How American Politics Ensures Electoral Accountability in Congress[1]

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Center for American Political Studies, Harvard University, 11/29/2023

[1] Joint with Danny Ebanks & Jonathan N. Katz (thanks to Aleksandra Conevska)
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The Plan

Model Validation: Out-of-sample tests

Prob(Incumbent Defeat): High, No Change

Intermediate Variables: Massive Change

How No Change Leads to Massive Change

Appendix

Evaluating the Health of American Legislative Democracy

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

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$$\mu_{it} = X_{it}\beta_t$$

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$$\mu_{it} = X_{it}\beta_t + \gamma_i + \eta_t$$

- District Uniqueness: $\gamma_i \sim \mathcal{N}(0, \sigma_\gamma^2)$
- National Swing: $\eta_t \sim \mathcal{N}(0, \sigma_\eta^2)$
- Coeff. Stability: $\beta_t \sim \mathcal{N}(\bar{\beta}, \sigma_\beta^2) \rightsquigarrow$ Midterm penalty, Early exits
- Surprises (nonlinear, nonnormal): $\ln[v_{it}/(1 - v_{it})] \sim t(\mu_{it}, \sigma, \nu_t)$
- Ablation studies: every component essential
- Extensions: uncontested outcomes; > 2 parties
- Computation: extensive but easy; ElectIt Software

The Plan

Model Validation: Out-of-sample tests

Prob(Incumbent Defeat): High, No Change

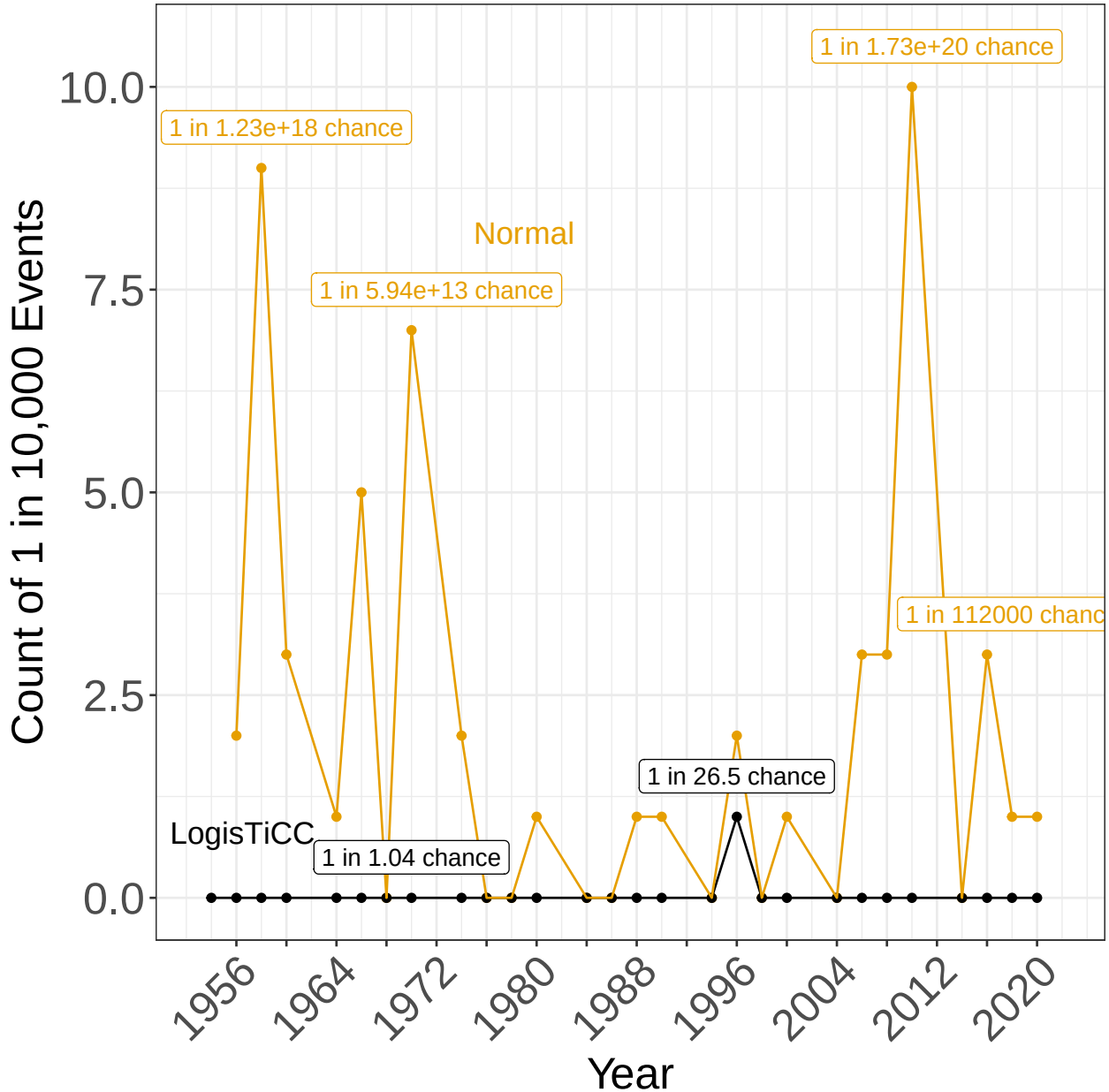
Intermediate Variables: Massive Change

How No Change Leads to Massive Change

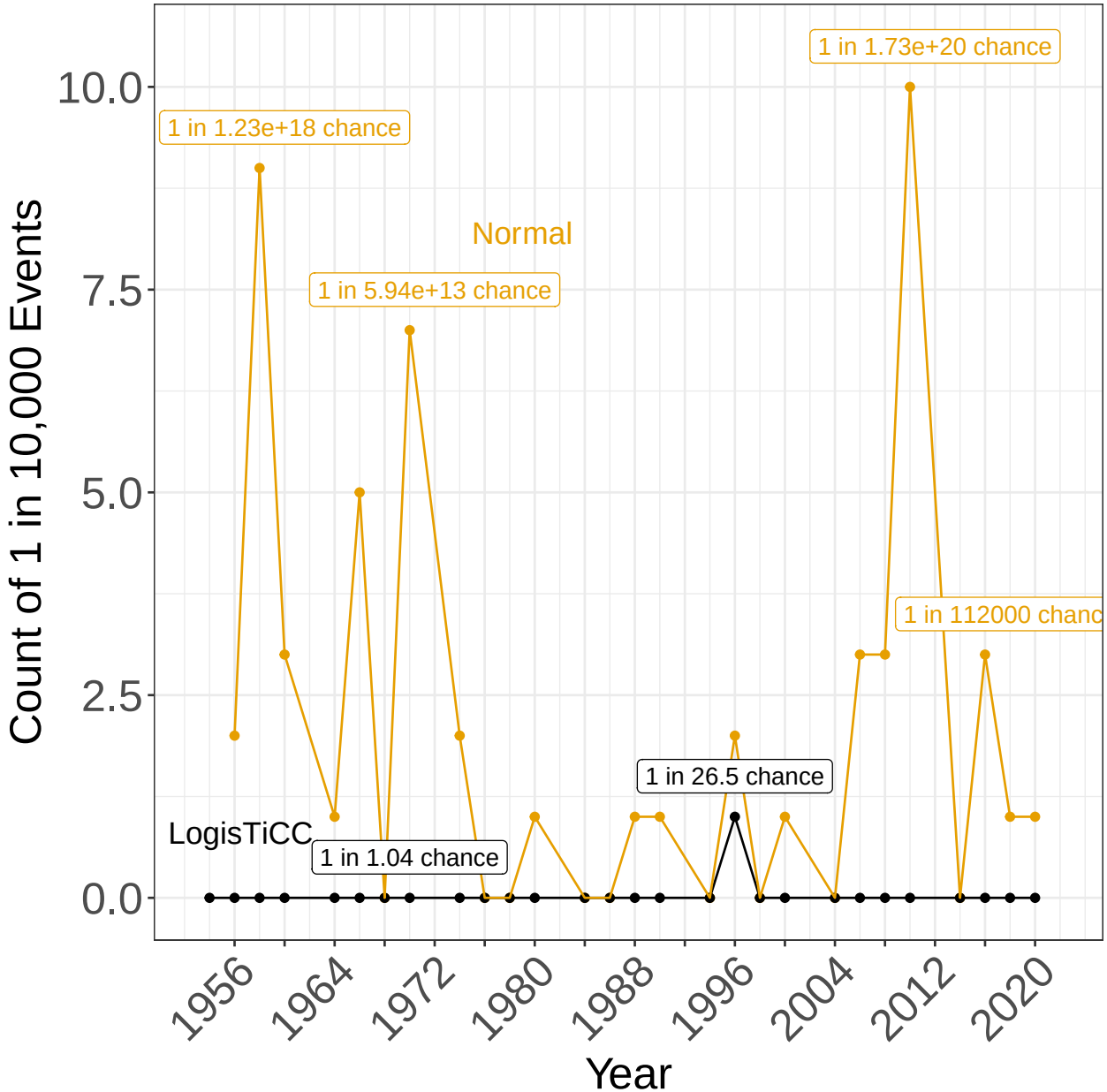
Appendix

“Moral Certitude”: Elections outside 99.99% CI

“Moral Certitude”: Elections outside 99.99% CI

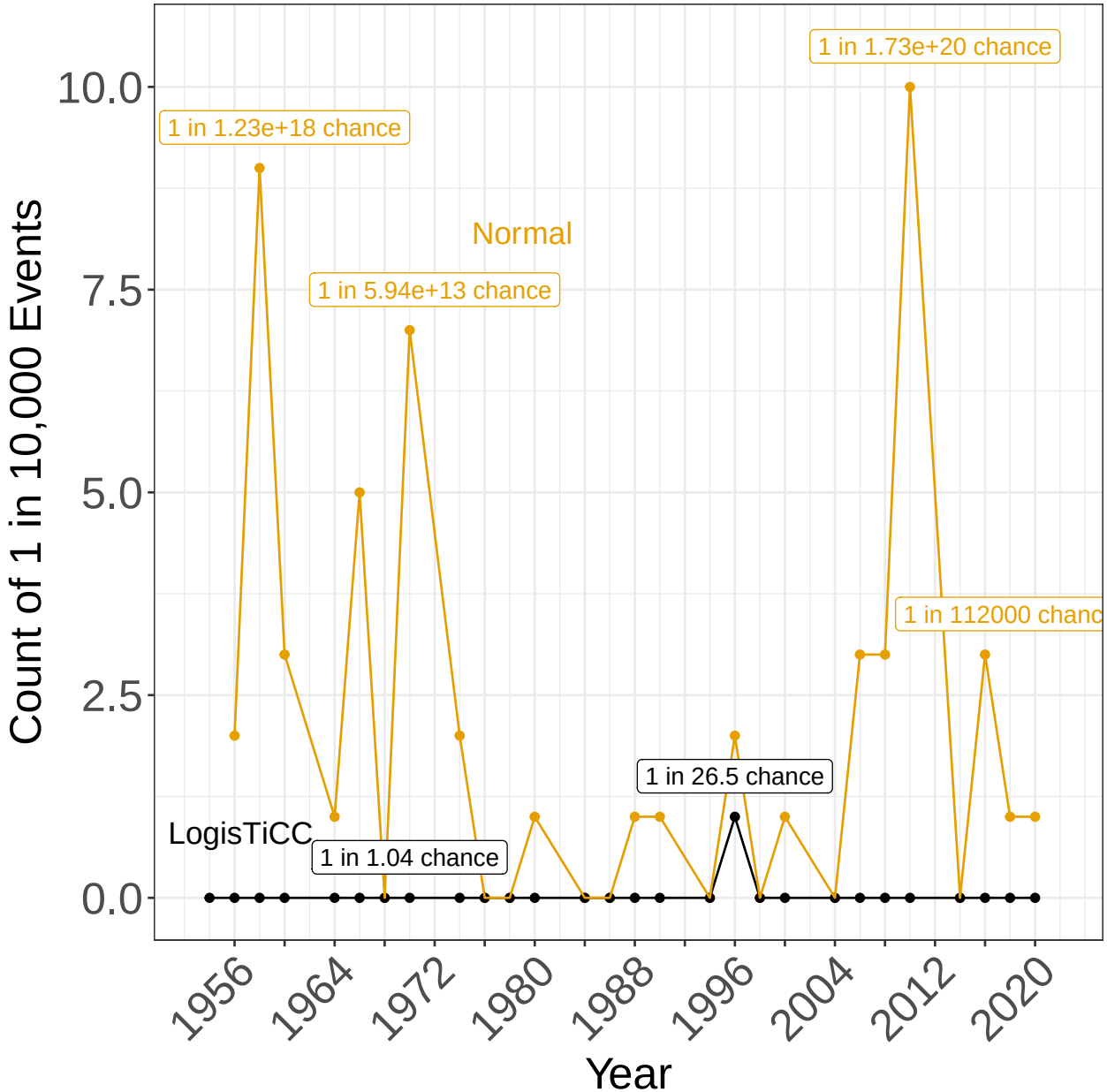


“Moral Certitude”: Elections outside 99.99% CI



1-in-10K Events:

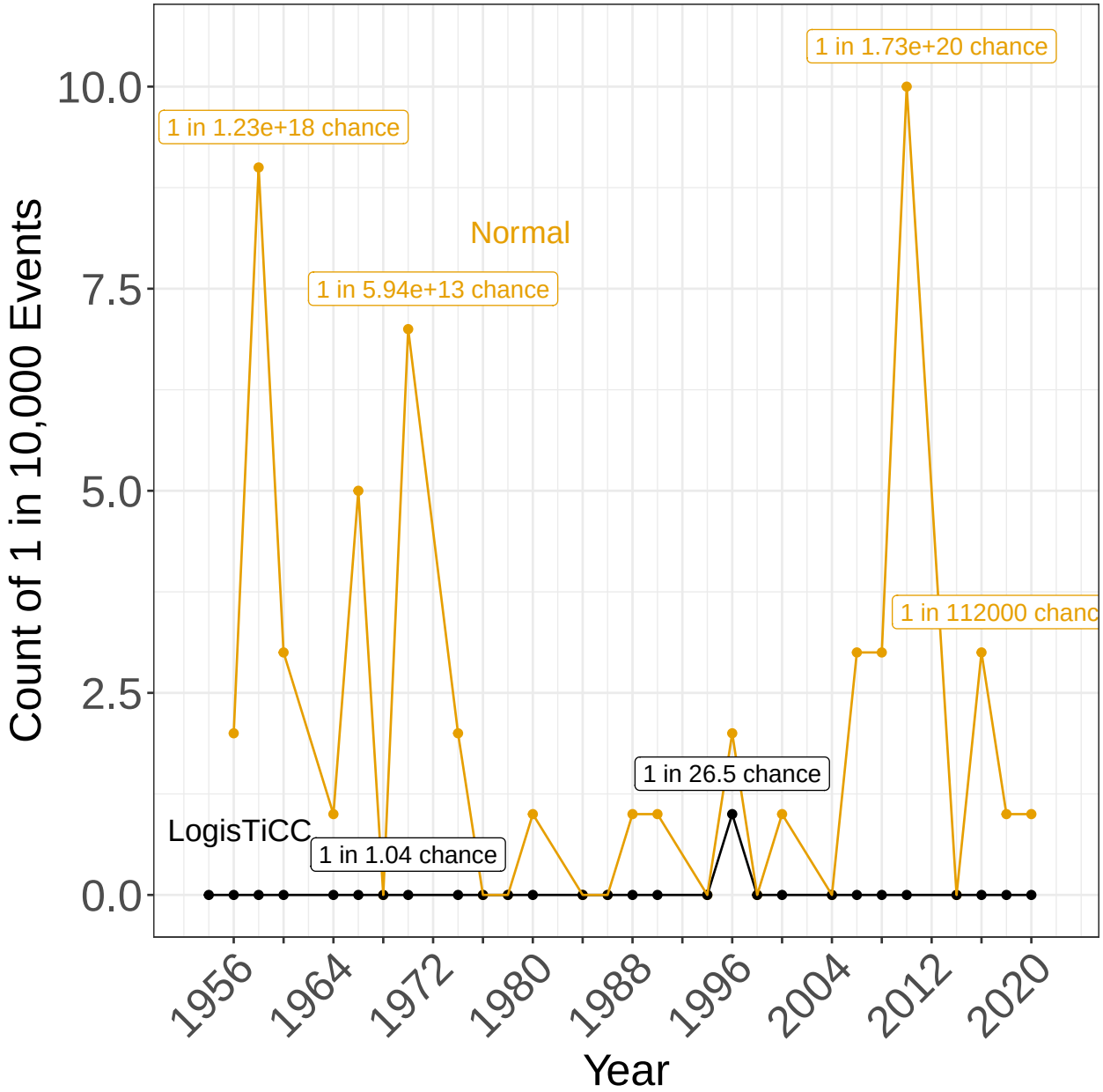
“Moral Certitude”: Elections outside 99.99% CI



1-in-10K Events:

LogisTiCC:
1 in 10K

“Moral Certitude”: Elections outside 99.99% CI



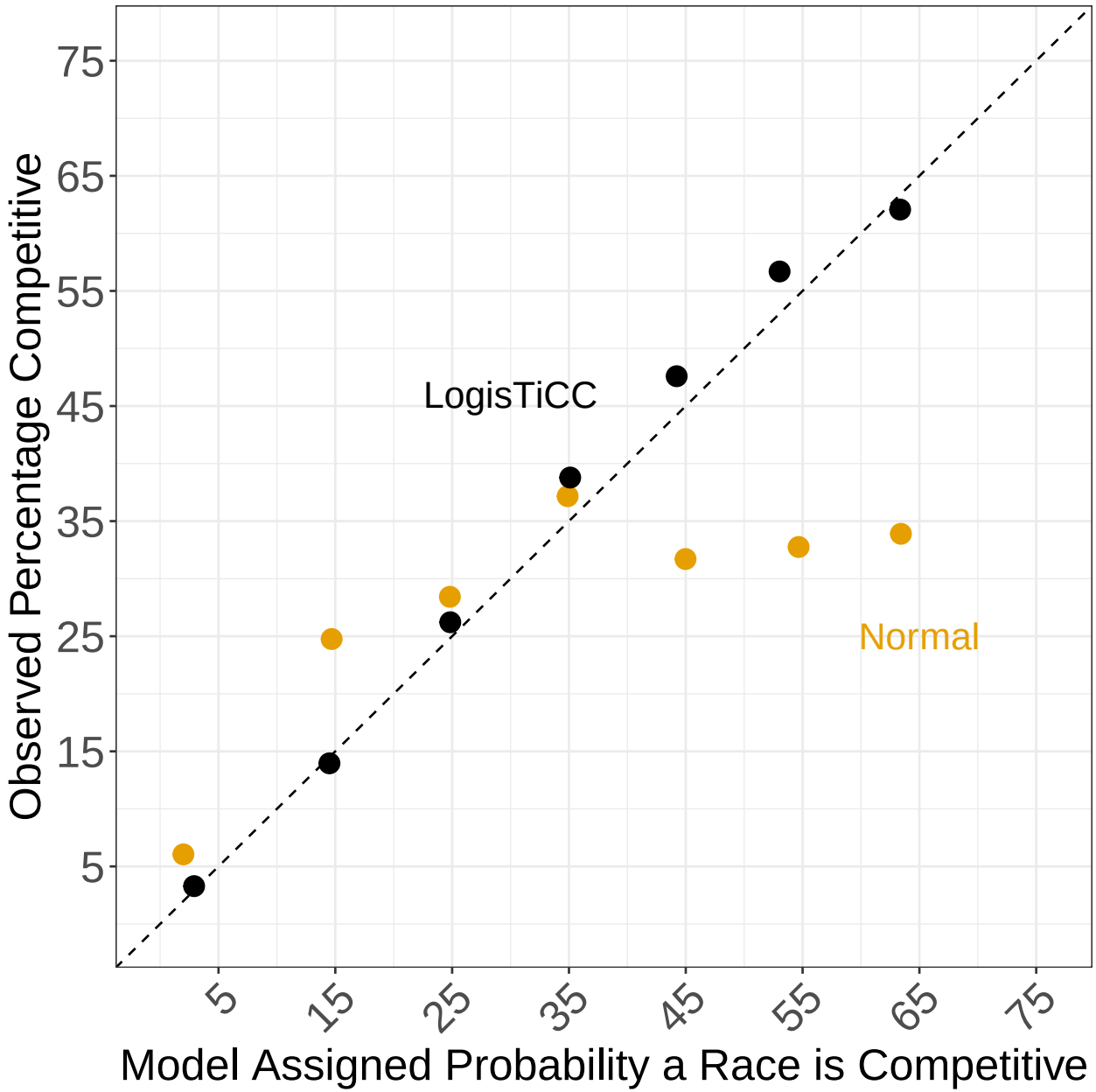
1-in-10K Events:

LogisTiCC:
1 in 10K

Normal:
All the time!

