

# Forecasting Partisan Collective Accountability During the 2024 U.S. Presidential & Congressional Elections\*

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## Abstract

This article considers both presidential approval and party brand differentials, as measured by the generic ballot, to forecast the 2024 U.S. presidential and congressional elections. While both variables are leveraged to forecast collective partisan election outcomes, we consider the variables together as distinct determinants of partisan fortunes at both the executive and legislative levels. First, using a novel time-series of mass national opinion since 1937, we show that presidential approval and generic brands are distinct conceptual and empirical measures of mass public assessments of collective institutions. Second, in a series of fully specified models validated with out-of-sample predictions, we show that presidential approval is the main predictor of presidential elections while, perhaps surprisingly, the vast bulk of the incumbent party's performance in congressional elections is explained by partisan brands. Lastly, we forecast the 2024 U.S. national elections and find that Republicans are favored to both win back the White House and the U.S. Senate majority—eleven months out from the election. By contrast, our model forecasts control for the U.S. House majority essentially as a tied contest.

**Key words:** 2024 election forecasting, presidential approval, congressional generic ballot, presidential elections, U.S. congressional elections.

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# 1 The Historic, Yet Competitive, 2024 U.S. National Elections

For the first time since the 1892 presidential election pitting former Democratic President Grover Cleveland against Republican incumbent Benjamin Harrison, the 2024 presidential election will feature a rematch between an incumbent and their immediate predecessor. The 2024 election cycle will also be the first presidential rematch among the majority party nominees since 1956, when Republican President Dwight Eisenhower sought re-election against former Illinois Democratic Governor Adlai Stevenson. In many ways, the 2024 presidential election presents a unique set of challenges for forecasters. First, incumbent President Joe Biden is seeking re-election against former president Donald Trump, the same foe he unseated during the twin challenges of a generational global pandemic and economic downturn that transpired during the 2020 election cycle. Second, as *The New York Times* points out, “either of the leading 2024 candidates would be the oldest occupant of the Oval Office ever by the end of his term ...” with the media portraying a narrative of two chronically unpopular candidates plagued by strong unfavorably ratings given by voters.<sup>12</sup> Lastly, despite a relatively competitive election environment, *Gallup* notes that incumbent President Joe Biden “enters 2024 with a persistently low job approval rating, the worst of any modern-day president heading into a tough reelection campaign”, showing that despite historically low approval the President and his party are competitive this election cycle.<sup>3</sup>

Extending beyond the presidential backdrop, the battle for both chambers of the U.S. Congress appears to be a very competitive contest. Despite being saddled with a president facing a historically low job approval, congressional Democrats are locked in a very competitive contest to flip control of the U.S. House and maintaining control of the U.S. Senate. With only four seats required for partisan turnover in the House and two seats required for a clear turnover of the Senate, *The Hill* describes the battle of congressional majorities as the “GOP, Democrats neck and neck on generic congressional ballot.”<sup>4</sup> Taken together, despite the historical narrative portrayed

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<sup>1</sup> *The New York Times*: How Old Is Too Old to Be President? An Uncomfortable Question Arises Again.

<sup>2</sup> *Gallup*: Biden and Trump Evenly Matched in U.S. Favorable Ratings.

<sup>3</sup> *Gallup*: Biden Ends 2023 With 39% Job Approval.

<sup>4</sup> *The Hill*: GOP, Democrats neck and neck on generic congressional ballot: Survey.

in the media regarding the 2024 U.S. national elections, the backdrop of this election cycle takes place during a time of incredible partisan continuity and electoral predictability. Current research shows that the percentage of major party vote-switchers in American elections to be less than 3% ([Shino, McKee & Smith, 2023](#)) while the bivariate correlation between the presidential and congressional vote to be approaching one ([Algara & Bae, 2023](#)). Moreover, scholars note that the polarized era coincides with a decline in the number of battleground states at the presidential level ([Cervas & Grofman, 2017](#)), competitive House and Senate races ([Algara, 2019; Algara & Bae, 2023](#)), and even competitive U.S. counties ([Amlani & Algara, 2021; Grofman & Chen, 2023](#)). In short, while the current 2024 election cycle is portrayed as historic given the unpopular nominees occupying the top of the ticket, the cycle is taking place during a period of remarkable partisan consistency in subnational voting patterns and relatively even partisan competition over a small subset of battleground constituencies during the polarized era.

