

How American Politics Ensures Electoral Accountability in Congress¹

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¹Joint with Danny Ebanks & Jonathan N. Katz

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The Plan

Model Validation: Out-of-sample tests

Prob(Incumbent Defeat): High Mean, No Trend

Intermediate Variables: Massive Change

How No Change Leads to Massive Change

Evaluating the Health of American Legislative Democracy

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 - Different combos of {**Polarization, Partisanship, IncAd, Marginals, Gerrymandering bias**} \leadsto the same **Prob(Defeat)**

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- Computation: extensive but easy; ElectIt Software

The Plan

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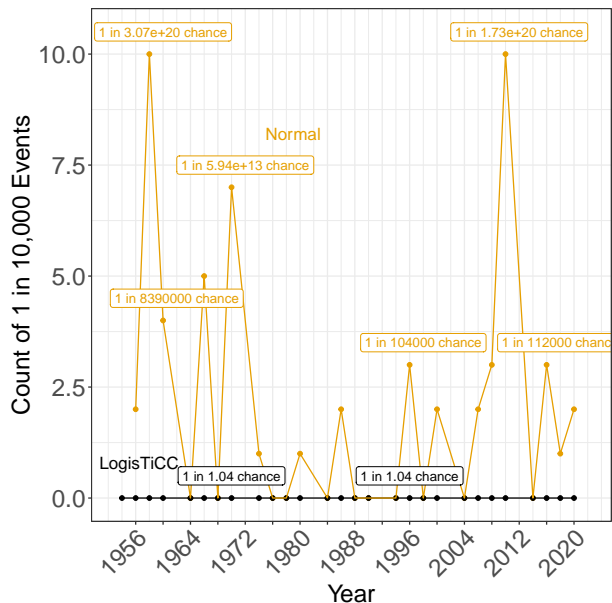
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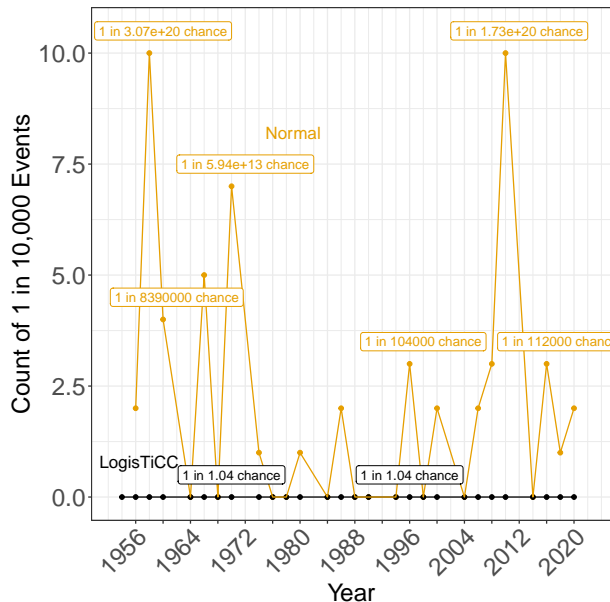
How No Change Leads to Massive Change

“Moral Certitude”: Elections outside 99.99% CI

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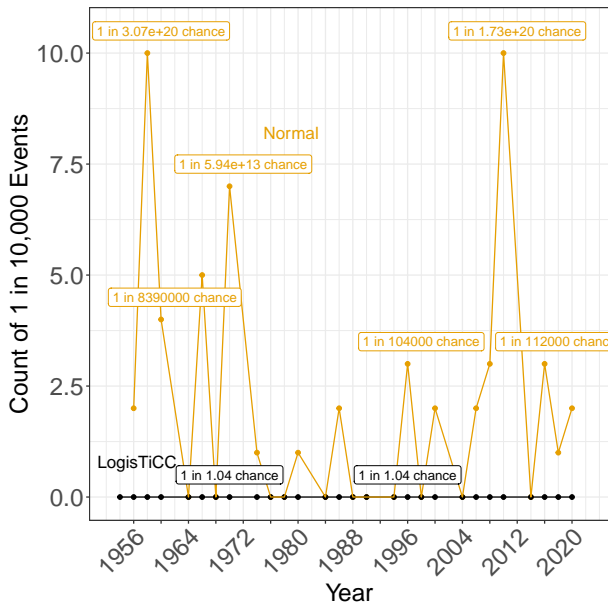


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1-in-10K Events:

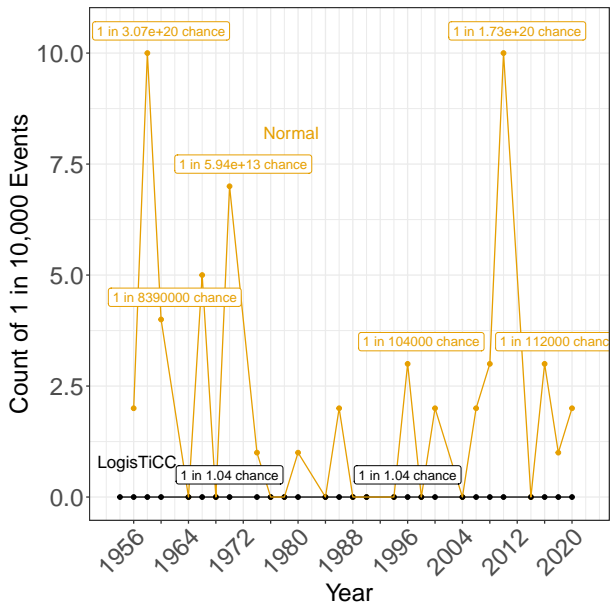
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1-in-10K Events:

LogisTiCC:
0 in 10K

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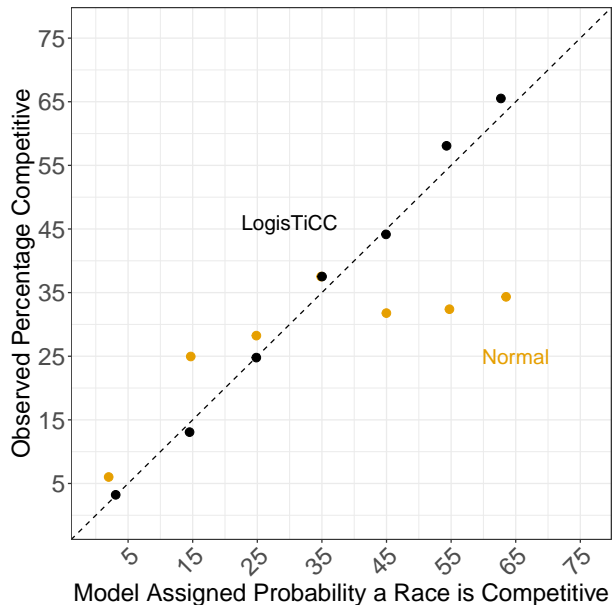
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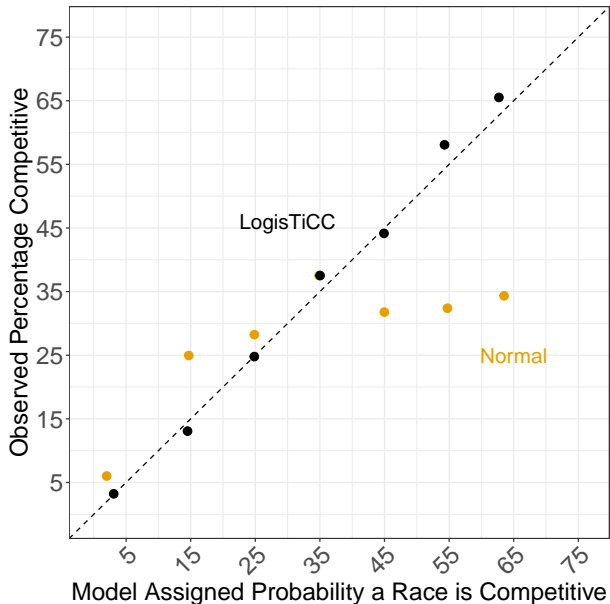
Normal:
All the time!

Competitiveness Calibration

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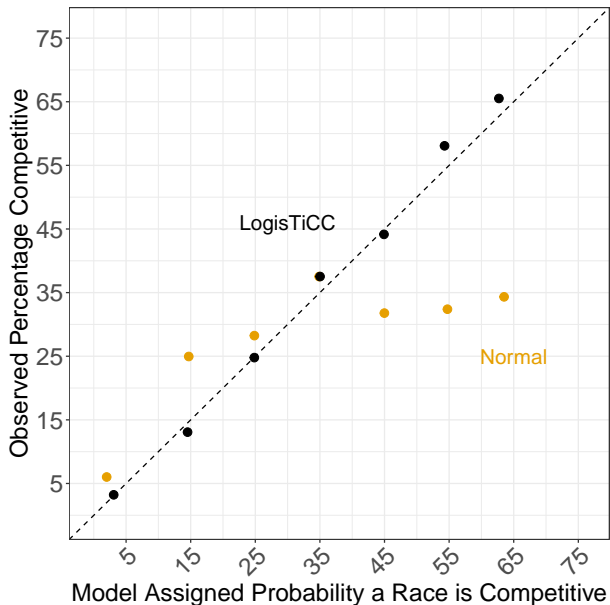


Competitiveness Calibration



LogisTiCC: Near perfect

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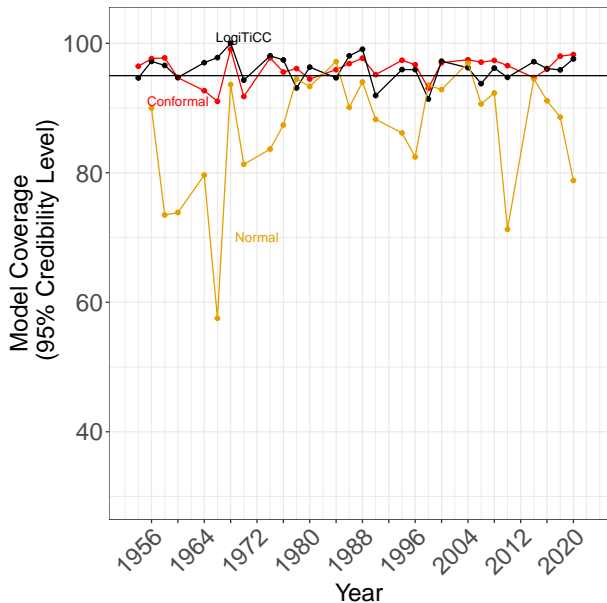
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Normal: Fails for the most important elections

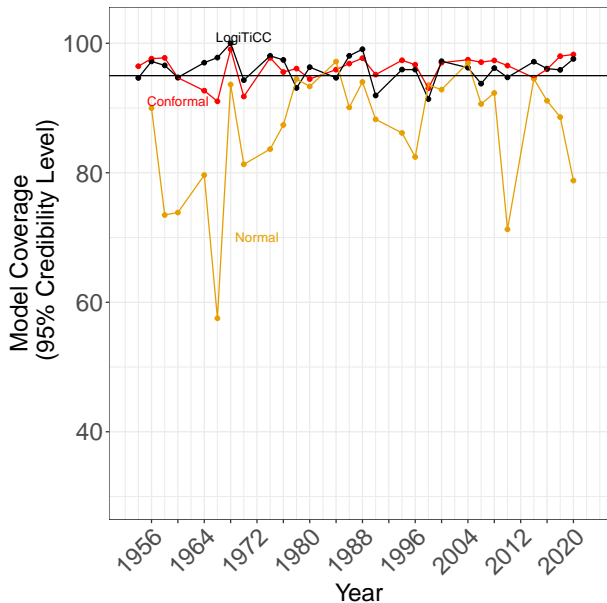
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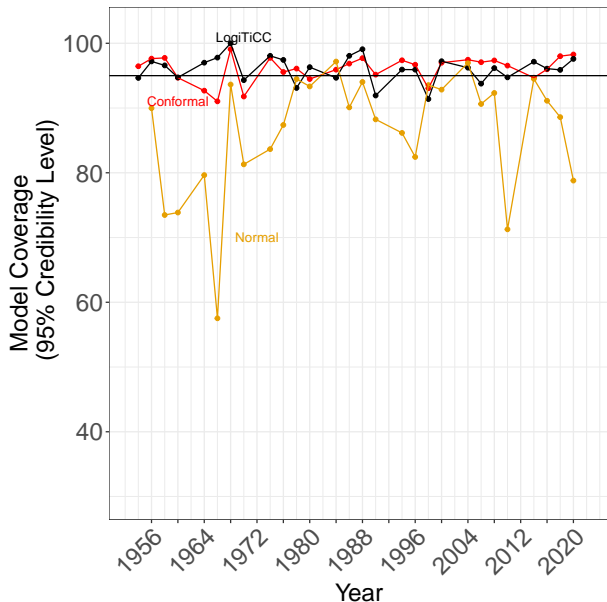


