

How Changing Frame Sets Alters Legislative Outcomes in Congress

Kelsey Shoub

Post Doctoral Research Associate, University of Virginia

kms6fr@virginia.edu

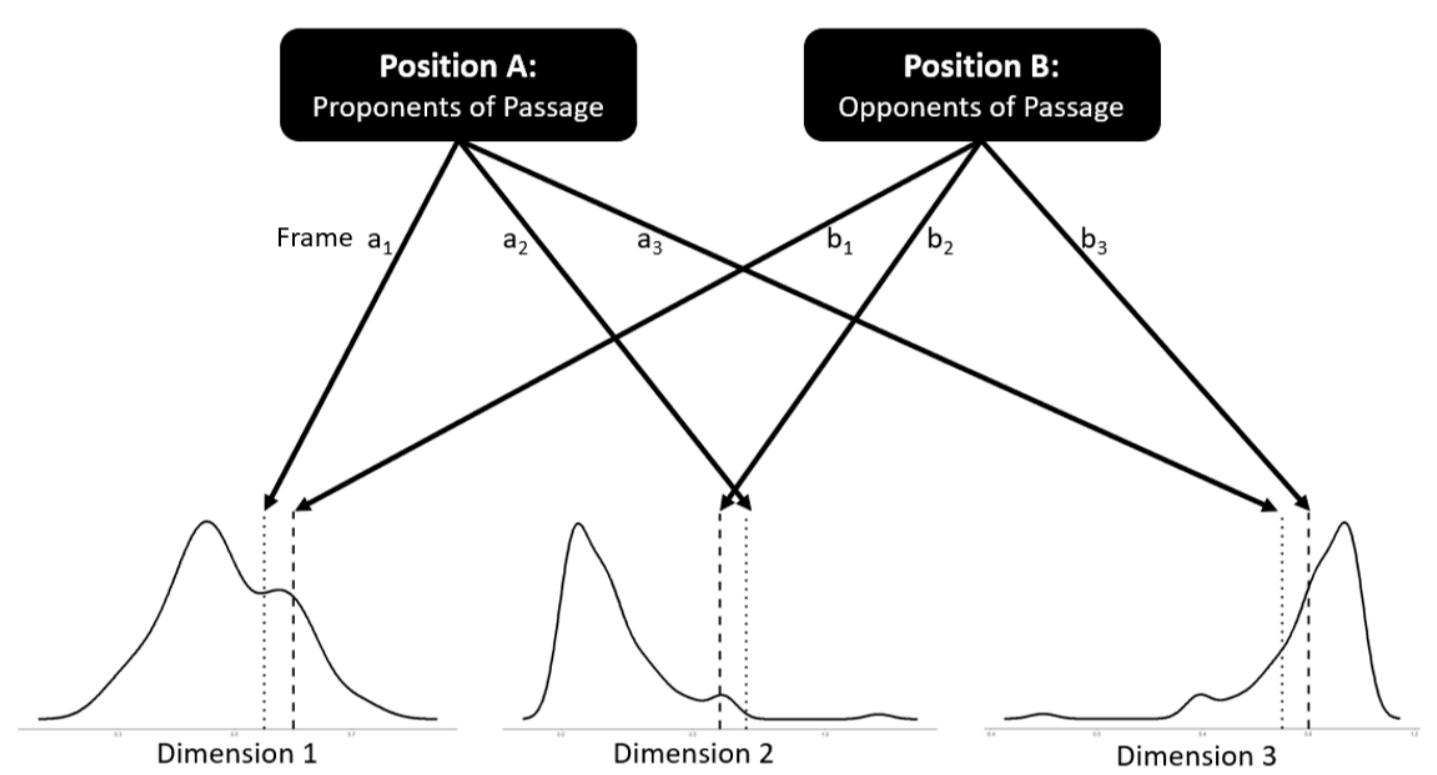
The Questions

Do changing frame sets alter legislative outcomes in Congress?
If so, why and how?

