A Generalized Model of Legislative Committees

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June 24, 2014

Topics Covered

Introduction

Legislative Committees

Proposed Model

Committee Necessity

Committee Reliability

Presentation Goal

- Formalize and present the formal model
- Apply and discuss application of EITM framework
- Propose variables for model factors
- ...

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- Apply and discuss application of EITM framework
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- ...
- Impress audience with pretty network graphs

Project Goal

- Formulate a generalized model of legislative committees
- Specific emphasis on understanding and predicting committee membership

The observable committee composition is the result of a decision-making process that a decider completes within a given context.

Research Questions

- Committee assignments are delegated to an individual by formal rule
- **How can committees be understood simply as a byproduct of human decision making under structural constraint?**
  - What factors influence the output?
  - How can the inputs be observed?
  - How can distinct ends be differentiated?

Proposal

- Realized committees follows from an evaluation of three factors:
  - Ability
  - Necessity
  - Reliability
- Such that:

$$C = f(A, N, R) \tag{1}$$

Legislatives Committees in the USA

- Standing committees are subsets of legislators tasked with all work related to a specified subfield
- Started with the House of Representatives and Senate though recent progress has incorporated state legislatures
  - 'Outlier committees'
- '101 Chambers' with a wide variety of committees covering various jurisdictions within different legislative contexts
  - 'Squire 2005'

Committee Functions in Legislatures

- Procedural function
  - Bills must be sent to committees before they can voted on as a whole
  - The committee decides whether or not to send bills to the chamber for a vote
  - Can be leveraged for gatekeeping ability
- Policy function
  - Committees specialize in their assigned jurisdiction and become policy experts
  - Amendments are offered and language is clarified to fit the jurisdiction

Theories on the Role of Committees

- **What role do committees play in an institution largely defined by the party or individual members?**
- Committees fulfilling an information goal (Krehbiel 1991)
- Distributive theory of committee assignments (Shepsle and Weingast 1987)
- Party stacking of committees (Battista 2006)

Generalized Model of Legislative Committees

- A *committee's* composition depends on the context that it operates within through three primary factors:
  - The decider's *ability* to control appointments to that committee
  - The *necessity* of committee for achieving goals within the institutional context
  - The *reliability* of the formed committee

$$C = f(A, N, R)$$

Ability

- The decider's ability is dependent on formal and informal rules:
  - Formal rules as declared in a state constitution
  - Informal rules defined by chamber norms

$$A = \beta_{A1} A_I + \beta_{A2} A_F \tag{2}$$

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- Undeveloped portion of project
- Empirical testing will require reading and identifying restrictions placed on deciders by constitutions and rules

Necessity

- The necessity of a committee depends on the primary role that committees fill in the institution
- A committee's necessity is interpreted as the extent to which the committee aids in the execution of that role

$$N = \beta_N(C_I + C_D + C_P) \tag{3}$$

Necessity

- The previous equation fails to capture the context in which the committee operates
- A legislative chamber as a whole includes some cumulative level of the three committee roles
- The new equation better captures this notion, introducing several constraints

$$N = \beta_N[(L_I - C_{Ii}) + (L_D - C_{Di}) + (L_P - C_{Pi})] \quad (4)$$

$$\sum_{i \in L} C_{Xi} = L_X \forall X \in I, D, P \quad (5)$$

Reliability

- The reliability of a committee indicates how certain the decider feels they can predict the committee's behavior
- A committee's reliability is dependent on characteristics of its members

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- How should the function be operationalized?
  - As a count of number of 'reliable' committee members?
  - As a function of the entire committee characteristics?

Generalized Model of Legislative Committees

- Combining these factors, the decider aims to maximize

$$C_i = A \star (N \cdot R)$$
$$C_i = \beta_A(A_I + A_F) \star (\beta_N((L_I - C_{Ii})) + (L_D - C_{Di}) + (L_P - C_{Pi})) \cdot R_i)$$
$$C_i = \beta_{PN} \cdot R_i \star (A_I(N_D) + A_F(N_D)) \tag{7}$$

- Through this process committee membership is assigned in an efficient way to serve the goals of the decider.
- The only factor in which the decider has control is R, the reliability of each committee.

EITM Framework?

- Theoretical concept: decision making, (social interaction and expectations)
- Statistical concept: choice model and network structure
- Theoretical analogue: utility maximization, (group overlap and conditional expectations)
- Statistical analogue: regression and network models

Committee Role and Necessity

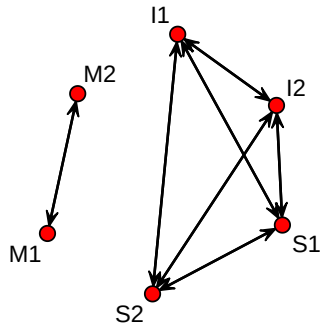
- The necessity of committees within a chambers varies as the theory best describing the actual practice differs
- I introduce membership overlap networks as an observable implication of the theories
- Each theory has derived predictions for the expected overlap between legislative committees
- Expectations dependent on three committee characteristics: specialization, distributive ability, and importance

Examples from Theories

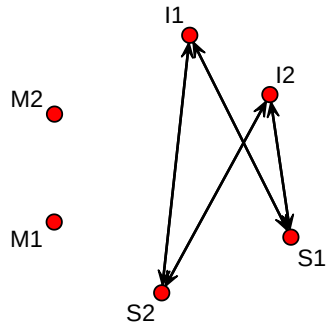
- Take a set of 6 committees in a particular chamber:
  - 2 are of high importance (e.g. Rules or Ways and Means)
  - 2 are specializing committees (e.g. Education or Agriculture)
  - 2 are miscellaneous
- What might the overlap look like in each of the 3 theories of committee structure?