Competitiveness Calibration

Competitiveness Calibration



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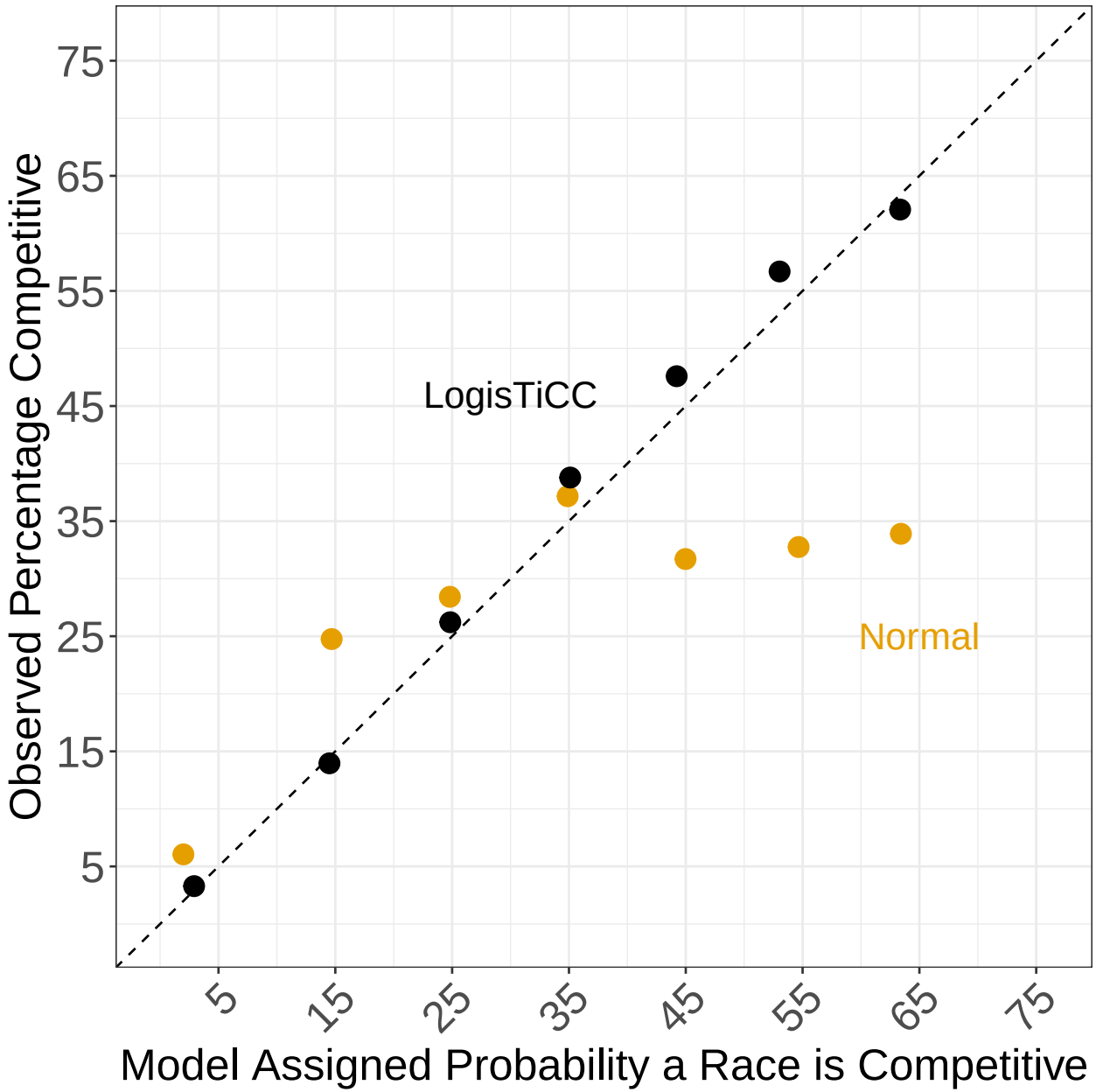
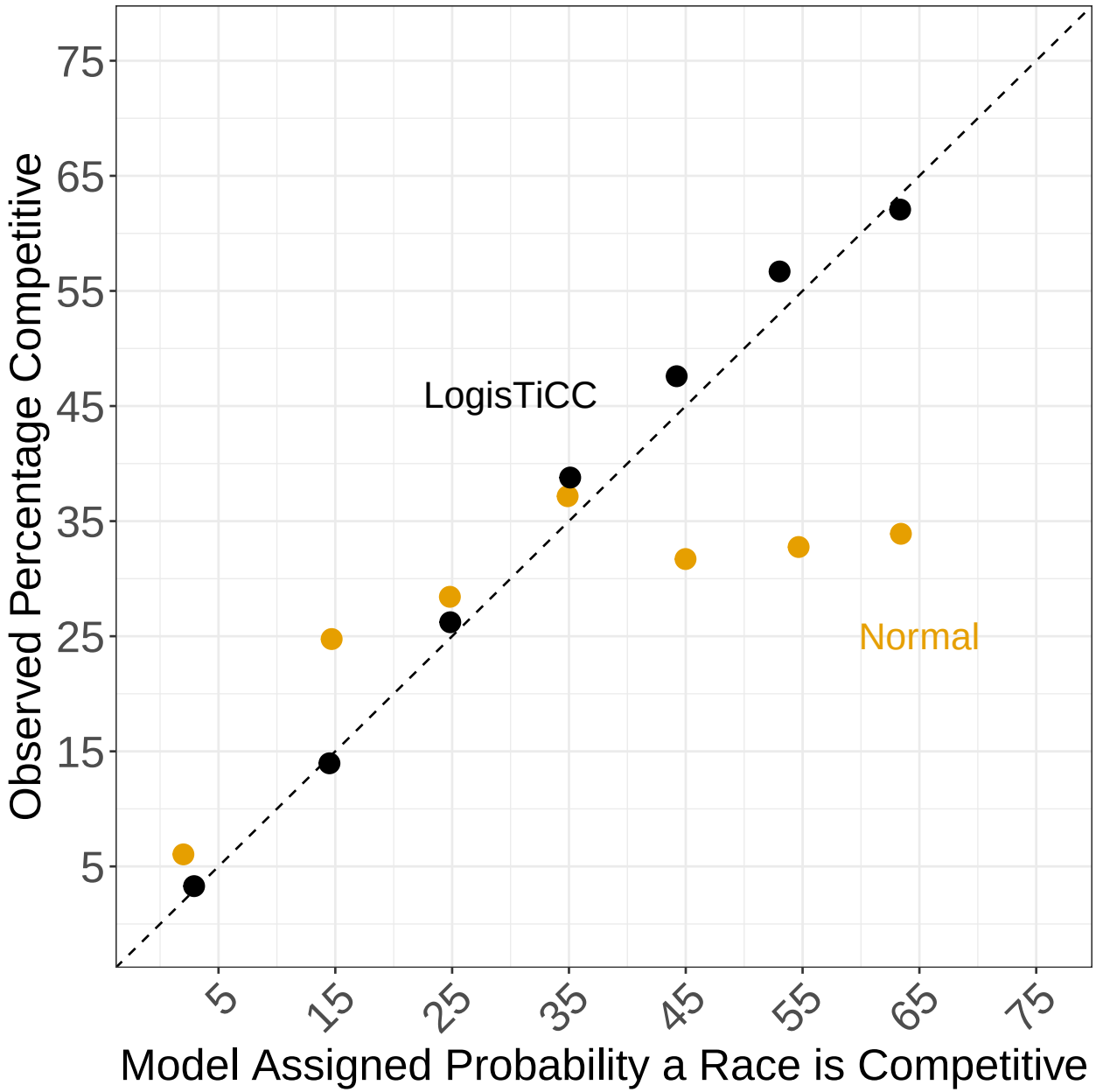


LogisTiCC: Near perfect

Competitiveness Calibration



LogisTiCC: Near perfect

Normal: Fails for the most important elections

95% CI Coverage:

95% CI Coverage: District Vote

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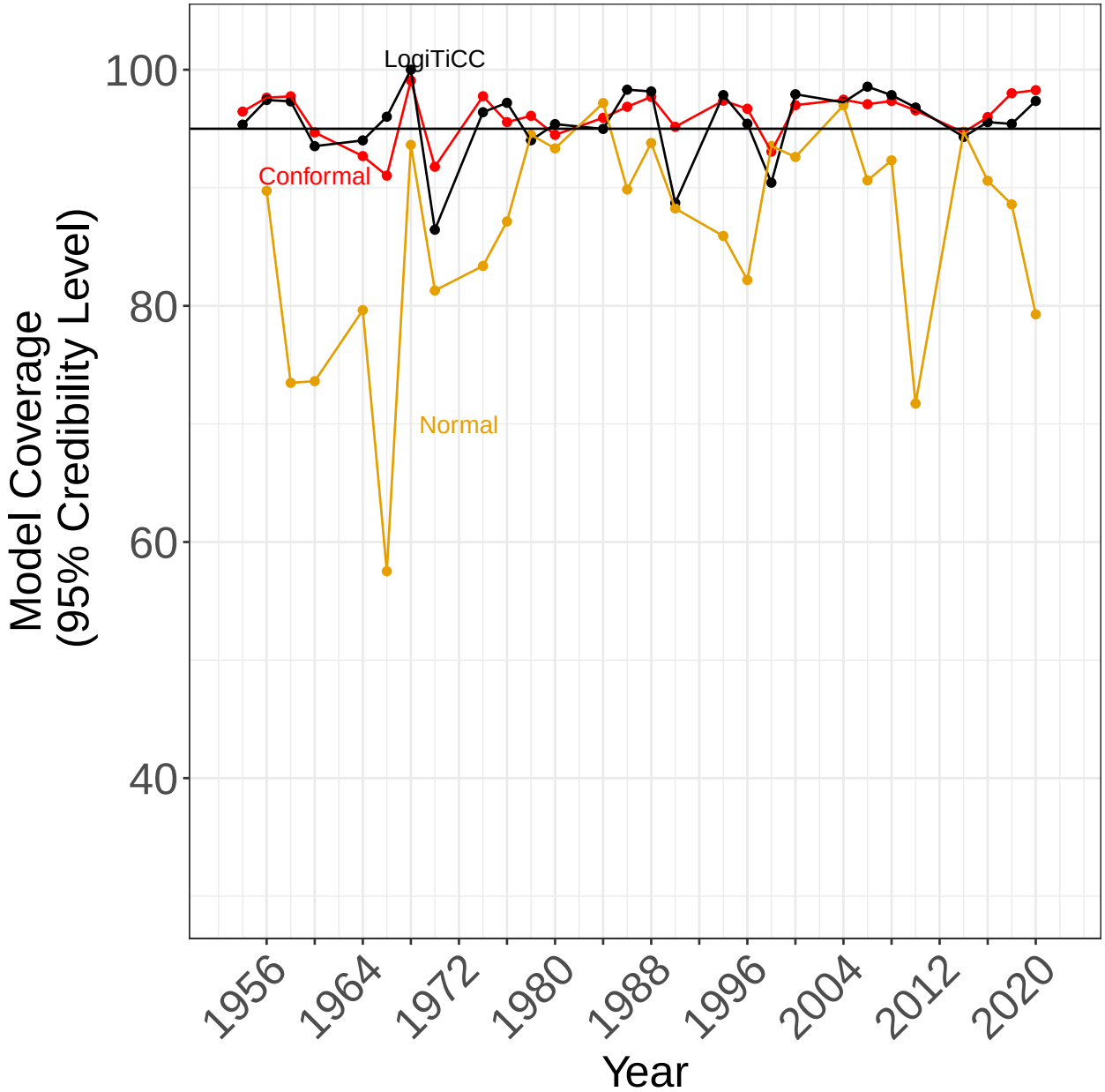

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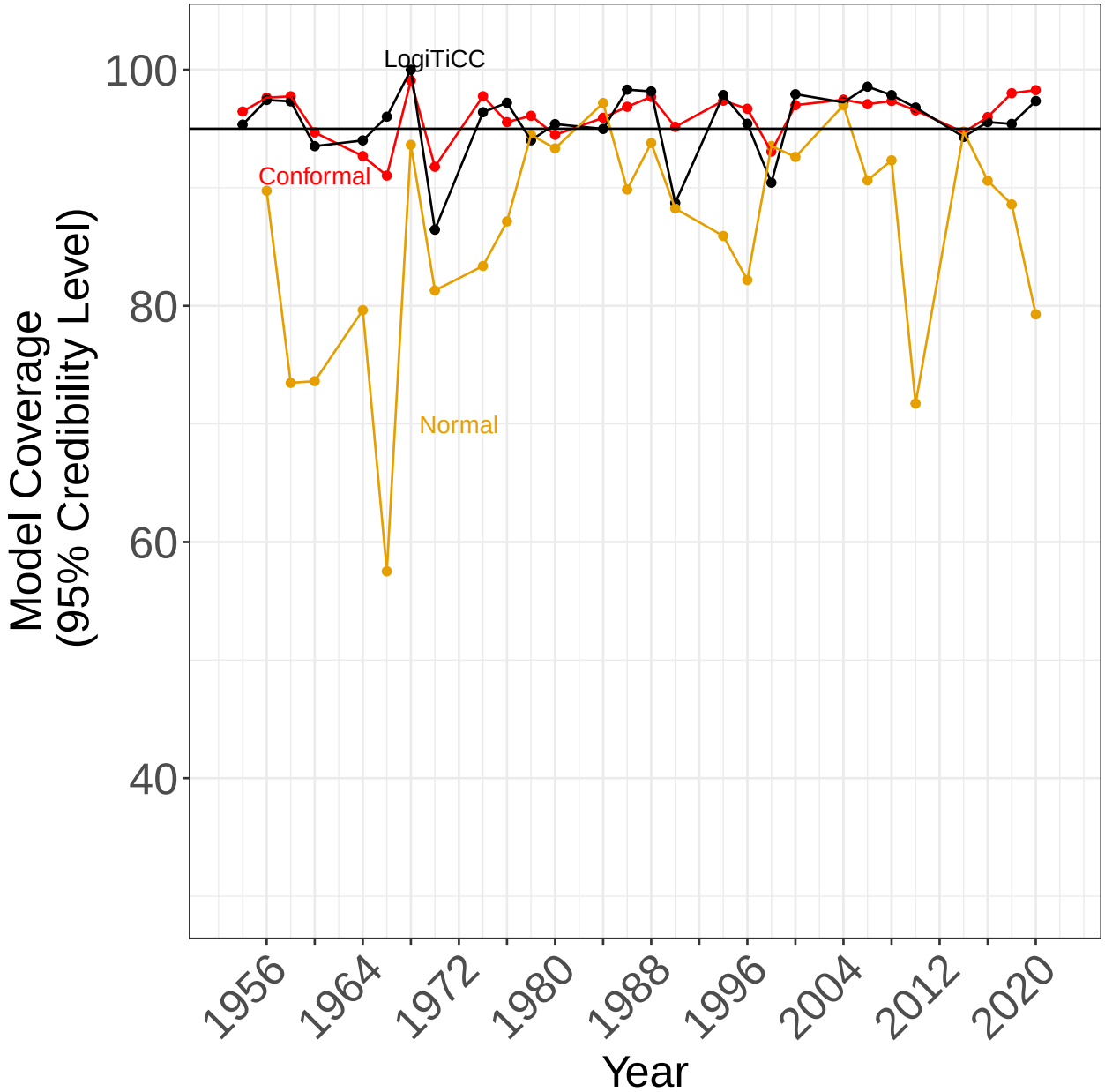

LogisTiCC:
~ correct

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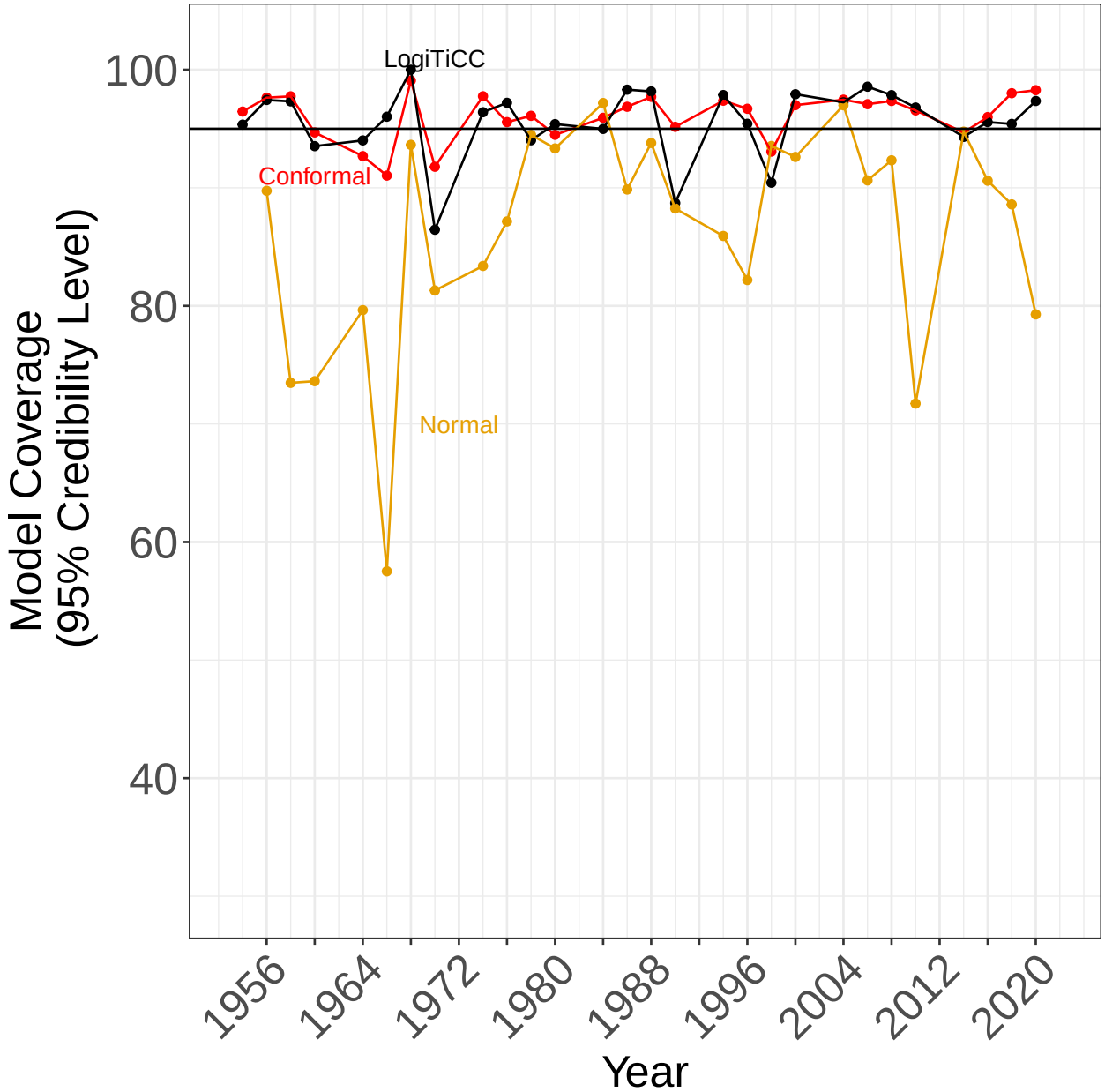
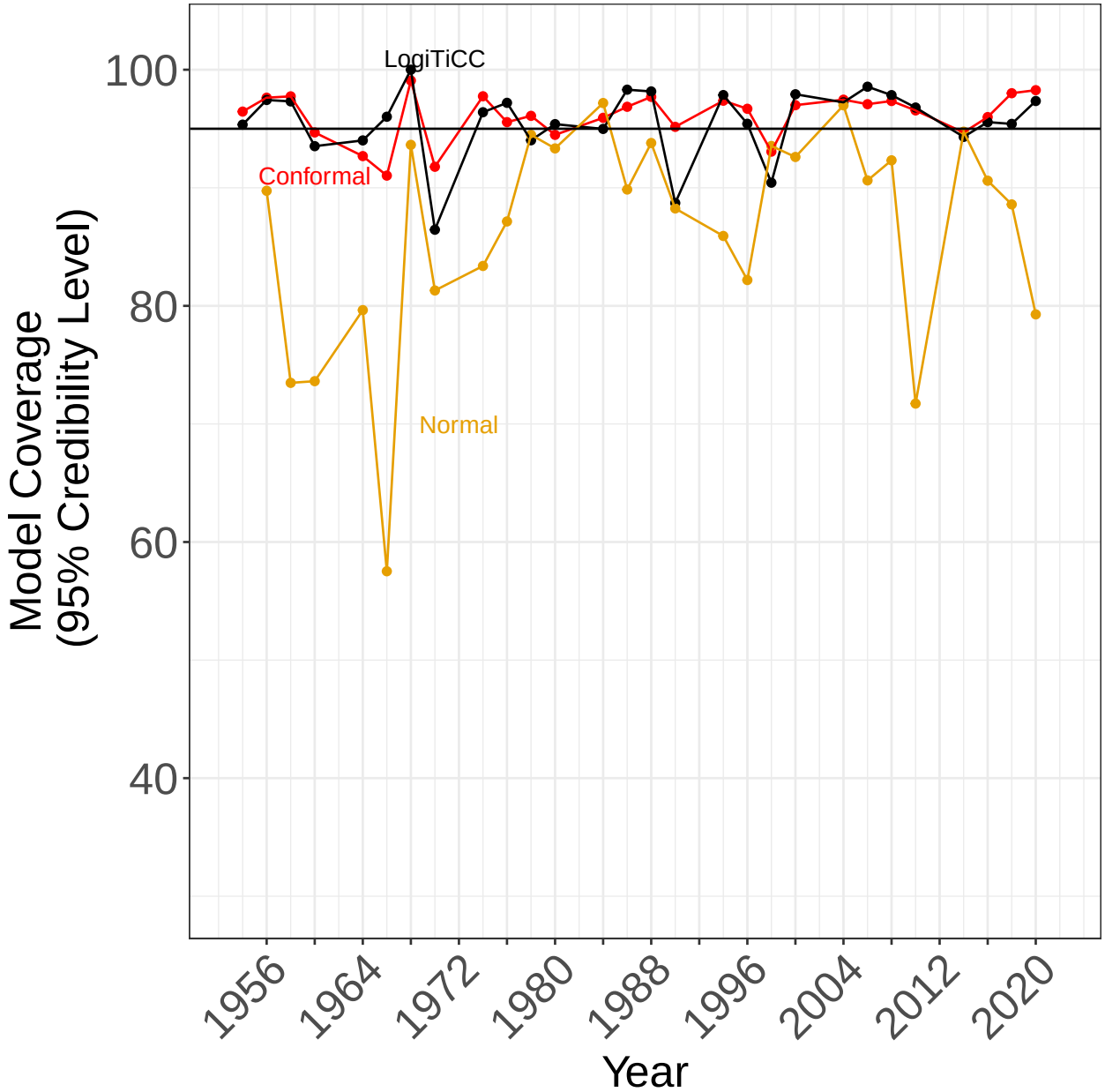


LogisTiCC:
~ correct

Normal: Way over confident

95% CI Coverage: District Vote



LogisTiCC:
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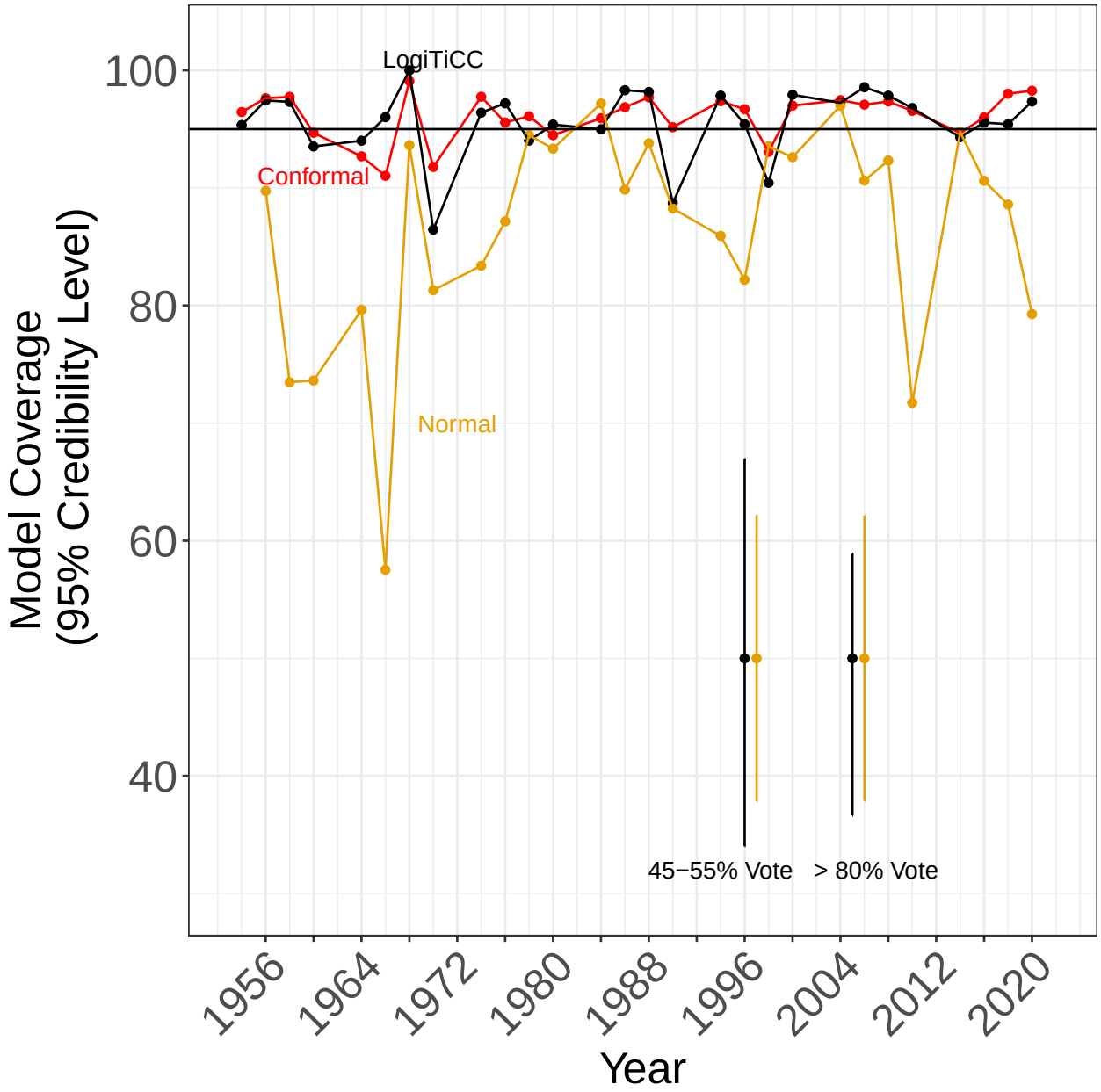
Normal: Way over confident

Nonparametric:
~ correct

95% CI Coverage: District Vote



LogisTiCC:
~ correct

Normal: Way over confident

Nonparametric:
~ correct

Average CI Width

95% CI Coverage:

95% CI Coverage: Median House Seat Expected Vote

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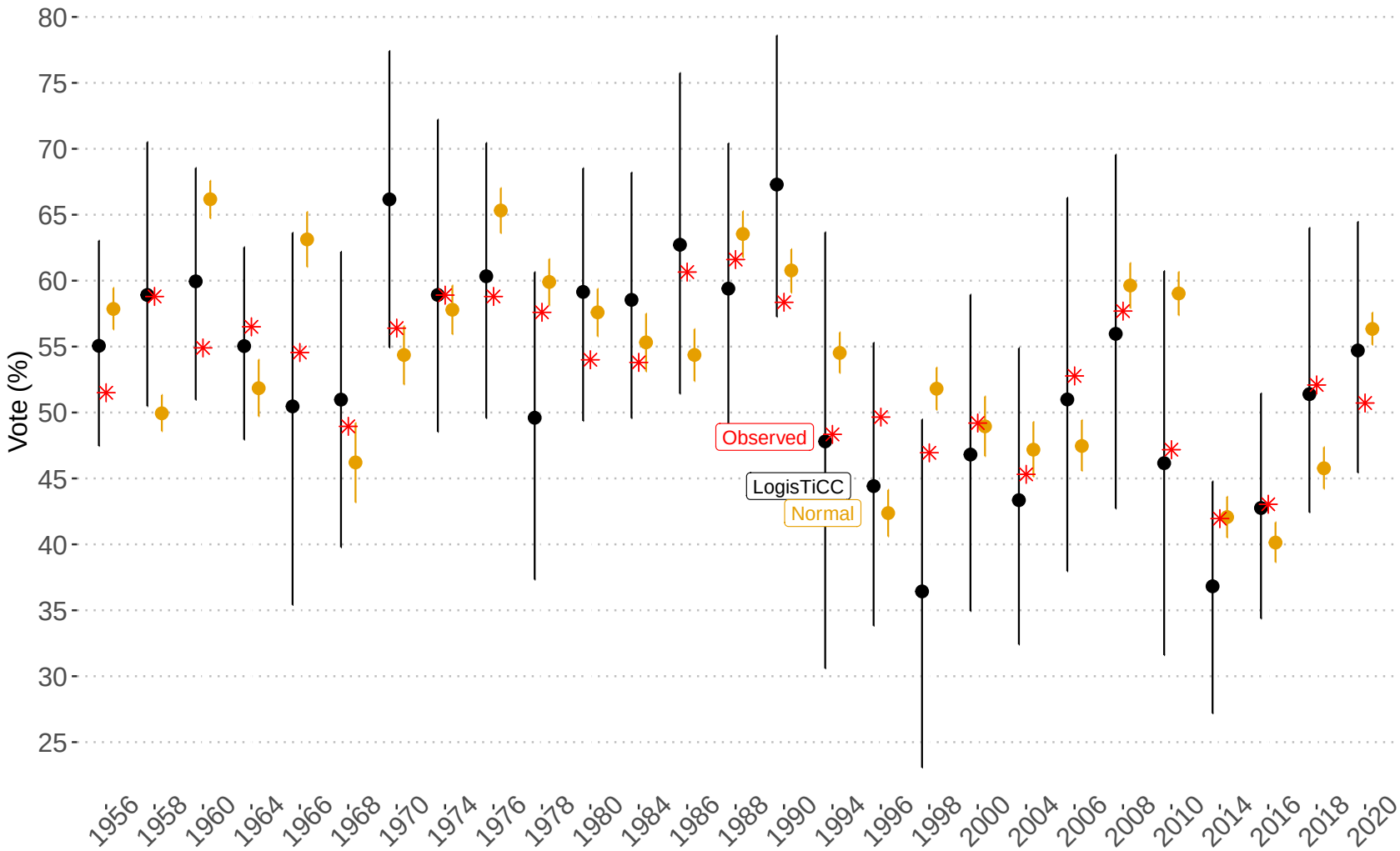
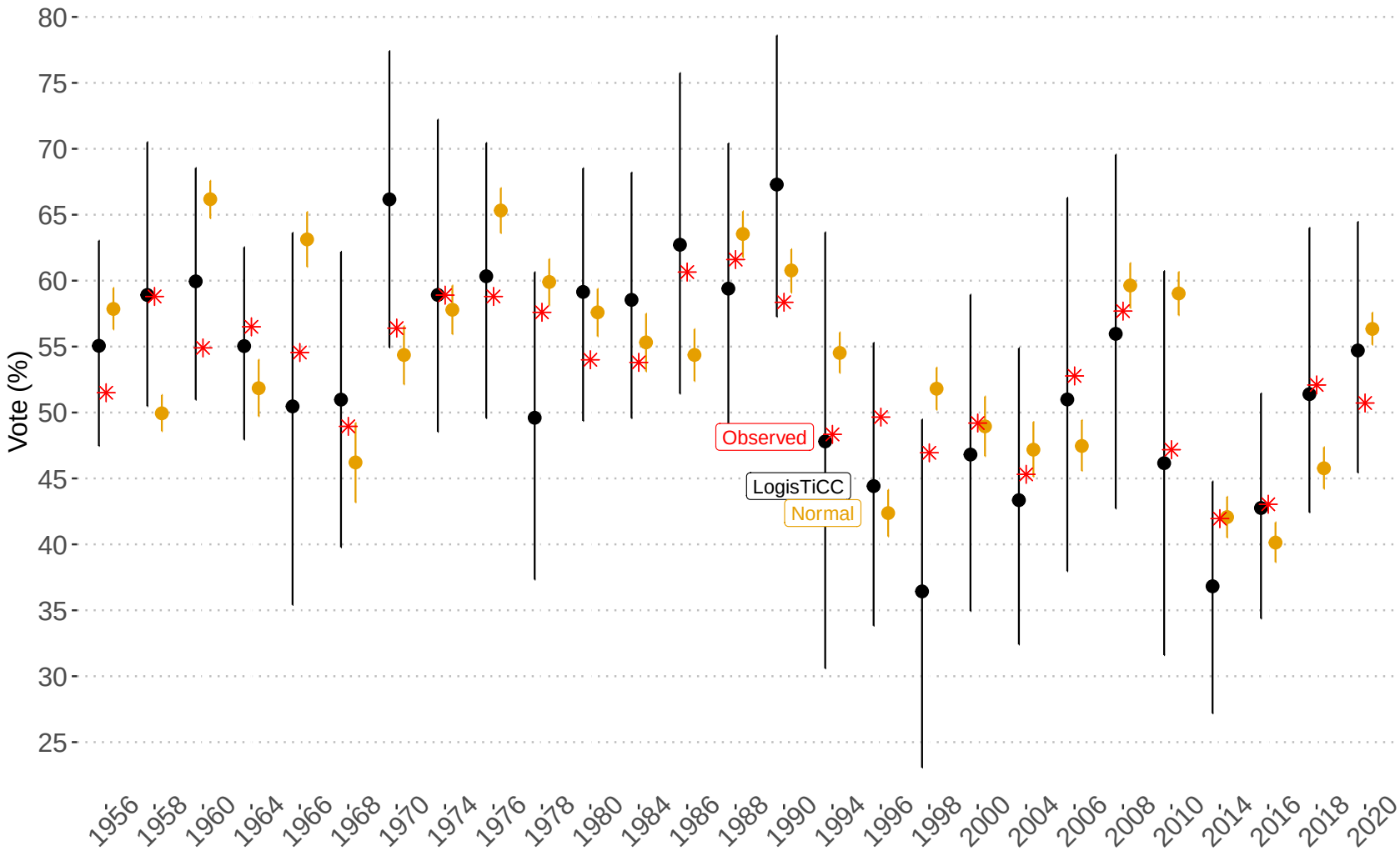


95% CI Coverage: Median House Seat Expected Vote



95% CI captures

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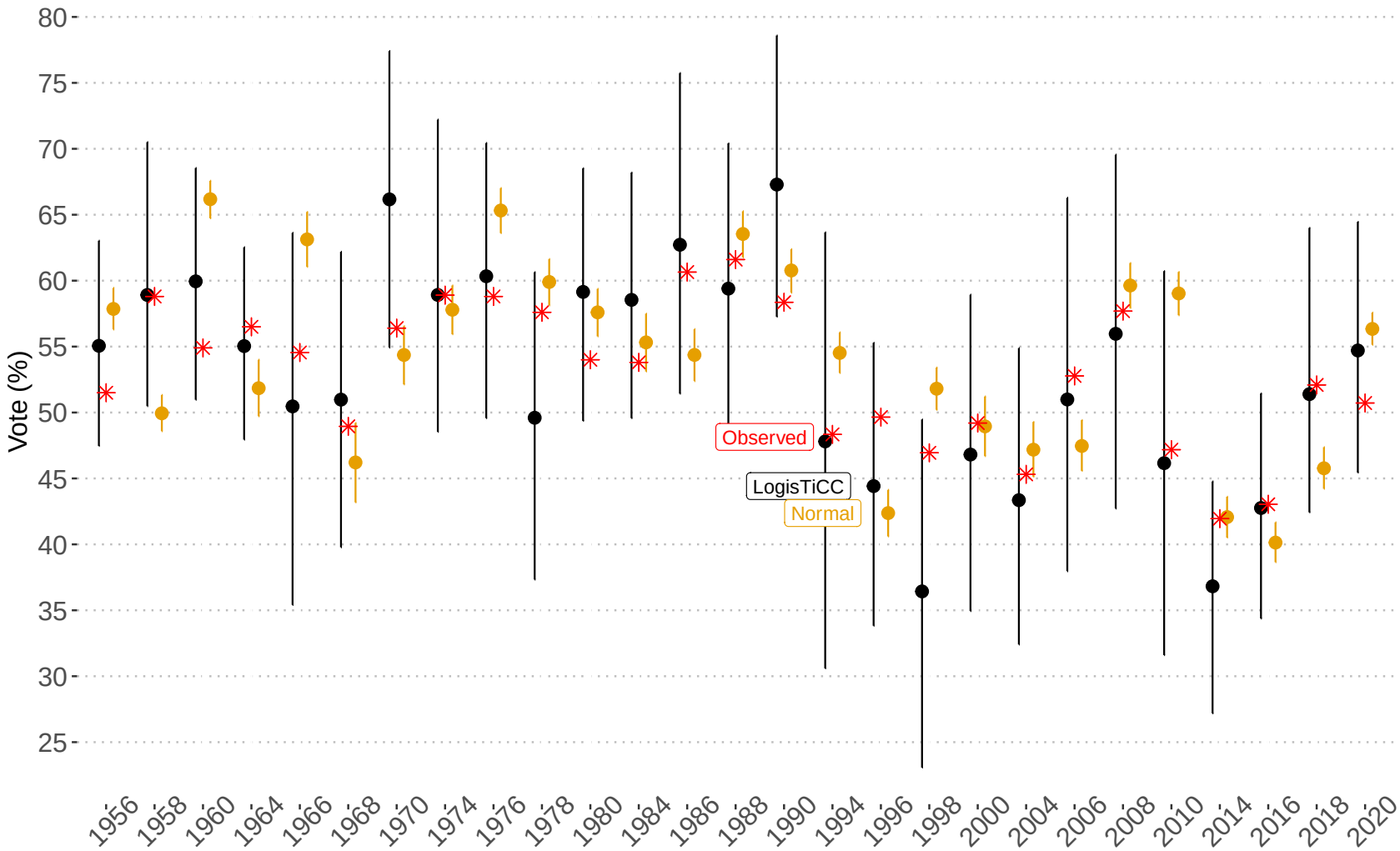
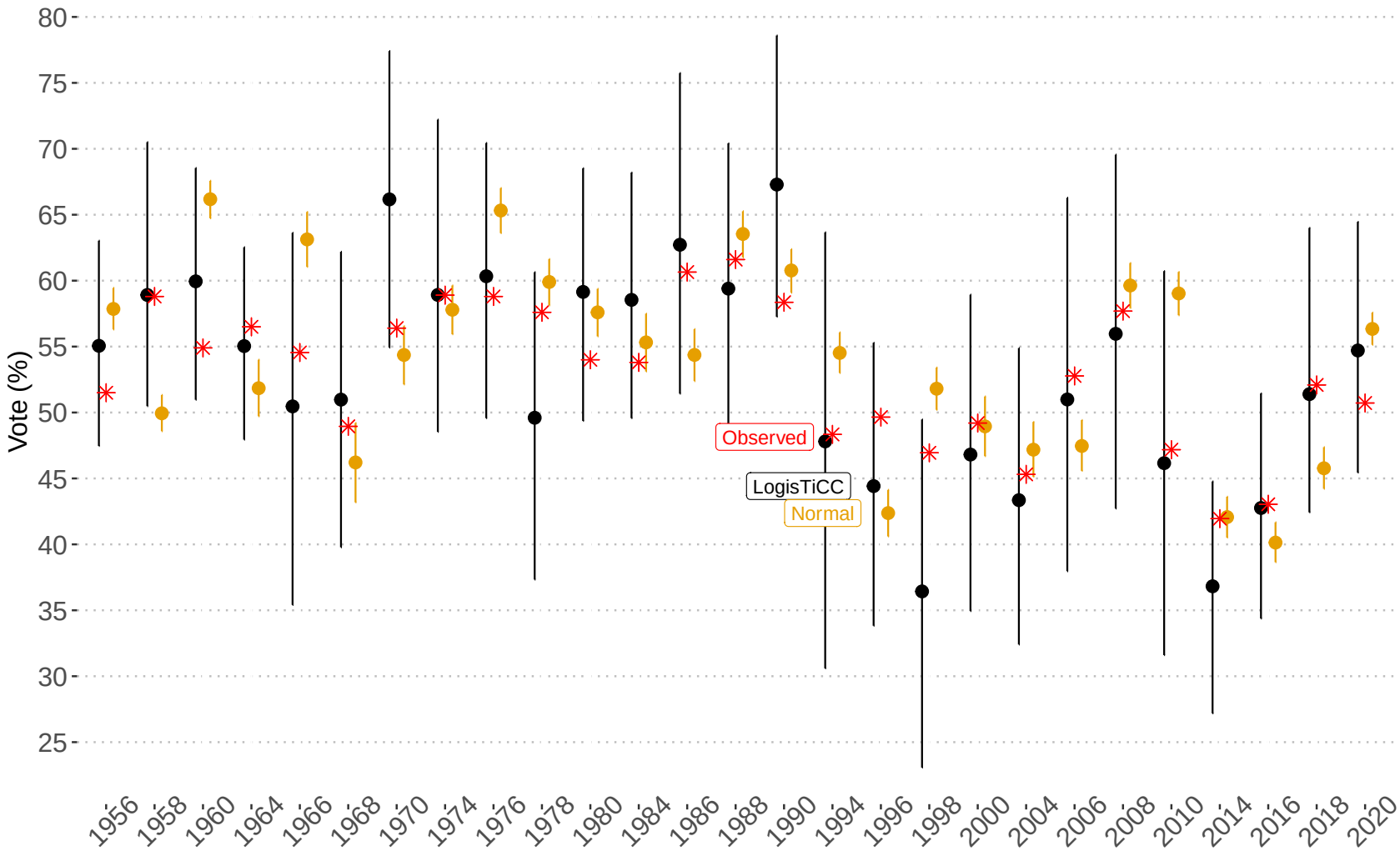


95% CI captures (Theory: 26/27):

95% CI Coverage: Median House Seat Expected Vote



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

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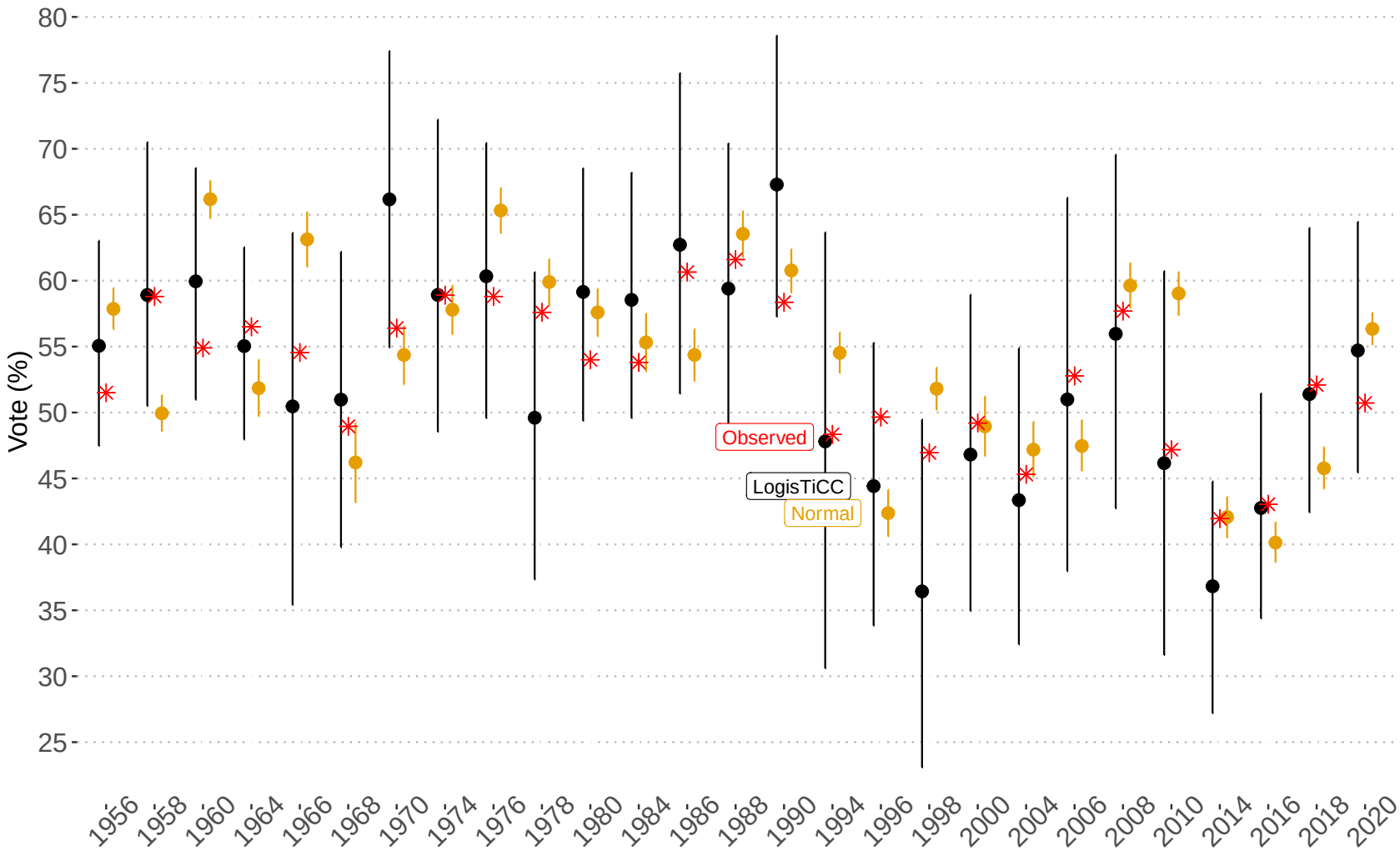