In this research, we introduce a unified approach to forecast the 2024 U.S. national elections at the presidential and congressional levels. We depart from standing forecasting models by considering presidential approval and relative party brands as two distinct theoretical concepts used to forecast collective partisan outcomes at the level of the: (1) presidency, (2) U.S. Senate, and (3) U.S. House. While scholars have long used both presidential approval and the congressional generic ballot (i.e., relative party brands) to predict U.S. election outcomes, to our knowledge we are the first to consider both variables as predictors at *all* levels of collective partisan competition nationally towards forecasting elections in *both* presidential and midterm election cycles.<sup>5</sup> We begin this research note by introducing new measures of presidential approval and partisan brands since 1937 and show that, while both concepts are related, they are distinct theoretical and empirical concepts that can be leveraged to predict national election outcomes. Secondly, we use these two main predictors to test how well each predicts the election outcomes of interest encompassing: (1) the presidential popular vote; (2) presidential electoral votes; (3) the number

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<sup>5</sup>We note that [Abramowitz \(2006\)](#) leverages presidential approval and the generic ballot to make congressional election predictions at both the Senate and House level; but this model is only fitted on midterm election data while our forthcoming model considers congressional election outcomes for both midterm and presidential cycles.

of U.S. Senate seats won by the incumbent party; and (4) the number of U.S. House seats won by the incumbent party. We also leverage out-of-sample predictions to test the accuracy of our forecasting model predicts presidential and congressional elections from 1938 to 2022. Lastly, we use our models to make predictions regarding collective accountability of the incumbent party (i.e., the Democratic Party) at each level of national partisan competition under a set of potential scenarios.

## 2 Presidential Approval & Party Brands as Distinct Concepts

Perhaps no variable is used more frequently by scholars to predict American elections than presidential approval ratings. As [Victor \(2021\)](#) points out, the conventional model forecasting presidential elections is [Abramowitz's \(1988\)](#) "Time for Change" model that leverages three foundational predictors: party incumbency, status of the national economy, and presidential approval. By contrast—and generally within the context of making midterm election predictions—some congressional election models leverage the partisan differential on the generic ballot as their main predictor of seats won in legislative elections ([Bafumi, Erikson & Wlezien, 2010](#); [Abramowitz, 2023](#)). This lack of congruence between presidential and congressional election models can be a bit perplexing, particularly given the literature suggesting that the president plays a large role in shaping the parameters of partisan competition in congressional elections (see [Key, 1966](#); [Tufte, 1975](#); [Jacobson & Kernell, 1983](#); [Kernell, 1977](#), for foundational work in this space). Theoretically, there are institutional reasons to believe presidential approval and partisan brands are two distinct concepts. First, while presidential popularity can motivate popularity of their party ([Algara, 2023](#)), presidential popularity does not always translate to partisan accountability. Indeed, the literature on presidential coattails notes that presidential popularity plays a limited role in getting weak co-partisan candidates elected ([Campbell & Sumners, 1990](#)). Second, as an institutional matter, while presidents are the leaders of their party, partisan brands in the eyes of voters are generally thought of being decentralized, weaker, and more ambiguous ([Hetherington, 2001](#)). While presi-

dents are held individually (and collectively) accountable since they are the sole elected occupant of the executive branch, parties are a collective of organized interests (Bawn et al., 2012) and individual politicians (Cox & McCubbins, 2005) without the power to directly control their images to voters given the lack of formal powers to control nominations.