Hypothetical Committees

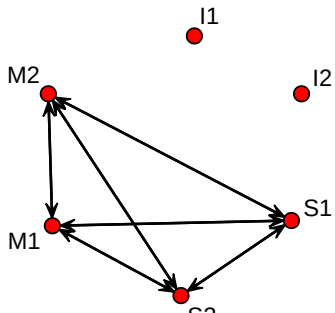
Partisan



Informative



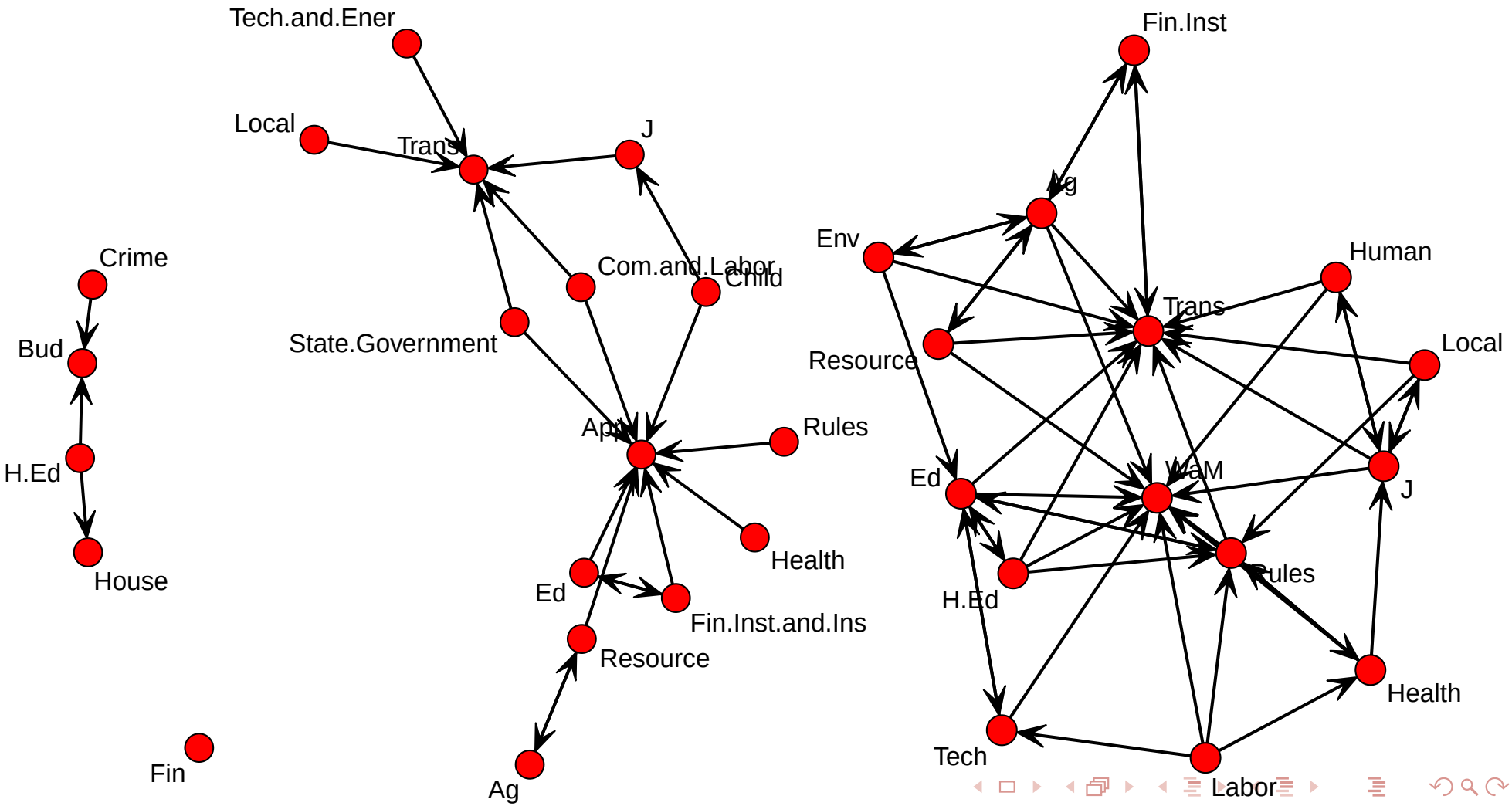
Distributive



Observing the Networks: Formation

- Nodes: the unique committees in a chamber
  - For the most part this is just standing committees, disregarding special, joint, and subcommittees
- Directed relationship: $A \rightarrow B$ if $|A \cap B| > 0.3 \cdot |A|$
  - If 3/10 of the members on the Commerce committee are also on the Judiciary committee, the Commerce committee sends a tie to the Judiciary committee
- Note: $A \rightarrow B \not\Rightarrow B \rightarrow A$ for committees of different sizes