95% CI captures (Theory: 26/27): Normal 7/27, LogisTiCC 27/27

The Plan

Model Validation: Out-of-sample tests

Prob(Incumbent Defeat): High, No Change

Intermediate Variables: Massive Change

How No Change Leads to Massive Change

Appendix

Prob(Defeat): High Mean, No (systematic) Change

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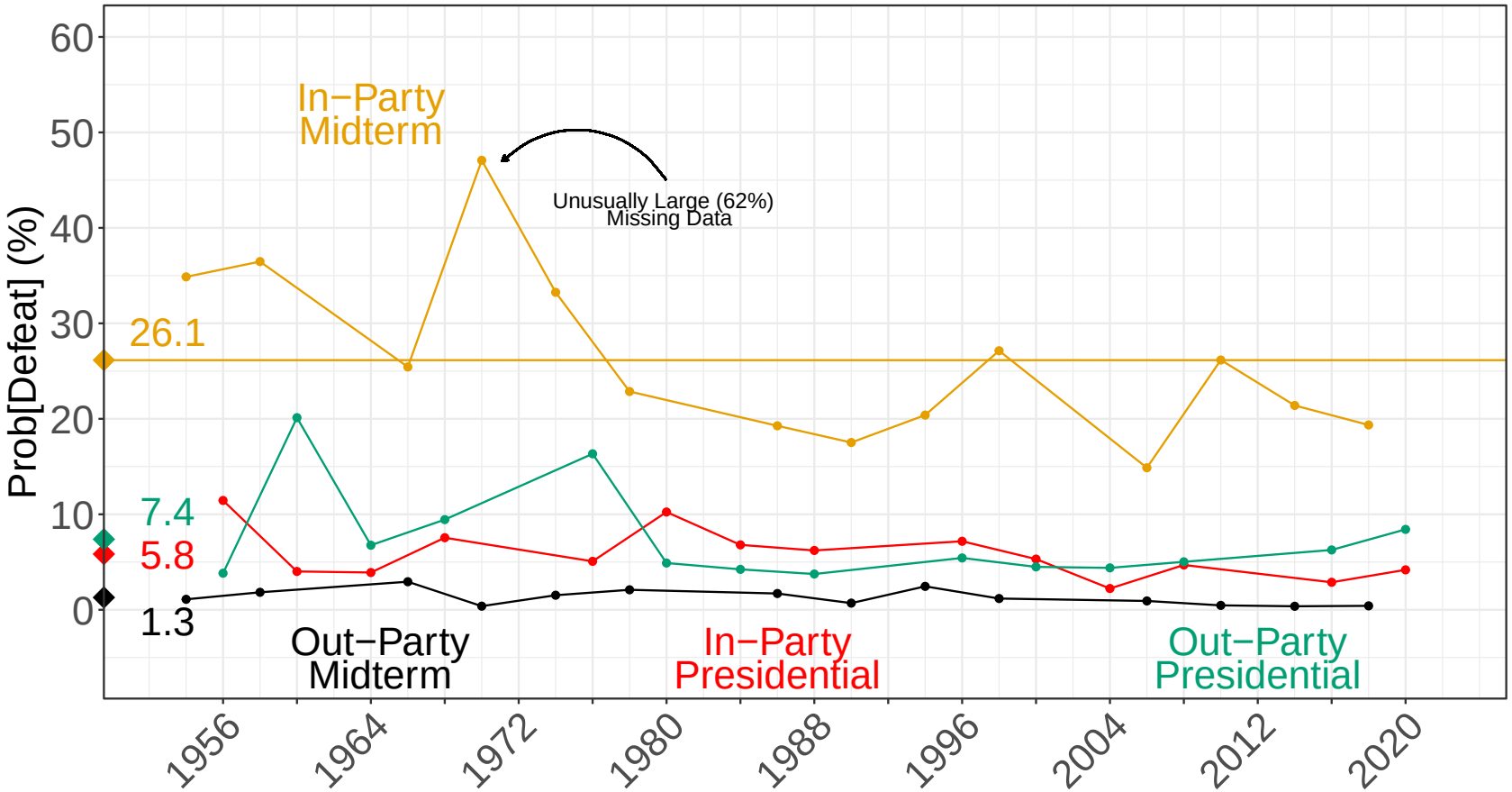
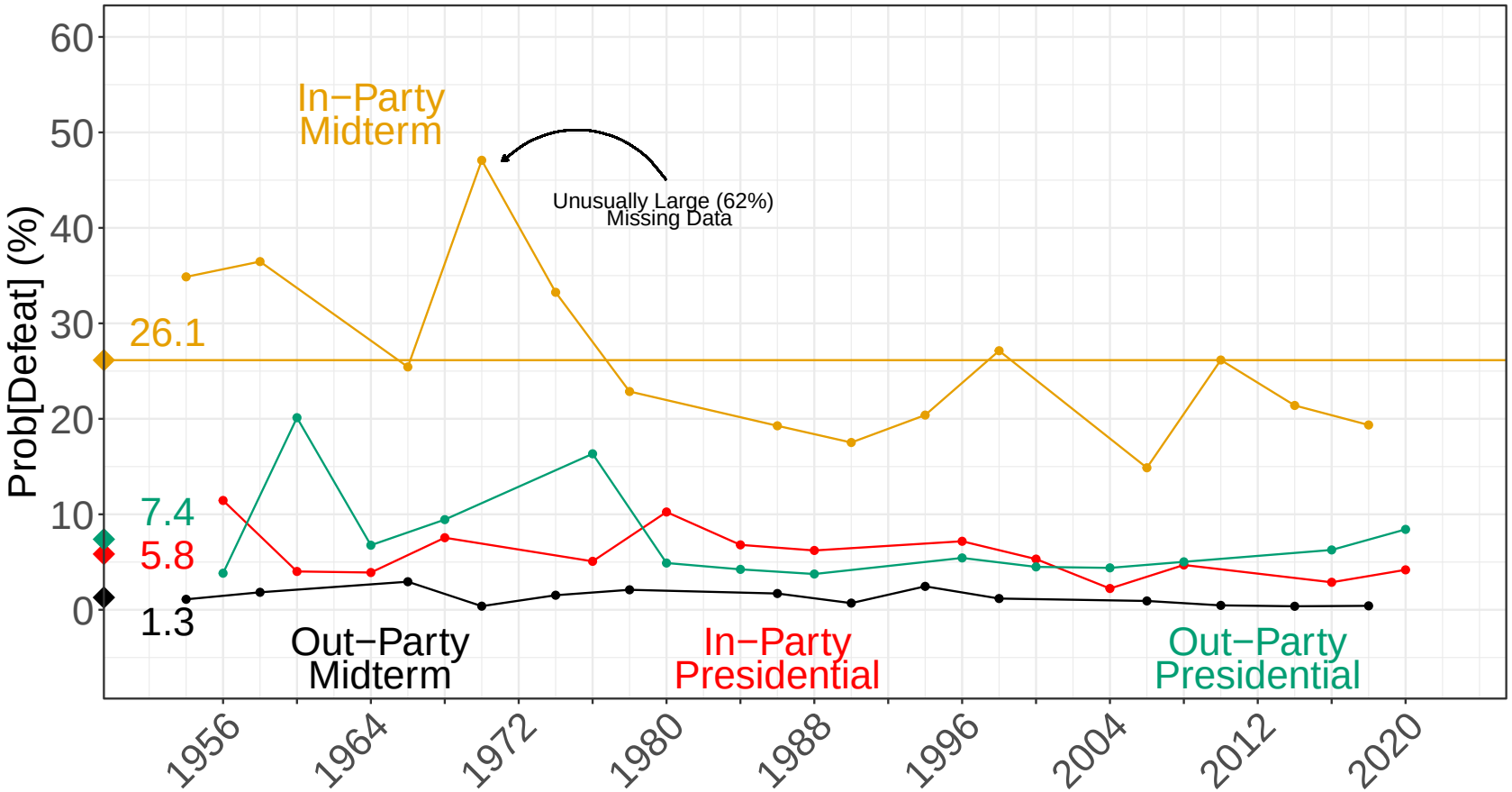
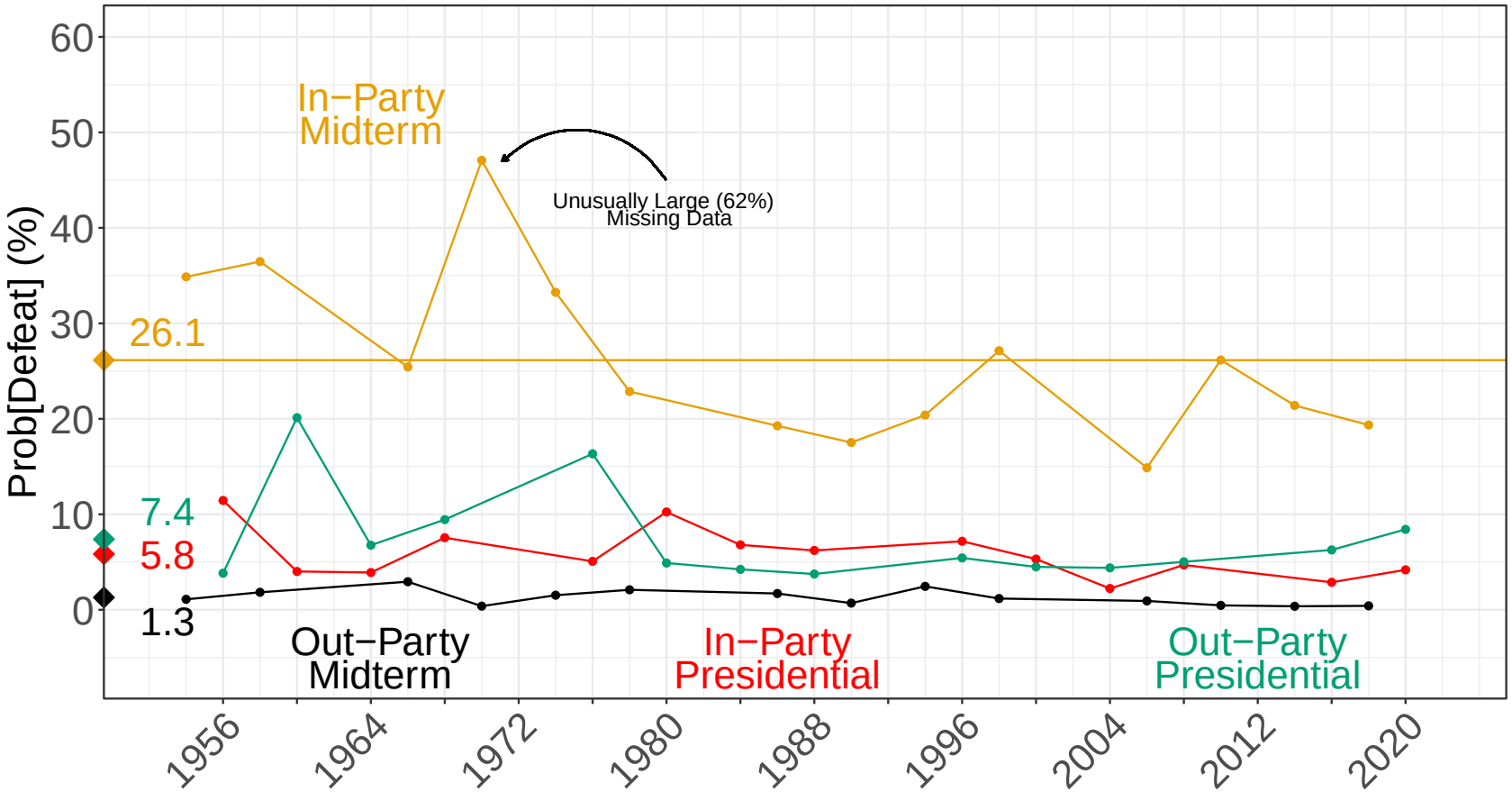


Prob(Defeat): High Mean, No (systematic) Change



Mean high: 1.3–26.2%; overall: 11%

Prob(Defeat): High Mean, No (systematic) Change



Mean high: 1.3–26.2%; overall: 11%

No Trend: Approximately constant over time

Prob(Defeat): High Variation, No (systematic) Change

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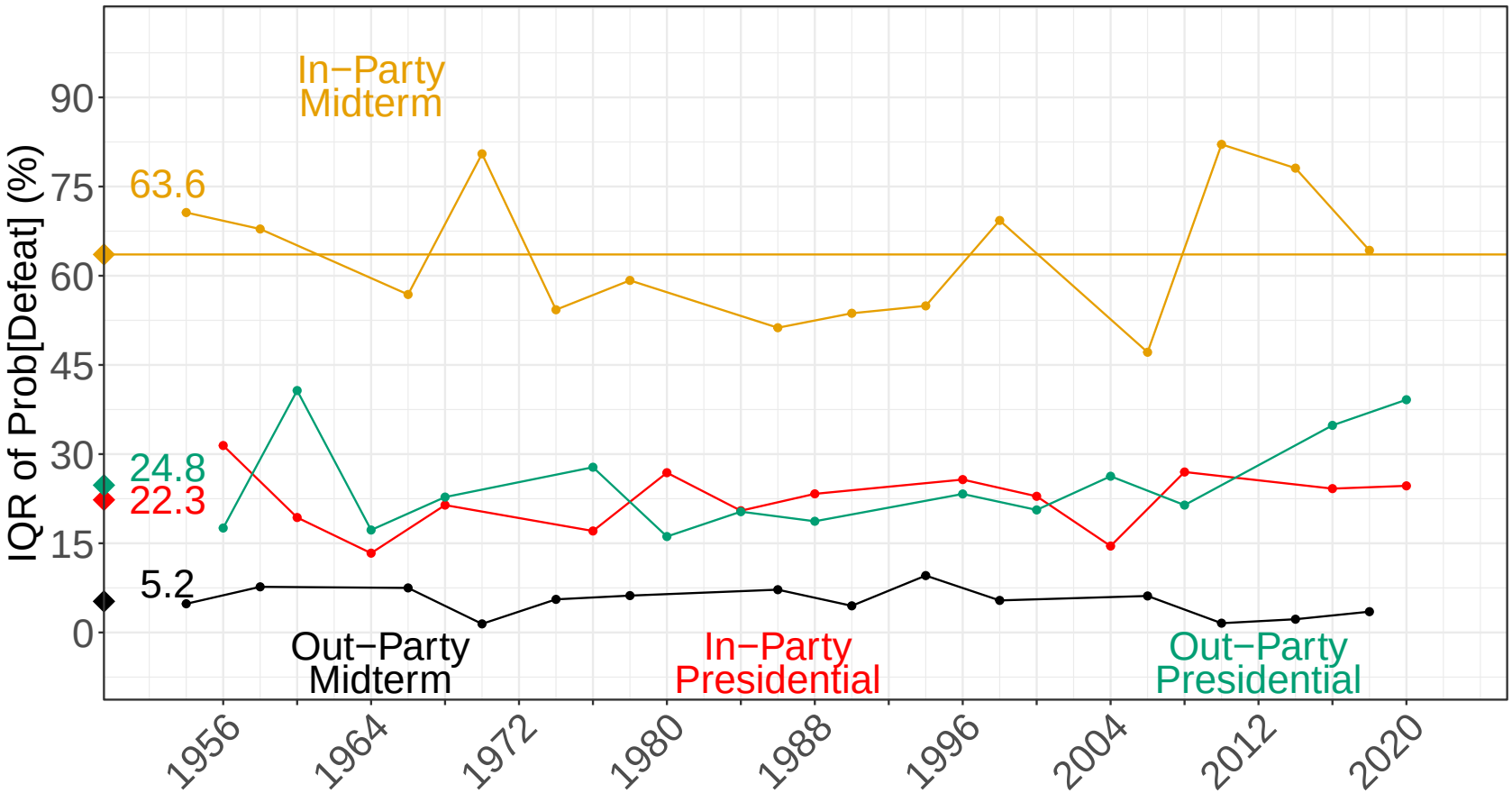

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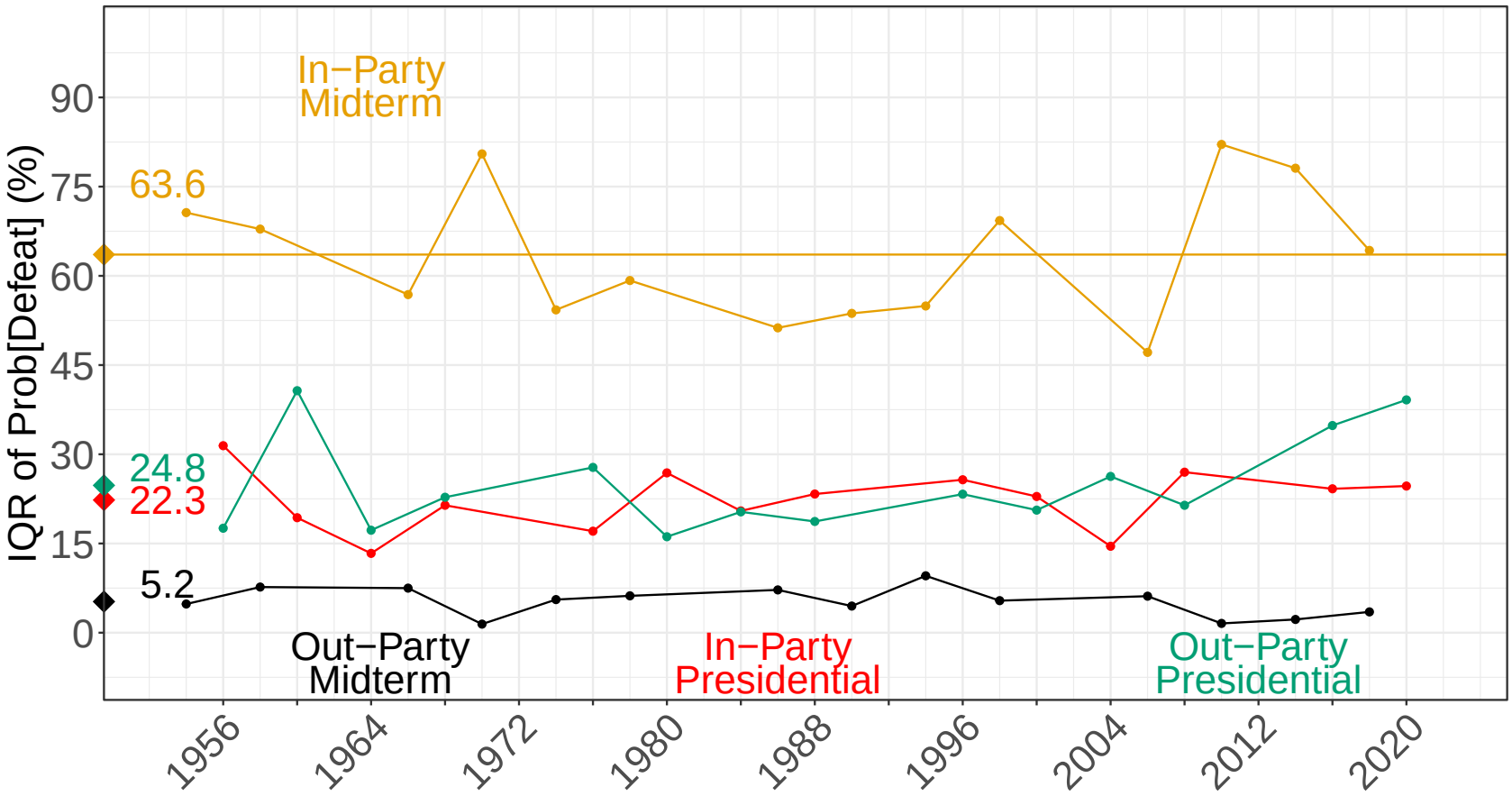

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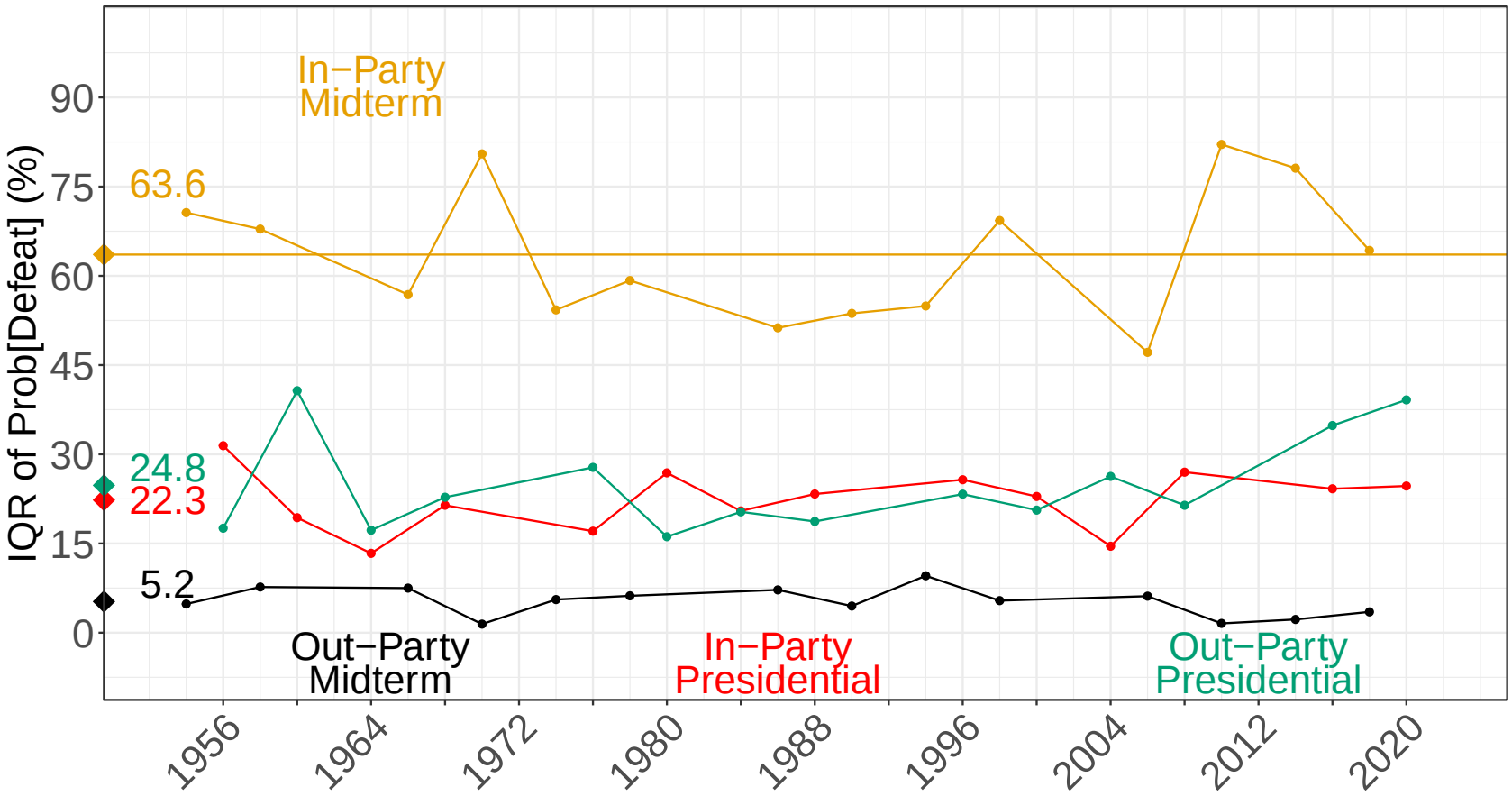

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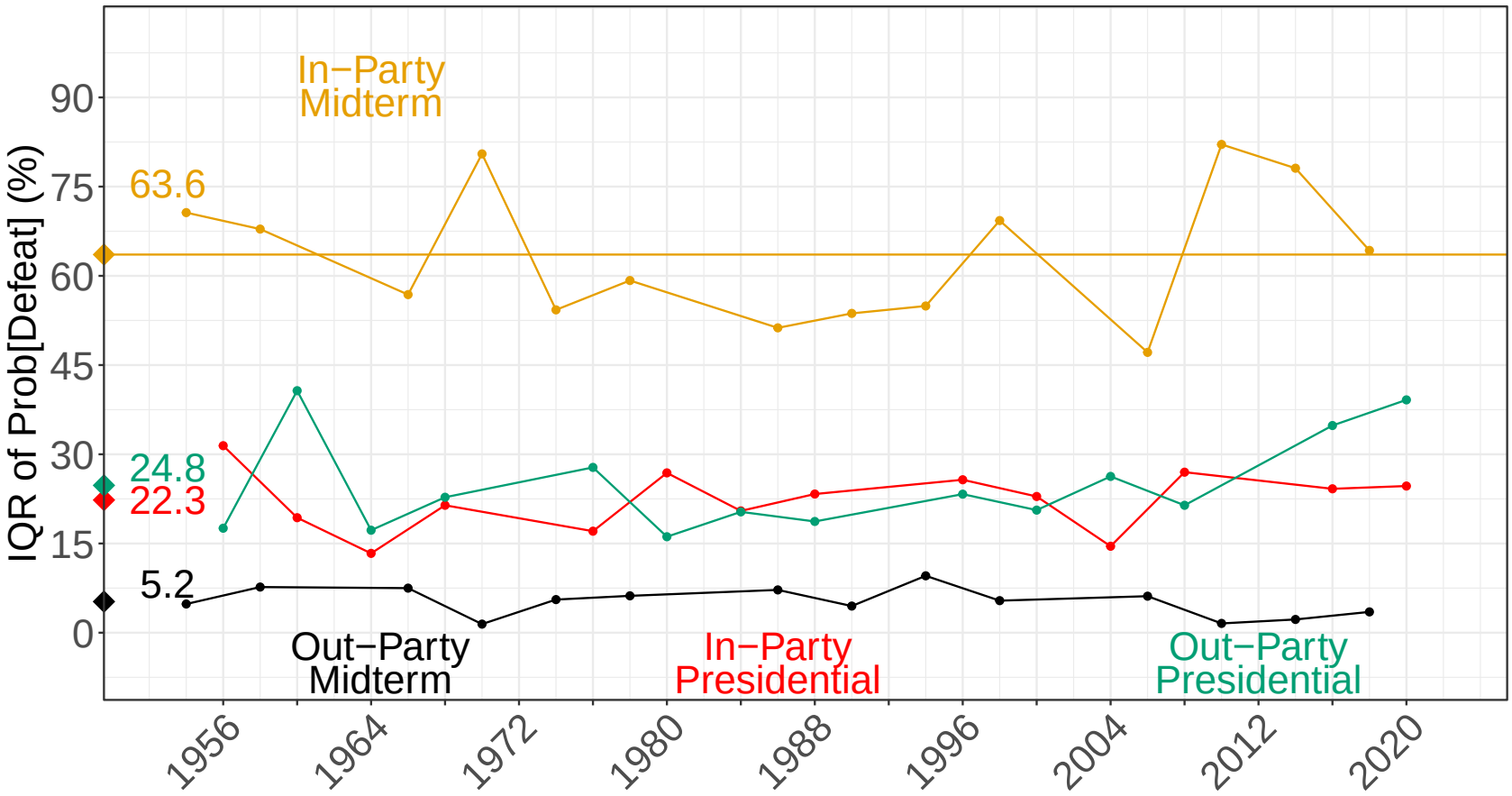

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Individual job security?

