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Project Memo: Congress and The National Debt

Research Question:
What is the effect of a party's control (being either in the majority or minority) of a chamber of Congress in their references to the national debt?

Background / Significance of Question:
The United States national debt is talked about by members of Congress, often by Republicans, with an emphasis on wanting to find ways to reduce such spending. With this, the national debt may be used as a political tool by a party to question choices by members of the other party or the president with regards to spending. The aim of this question is to see if a party being in the minority of a house of Congress makes it more inclined to use language criticizing the majority party on issues of spending and the national debt.

Previous Research on the Topic:
An article published in the American Political Science Review discusses the minority party's ability to influence legislation in Congress. In that discussion, the authors say that this capacity of the minority to influence the legislative process comes from both constraints on the majority party and the cohesion of the minority party (Ballard & Curry, 2021). The authors have stated that even while a majority party may not be unified, legislation can be pursued due to campaign promises (Ballard & Curry, 2021). Still, the ability of the minority party to stick together helps that party affect legislation. Additionally related is James Wallner's article on unified budget accounting in Congress which describes deficit spending as being a political problem between parties in the last few decades (Wallner, 2011). Where the majority party proposes a budget, the minority party would inevitably criticize it.

Although not directly discussing differences in party control, there has been previous research discussing the similar topic area of political polarization. A Pew Research Center article from March of 2022 described the political polarization of the Democratic and Republican Parties in Congress. Over time, the distance between the least liberal Democrats and least conservative Republicans has widened (DeSilver, 2022). The political polarization of parties relates to and affects their strategies while being in either the majority or the minority of that chamber of Congress. A strategy of the minority party for instance may be to distance and differentiate themselves from the stances of the majority party as well as describing to constituents their issues.

Data / Corpus:

        The data used comes from the DCinbox website, which has records of congressional newsletters emailed from 2009 to 2022. This corresponds to the 111th Congress to the 117th Congress. The dataset was obtained by filtering the newsletters by the phrase "national debt" and includes newsletters sent from Senators and from members of the House of Representatives.

        There are a total of 5056 newsletters from Democrats and Republicans, with 606 from Democrats and 4450 from Republicans. When looking at a member's party for a given Congress and Chamber, the number of newsletters is 3188 from the Majority and 1868 from the Minority. While there are many more newsletters from Republicans, there is less of a difference between majority and minority with about 37% from the Minority.

Methods / Process:

I used Topic Modeling from the STM package in R Studio as the method for analyzing the research question. This was used as it can easily incorporate metadata into analysis (Estimating the effects of different variables such as Party or Majority/Minority stance).

The main topic model was created with 10 topics using the formula:

        prevalence = ~Party + Minority + s(Congress)

1. <u>Why did you choose the number of topics that you did?</u>

        I used 10 Topics as using 5 would produce too general of topics. 10 Topics produced a good variety while not becoming too specific for analysis either.

2. <u>Interpret and label the topics.</u>

        Topic 1 has many of its most representative documents by Rep. Steve Womack, yet this topic is mainly determined by text generated by the email process (for example there are many [Link #] produced in the newsletters). As such, Topic 1 is not particularly useful for analysis.