Washington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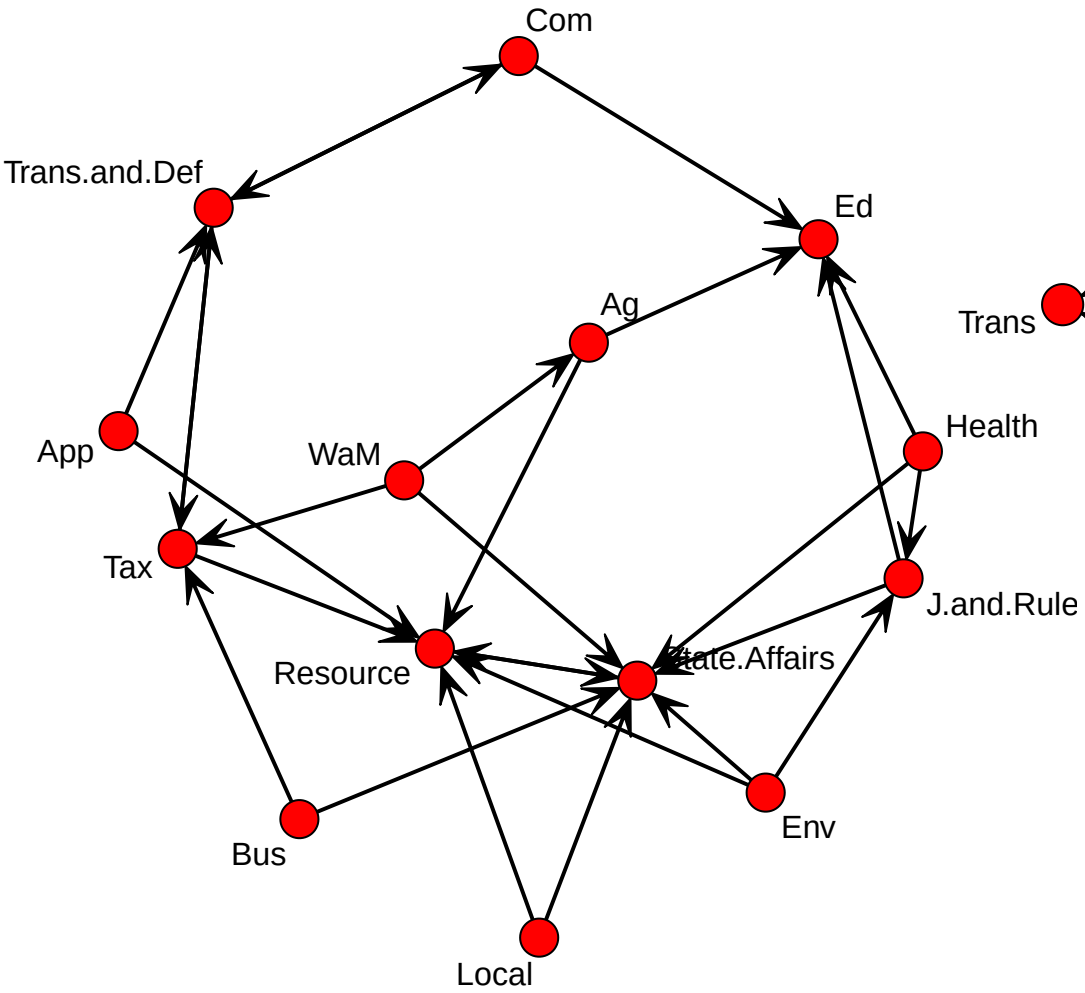
Idaho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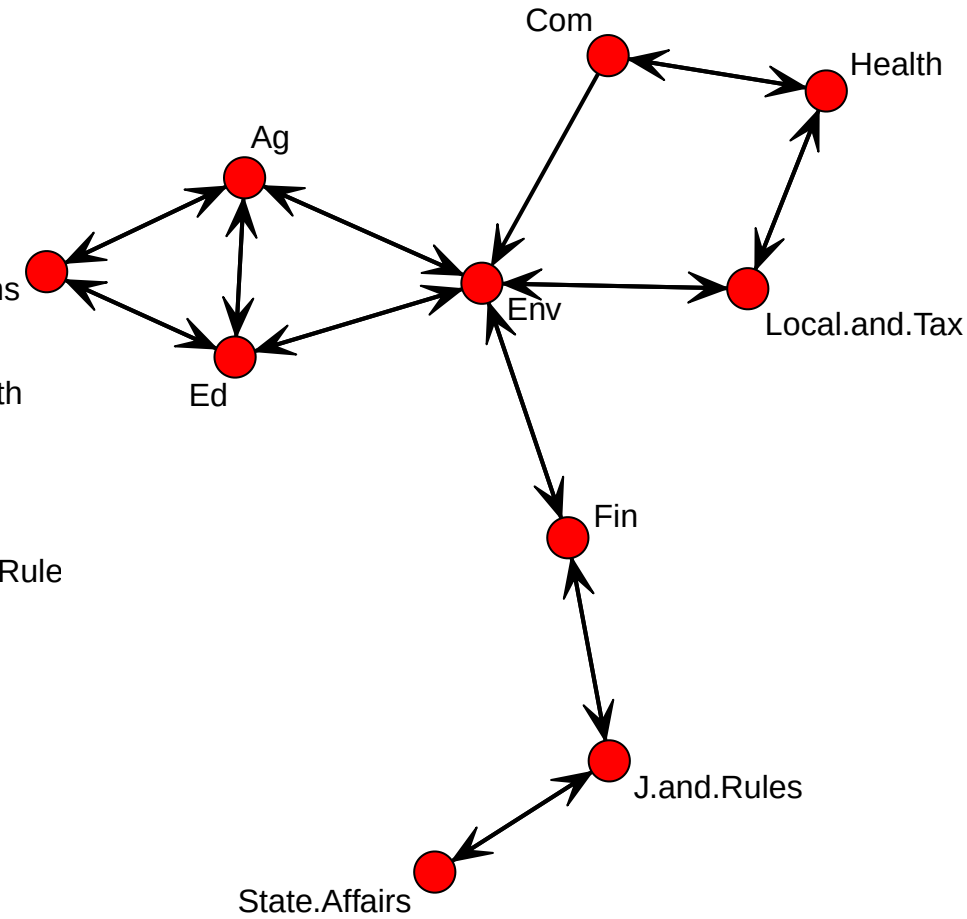