Presidents may be individually popular but this may fail to translate directly to the popularity of their partisan brand, suggesting that these two mass opinion assessments are distinct concepts. To test this proposition, we construct new measures of presidential approval and generic partisan brands, as constructed by the differential on the congressional generic ballot, from survey marginals. To note: the congressional generic ballot is a poll that is “generic” in that it measures partisan preference in the upcoming congressional election rather than asking about specific candidates or races, with the resulting generic congressional ballot measure providing a preference for one party relative to the other party. We collected 8,162 survey marginals from 107 unique pollsters to estimate the quarterly trend in the congressional generic ballot and the *Roper Center* provided 6,361 survey marginals across 96 unique pollsters to construct presidential approval ratings from 1937 to 2023, the last full year of data.<sup>6</sup> We use Stimson’s (1998) *dyad ratios* latent variable model to identify shared variance across differently worded surveys designed to measure generic ballot preferences and derive smoothed quarterly estimates of both concepts. Figure A1 in the appendix articulates the temporal variation in both concepts over time. In total, we estimated the generic congressional ballot and presidential approval for 346 quarters from 1937 Q3 to 2023 Q4.

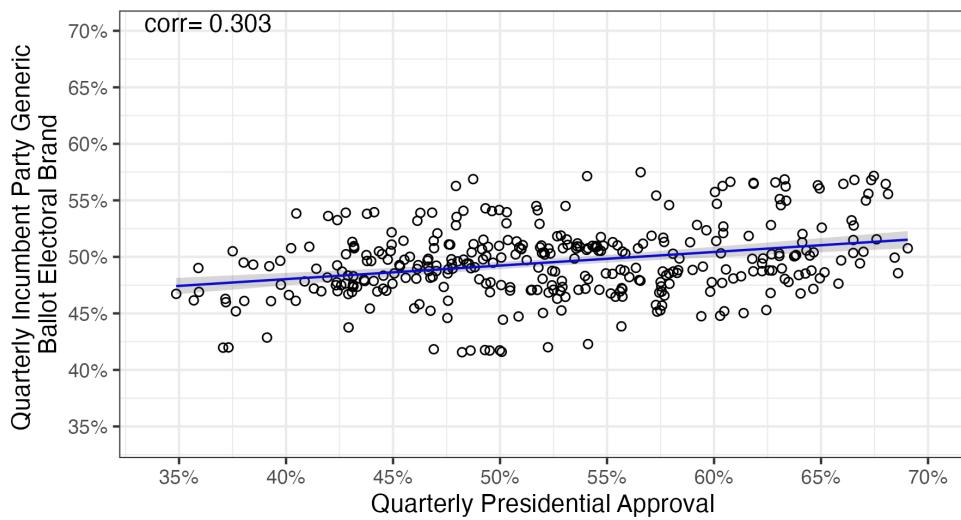
In Figure 1 we show the bivariate correlation between quarterly presidential approval and the president’s party differential on the congressional generic ballot from 1937 to 2022. Higher values of the generic ballot measure indicates greater preference for the incumbent party (i.e., the president’s party).<sup>7</sup> As one can see in Figure 1, presidential approval and the incumbent party’s generic brand are weakly correlated at  $\rho = 0.303$ . This is also articulated in the relatively weak

<sup>6</sup>From 1937-2018, we collected generic ballot survey marginals data from the *Roper Center* and *RealClearPolitics* while post-2018 we collected data from the *FiveThirtyEight* repository.

<sup>7</sup>In Figure A2 we present the forthcoming correlations within presidential administration and reach conclusion that both concepts are weakly correlated.

slope of the bivariate regression line. Moreover the  $R^2$  of the bivariate model is 0.09, indicating that the president's job approval among the mass public does not explain much variation in their party's lead on the generic ballot. As the Figure shows, popular presidents with greater than 50% approval may still preside over relatively weak parties, just as President George W. Bush's 66.5% approval rating in 2002 Q1 failed to translate to a meaningful boost for the Republican Party brand on the generic ballot, with Republicans receiving 49.7% on the measure. In Table 2 of the appendix, we confirm this substantive finding in more systematic hypothesis testing across four quarterly regression models showing a similar weak relationship between both concepts as conveyed in [Figure 1](#). Taken together, we find support that while presidential approval and the incumbent party's standing on the congressional generic ballot are weakly correlated, they are two distinct concepts that covary to a greater degree independent of each other.