Shifting Frames, Shifting Policy

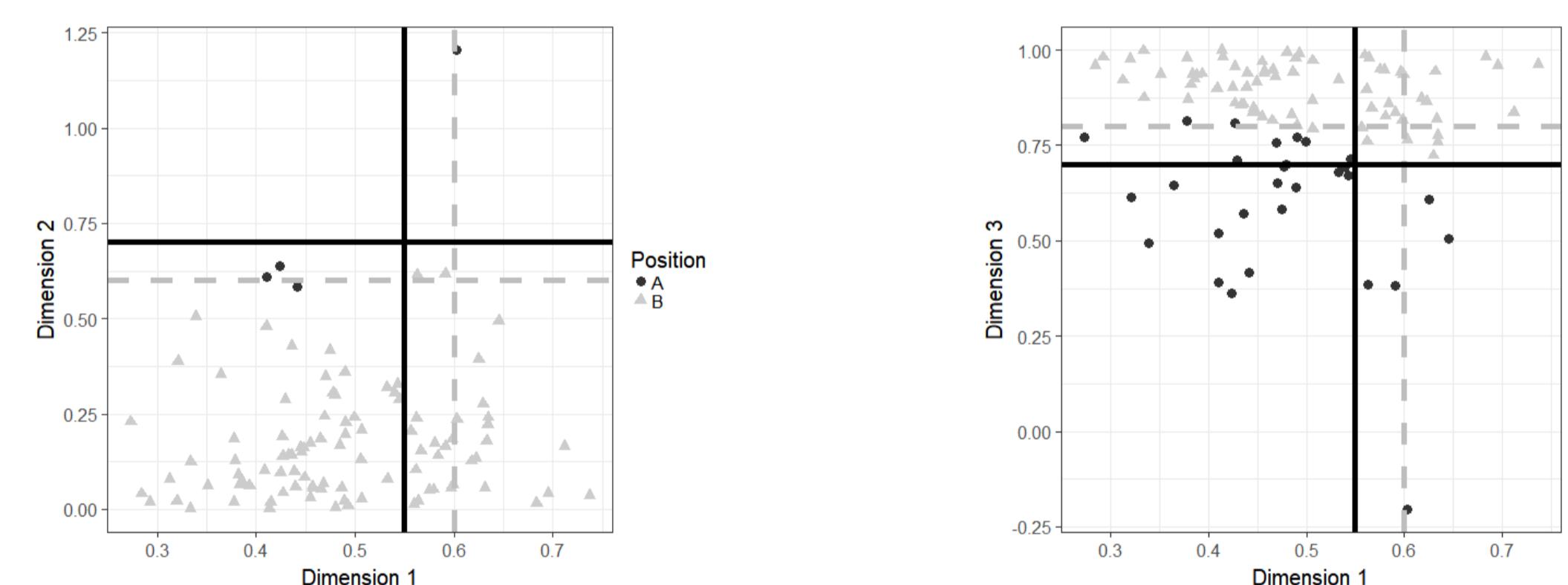
Frames and Policy in the Abstract

Frames connect positions to evaluative dimensions. Individual preferences are found along those dimensions.



If more than one frame is used, then multiple dimensions are invoked. The sum of the frames used is the **frame set**. If two frames are used to comprise the frame set, then preferences are then mapped onto two dimensions rather than one. As seen in the figure below, this in turn changes the outcome. In subfigure a, position B wins. In subfigure b, position A wins. It is the **frame set** rather than individual frames that matter.

Using Multiple Frames at Once in the Abstract



(a) Frames Emphasize Dimensions 1 & 2

(b) Frames Emphasize Dimensions 1 & 3

Frames and Policy in Congress

However, policy decisions are not made in such an abstract vacuum. Instead, they occur within institutions that have their own processes and in venues with established parties within which individual members operate. If the goals of the parties and individual members—and how to achieve them—always align, then the individual members will always vote with the party regardless of how issues are discussed—the frame set used. However, this is not always the case, which means that sometimes the marginal members may vote differently and alter the outcome.

To attract those possible marginal members within the chamber, proponents and opponents of a bill, or policy change more generally, will attempt to structure the discussion to favor their side. They do so through the careful selection and use of frames. The sum of the frames used are the **frame set** associated with that policy discussion. The frames used attempt to manipulate how the policy itself is evaluated and how that bill or proposed change will influence possible reelection. Different frame sets result in different evaluations being made. This in turn informs the eventual outcome(s) of connected bills. If looking between time points, this then implies that as the frame set changes, the outcomes of related bills may also change.

Hypothesis

If a bill that failed upon first consideration is reconsidered, then, as the frame set used to discuss a given issue area changes, *the probability of passage increases upon reconsideration*.

Data

- **Time Frame:** 1995 to 2012 (103rd to 112th Congress)
- **Policy Areas:** Defined and taken from the Comparative Agendas Project (20 Areas)

Measuring Policy Change as Change in Bill Passage

Documents: Final Versions of Congressional Bills

Process: Identify the same bill between Congresses. See what happens.

1. Calculate the similarity of bill text between adjacent Congresses. Similarity measured as a ratio of matches:

$$F(A, B) = \frac{|A \cap B|}{|B|}, \quad (1)$$

where A is a vector of terms used in a bill from the current Congress and B is a vector of terms used in a bill from the previous Congress.