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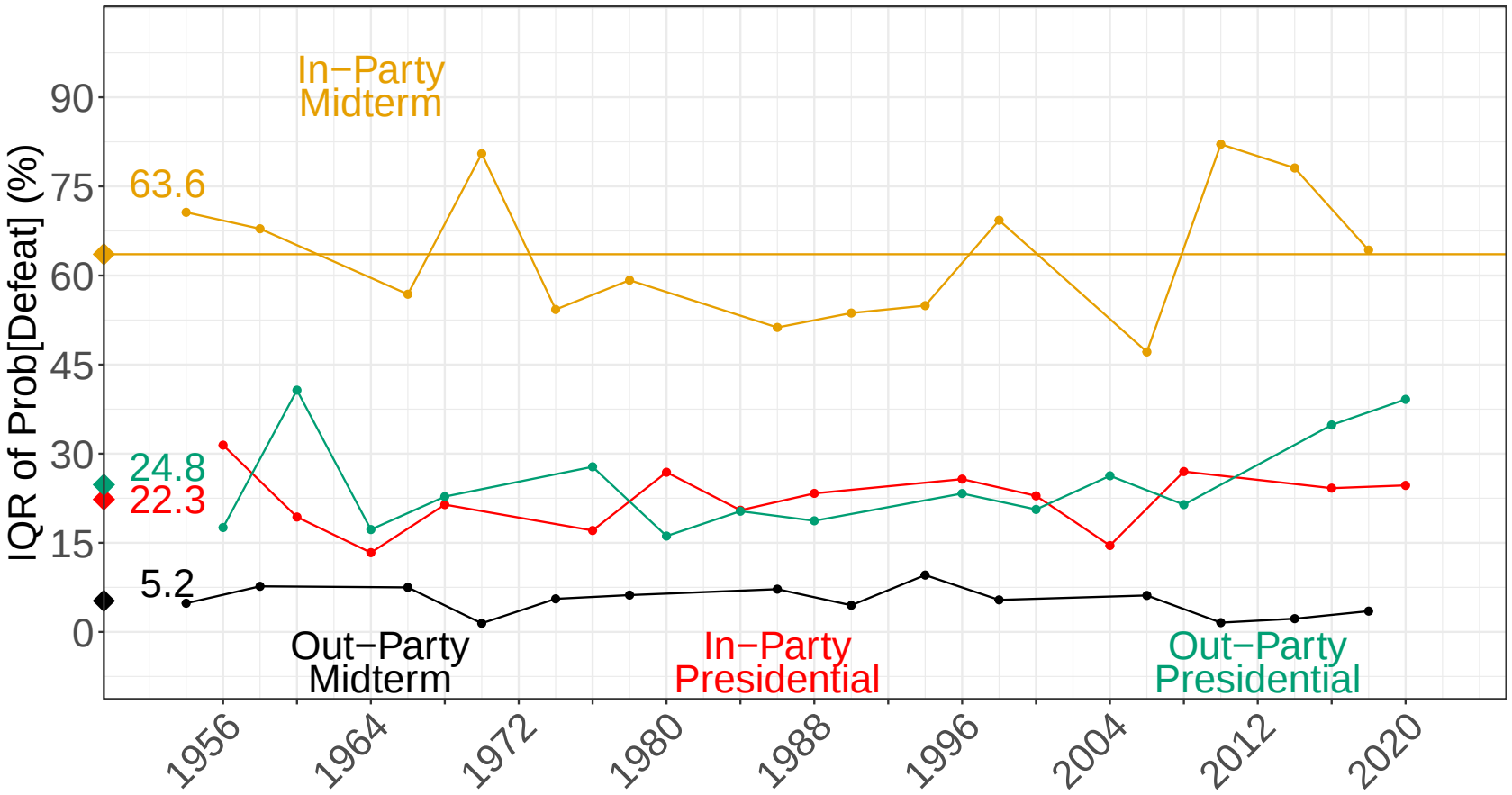

Mean high: 1.3–26.2%; overall: 11%

No Trend: Approximately constant over time

Individual job security? Random terror!

The Plan

Model Validation: Out-of-sample tests

Prob(Incumbent Defeat): High, No Change

Intermediate Variables: Massive Change

How No Change Leads to Massive Change

Appendix

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

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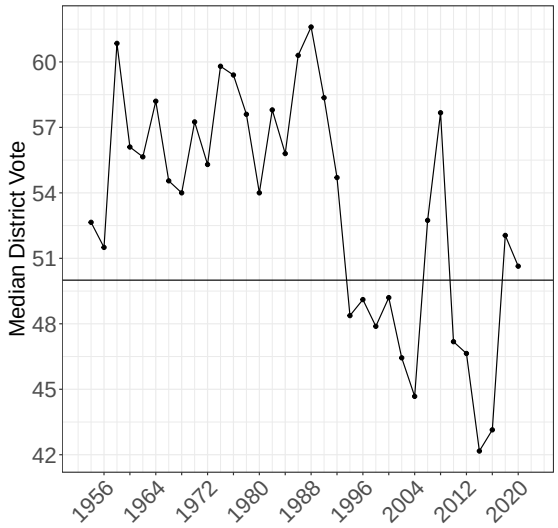
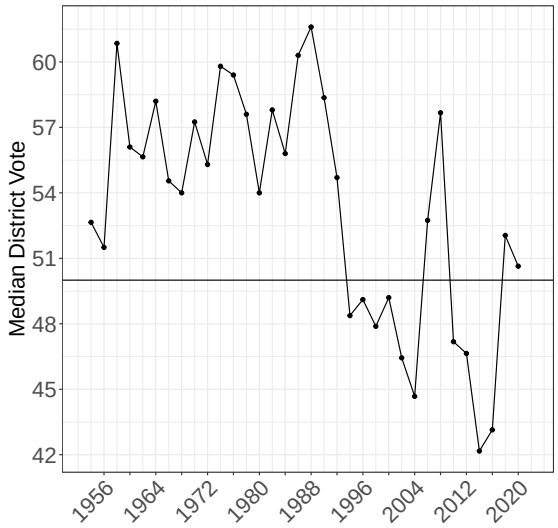


Median District Vote

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



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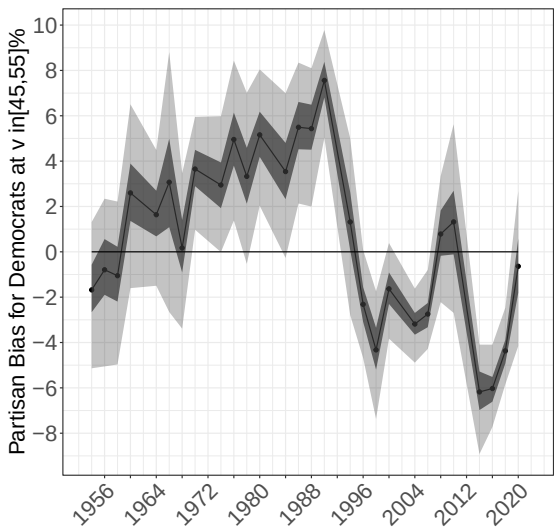
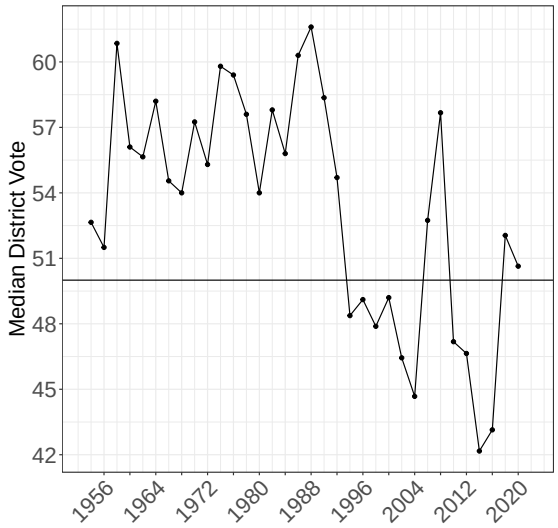


Partisan Bias

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



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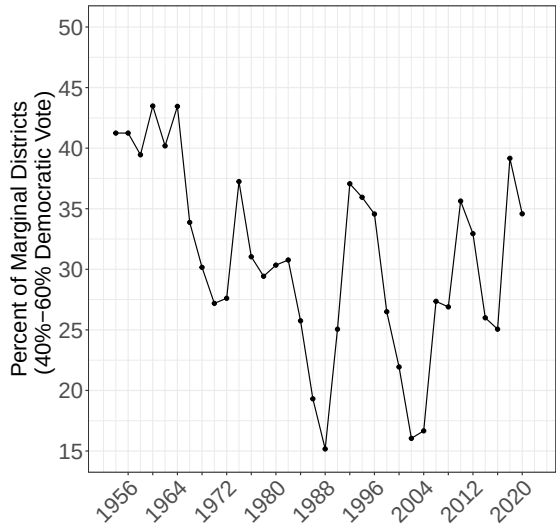
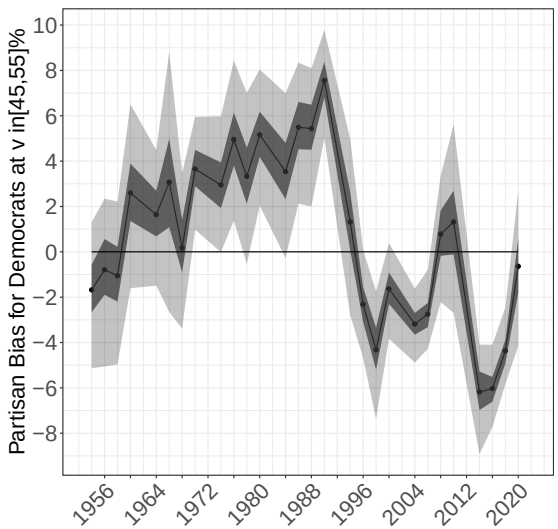


Electoral Marginals



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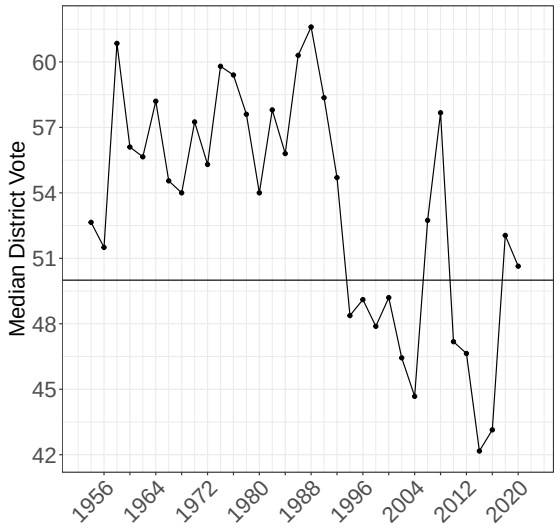
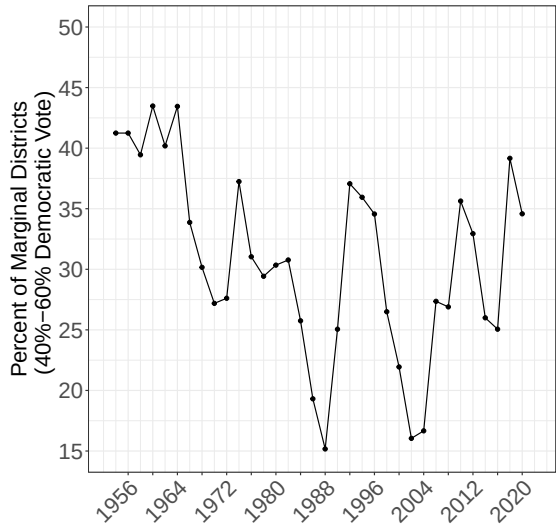


Median District Vote



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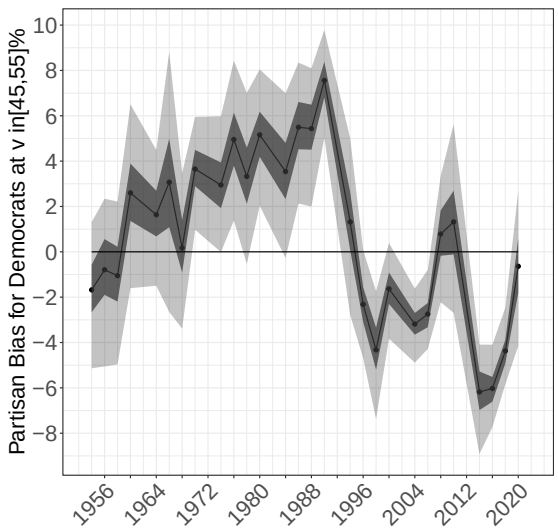

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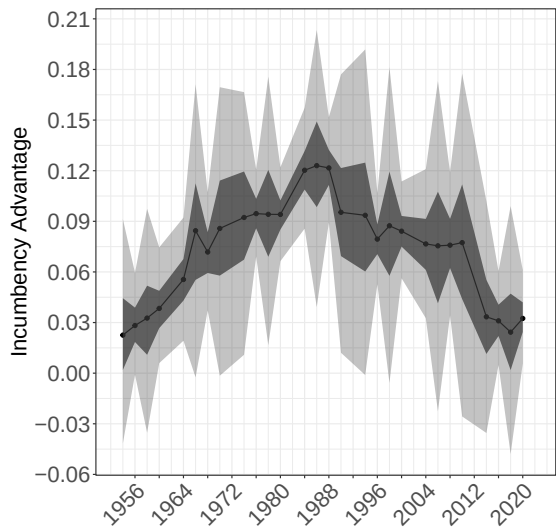
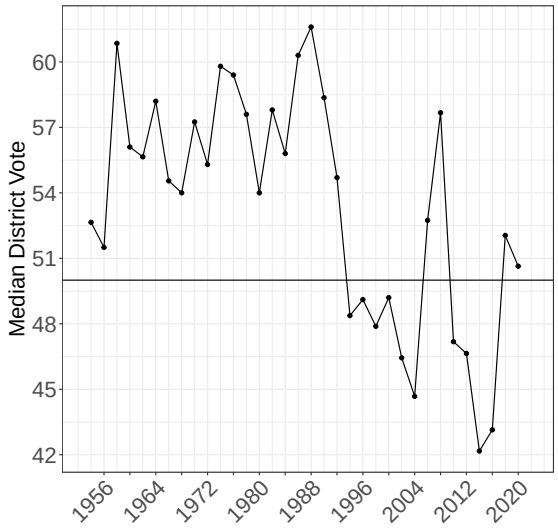
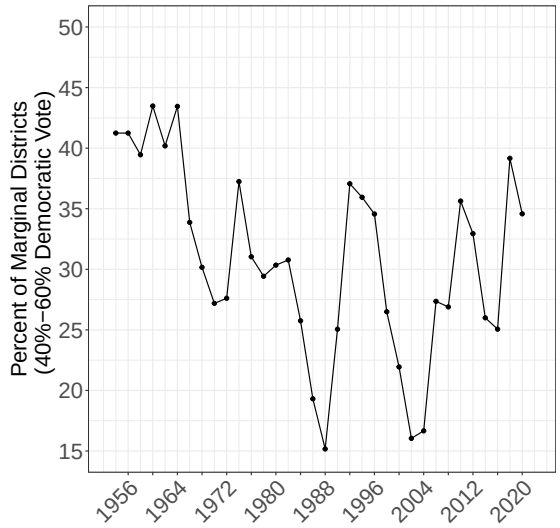


Incumbency Advantage

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



Median District Vote



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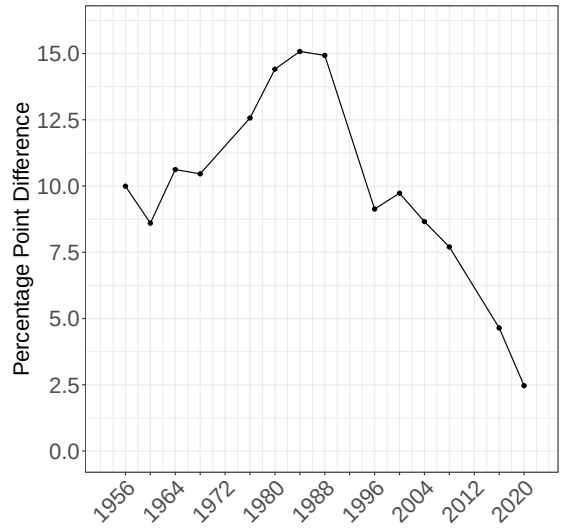
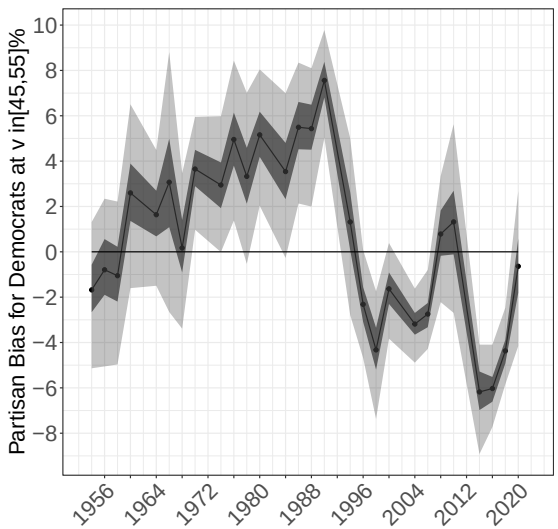


Split Ticket Voting



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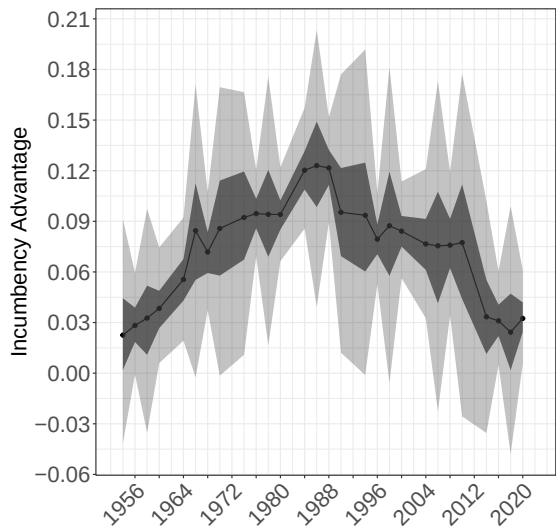

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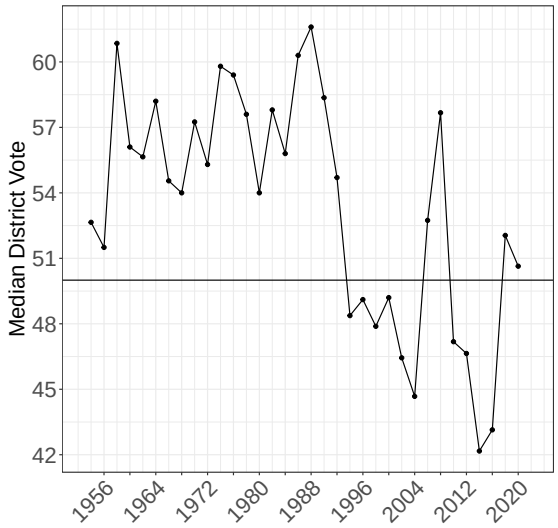
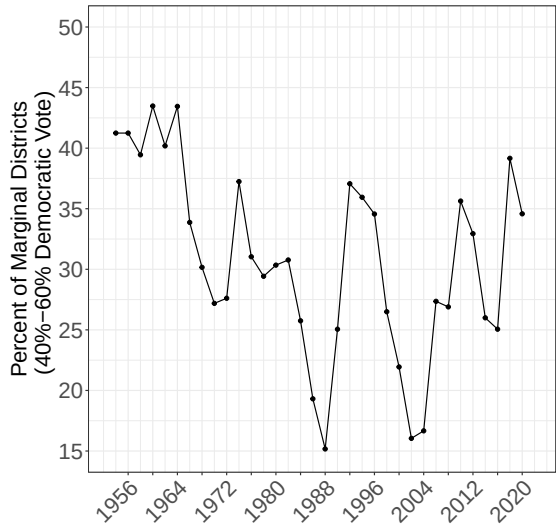


Median District Vote



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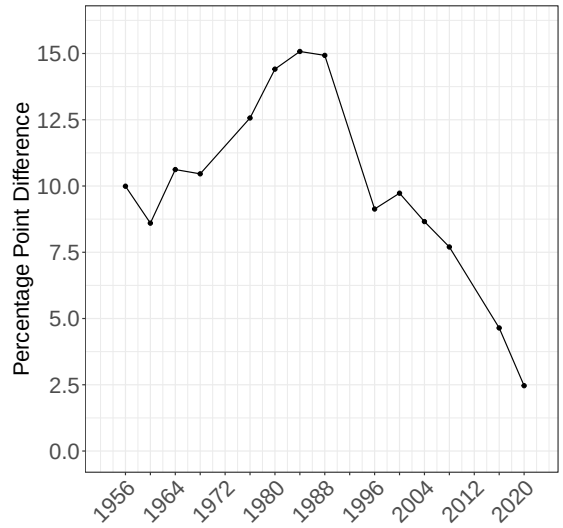

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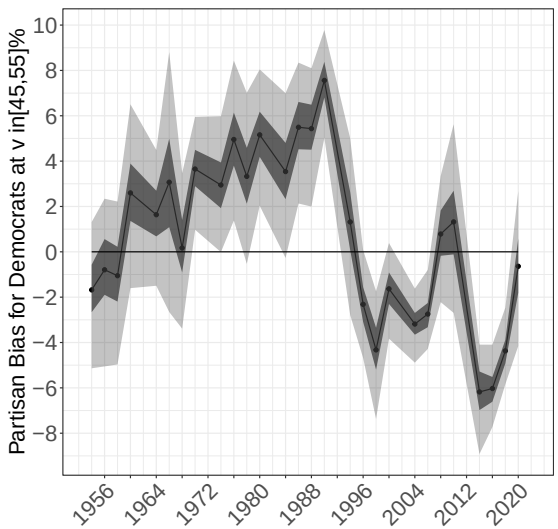

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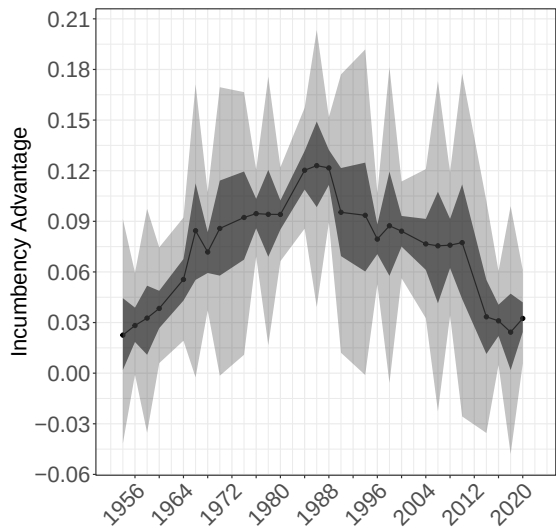
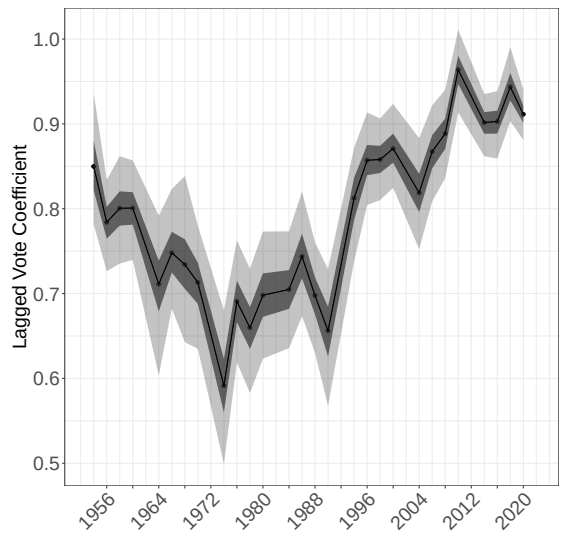


Incumbency Advantage



Lagged Vote

The Plan

Model Validation: Out-of-sample tests

Prob(Incumbent Defeat): High, No Change

Intermediate Variables: Massive Change

How No Change Leads to Massive Change

Appendix

More than Central Tendency: Variation Matters

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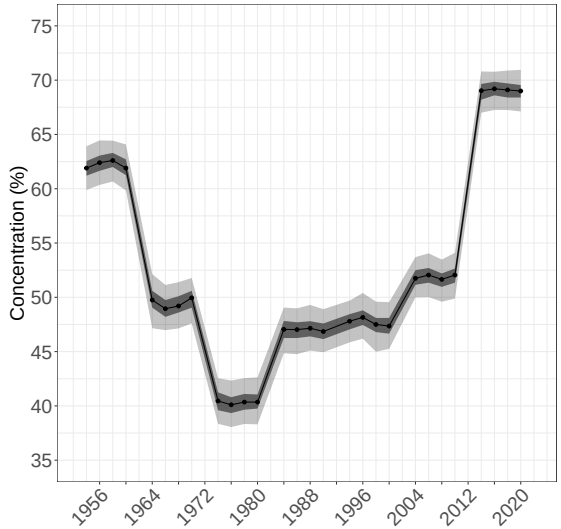
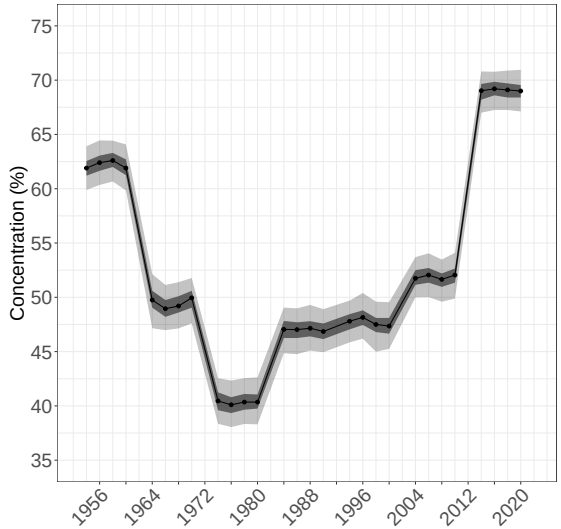


