My goal here was not to point fingers at any party or any chamber of congress. Rather my research was meant to inform the public that we as constituents are the new checks and balances on our elected representatives. We must take on responsibilities we previously disregarded and remind our representatives that they do not work for donors. They do not work for special interest groups. And they definitely do not work for a political party.

**Results**

As displayed by the graph A, in both chambers of congress, the House of Representatives and the Senate, Partisan voting has dramatically risen over time. In the Senate, the proportion of votes that were deemed partisan increased from 19.3% in 1990 to 84.7% in 2017. Meanwhile in the House of Representatives, the same statistic rose from 27.3% in 1990 to 83.3% in 2017.

What’s more disturbing though is the sharp drop in nonpartisan votes. Bipartisan votes tend to fluctuate because there are often bills and motions within the chambers that are overwhelmingly popular or unpopular, and these include attendance calls and motions for the nation to honor individuals. However, nonpartisan vote proportions demonstrate proof of politicians voting for their constituents and not blindly based on party pressure and affiliation.

The information gathered on years before 2000 was simply to set a benchmark of where this country’s government has been in the past on partisan voting. By a close analysis of Graph A, one can see that each time the Republican party held control of all three entities, there is a spike in partisan voting. This means that in each

**Graph Explanations**

Graphs D and E display all the collected data for each chamber of Congress. The sum of each year’s vote proportions does come out to 100%. Each year’s collective data accounts for every vote in the chamber excluding the initial roll call for the House of Representatives.

The backgrounds are tailored to deliver the most prominent information for the graph at question in terms of which political party held control of which Chamber of Congress and the White House at any given point in time.

**The Process**

Coming up with these charts and conclusions was by no means a simple process. I began by setting up a Raspberry Pi computer in my dorm room to act as a small utility server. Then, I identified the two national logs of congressional voting from both the House and the Senate. After sampling a few XML files and scanning through them individually, I wrote a Python based web scraper to aggregate the data from each vote for each year and compile it into a CSV formatted database. Once the Raspberry Pi had returned the database, I wrote a Python data analyzer to calculate the proportion of votes that were Partisan, Bipartisan, and Nonpartisan. Once the analyzer created data structures storing this information, I used matplotlib, a Python data visualization library to plot the proportions against time.

**The Analysis**

Bipartisan votes are defined as those in which two historically conflicting parties agree or cooperate. The statistic used to calculate bipartisan votes was each vote where over 95% of congressional members voted together in Aye or Nay. I found this as the most accurate form of determining partisanship by the following criteria: If one party makes up 95% or more of a vote category, the opposing party contributed to less than 5% of the vote category and that proves a vote was split by parties.