2. Declare those pairs whose maximum match is greater than or equal to 0.90 as the same bill.
3. Identify whether and how the bill's outcome changed by chamber.

Summary of Bill Outcomes Between Congresses by Chamber

	Failed:Failed	Passed:Failed	Failed:Passed	Excluded
House	4620	205	190	8
Senate	4848	96	78	1

Note: Cells are the number of matched pairs.

Measuring Change in Frames Sets Between Congresses

Documents: Congressional Floor Speeches on Policy

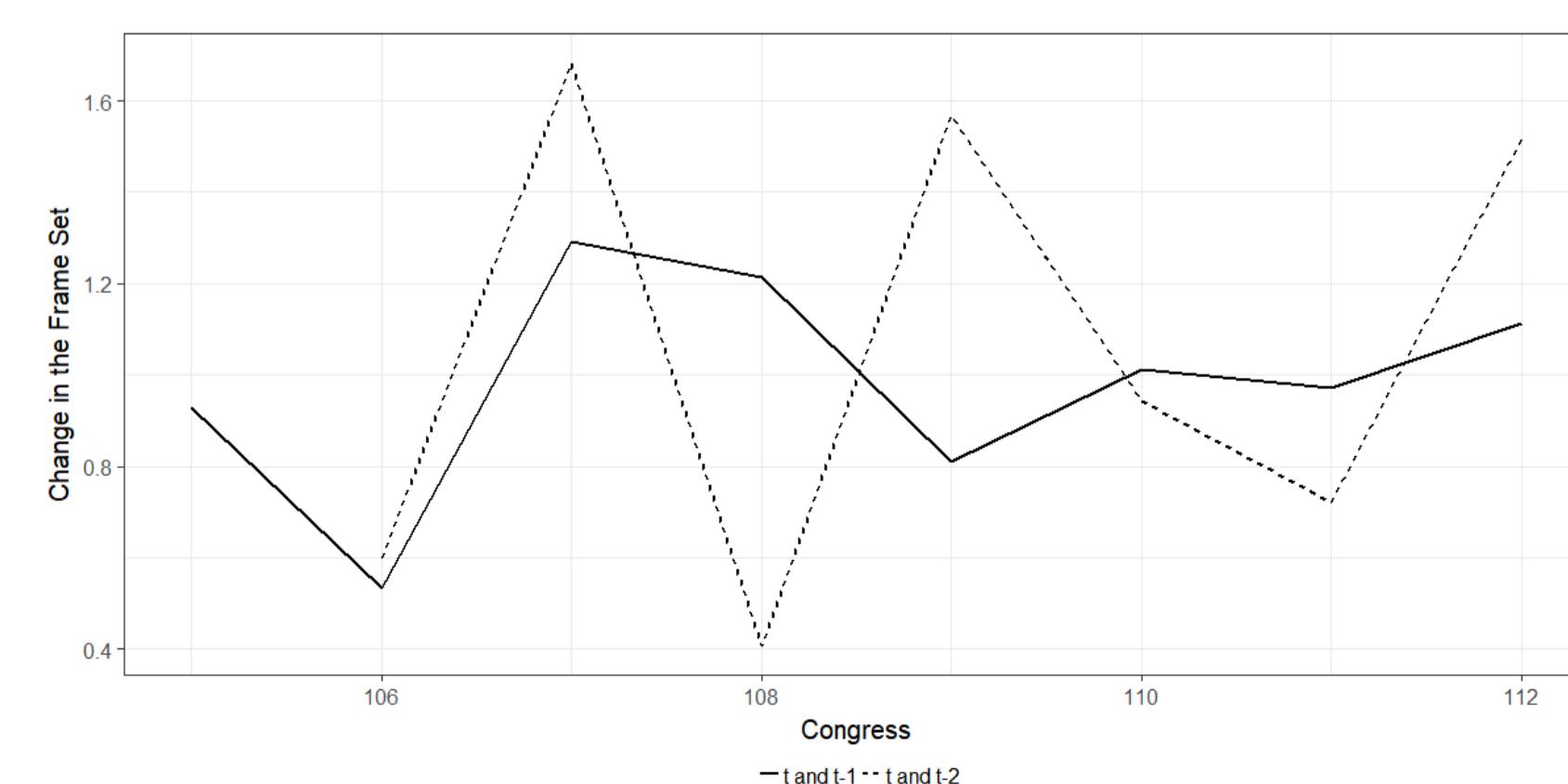
Process: Calculate the amount of change in the frames used between Congresses.