Figure 1: Presidential Approval & Incumbent Party Congressional Generic Percentage



*Note:*  $N = 346$  quarters from 1937 Q3 to 2023 Q4. Bivariate OLS model results for [Figure 1](#):  $\hat{\beta} = 0.12$  [H2 Robust Std. Error = 0.02; 95% CI: (0.081, 0.159);  $R^2 = 0.09$ ]. Appendix Figure A1 shows the temporal variation in presidential approval and incumbent party generic ballot percentage over time, while Appendix Figure A2 shows within president correlation in presidential approval and incumbent party generic ballot percentage. Appendix Table 2 shows similar relationship between presidential approval and incumbent party electoral brand across four differing model specifications as bivariate relationship presented in [Figure 1](#).

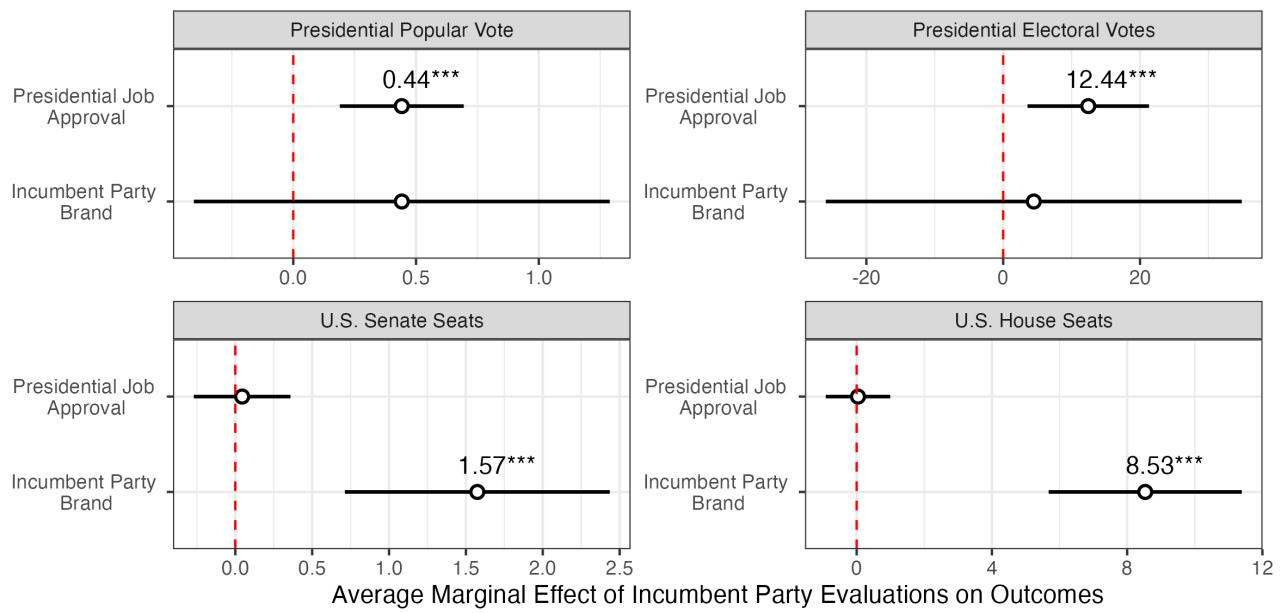
### 3 Predicting U.S. National Elections, 1938-2022

Now that we have established presidential approval and party brands as distinct theoretical and empirical concepts, we can now turn to leveraging them as key individual predictors of collective outcomes in U.S. national elections since 1938. To that end, we specify a comprehensive full model predicting the presidential in-party's electoral performance in U.S. national elections as measured by the: (1) two-party percentage won in the national popular vote; (2) number of electoral votes won; (3) number of U.S. Senate seats won by the in-party; and (4) number of U.S. House seats won by the in-party. We predict variation in each of these four outcomes as a function of presidential job approval, the president's party percentage on the generic ballot (i.e., the incumbent party brand), a dummy variable indicating if the president's party is Republican or Democratic, a variable indicating the number of quarters the president's party has controlled the White House heading into election day (i.e., "time in power" counter variable), the unemployment rate at the quarter of the election, and annual growth in the gross domestic product (GDP) at the time of the election. In the congressional election models, we include a dummy variable coded 0 for a presidential election cycle and a 1 for midterm election cycle. Our two key covariates of presidential approval and the incumbent party brand are measured in the third quarter of the election year or, in other words, in the quarter preceding the national election.