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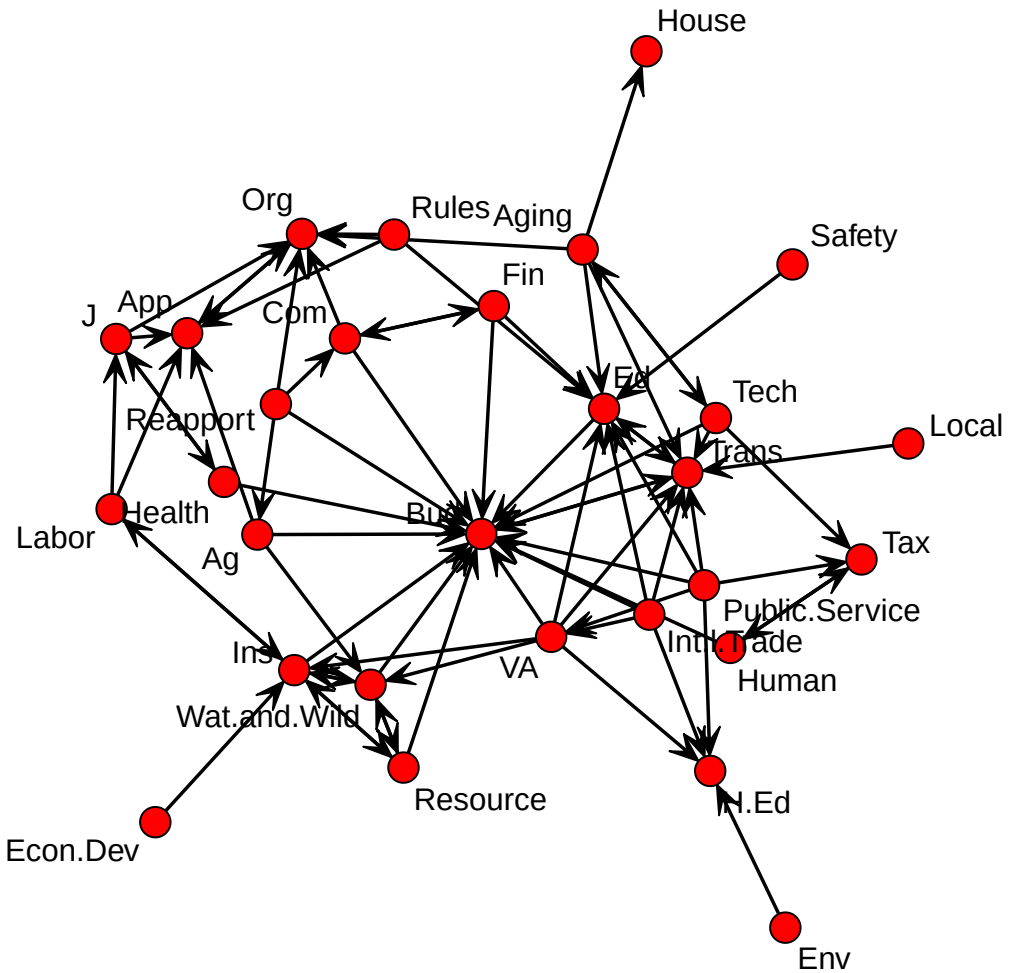
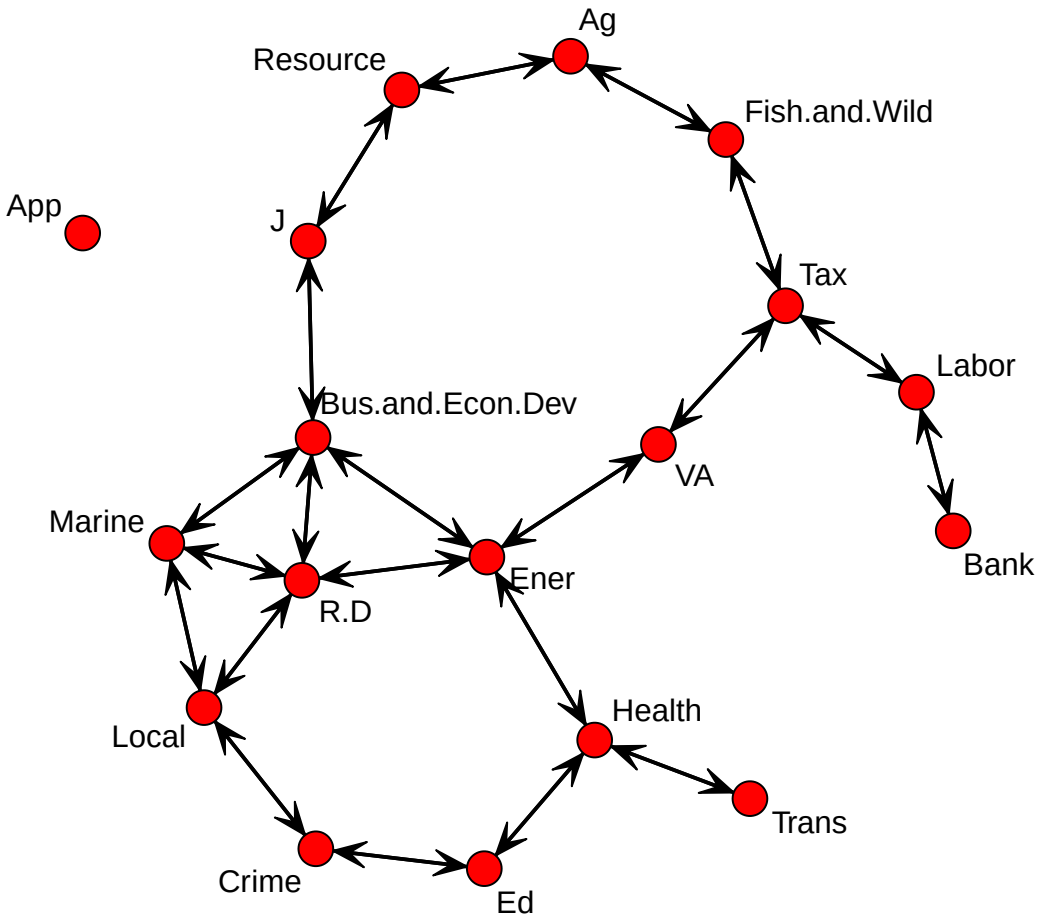
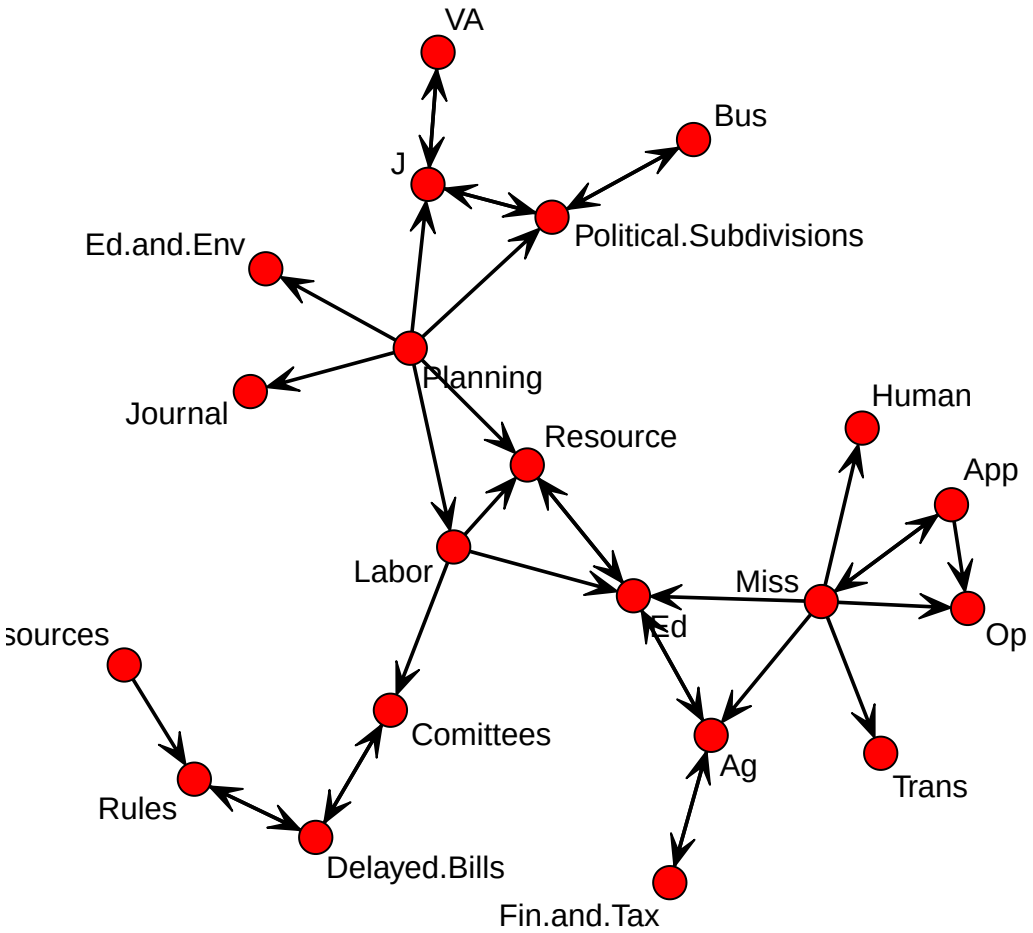
California House