        Topics 2, 5, 7, 8, and 9 all are represented heavily by one or two particular congress members and as such the subjects of those topics are dominated by that congress member's specific issues (This is expressed in the topic labels below by the inclusion of the most represented member for that topic and their state abbreviation for context). Topics 3, 4, 6, and 10 are the most diversified topics in terms of not coming from any one particular congress member. Additionally, these topics are the highest four topics by proportion as shown in Figure 1 below. As such, these are the topics that I most focus my analysis on.
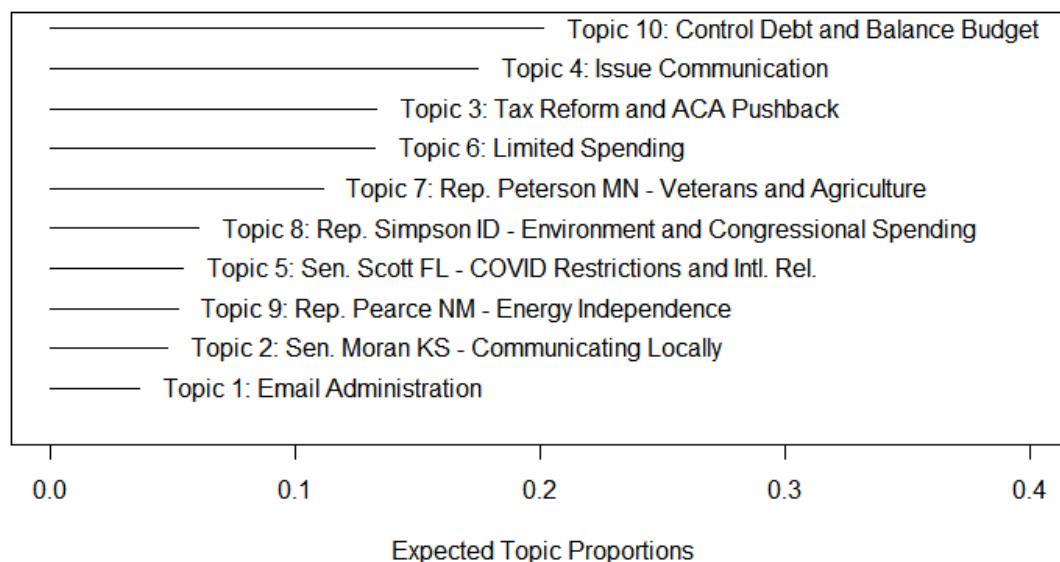
        Topic 3 incorporates many newsletters from around 2010-11 as well as from 2017-18 and covers topics regarding tax reform as well as calls to repeal tax related aspects of the Affordable Care Act. Topic 4 largely discusses ways for congress members and their constituents to communicate. Topic 6 covers a number of legislative topics but primarily focuses on the want for more limited government, in part related to the budget and spending. Topic 10 discusses balancing the budget and trying to control the national debt.

Table 1:

Topic Label	Topic Number	Highest Prob. Words
Email Administration	1	Highest Prob: link, imag, offic, act, district, fax, survey FREX: link, imag, footnot, surveyquest, arkansa, monday-friday, am-pm
Sen. Moran KS - Communicating Locally	2	Highest Prob: kansa, counti, visit, citi, click, meet, week FREX: wichita, kansa, kansan, kentucki, topeka, schiff, olath
Tax Reform and ACA Pushback	3	Highest Prob: tax, job, will, health, american, busi, care FREX: tax, insur, medicar, repeal, rate, incom, code
Issue Communication	4	Highest Prob: offic, washington, phone, district, click, pleas, updat FREX: longworth, hob, constitu, phone, profil, ave, updat
Sen. Scott FL - COVID Restrictions and Intl. Rel.	5	Highest Prob: senat, biden, democrat, american, scott, border, state FREX: biden, covid-, vaccin, rick, pandem, inflat, marco
Limited Spending	6	Highest Prob: presid, hous, nation, bill, click, american, state FREX: hoosier, indiana, gun, suprem, iran, court, trump
Rep. Peterson MN - Veterans and Agriculture	7	Highest Prob: veteran, act, program, servic, work, bill, communiti FREX: minnesota, farmer, veteran, farm, agricultur, mental, improv
Rep. Simpson ID - Environment and Spending	8	Highest Prob: congressman, hous, committe, act, bill, defens, will FREX: cid, simpson, coffman, forb, solid, sequestr, defens
Rep. Pearce NM - Energy Independence	9	Highest Prob: energi, senat, new, job, oil, will, state FREX: -pearc, oil, murphi, pearc, thune, pipelin, mexico
Control Debt and Balance Budget	10	Highest Prob: spend, budget, debt, govern, year, presid, nation FREX: balanc, budget, spend, ceil, deficit, fiscal, path