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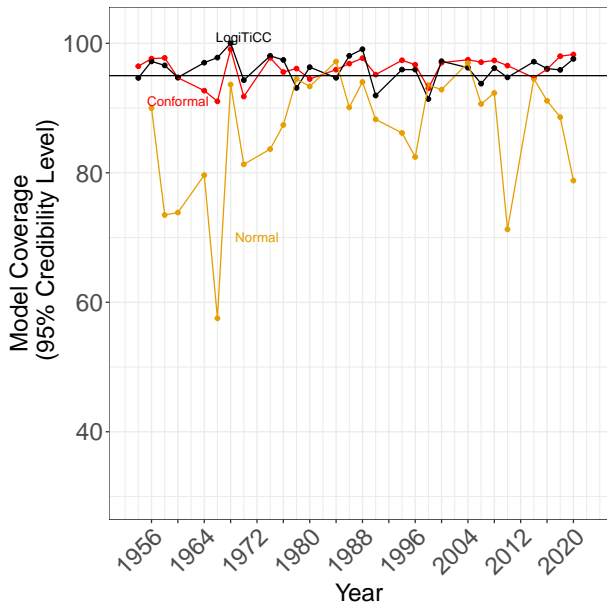
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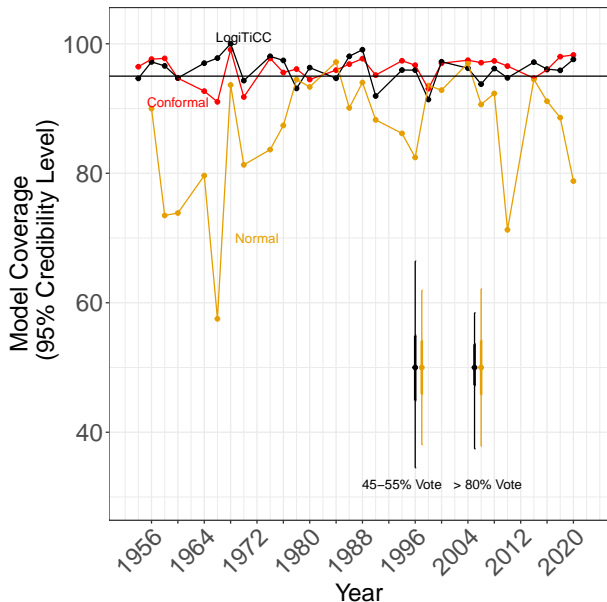


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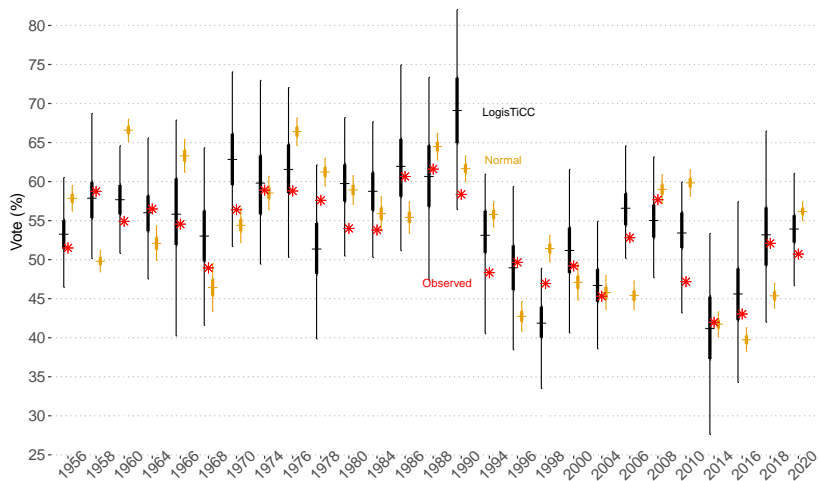
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Average CI
Width

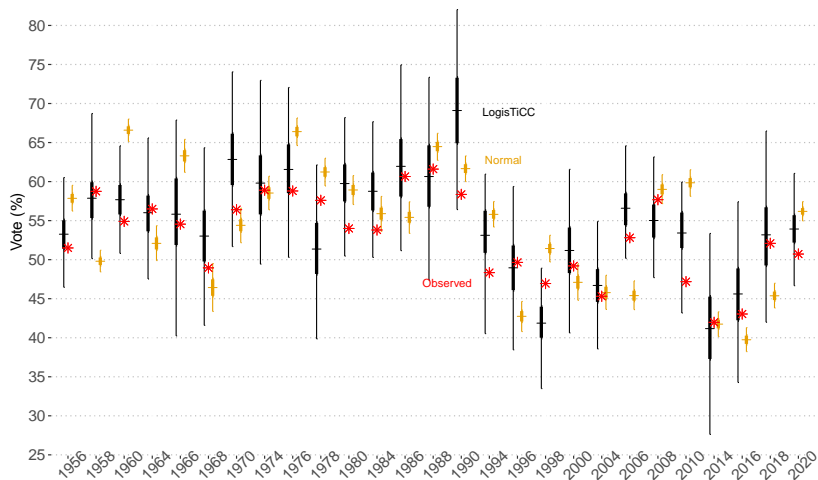
95% CI Coverage:

95% CI Coverage: Median House Seat Expected Vote

95% CI Coverage: Median House Seat Expected Vote

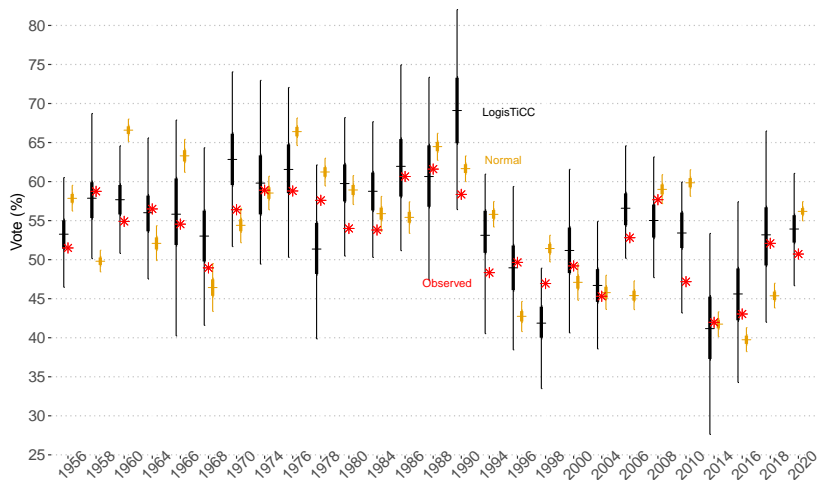


95% CI Coverage: Median House Seat Expected Vote



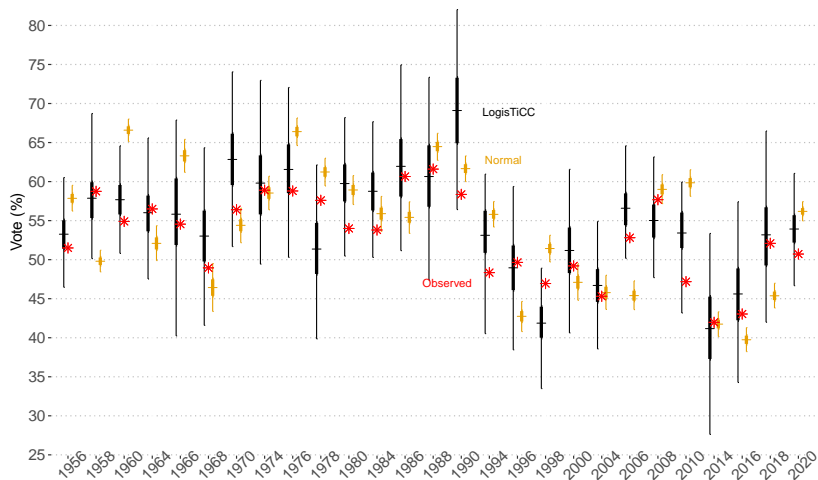
95% CI captures

95% CI Coverage: Median House Seat Expected Vote



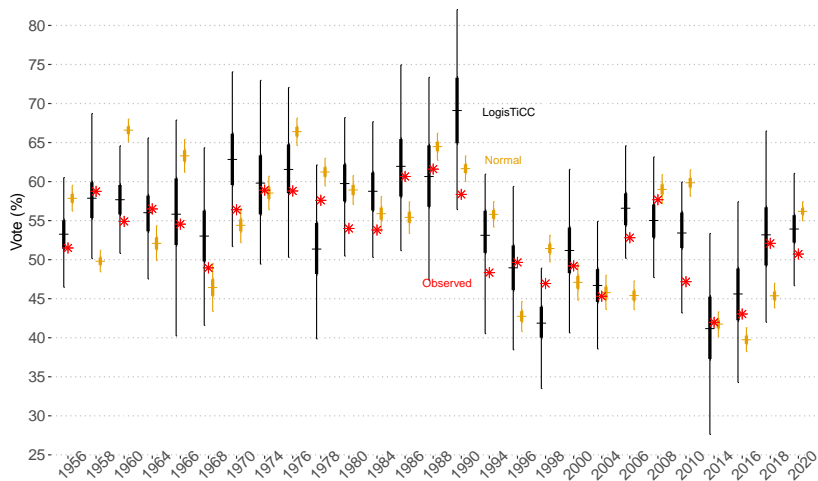
95% CI captures (Theory: 26/27):

95% CI Coverage: Median House Seat Expected Vote



95% CI captures (Theory: 26/27): Normal 7/27,

95% CI Coverage: Median House Seat Expected Vote



95% CI captures (Theory: 26/27): **Normal 7/27**, LogisTiCC 27/27

The Plan

Model Validation: Out-of-sample tests

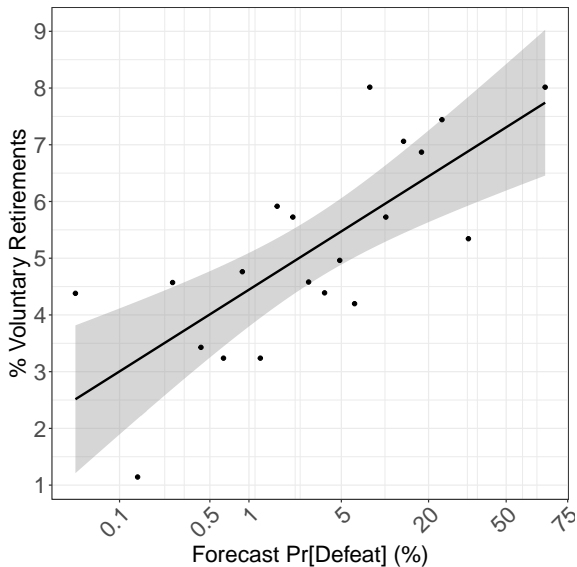
Prob(Incumbent Defeat): High Mean, No Trend

Intermediate Variables: Massive Change

How No Change Leads to Massive Change

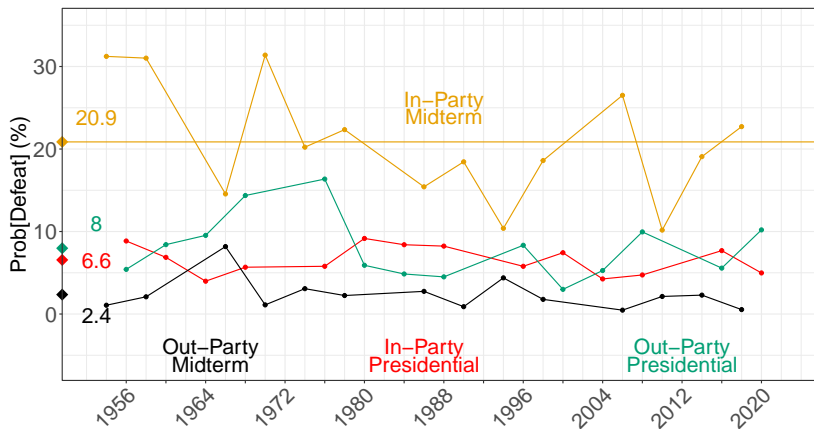
Incumbents are aware of $\Pr(\text{defeat})$ at previous election

Incumbents are aware of $\text{Pr}(\text{defeat})$ at previous election

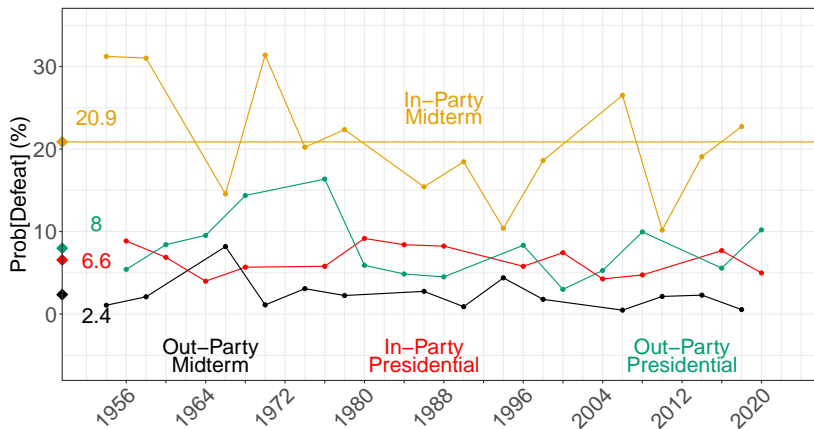


$\Pr(\text{Defeat}_t | \text{winner}_{t-1} \text{ runs at } t)$: High Mean, No Trend

