Incentive-Based Voting Behavior in the U.S. Congress

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**Introduction**

Over the past few decades it has become increasingly evident that a period of stagnation has overcome the U.S. Congress to the point of being ineffectual. Interestingly, this stagnation extends even to policies that, according to polling data, are highly supported by the American public. Examples of this range from gun rights to the recent leak that the Supreme Court will soon overturn the long-held precedent of Roe v. Wade (abortion rights). This raises the larger question of what influences, or incentivizes, voting behavior in the U.S. Congress. Prior political research on this issue suggests several theories on lawmaker behavior that may explain voting outcomes, yet, we still do not have a clear understanding of incentive-dynamics that might drive voting behavior. In short, we seek to address this gap by arguing that given the increasingly competing and complex incentive structure that politicians, both on the left and the right, as well as by both incumbents and non-incumbents must navigate, a complexity perspective might be useful in uncovering some of these mechanics. To do this, we are interested in building an ABM to simulate the voting of representatives in the U.S. Congress based on a list of dynamic incentives.

**Brief Background**

Anthony Downs (1957) popularized the theory that in the presence of two-party competition parties will tend to tack towards the political “center” in an attempt to capture a larger swath of the electorate; the logic being that appealing to the extremes will not garner enough votes to win an election. For example, in modern political discourse, the media often elevates the “moderate” position as the most rational strategy (images such as West Virginia’s Joe Manchin and Arizona’s Kyrsten Sinema come to mind). This theory has also been called the “median-voter theory.”

On the other hand, more recent research by Gilens and Page (2014) have suggested that Economic Elite Domination or the power of special interest groups better fits the empirical data. According to a multivariate analysis of around 1700 policies between 1981 and 2002, they concluded that the “average citizen” has little to no influence on U.S. public policy making. This raises questions about what mechanisms drive Congressional voting patterns in 2022. In addition, two other important events have surfaced in the popular American political discourse over the past decade or so that provide some clues, at the very least, about how Congresspeople have strategically campaigned given the steady recognition of the above facts.

Maybe one of the most important political developments occurred in February of 2009 within the Republican Party popularly known as the Tea Party Movement. Partly in response to the historic election of Barak Obama in 2008, this relatively small, but disproportionately loud and well-funded, contingent of the Republican base demanded more accountability from party elites. Modeled after the watershed moment leading up the American Revolution in December of 1773, the Tea Party Movement signaled a shift in the cultural discourse of American politics that has only grown since. Today, echoes of this can be heard in some of the most popular politicians running for election on both sides of the political spectrum. Interestingly, this is particularly true of non-incumbent politicians who have proudly announced that they are not part of the “Washington Establishment.” Famously, the rise of the Tea Party led to the surprising early resignation of then Speaker of the House John Andrew Boehner.

Examples of this can be found on both the right and left, probably most famously beginning with the historic election of Alexandria Ocasio Cortez (AOC) who defeated the long-time incumbent and ostensible successor to Nancy Pelosi, Joe Crowley, in 2019. Ocasio Cortez’s election was quickly followed by a series of upsets of democratic establishment figures making up a young cohort of progressive politicians that became popularly known as “The Squad.” These include figures such as Ilhan Omar of Minnesota, Ayanna Pressley of Massachusetts, and Rashida Talib of Michigan. More recently, this same phenomenon has seemingly been repeating within the Republican Party with the election of Conservative representatives Marjorie Taylor Greene of Georgia and Lauren Boebert of Colorado. Both Greene and Boebert have become famous for their outspoken and controversial opinions often targeting fellow Republican colleagues for not being Conservative enough. For example, just this past April, both Greene and Boebert voted against the TRANSPLANT Act, a bill that would reauthorize a program that matches bone marrow donors and cord blood units with patients who have leukemia and other diseases, that overwhelmingly passed the House in a 415-2 vote with Greene and Boebert being the sole holdouts (Diaz 2022). These are just some examples of the legacy of the 2009 Tea Party Movement in which freshman Congresspeople are willing to buck the party line; a trend that only seems to be growing with time.