Maine Senate



North Dakota House



Legislator Reliability

- The trend toward party domination of legislatures maintains that committees are an important tool of the majority party
- But they can only be used as such when reliable legislators hold most positions
- More reliable members are strongly embedded in an ideological network
- An initial look at 10 Congresses starts the analysis

Ideological Network

- Organize each chamber-session of Congress into an ideological network
- Members in the same chamber-session are 'tied' if they share an ideology
- For NOMINATE scores, a pair of members (i, j) in the same chamber-session are 'tied' if:

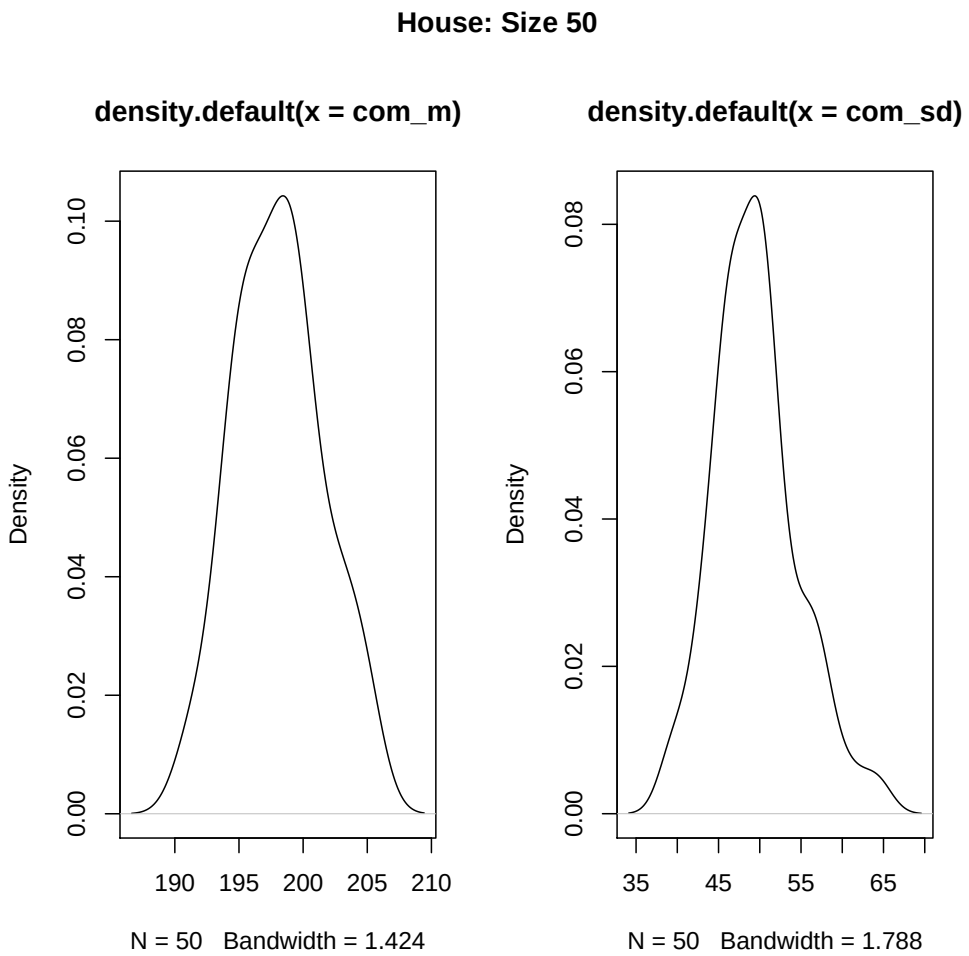
$$D_{ij} > T; D_{ij}^2 = (x_i - x_j)^2 + (y_i - y_j)^2$$

- For D_{ij} the NOMINATE difference and T a threshold value
- A tied pair of MC are those who consistently voted together