$\Pr(\text{Defeat}_t | \text{winner}_{t-1} \text{ runs at } t)$: High Mean, No Trend

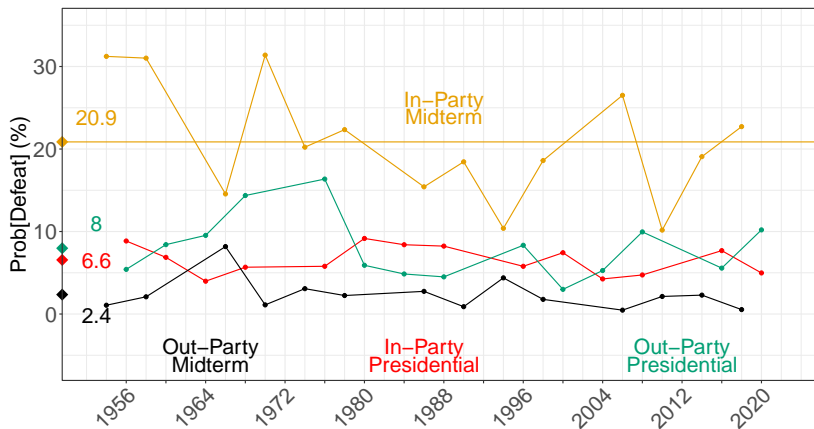


$\Pr(\text{Defeat}_t | \text{winner}_{t-1} \text{ runs at } t)$: High Mean, No Trend