Concentration:

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

More than Central Tendency: Variation Matters



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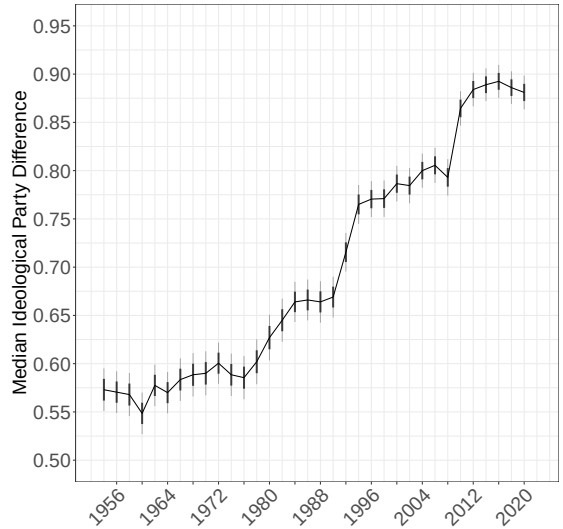
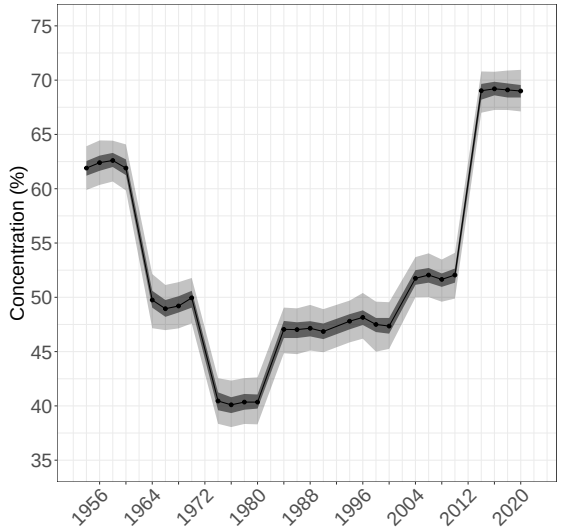


Ideological Polarization
(DW-NOMINATE)

More than Central Tendency: Variation Matters



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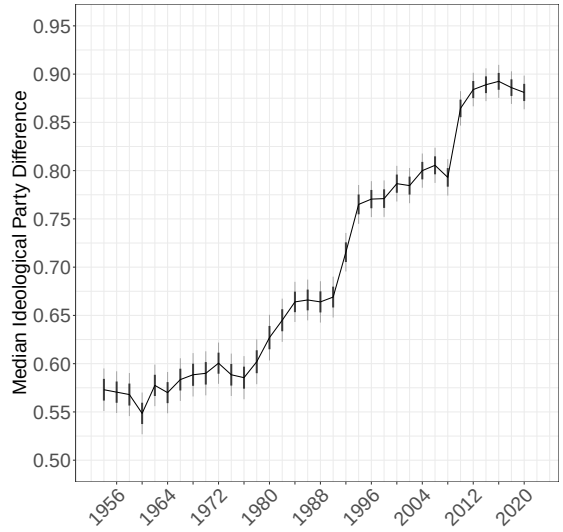

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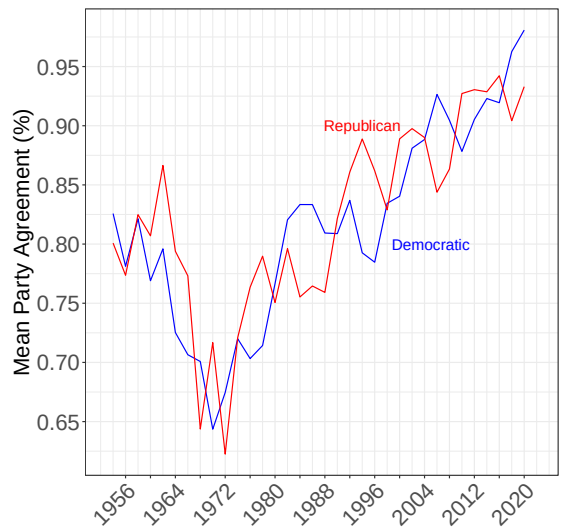

Legislator-Leader Party Agreement (Roll calls)

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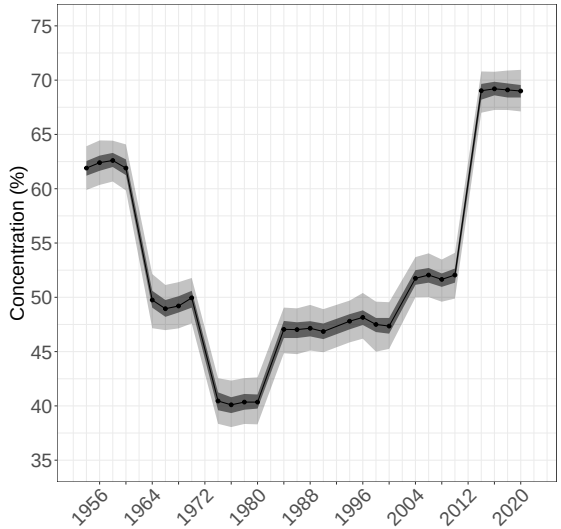

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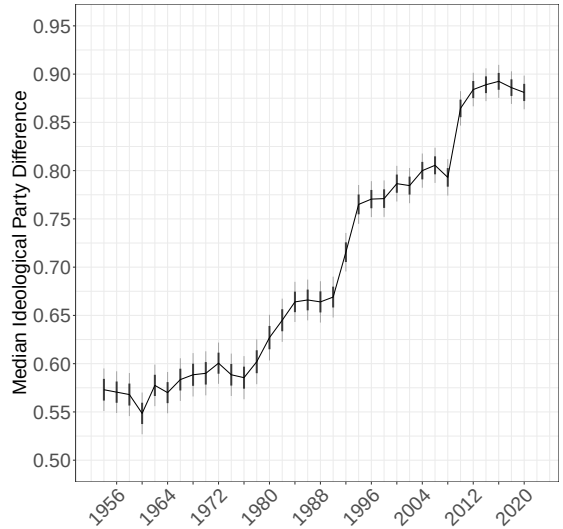

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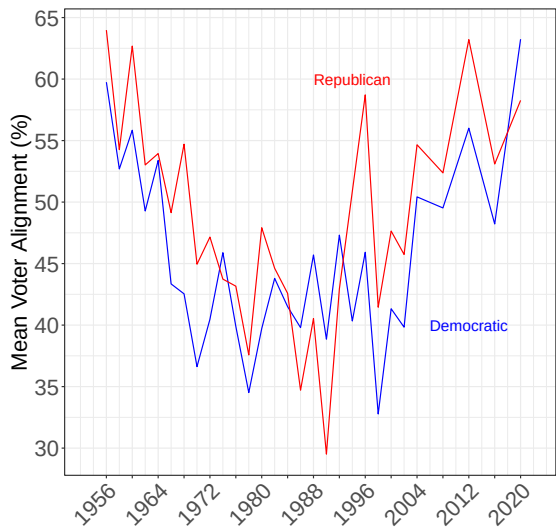
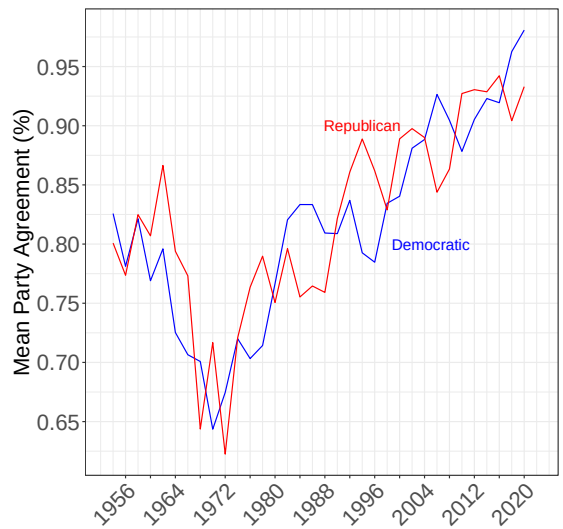


Party ID-Vote Agreement (ANES)



Legislator-Leader Party Agreement (Roll calls)

“Adding” it up

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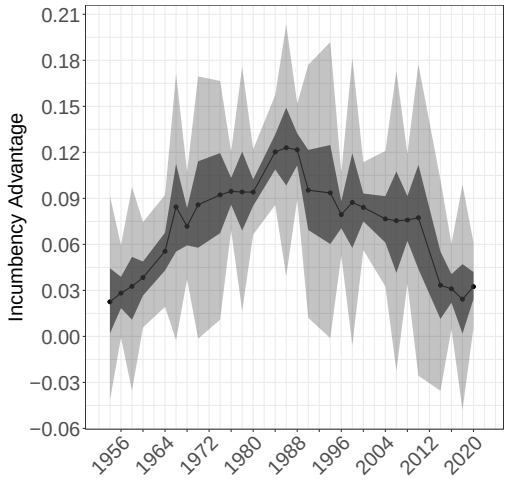

Incumbency Advantage

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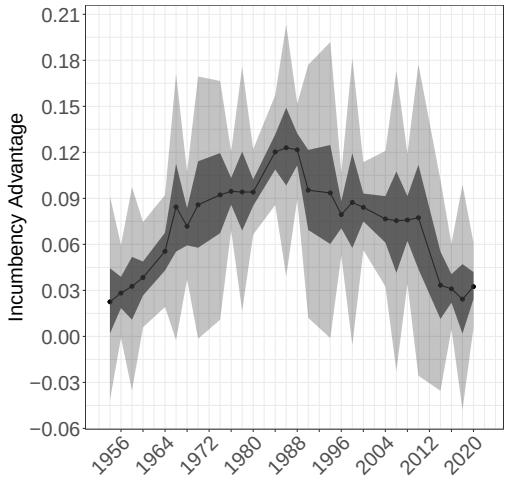

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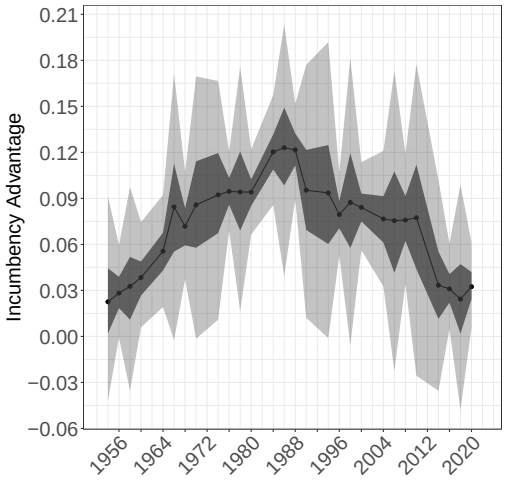

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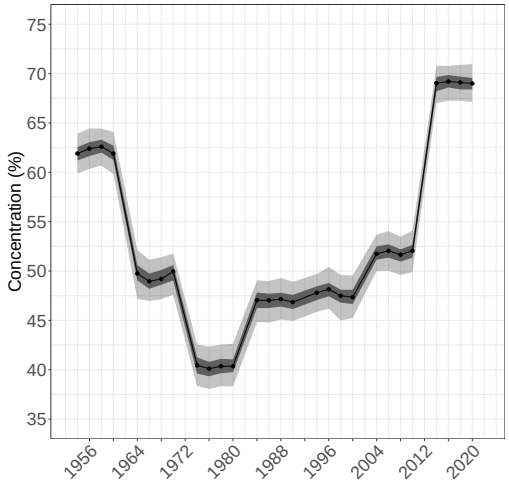

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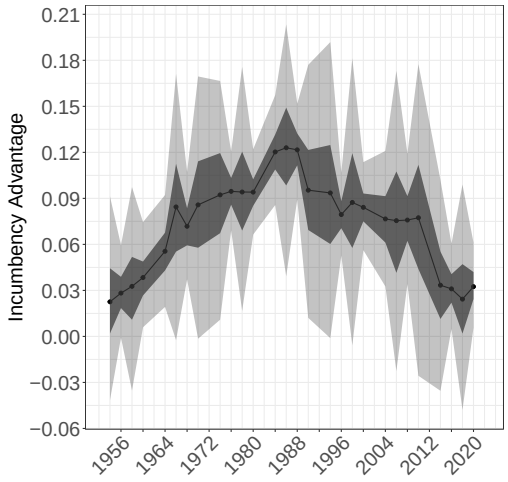

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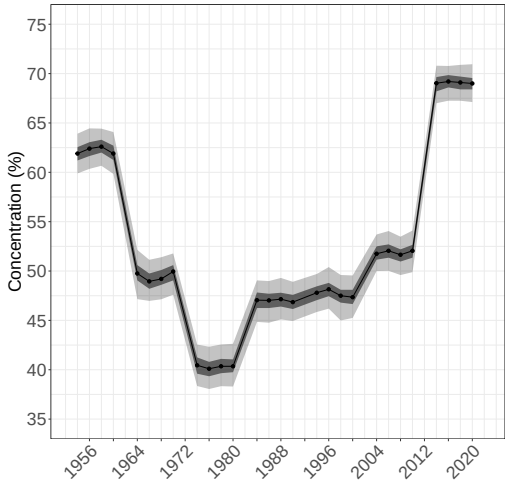

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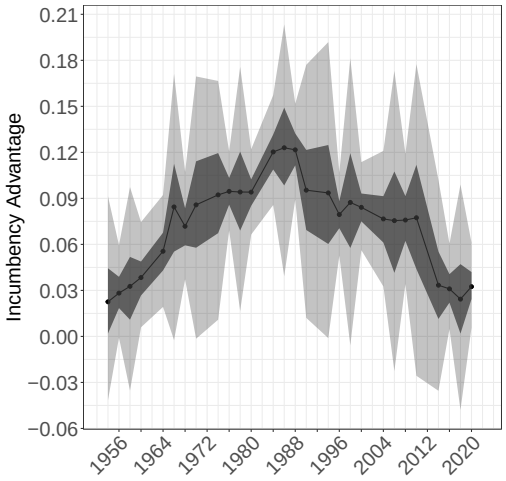

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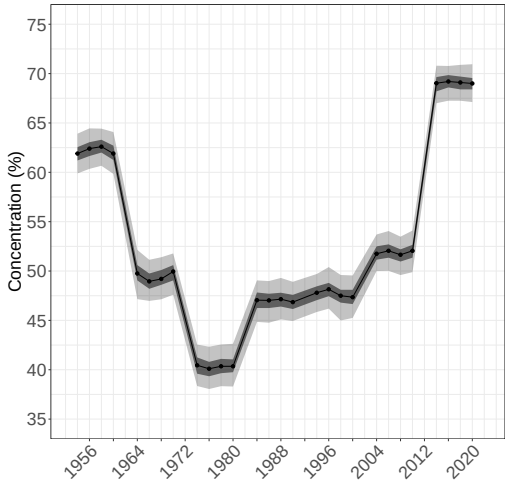

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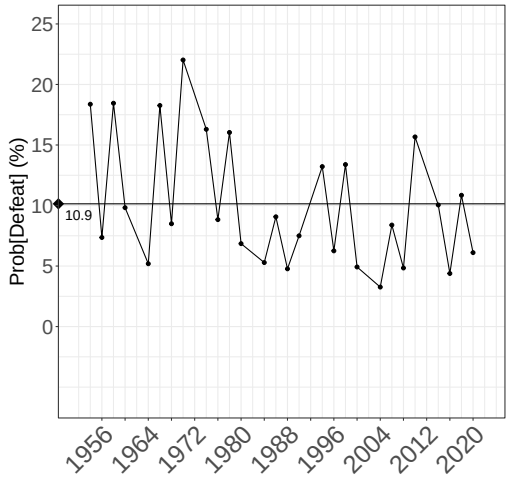

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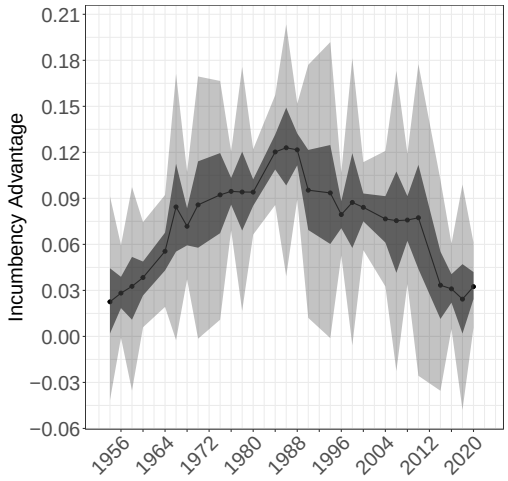
Mean Prob(Defeat)

“Adding” it up



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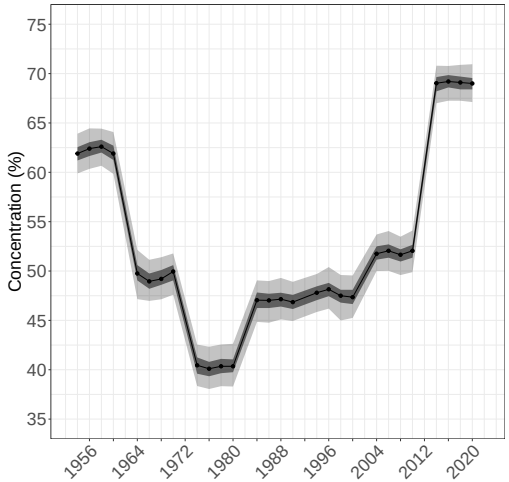

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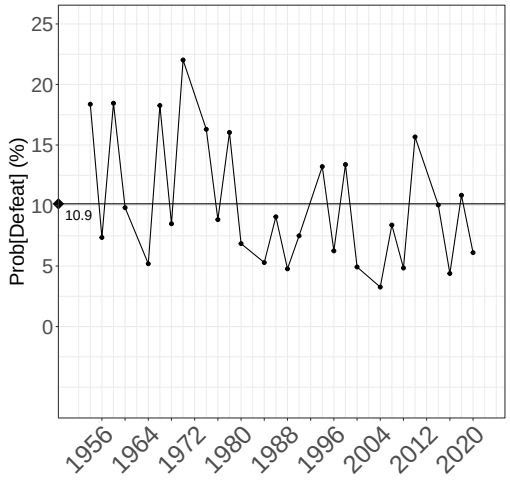

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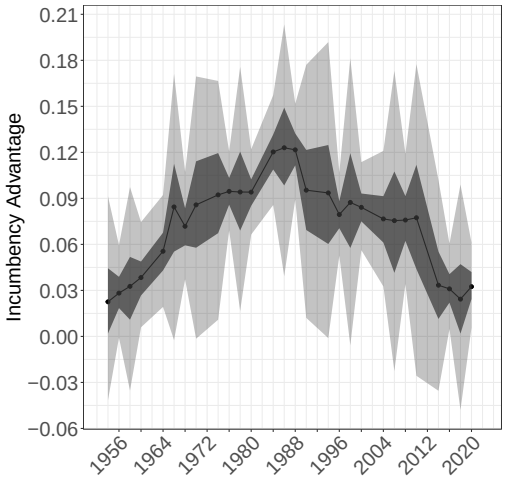

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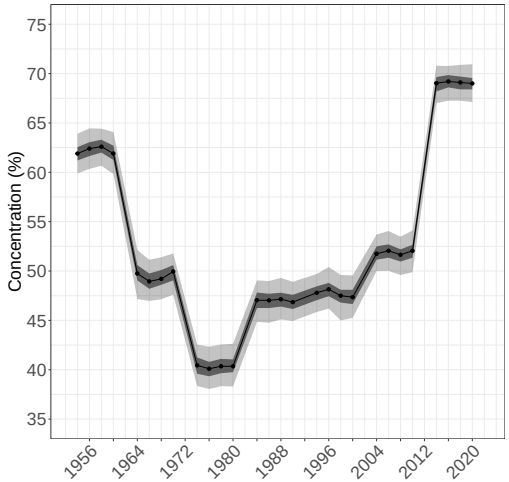

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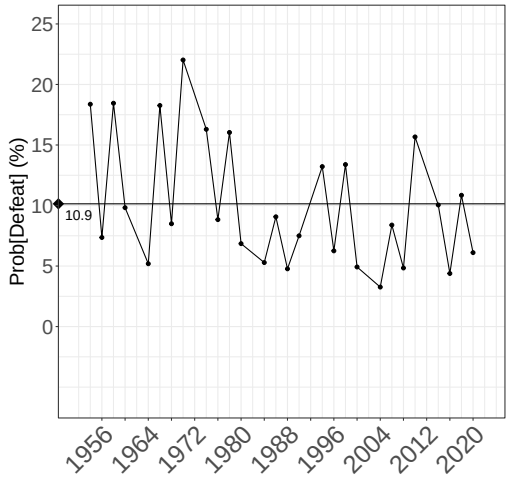

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We find

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

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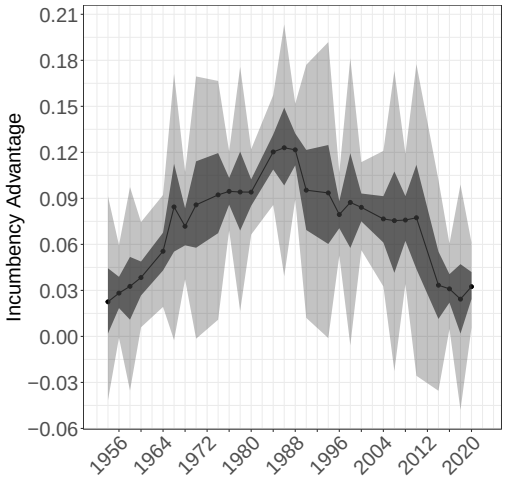

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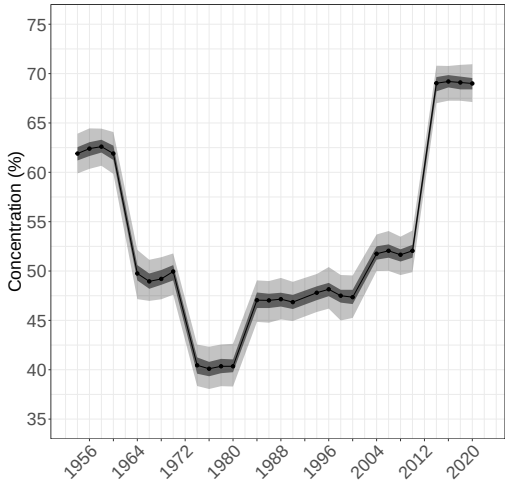

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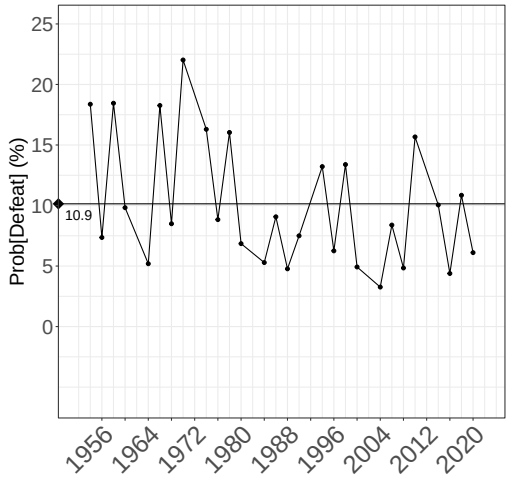

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- Different combos of {Polarization, Partisanship, IncAd, Marginals, Gerrymandering bias} ⇝ the same Prob(Defeat)