[Figure 2](#) shows of our fully specified model (i.e., Model 5 in appendix Tables 4-7 presenting model results) for each outcome variable with respect to our two key covariates, with 95% confidence intervals estimated from HC2 robust standard errors shown. As one can see, presidential approval is the only key covariate that predicts the popular vote percentage and electoral votes won by the president's party, with the incumbent party brand being an insignificant predictor of these two presidential outcomes. By contrast, our model finds that presidential approval does not predict congressional election outcomes at the House or Senate level while the incumbent party brand does, indicating that congressional election outcomes are shaped by the relative popularity of the parties while presidential contests are shaped by the mass public's assessment of presiden-

tial job performance. Indeed, a one-standard deviation increase in presidential job approval ( $\approx$  7.53%) correlates with a 3.31% ( $7.53 \times 0.44$ ) gain in the popular vote and ( $7.53 \times 12.44$ ) 93.67 gain in electoral votes for the president's party while a one-standard deviation increase in the incumbent party's brand ( $\approx$  3.16%) correlates with a gain of 4.96 ( $3.16 \times 1.57$ ) U.S. Senate seats and 26.95 ( $3.16 \times 8.53$ ) U.S. House seats. In appendix Tables 4-7, we present the result of three additional models predicting each outcome variable—including two bivariate models with just one of our key covariates of interest—and confirm that same substantive result that presidential approval does not predict congressional election outcomes and party brands do not predict presidential election outcomes.<sup>8</sup>

Figure 2: Marginal Effect of Presidential Approval & Party Brands on Election Outcomes



*Note:* full model results available in appendix Tables 4-7. The results in Figure 2 articulate the point-estimates for the full comprehensive model, or Model 5, in each of the appendix Tables. We also articulate summary statistics for the annual election models in Appendix Table 3. 95% confidence intervals reported in Figure 2 estimated from HC2 robust standard errors.

<sup>8</sup>Even in the simple bivariate case of presidential approval (incumbent party brand) predicting congressional (presidential) election outcomes, the coefficient is insignificant and the  $R^2$  is minimal and below 0.04, further articulating this point in a very simple test.

Now that we have evaluated the independent relationship between election outcomes and both of our covariates of interest, we can turn to evaluating the accuracy of our models using a series of jackknife tests to derive out-of-sample predictions for each election in our sample and calculating the error between these predictions and observed election results for each of our four types of election outcomes. These jackknife tests consists of dropping out a given election year out of the data, re-estimating the model, and then predicting the out-of-sample year to derive an out-of-sample estimate. We do this for all election years present in the data. For example, to calculate the out-of-sample popular vote prediction for the 2020 election cycle we drop 2020 from the dataset and re-estimate the model without this observation and predict the 2020 popular vote percentage for the incumbent party from this re-estimated model results. We then compare this out-of-sample estimate for a given election year with the observed result to calculate the absolute error between the estimate and observed result, providing us with a measure of the accuracy of the model. Recall that for each election outcome, we estimate five models that vary the number of covariates predicting a given outcome to find the best fitting model for the data. Note that we generate our out-of-sample predictions from the best fitting model for each election context as articulated by the adjusted  $R^2$  statistic account for the varying number of covariates across each model.<sup>9</sup>

Results of these out-of-sample predictions are presented in [Figure 3](#) and appendix Tables 8-11 for each presidential election outcome. On the x-axis is the incumbent-party model out-of-sample prediction produced by our jackknife test for a given outcome while the y-axis shows the observed election result. The 45 degree line indicates perfect congruence between our out-of-sample model prediction and the observed election result, with observations below the line indicating an incumbent party under-performance relative to our prediction and observations above the line indicating an over-performance relative to our model predictions. Each panel of [Figure 3](#) articulates our accuracy test for each election outcome. The median absolute error