High Mean: 2.4–20.9%; overall: 11%

Pr(Defeat_t | winner_{t-1} runs at t): High Mean, No Trend



High Mean: 2.4–20.9%; overall: 11%

No Trend

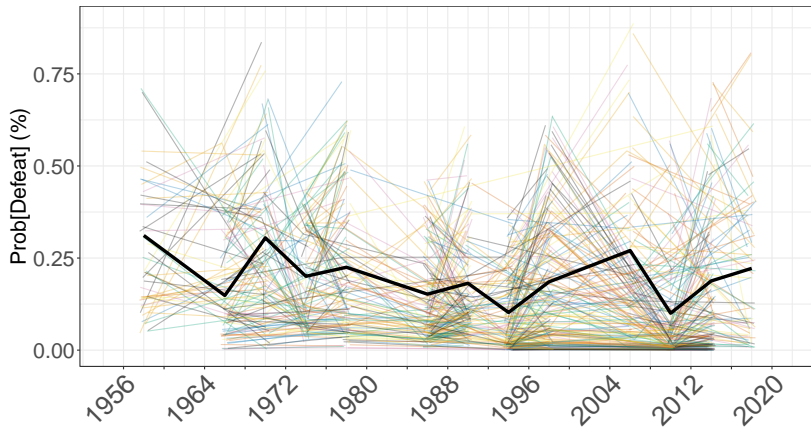
Prob(Defeat) for Individual Incumbents

Prob(Defeat) for Individual Incumbents

In Party, Midterm

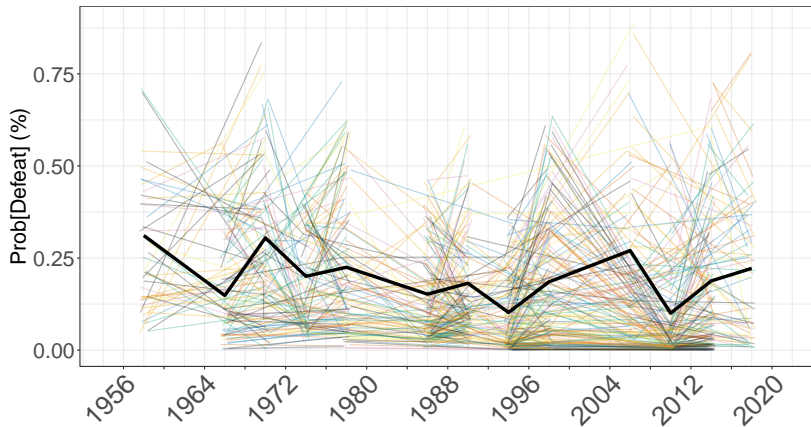
Prob(Defeat) for Individual Incumbents

In Party, Midterm



Prob(Defeat) for Individual Incumbents

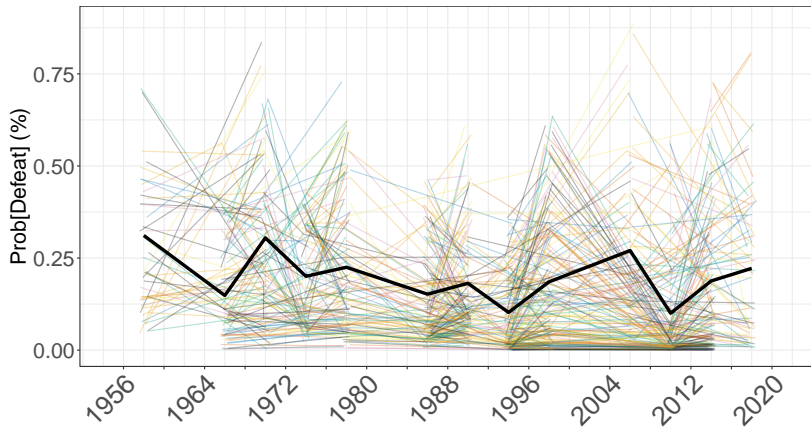
In Party, Midterm



Mean: High

Prob(Defeat) for Individual Incumbents

In Party, Midterm

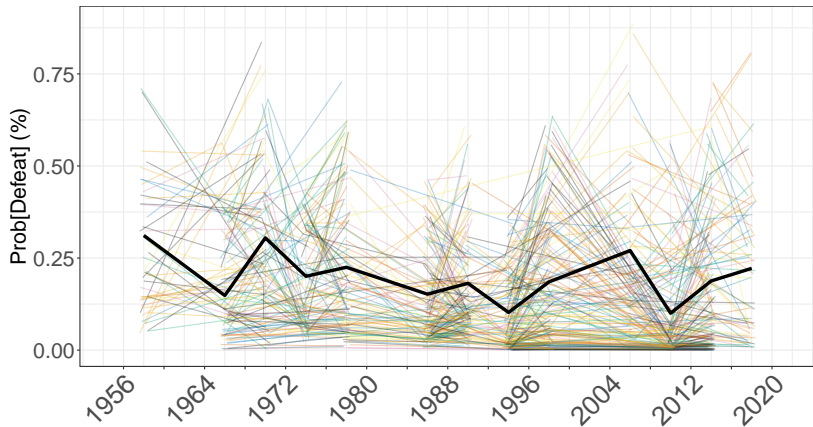


Mean: High

Trends: None

Prob(Defeat) for Individual Incumbents

In Party, Midterm



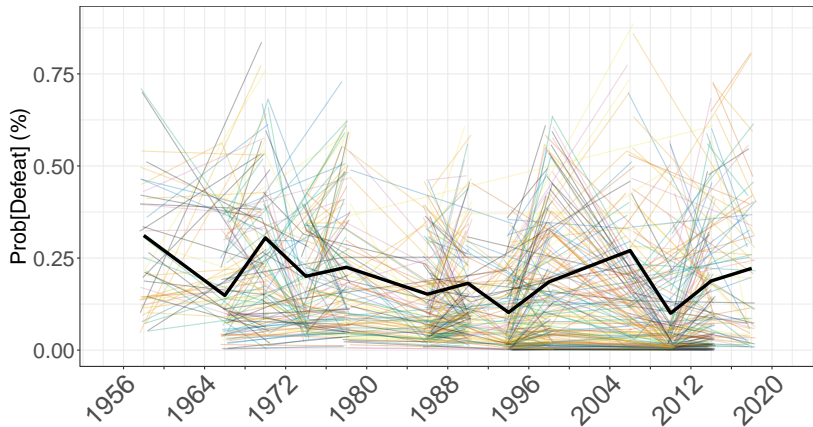
Mean: High

Trends: None

Individual Variation: Massive

Prob(Defeat) for Individual Incumbents

In Party, Midterm



Mean: High

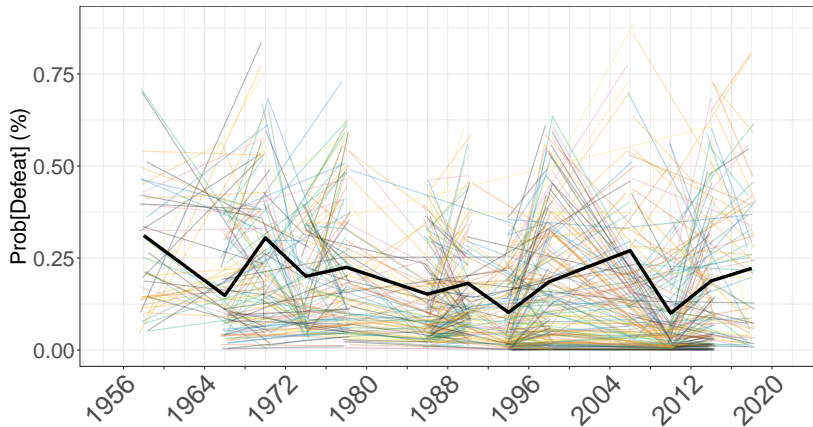
Trends: None

Individual Variation: Massive

Job security?

Prob(Defeat) for Individual Incumbents

In Party, Midterm



Mean: High

Trends: None

Individual Variation: Massive

Job security? Random terror!

The Plan

Model Validation: Out-of-sample tests

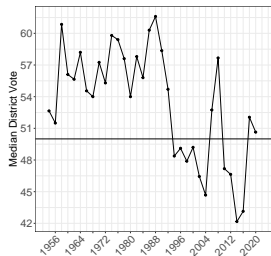
Prob(Incumbent Defeat): High Mean, No Trend

Intermediate Variables: Massive Change

How No Change Leads to Massive Change

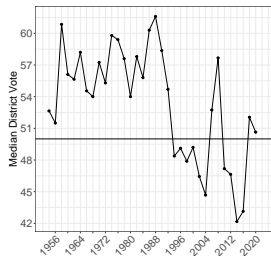
Massive Political Change [With Prob(Defeat) constant?]

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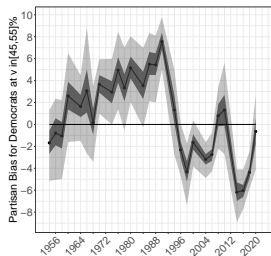


Median District Vote

Massive Political Change [With Prob(Defeat) constant?]

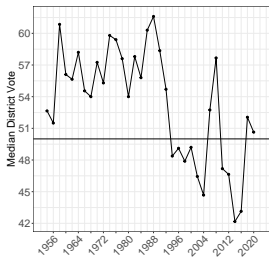


Median District Vote

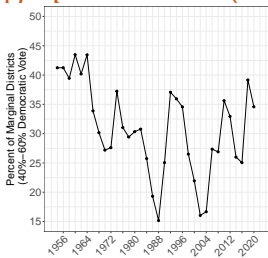


Partisan Bias

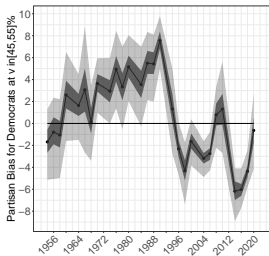
Massive Political Change [With Prob(Defeat) constant?]



Median District Vote

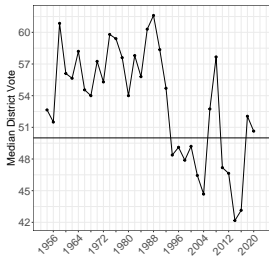


Electoral Marginals

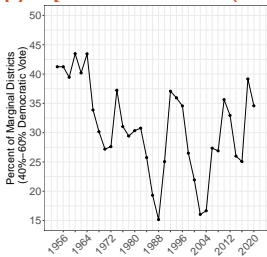


Partisan Bias

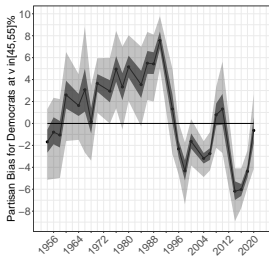
Massive Political Change [With Prob(Defeat) constant?]