Figure 1: Expected Topic Proportions

Top Topics

Topic 10: Control Debt and Balance Budget
Topic 4: Issue Communication
Topic 3: Tax Reform and ACA Pushback
Topic 6: Limited Spending
Topic 7: Rep. Peterson MN - Veterans and Agriculture
Topic 8: Rep. Simpson ID - Environment and Congressional Spending
Topic 5: Sen. Scott FL - COVID Restrictions and Intl. Rel.
Topic 9: Rep. Pearce NM - Energy Independence
Topic 2: Sen. Moran KS - Communicating Locally
Topic 1: Email Administration

0.0   0.1   0.2   0.3   0.4

Expected Topic Proportions

3. <u>Analyze the topic model by relating one or more topics to some metadata within your corpus in a way that answers your research question.</u>

The analysis of the topics come from Figure 2, which shows the topic proportions of the four main topics over Congresses, and Figure 3 which displays the effect of the Majority/Minority on the topics.

Topic 3, which covers tax reform and pushback on the Affordable Care Act saw two increases in its topic proportion at the 112th Congress (2011-13) when Republicans gained control of the House and the 115th Congress (2017-19) where they controlled both chambers. In these cases, the main content of Topic 3 was discussed more so while the Republican party was either partially or entirely in the majority rather than in the minority. However, while only somewhat, the topic is most discussed overall by those in the minority.

Topic 4 generally covers newsletters where congress members discuss ways in which they are able to communicate and where constituents can communicate with them. This is relatively stable throughout the Congresses which is to be expected. Also, this topic is discussed only slightly more by the majority party than by the minority party.

Topic 6, which discusses limiting spending and government, fluctuates from the 111th to the 112th Congress and then slowly increases over time. The highest proportion is during the 114th congress before decreasing. The topic is discussed nearly equally between those in the minority and in the majority, although slightly more by the minority.

Topic 10, which discusses controlling debt and balancing the budget, saw the highest proportion of the topic at around the 112th Congress before reducing until the 117th Congress. The topic was discussed overall more by the majority party than by the minority party.

<u>Figure 2</u>: Topic Prevalence for Effect of Party and Majority/Minority

Figure 3: Effect of Minority/Majority by Topic
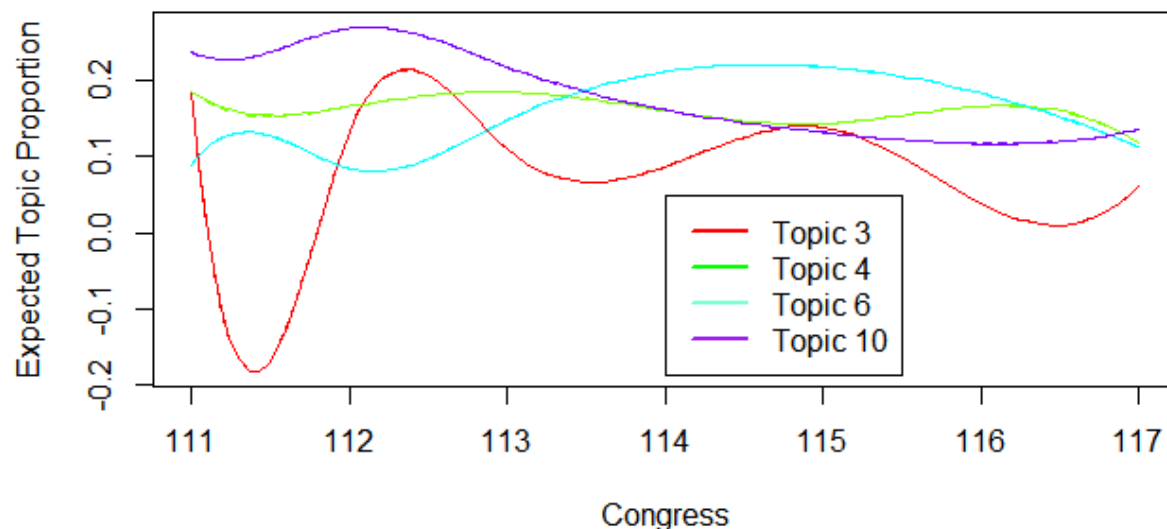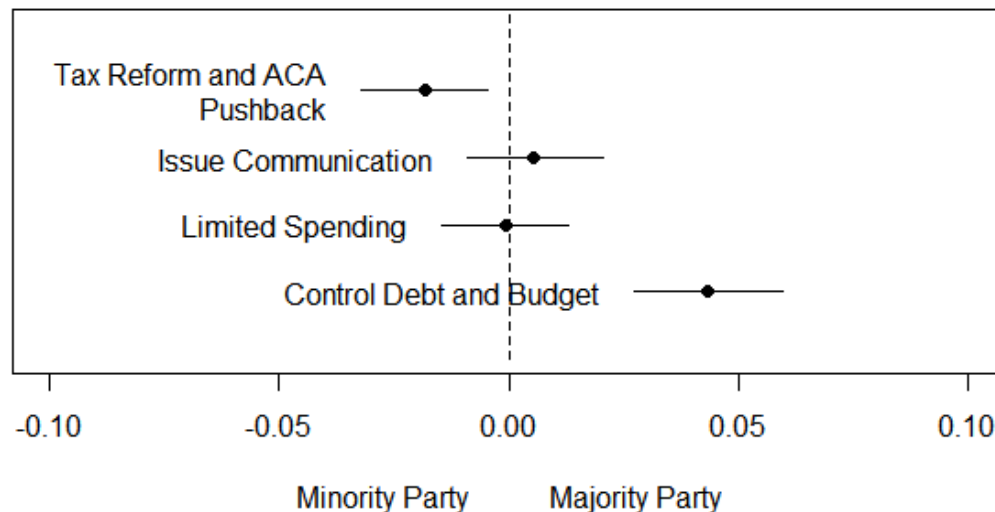
Effect of Minority vs. Majority