1. Fit a dynamic topic model for each CAP policy area (Greene & Cross 2017)
2. Bin resulting topics into:
 - (a) Whether or not they are on policy
 - (b) If on policy, bin frames into predefined frames adapted from the media frames corpus (Card et al 2015)
3. Calculate the change in frame. This is the sum of the absolute difference of the proportional use of each frame used to discuss a given issue area between two time points.

$$f(A_1, A_2) = \sum_{i=1}^I |a_{1,i} - a_{2,i}|, \quad (2)$$

where A_1 and A_2 are the vectors of the proportional use of frames at two different time points.

Figure 4: Example of Change in Frame Set Over Time, Macroeconomics



Results

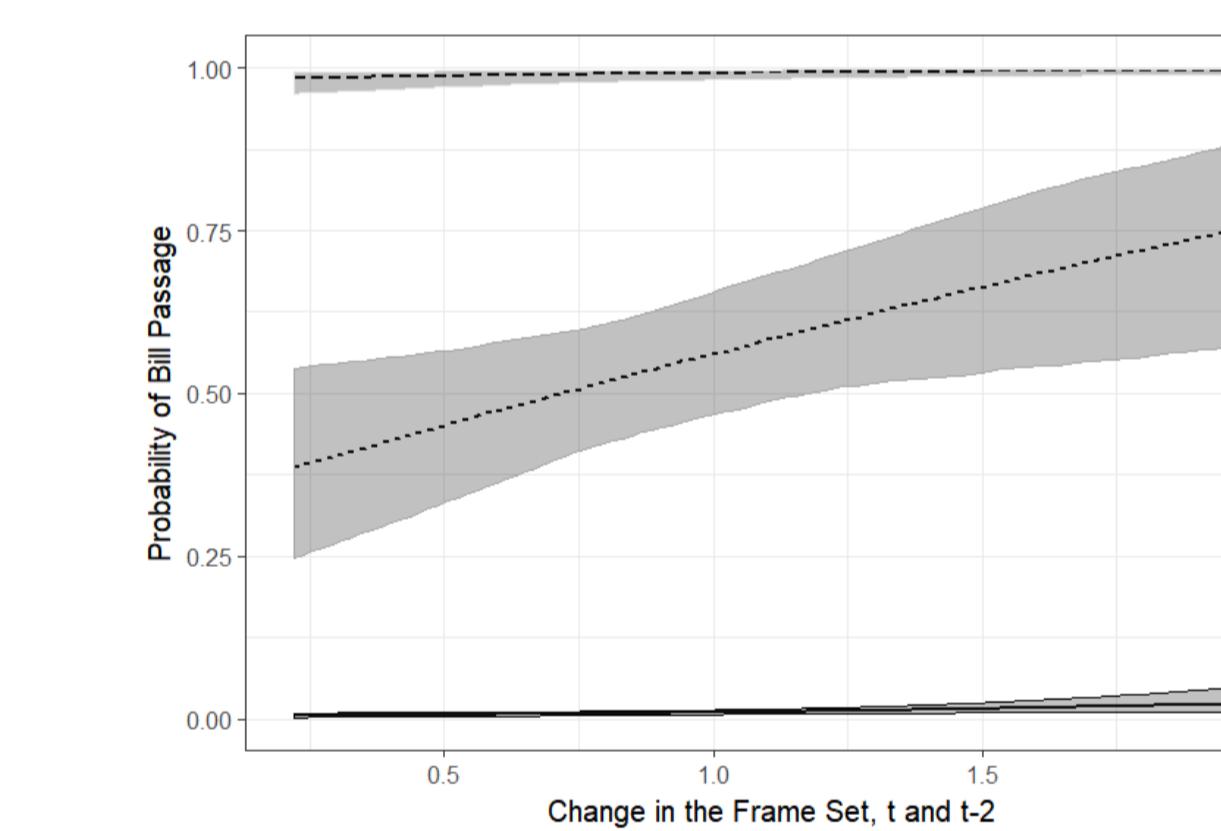
Multinomial Regressions Predicting Change in Bill Passage by Chamber

	In the House		In the Senate	
	Pass:Fail	Fail:Pass	Pass:Fail	Fail:Pass
Intercept	-3.08** (0.33)	-5.27** (0.37)	-5.93** (0.64)	-6.09** (0.58)
Δ in Frame Set, t and t-1	0.09 (0.29)	-0.24 (0.29)	0.11 (0.39)	1.02** (0.38)
Δ in Frame Set, t and t-2	-1.23** (0.35)	0.85** (0.31)	0.15 (0.49)	-0.60 (0.42)
Controls for Agenda Progression	Y	Y	Y	Y
Controls for Sponsor & Party	Y	Y	Y	Y
Controls for Context	Y	Y	Y	Y
Log Likelihood	-776.86		-369.16	
Num. obs.	4646		4653	