Besides the growing anti-establishment fervor from both voters and freshman congresspeople, a second, and potentially even more consequential change has occurred in political signaling: the rejection of big money donations from special interests. The idea of the rejection of Political Action Committee (PAC) donations was made prominent with the 2016 run of presidential hopeful Bernie Sanders. Sanders, who ran against long-time political bureaucrat, First Lady, and former Secretary of State Hillary Clinton, was widely seen as an “outsider” candidate who famously lambasted politicians in both parties for being too “in bed” with large political donors.

In response, Sanders, from the very beginning of his presidential campaign, announced that he would not take PAC money and instead, rely on only small dollar donations to fund his presidential run. Some have suggested that this was a subtle signal to voters that if elected, his rejection of special interest money would make him more responsive to the needs of the average voter. While Sanders was ultimately defeated by Clinton who went on to face Donald Trump in 2016, he was able to garner the support of a very vocal (and surprisingly young) contingent of voters who were animated by his populist message. Maybe even more importantly, Trump also positioned himself as an outsider populist candidate who railed against both the political establishment and hinted at the corruption in Washington with his popular slogan “Drain the Swamp.”

With both the rejection of politics-as-usual campaigning and the increasing appeal of non-incumbents who only take small-dollar donations, there seems to be a decided cultural political shift in which politicians seek to signal to an increasingly disaffected electorate that their incentive structures are antithetical to their predecessors. However, regardless of this apparent shift, incumbents consistently hold extremely high re-election rates against challengers setting up what some have referred to as the increasing emergence of intra-party civil wars. This raises an important question: given the potential of a changing and increasingly divisive Congress, what drives the voting behavior of Congresspeople in an increasingly complex political landscape?

We argue that, given the increasingly competing and complex incentive structure that politicians, both on the left and the right, as well as by both incumbents and non-incumbents have to navigate, a complexity perspective might be useful in uncovering some of these mechanics. In short, we are interested in building an ABM to simulate the voting of representatives in the U.S. Congress based on a list of dynamic incentives. The incentives discussed loosely include:

1) financial (small vs. big dollar);

2) ideological;

3) and intra-party pressure/sanctioning.

The idea is to see how incentive structures lead said politician to vote with (or against) their constituent’s wishes. Moreover, we seek to use a clearly popular policy as defined by popular opinion polls (e.g., background checks for gun ownership or the preservation of Roe v. Wade) as a proxy for measuring the consistency of Congresspeople to vote with or against the American constituency. Through implementation of an Agent-Based Model, we will program decision trees into agents representing Congresspersons to see how and which prioritization of incentives impact voting outcomes.

Some of the dynamics/characteristics we were thinking about include, but are not limited to:

* Time steps- election cycles/congressional sessions
* Spatial- red/blue states
* Dynamics-changing of public opinion over time
* Agent types- red/blue politicians

Other potential idea/outcomes:

What if we increased the number of newcomers who are willing to buck party line? (Collective power/Coalition Generation?)

\*After a set number of time steps agents will evaluate payoff and update strategy (e.g., they didn’t get the donations they expected in a previous cycle or shift in party power?)

Things to think about:

* Are strategies and representation different at different scales? (see Mirta Gilesic how diff strategies spread in networks)
* Maybe use Stochastic Block generative model to generate the network structure we think congress might look like? (see talk from Aaron Clauset)

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* Coalition generation in a two-party system  
    
  1. Generate the Congress based on known/assumed incentives  
  2. Experiment with “what-if” scenarios to address policy making impasse   
  3. Generate a popular policy congressional vote scenario

Diaz, Daniella and Manu Raju. 2022. "Marjorie Taylor Greene and Lauren Boebert are lone votes against reauthorizing bill to help Leukemia patients." CNN. <https://www.cnn.com/2021/04/16/politics/marjorie-taylor-greene-lauren-boebert-vote-against-bill-for-leukemia-patients/index.html>.

Downs, Anthony. 1957. "An economic theory of democracy."

Gilens, Martin, and Benjamin I Page. 2014. "Testing theories of American politics: Elites, interest groups, and average citizens." *Perspectives on politics* 12 (3):564-581.