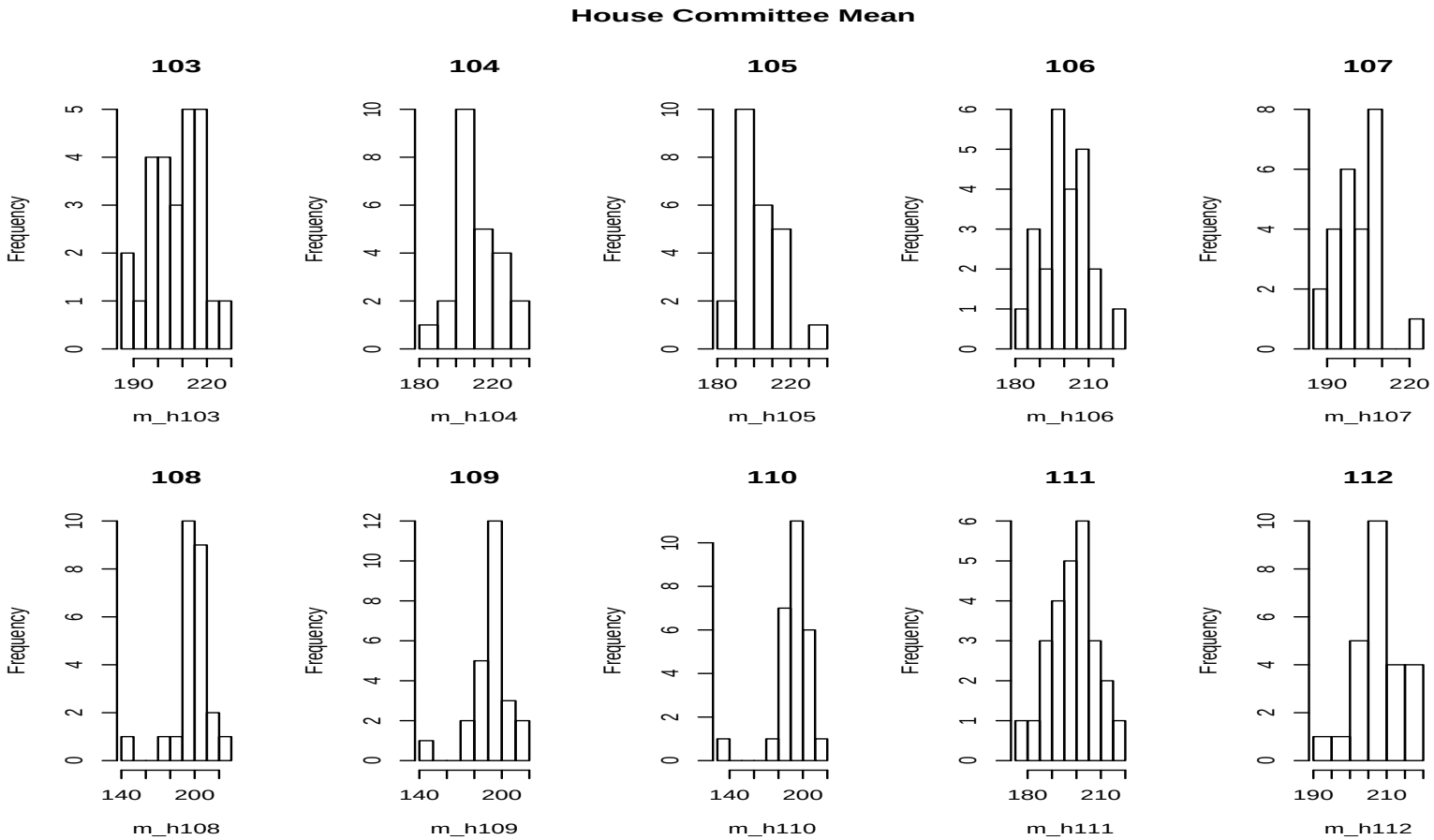
Important Committee Statistics

- The mean and standard deviation in the number of member's ties on a committee
- Reliable committees have many highly connected individuals
- Observations are compared to Bayesian sampled distributions for the mean and variation in the number of committee member's ties