Tax Reform and ACA Pushback

Issue Communication

Limited Spending

Control Debt and Budget

-0.10   -0.05   0.00   0.05   0.10

Minority Party   Majority Party

4. <u>What do you learn about your research question using the topic model?</u>

I have learned that to an extent, the topics discussing areas related to the national debt (such as the budget, spending, and tax reform) change over time and are affected somewhat by the party in control of a chamber. Additionally, some topics such as Topic 3 mentioning tax reform or Topic 10 mentioning the debt and budget appear to be discussed more strongly by either the minority or the majority. In contrast, Topic 4 which involves communicating issues and more surprisingly Topic 6, mentioning limited government and spending, are not particular to either the majority or minority.

Some further steps related to this research question may be to look at the Senate or House of Representatives separately as well as potentially do analysis on the sentiment of topics.

5. <u>Assess its validity -- what are some of the limitations of this approach for your research question?</u>

Some limitations are that this analysis does not take into account the variable of how unified a party is in a given Congress. Likewise, the Majority/Minority variable in this data is a binary variable, yet the margin of such control may actually be small or large. It may also be difficult to truly find the effect of a party's control due to the effects of partisan polarization.

When looking at the use of the newsletters, there are a few issues. Like for topics 2, 5, 7, 8, and 9, there may be topics that are dominated by one or a few people. As such, the topics would primarily cover issues specific to that member. This issue may be mitigated by the use of a larger number of topics, although there would still be topics with primarily one congressmember. Also, the nature of a congress member's newsletters may just cover certain limited aspects (such as in topic 2 where Senator Moran strictly talked about the local events in Kansas, rather than relating to the Senate). This is more of an issue where a topic is mainly of that congress member.

Works Cited:

Ballard, A., & Curry, J. (2021). Minority Party Capacity in Congress. *American Political Science Review*, *115*(4), 1388–1405. https://doi.org/10.1017/s0003055421000381

DeSilver, D. (2022, March 10). *The polarization in today's Congress has roots that go back decades*. Pew Research Center. Retrieved from https://www.pewresearch.org/fact-tank/2022/03/10/the-polarization-in-todays-congress-has-roots-that-go-back-decades/

Wallner, J. I. (2011). Unified Budget Accounting in the United States Congress: The Persistence of Government Deficits and Debt, 1967-2010. *Forum (2194-6183)*, *9*(4), 1–14. https://doi.org/10.2202/1540-8884.1447