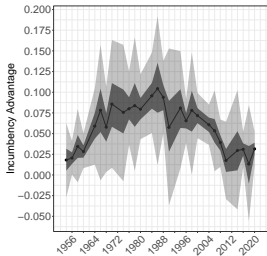
Median District Vote



Electoral Marginals

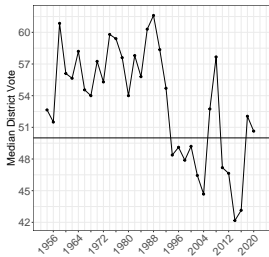


Partisan Bias

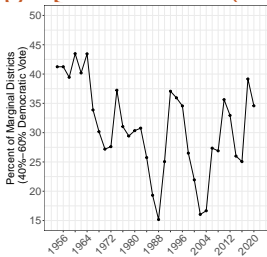


Incumbency Advantage

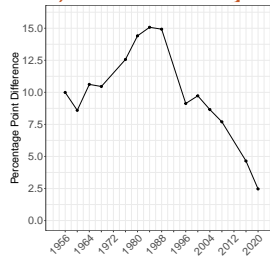
Massive Political Change [With Prob(Defeat) constant?]



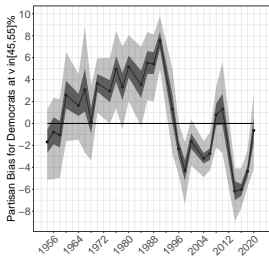
Median District Vote



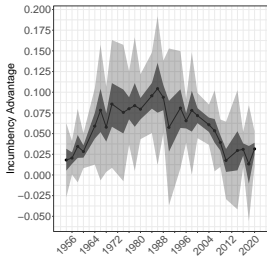
Electoral Marginals



Split Ticket Voting

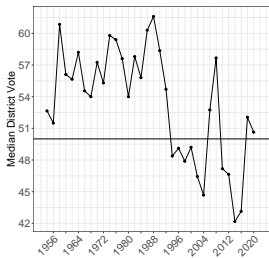


Partisan Bias

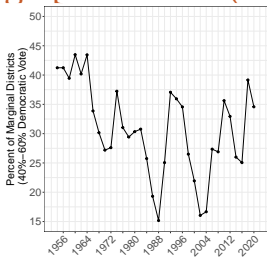


Incumbency Advantage

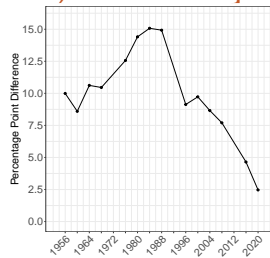
Massive Political Change [With Prob(Defeat) constant?]



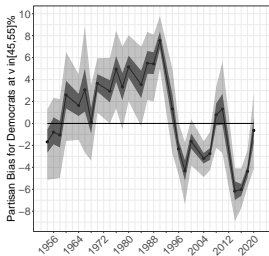
Median District Vote



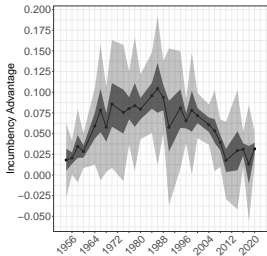
Electoral Marginals



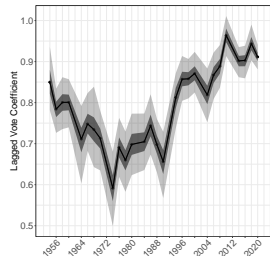
Split Ticket Voting



Partisan Bias



Incumbency Advantage



Lagged Vote

The Plan

Model Validation: Out-of-sample tests

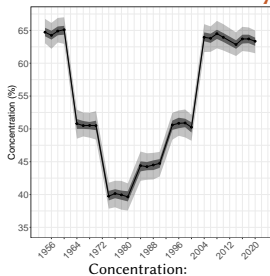
Prob(Incumbent Defeat): High Mean, No Trend

Intermediate Variables: Massive Change

How No Change Leads to Massive Change

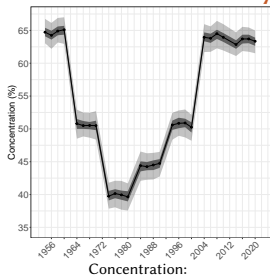
More than Central Tendency: Variation Matters

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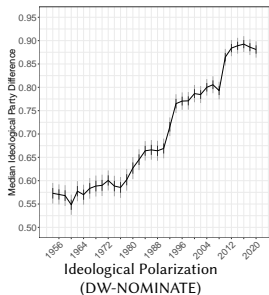


$$\int_{45}^{55} p(v|E[v] = 50)dv$$

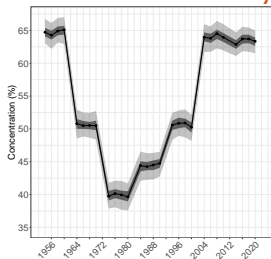
More than Central Tendency: Variation Matters



$$\int_{45}^{55} p(v|E[v] = 50)dv$$

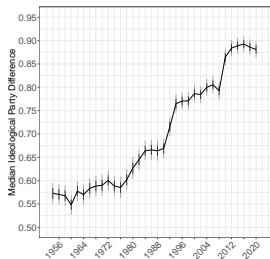


More than Central Tendency: Variation Matters

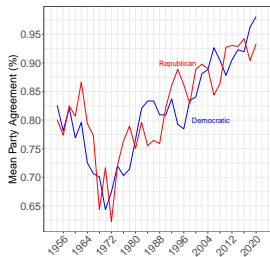


Concentration:

$$\int_{45}^{55} p(v|E[v] = 50)dv$$

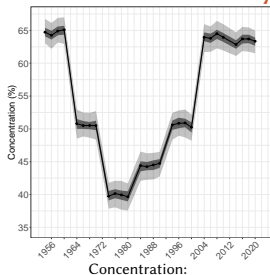


Ideological Polarization
(DW-NOMINATE)

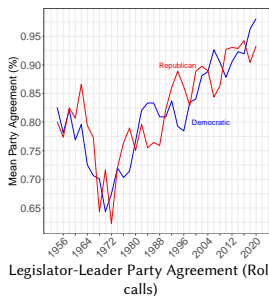
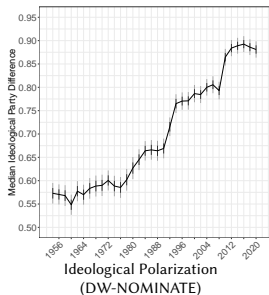
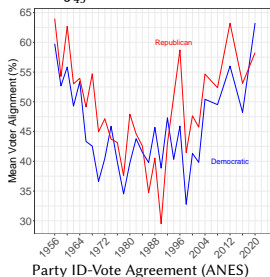