House Samples



House Observations



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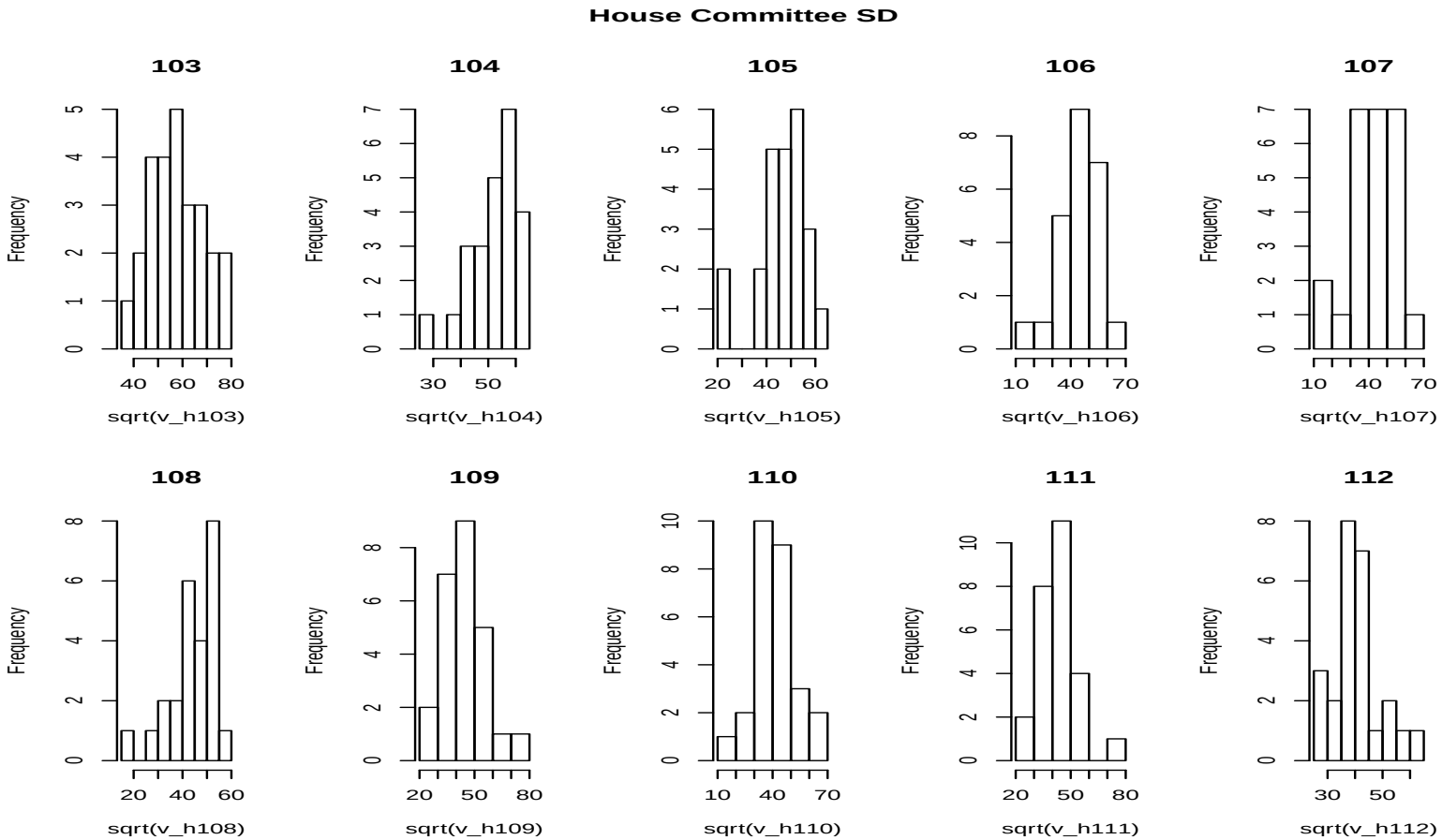
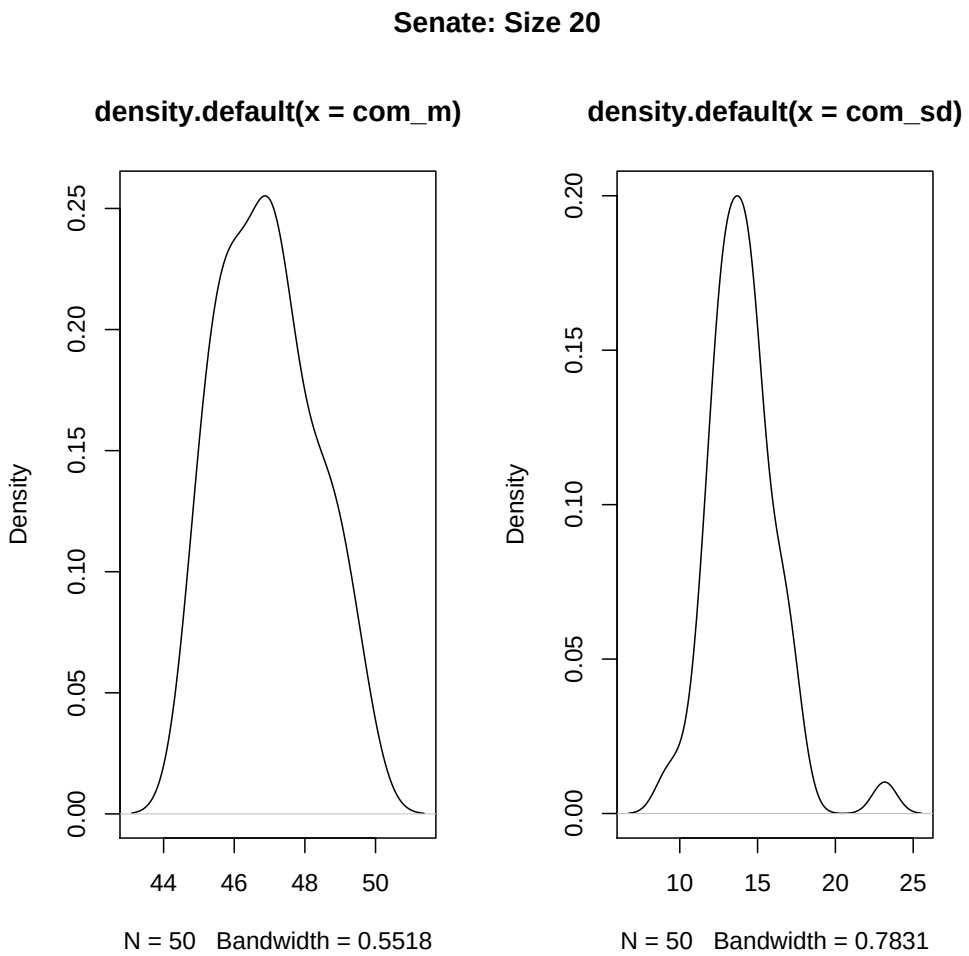