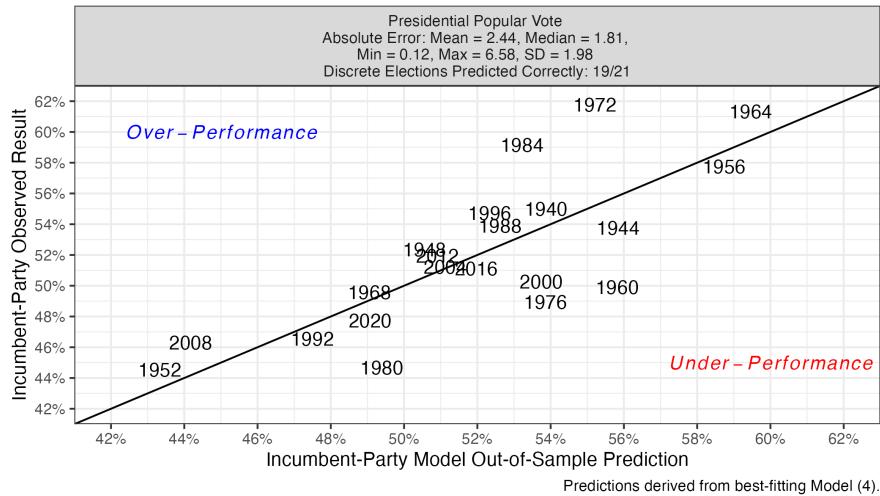
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<sup>9</sup>To that point, the full model leveraging both key covariates and all control variables (i.e., Model 5) best fits the data for the U.S. Senate seats model. Model 4 leveraging the key covariates plus the party of the incumbent party and time-in-power counter best fits the presidential popular vote model and the U.S. House seats model. Lastly, Model 1 leveraging just presidential approval as a covariate predictor best first the presidential electoral votes model.

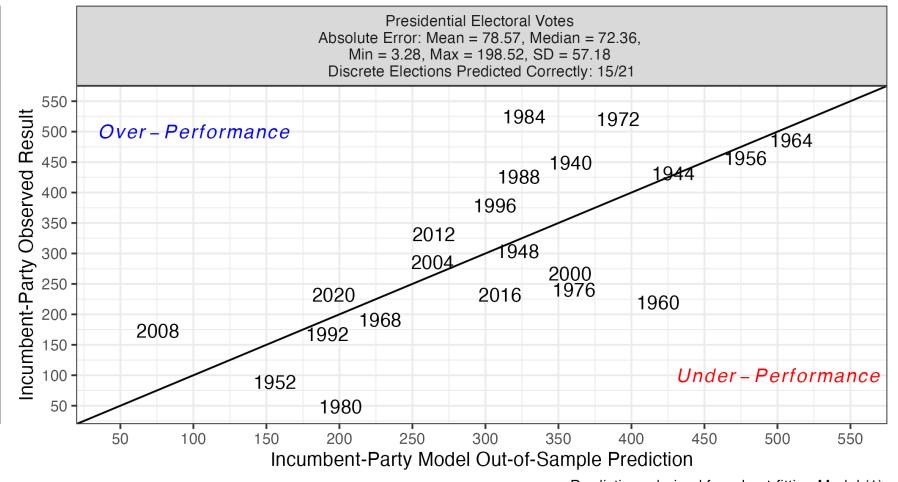
difference between our out-of-sample predictions and the observed results was 1.81% for the presidential popular vote model, 72.36 electoral votes for the electoral vote model, 4.5 seats in the U.S. Senate seats model, and 12.75 seats for the U.S. House seats. The mean raw error (i.e., not absolute error) of our forecasting models is 0.04%, -0.41, 0.19, and 0.13 for the popular vote, Electoral College, U.S. Senate, and U.S. House seats models, respectively. This indicates that there is no systematic error in favor of the incumbent party or out-party across all of our models. In terms of discrete predictions, our model correctly predicts the winner of the presidential popular vote in 19/21 elections since 1940, with the only misses being the 1960 and 1976 elections in which our model predicted popular vote majorities for Vice President Richard Nixon and President Gerald Ford. Perhaps reflecting the growing polarization and continuity of partisan preferences found in contemporary election cycles, the average out-of-sample absolute error in our popular vote model since 2000 is 1.26%, with the error being 0.92% and 0.28% for the recent 2016 and 2020 election cycles, respectively. Turning to the other election outcomes, our model correctly predicts the: (1) electoral college winner in 15/21 presidential elections since 1940; (2) the Senate majority party in 29/43 election cycles since 1938; and (3) the House majority party in 35/43 election cycles since 1938. Of note, our model discretely predicts the correct majority in each U.S. House election since the 2004 election cycle. Taken together, our forecasting model shows a good degree of predictive power across each of our electoral outcomes.