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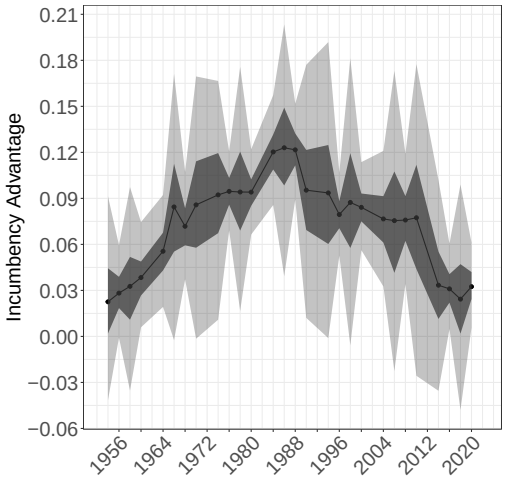

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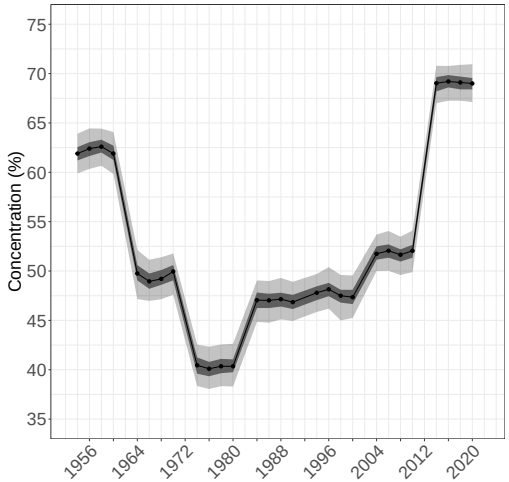

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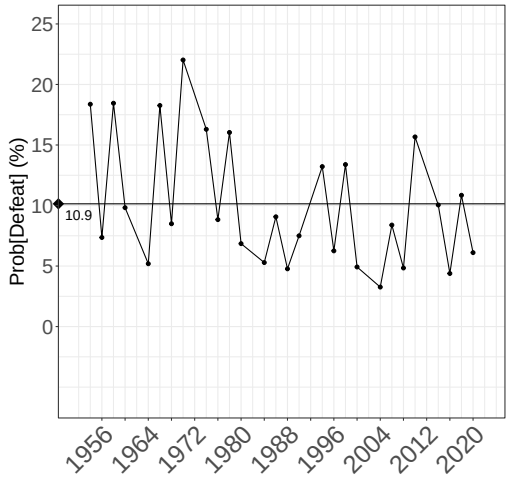

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Mean Prob(Defeat)

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- Different combos of {Polarization, Partisanship, IncAd, Marginals, Gerrymandering bias} $\rightsquigarrow$ the same Prob(Defeat)
- (This part of) American democracy actually seems to work

Papers, slides, software, data

GaryKing.org

The Plan

Model Validation: Out-of-sample tests

Prob(Incumbent Defeat): High, No Change

Intermediate Variables: Massive Change

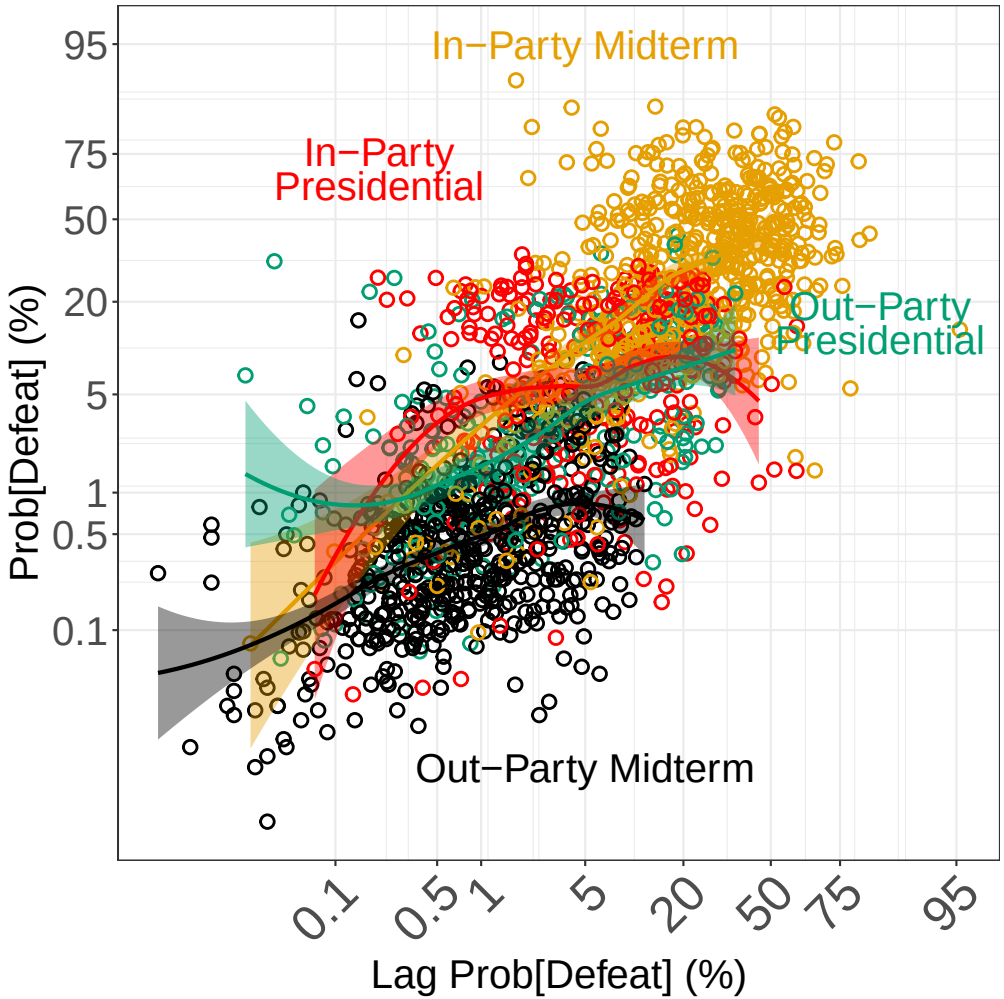
How No Change Leads to Massive Change

Appendix

Appendix

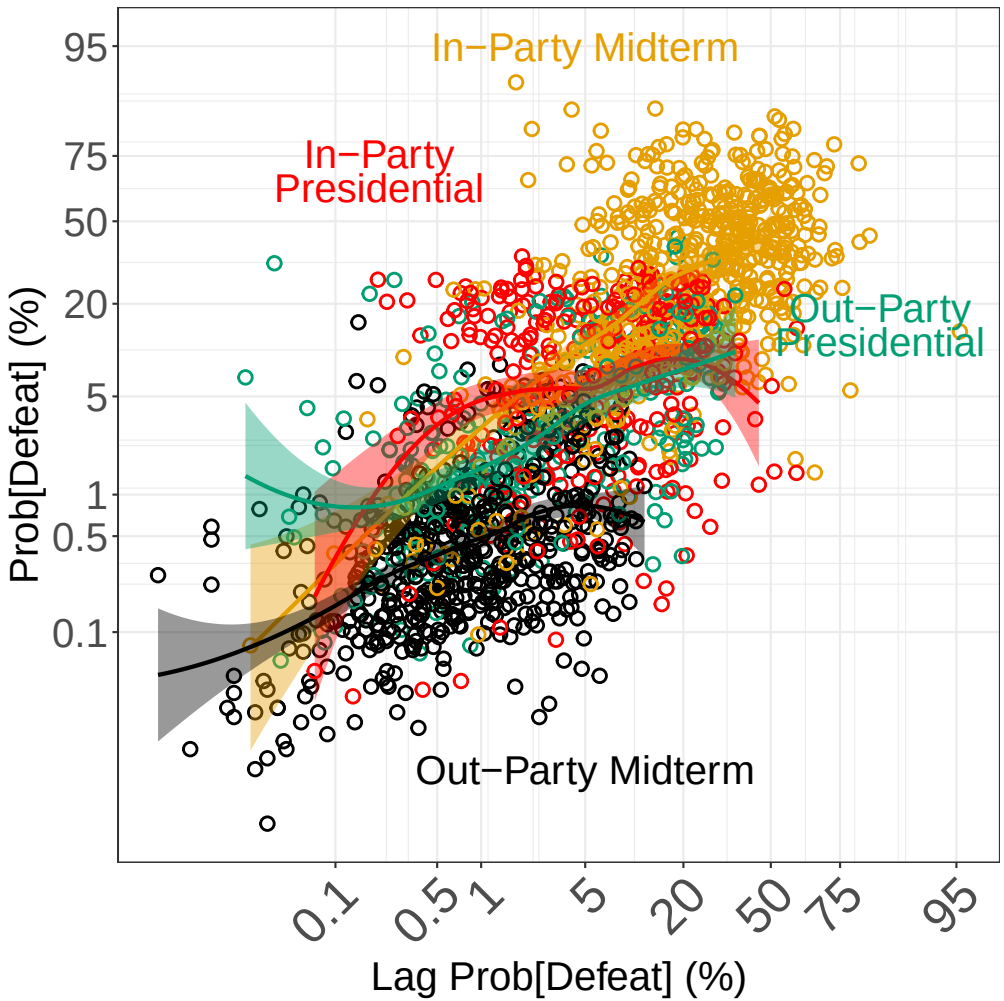
Random (T)error for Incumbents

Random (T)error for Incumbents



(Both axes on the logit scale)

Random (T)error for Incumbents



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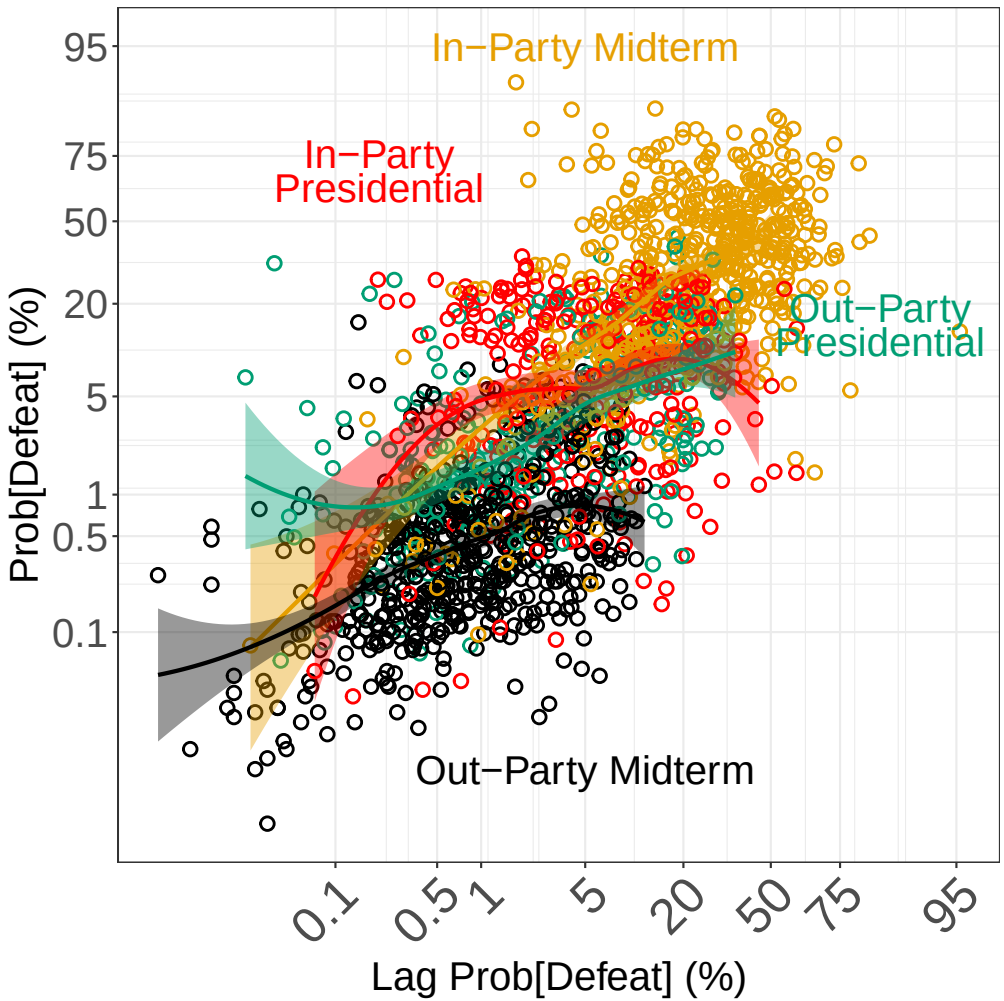
Prob(Defeat) varies:

Random (T)error for Incumbents



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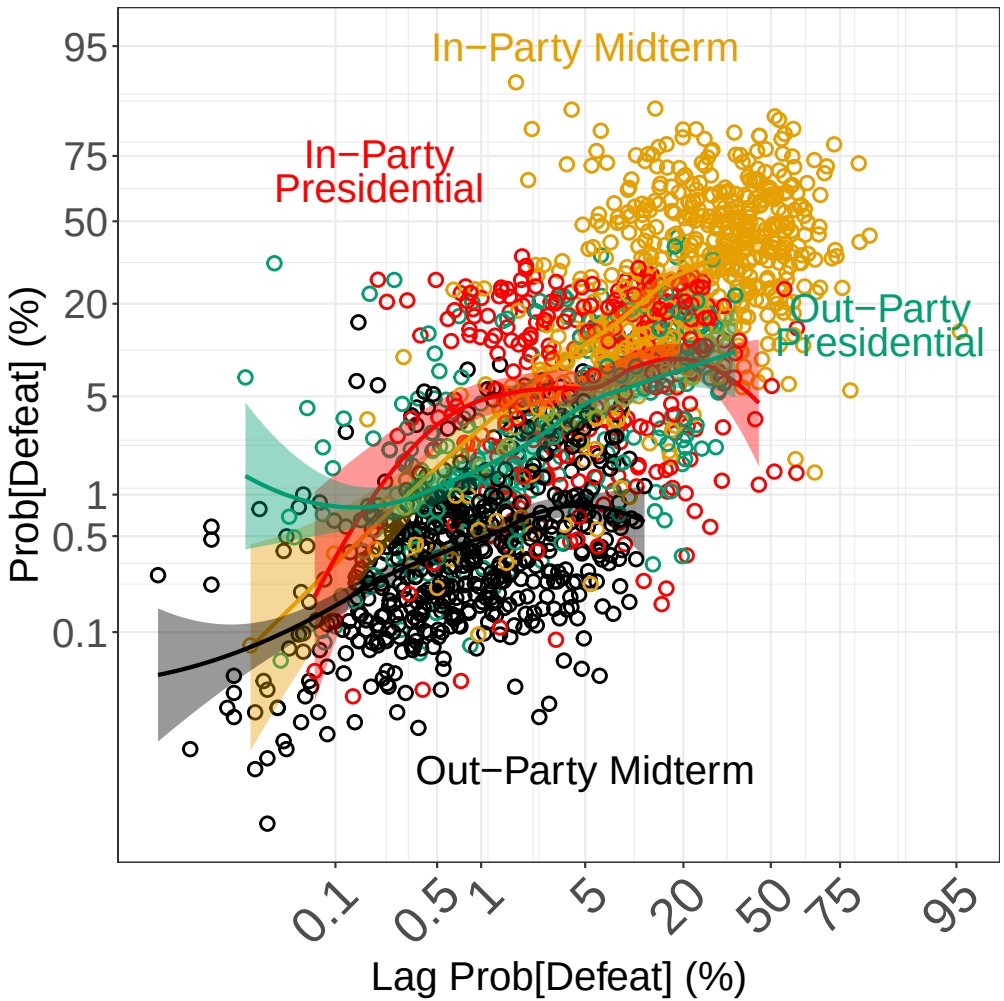
Prob(Defeat) varies:

- by type: in/out party; presidential/midterm

Random (T)error for Incumbents



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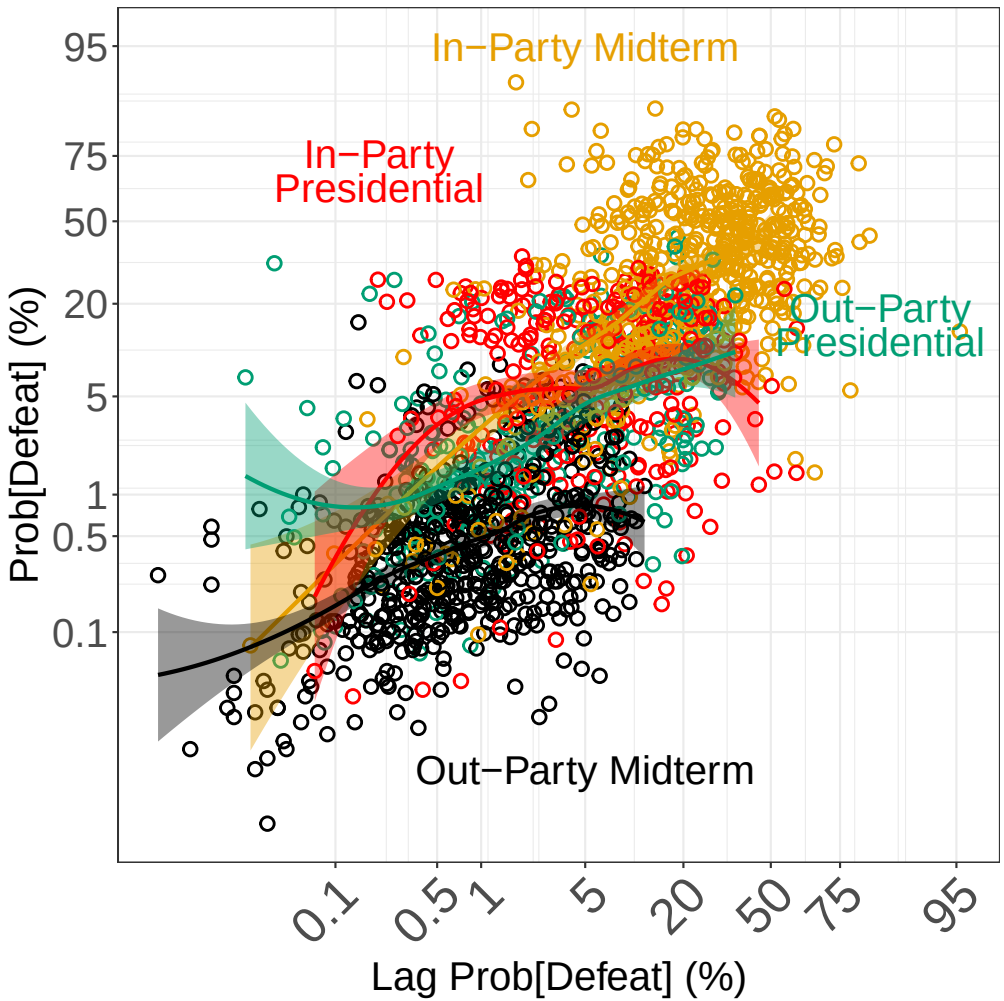
- by district: few safe

Random (T)error for Incumbents



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Prob(Defeat) varies:

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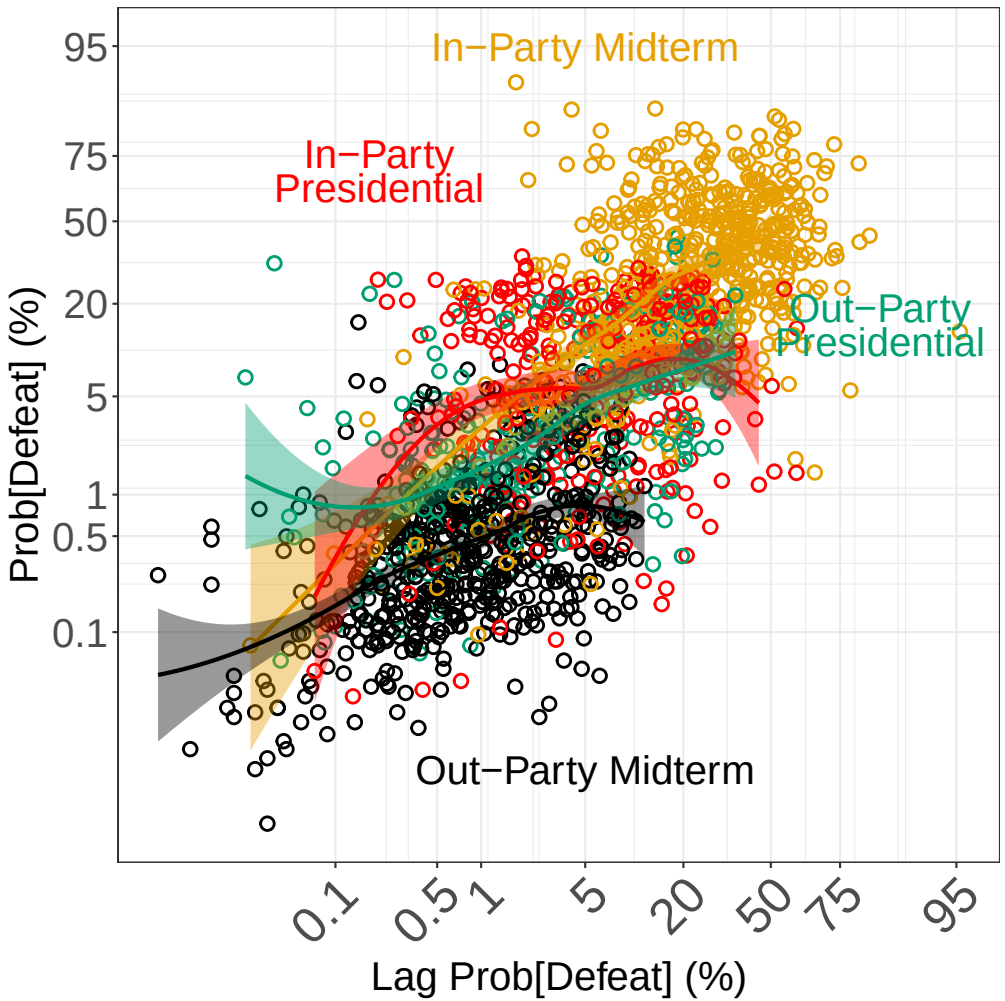
Random (T)error for Incumbents



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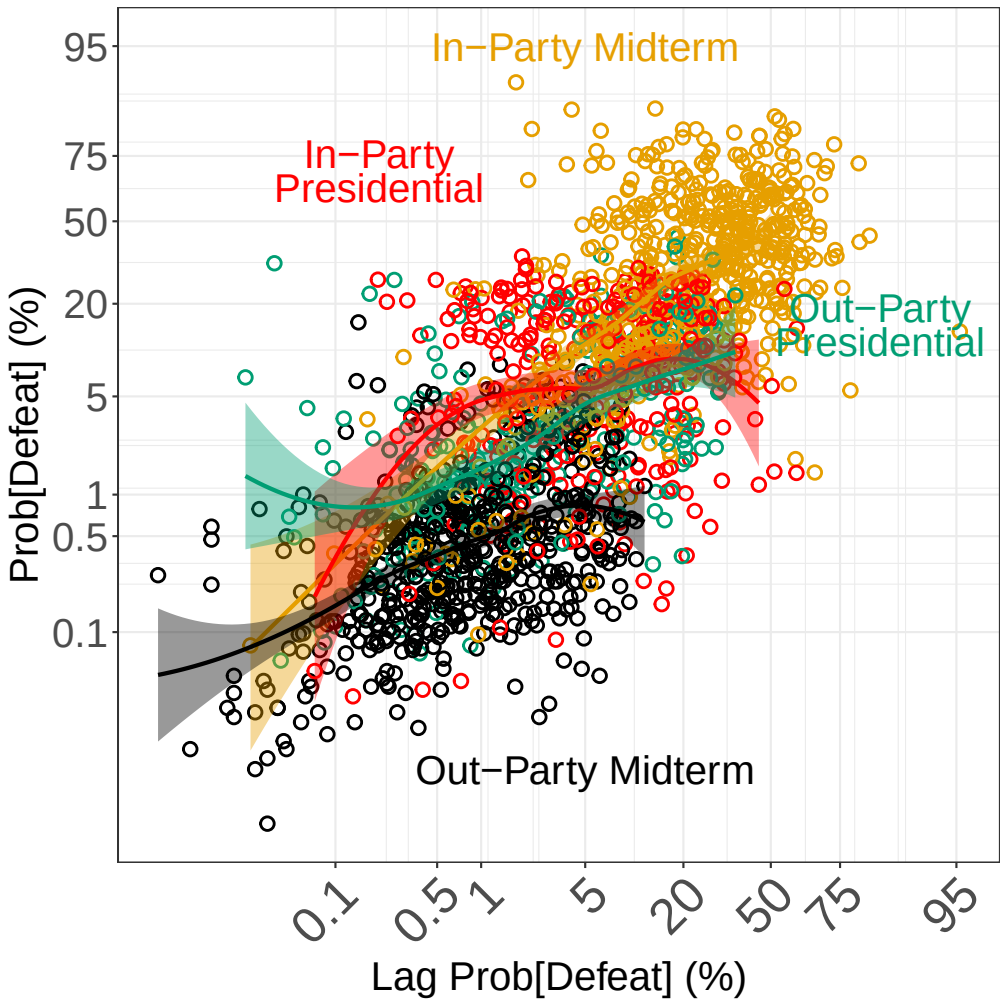
Electoral accountability:

Random (T)error for Incumbents



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Electoral accountability:

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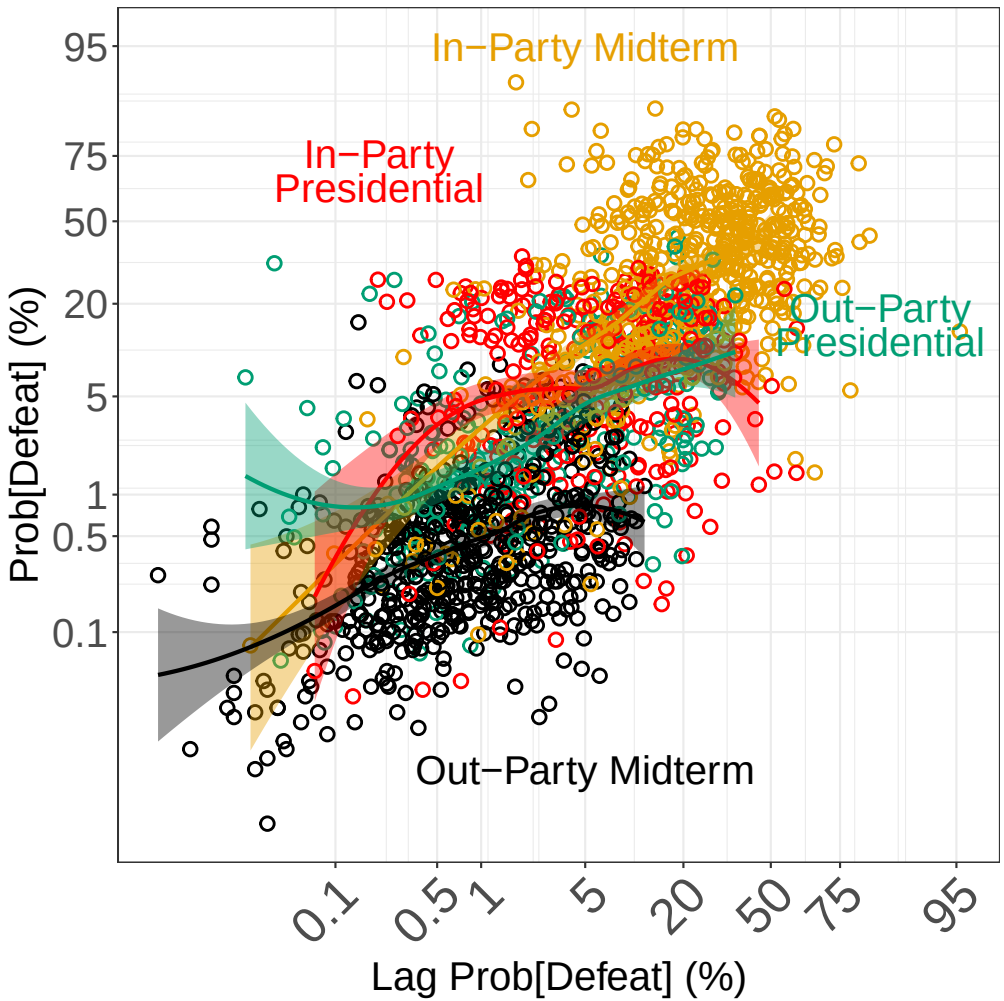
Random (T)error for Incumbents



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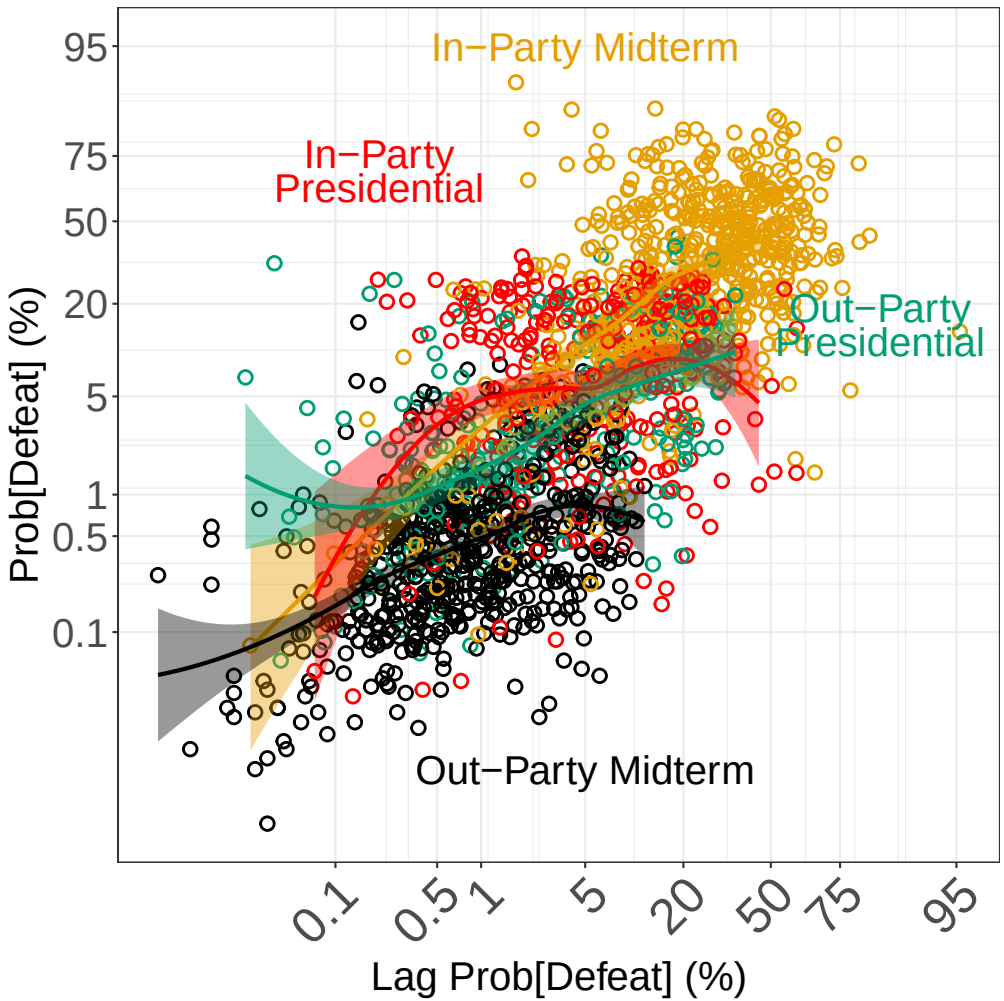

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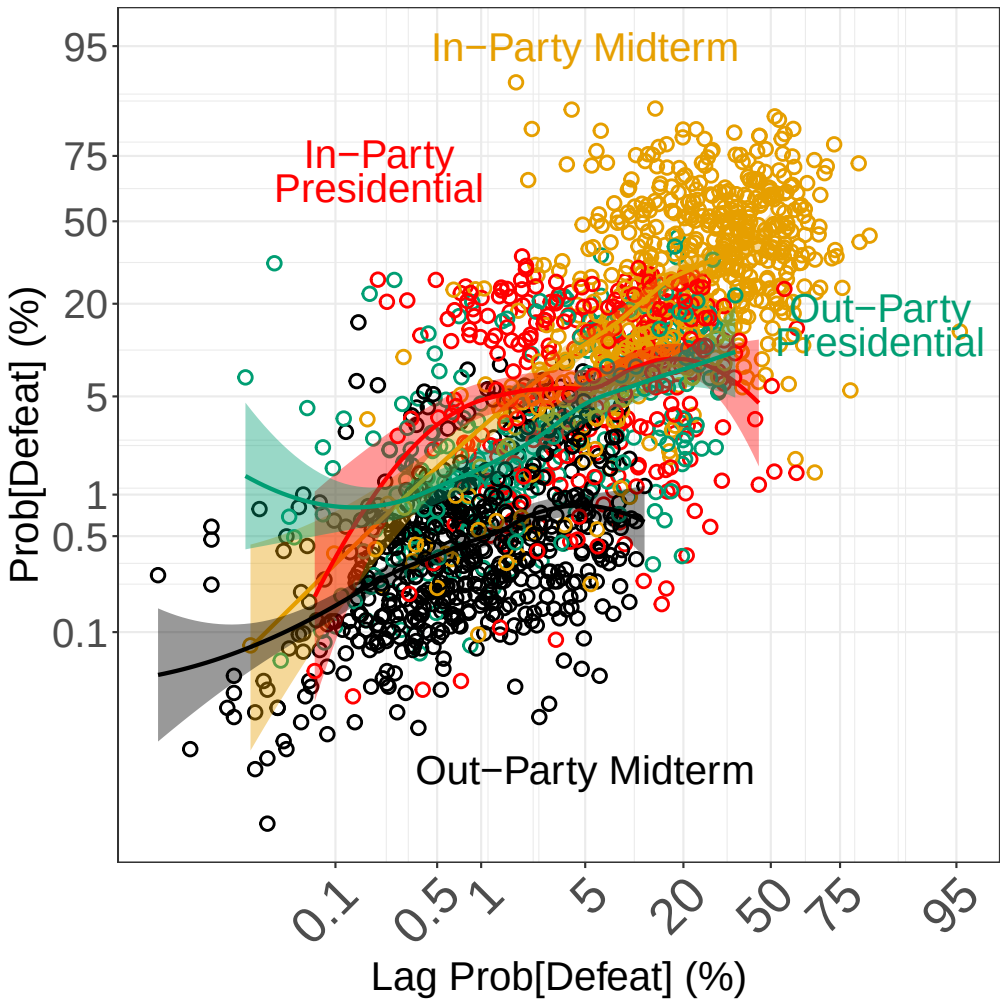

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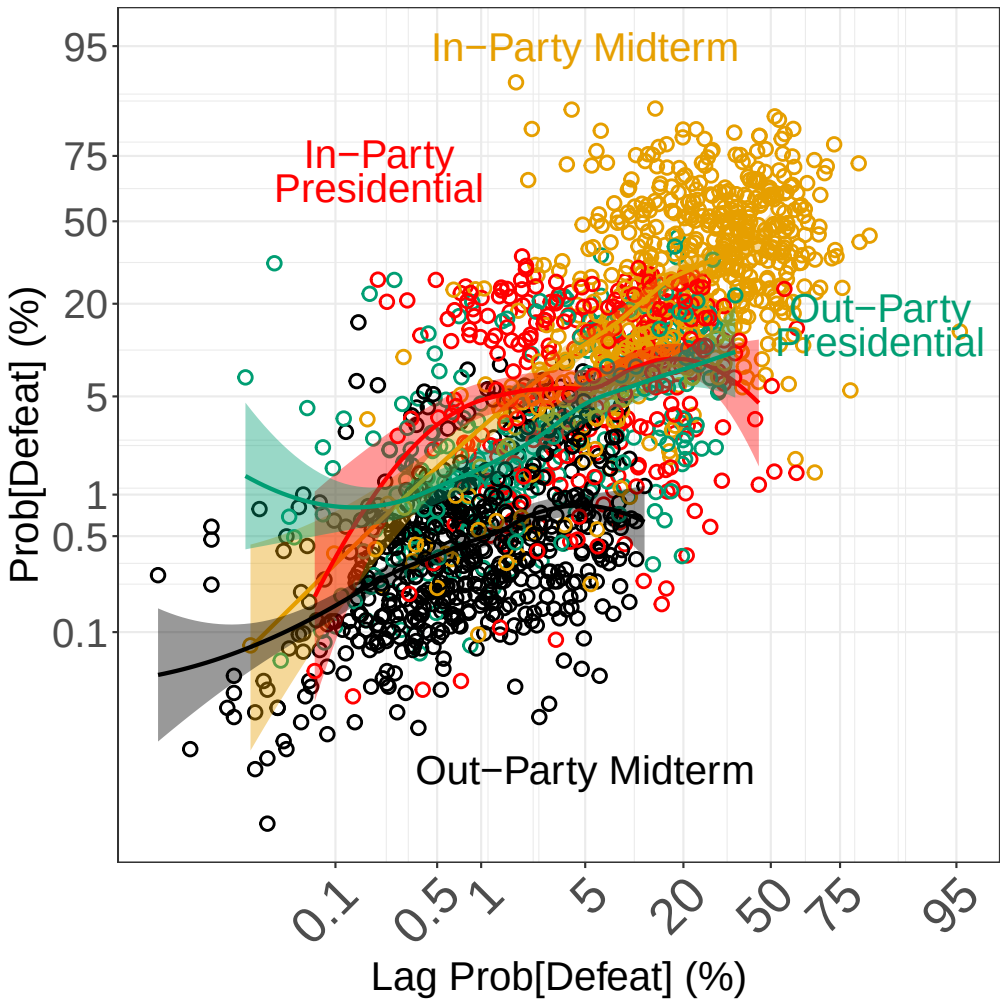

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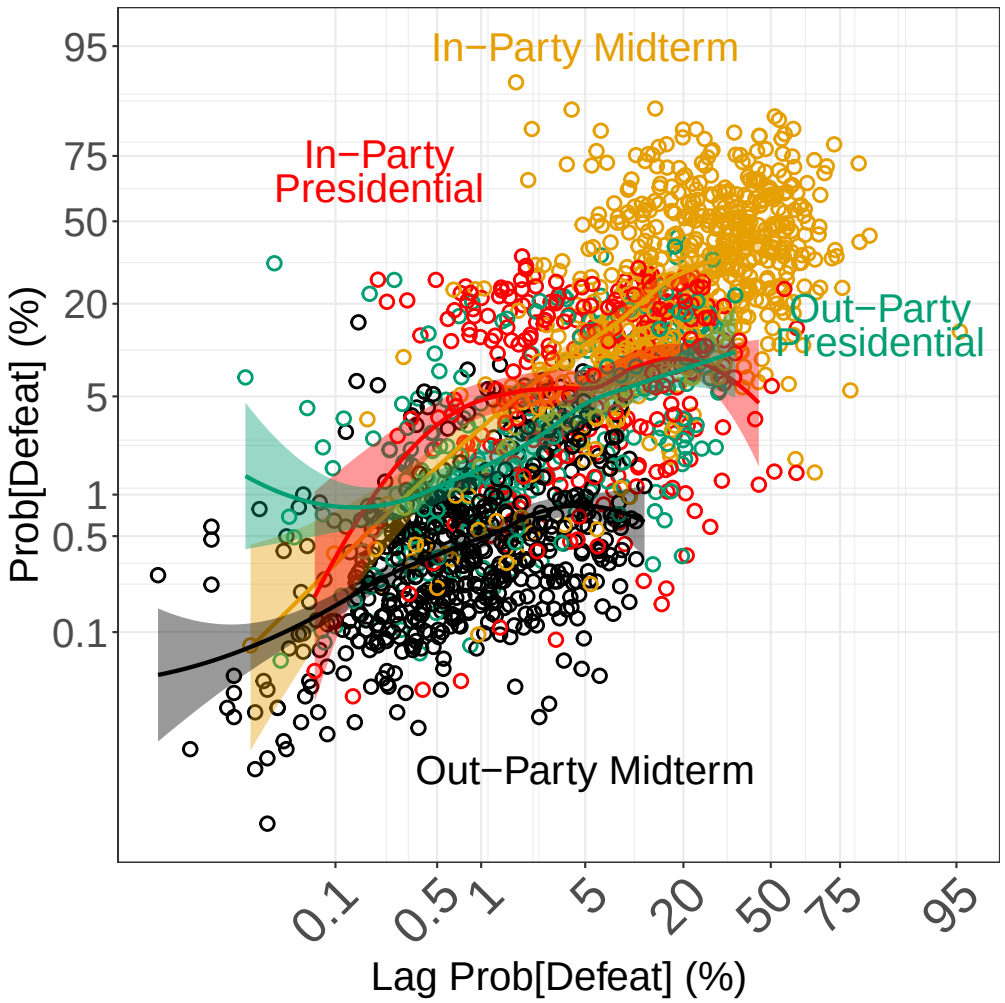

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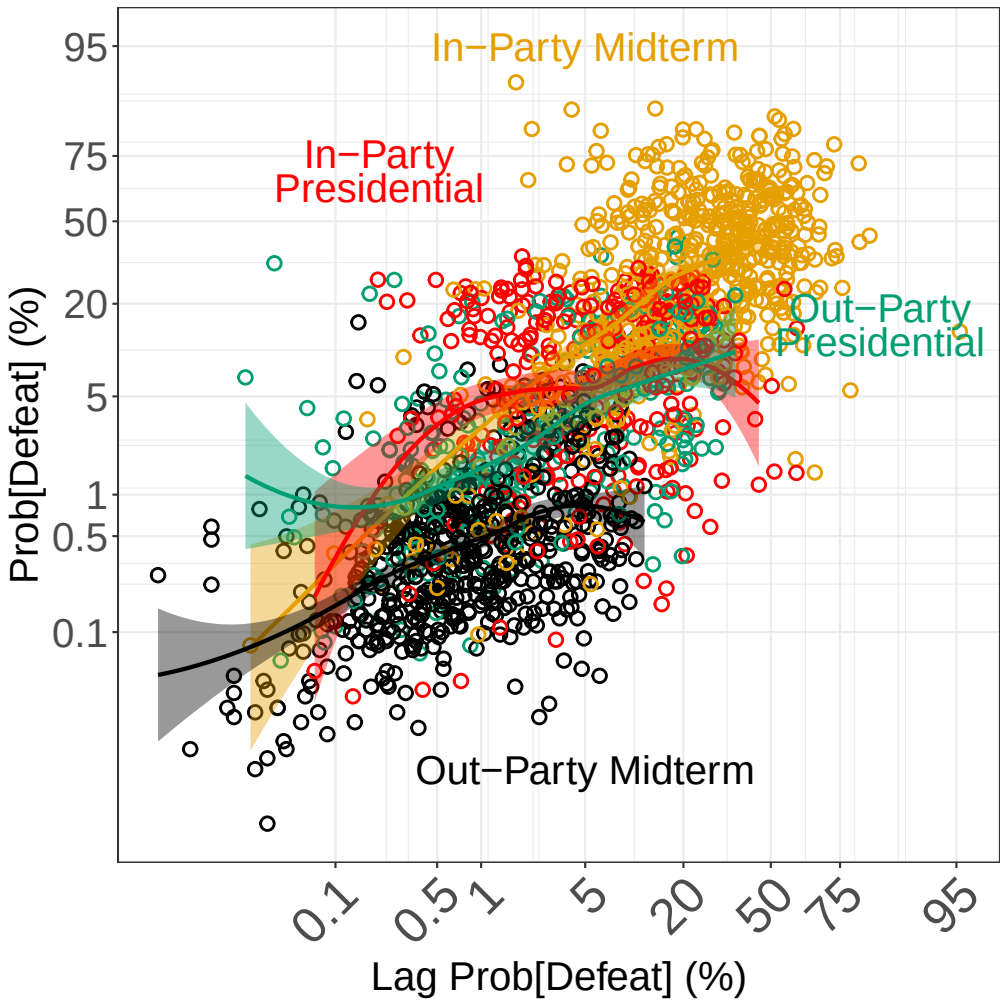

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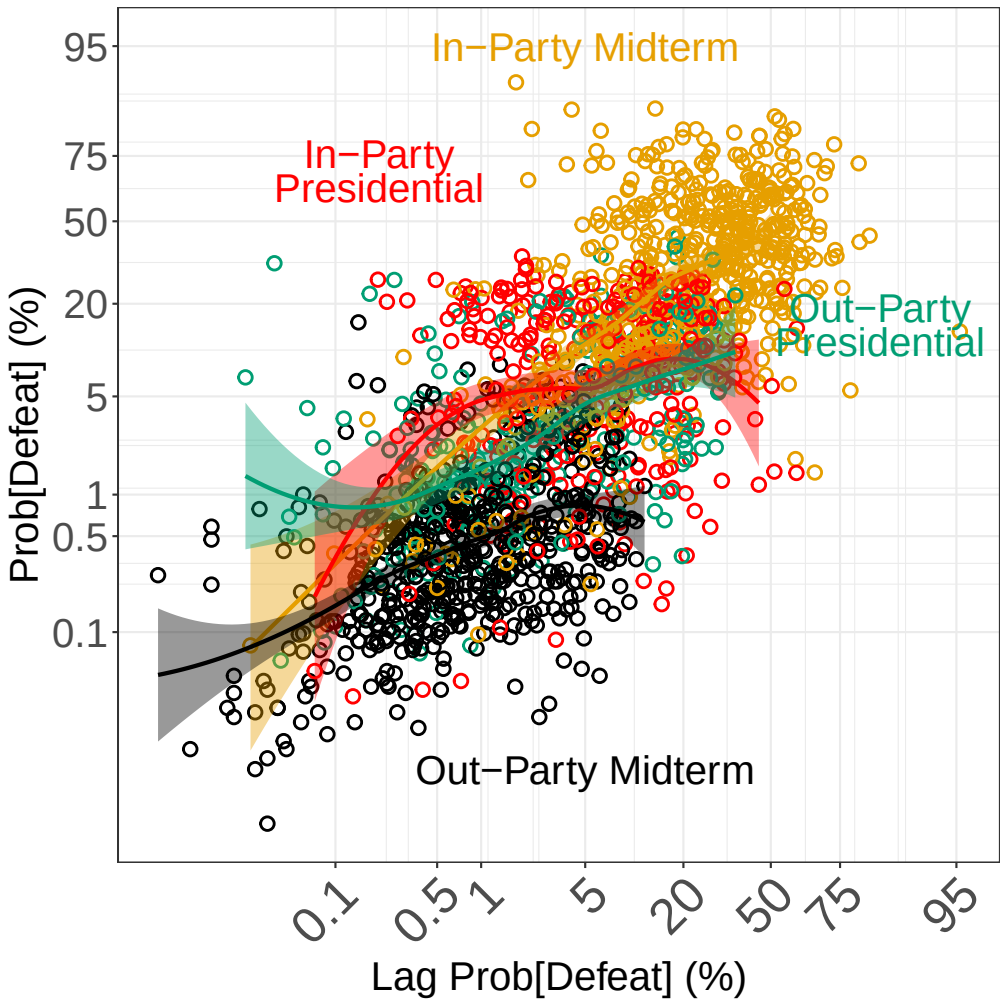
- Job Security:

Random (T)error for Incumbents



(Both axes on the logit scale)

Prob(Defeat) varies:

- by type: in/out party; presidential/midterm
- by district: few safe
- massively over time

Electoral accountability:

- High: 1.3–26% (11% avg.)
- No (systematic) change: > 2/3rds of a century
- At risk? almost everyone
- Especially: President's party
- Job Security: Random terror