Senate Samples



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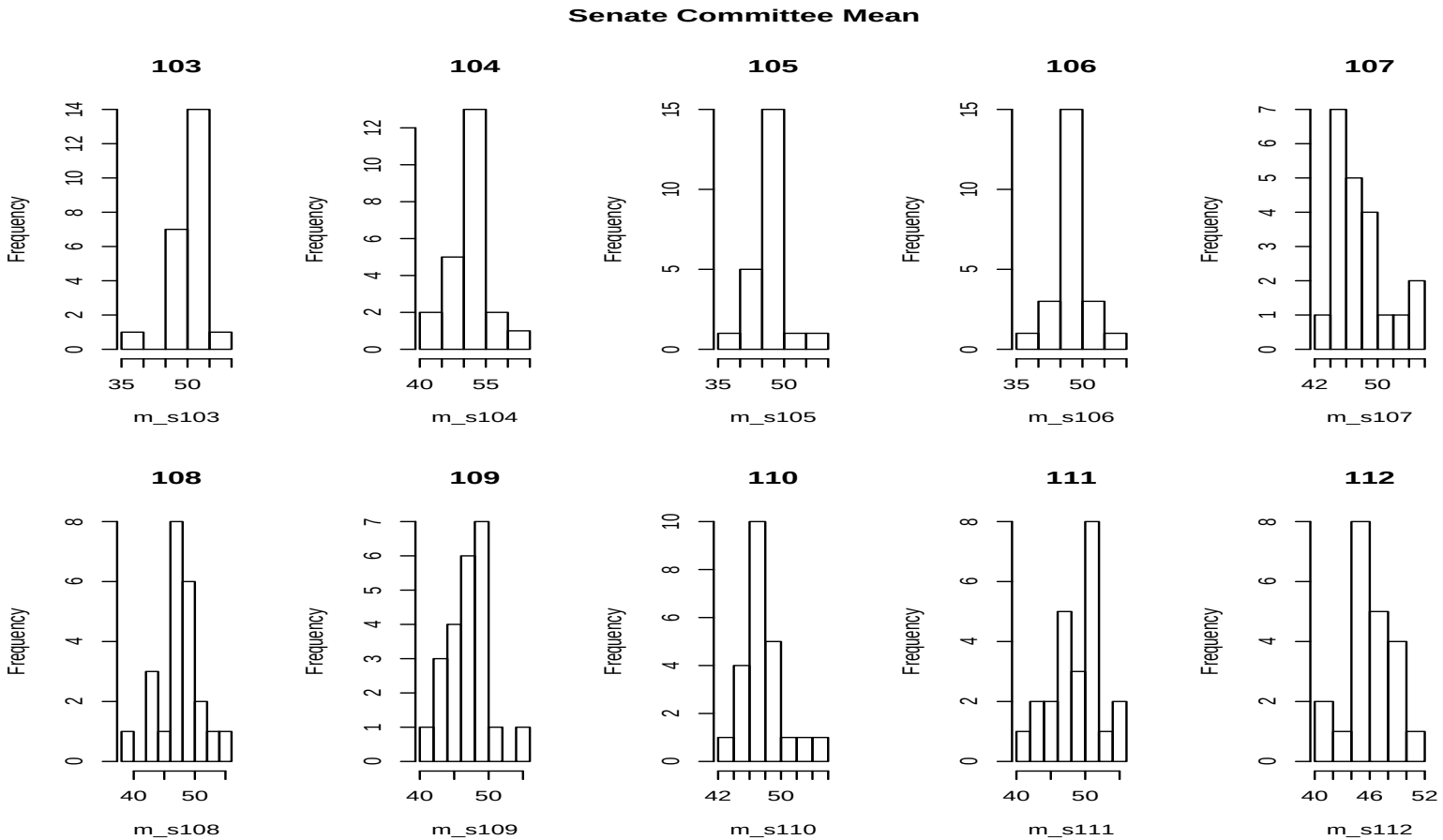

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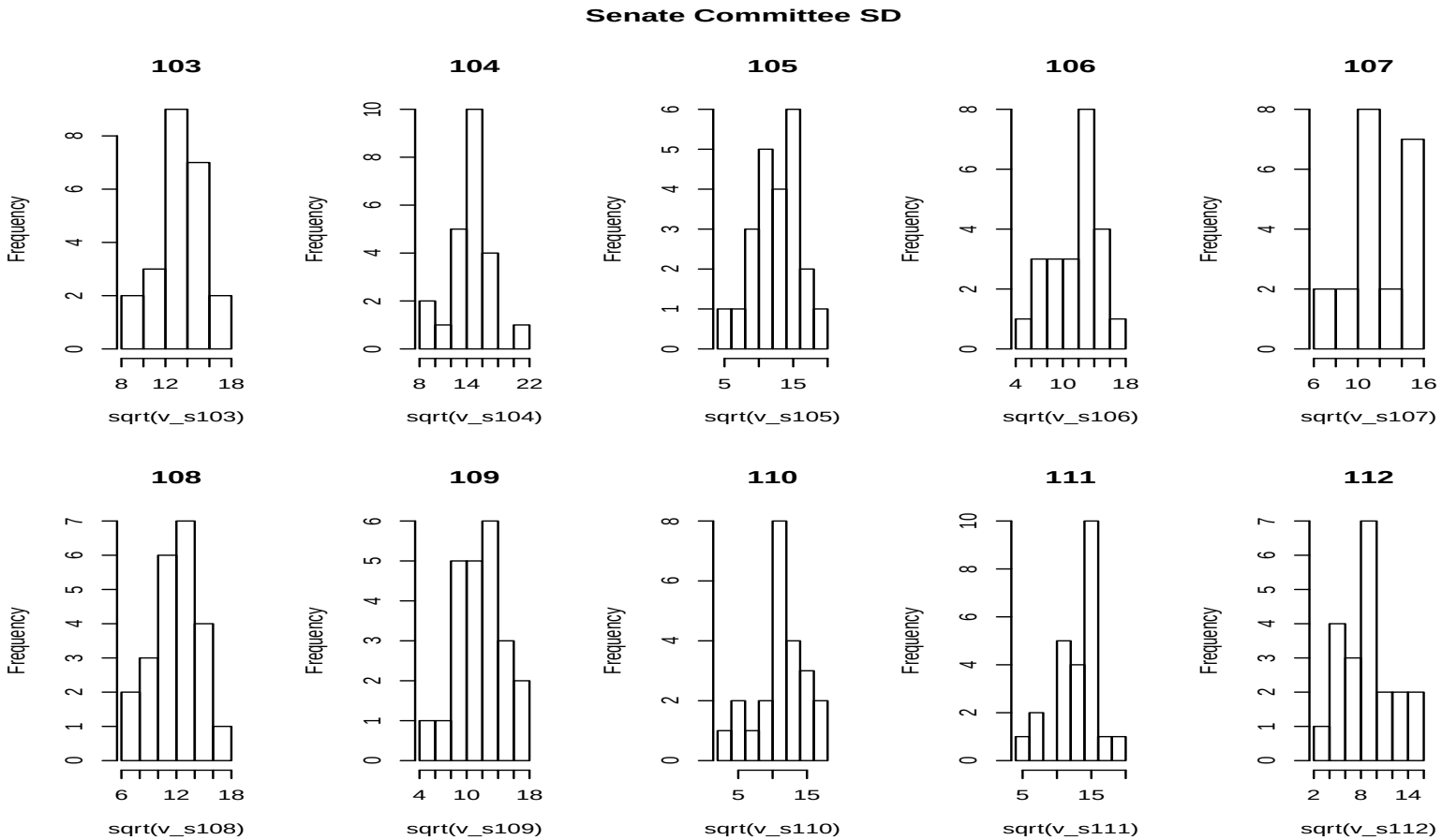

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