Legislator-Leader Party Agreement (Roll calls)

More than Central Tendency: Variation Matters

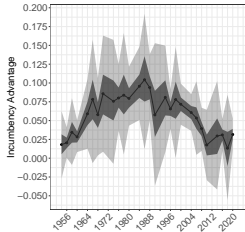


$$\int_{45}^{55} p(v|E[v] = 50)dv$$



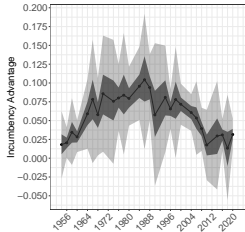
“Adding” it up

“Adding” it up



Incumbency
Advantage

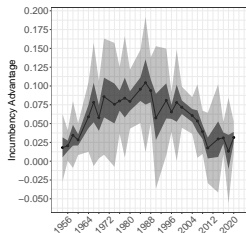
“Adding” it up



+

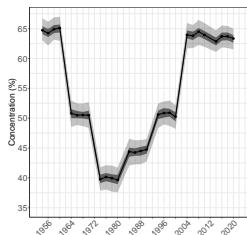
Incumbency
Advantage

“Adding” it up



Incumbency
Advantage

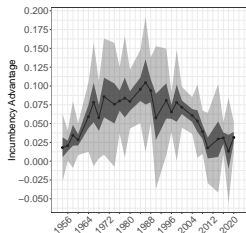
+



Concentration:

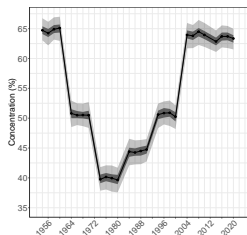
$$\int_{45}^{55} p(v|E[v] = 50)dv$$

“Adding” it up



Incumbency
Advantage

+

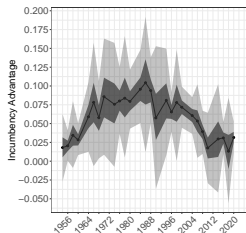


=

Concentration:

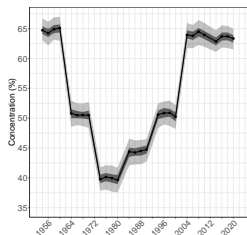
$$\int_{45}^{55} p(v|E[v] = 50)dv$$

“Adding” it up



Incumbency
Advantage

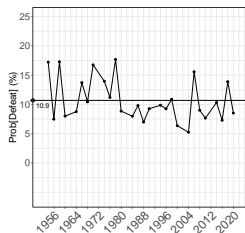
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Concentration:

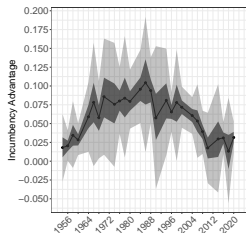
$$\int_{45}^{55} p(v|E[v] = 50)dv$$

=



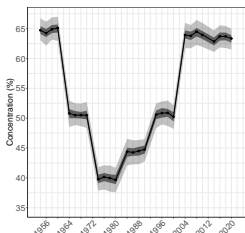
Mean Prob(Defeat)

“Adding” it up



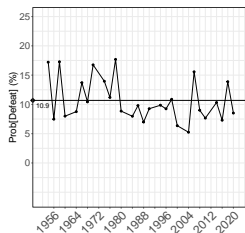
Incumbency
Advantage

+



Concentration:
 $\int_{45}^{55} p(v|E[v] = 50)dv$

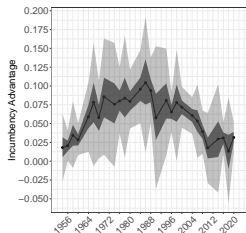
=



Mean Prob(Defeat)

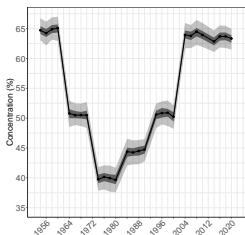
We find

“Adding” it up



Incumbency
Advantage

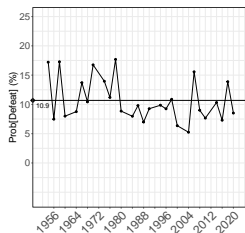
+



Concentration:

$$\int_{45}^{55} p(v|E[v] = 50)dv$$

=

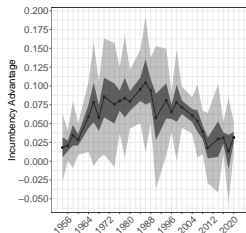


Mean Prob(Defeat)

We find

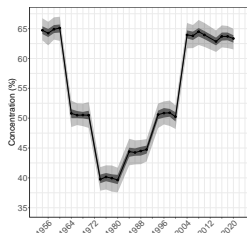
- Prob(defeat) high, constant over > 2/3rds century

“Adding” it up



Incumbency
Advantage

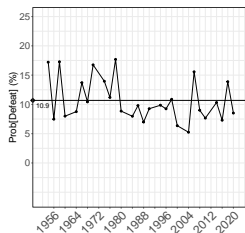
+



Concentration:

$$\int_{45}^{55} p(v|E[v] = 50)dv$$

=

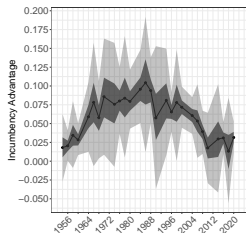


Mean Prob(Defeat)

We find

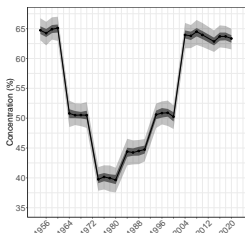
- Prob(defeat) high, constant over > 2/3rds century
- Different combos of {Polarization, Partisanship, IncAd, Marginals, Gerrymandering bias} \leadsto the same Prob(Defeat)

“Adding” it up



Incumbency Advantage

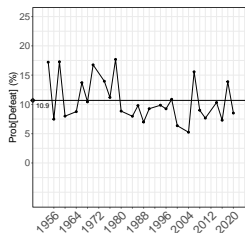
+



Concentration:

$$\int_{45}^{55} p(v|E[v] = 50)dv$$

=



Mean Prob(Defeat)

We find

- Prob(defeat) high, constant over > 2/3rds century
- Different combos of {Polarization, Partisanship, IncAd, Marginals, Gerrymandering bias} \leadsto the same Prob(Defeat)
- (This part of) American democracy actually seems to work

Papers, slides, software, data

GaryKing.org