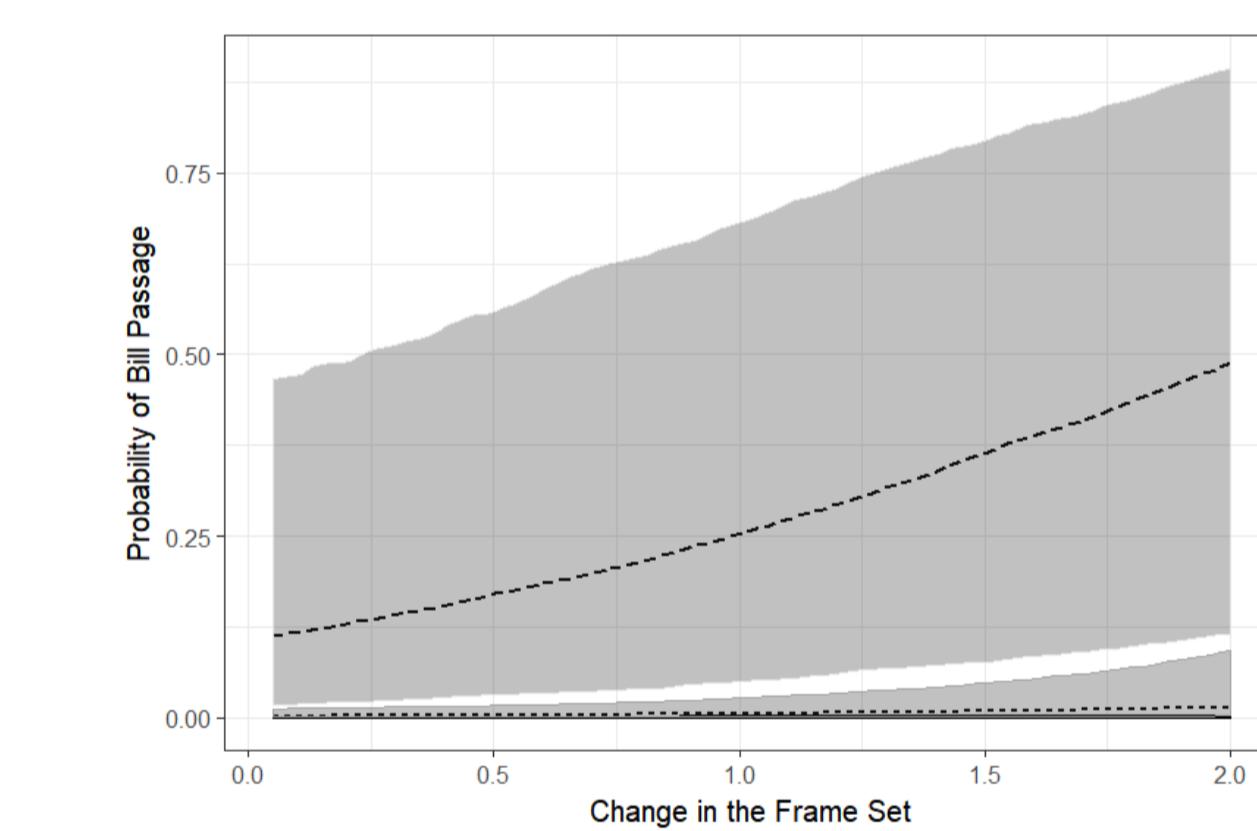
Note: Coefficients not presented. Pass:Pass not estimated due sparsity.

** $p < 0.05$, * $p < 0.1$

Predicted Change in Proposed and Passed Policy



(a) House (2nd Difference in Frame Set)



(b) Senate(1st Difference in Frame Set)

Discussion

- Framing, and specifically changes to the frame set, matter within Congress.
- I shifted the unit of analysis from tracing the effect of specific frames on specific votes to changes in how the entire frame set are used to influence a change in outcome. This provided needed leverage to study framing outside of the lab and within a formal institution.
- Future Questions:
 - Who can change the frame set, and why does it change?
 - Do certain types of changes elicit stronger responses than others?

References

- [1] Card, Dallas, et al. "The media frames corpus: Annotations of frames across issues." *Proceedings of the 53rd Annual Meeting of the Association for Computational Linguistics and the 7th International Joint Conference on Natural Language Processing*. Vol. 2. 2015.
- [2] Greene, Derek and James P. Cross. "Exploring the Political Agenda of the European Parliament Using a Dynamic Topic Modeling Approach." *Political Analysis* 25.1 (2017): 77-94.