Figure 3: Forecasting Model Out-of-Sample Predictions & Accuracy

(a) Presidential Popular Vote Percentage Model

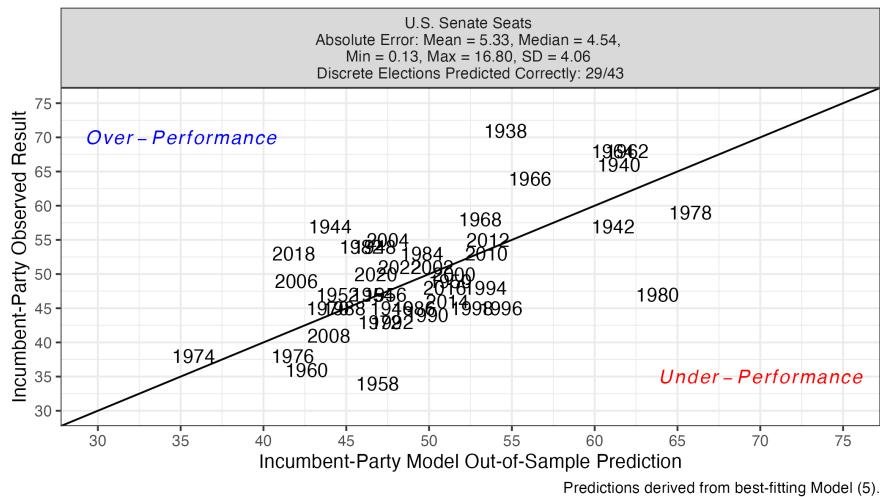


(b) Presidential Electoral Votes Model

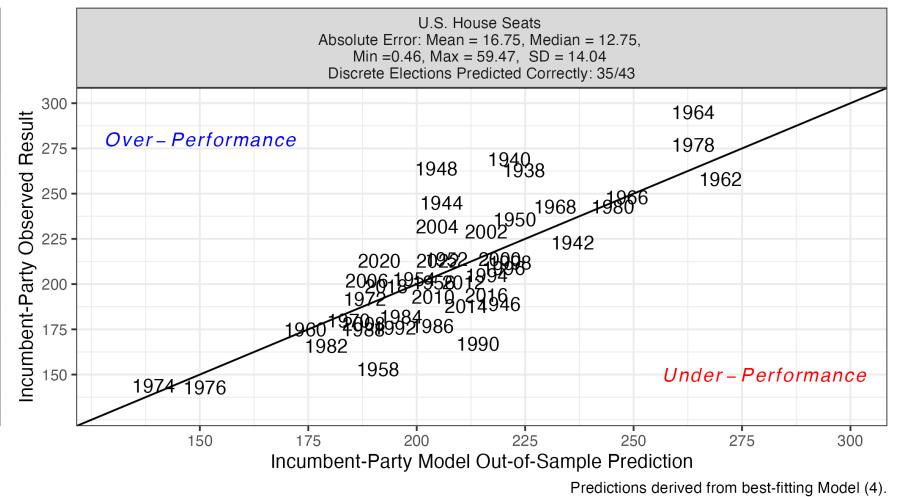


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(c) U.S. Senate Seats Model



(d) U.S. House Seats Model



*Note:* Full out-of-sample predictions, complete with 95% confidence intervals showing uncertainty around our prediction estimates and out-of-sample model fit statistics, for each model is presented in Appendix Tables 8-11.

## 4 2024 Election Predictions from Forecasting Models

Now that we validated our the accuracy of our forecasting models, we can turn to making predictions for the forthcoming 2024 U.S. national elections. To do this, we take our best fitting model for each electoral context and estimate a prediction of the 2024 election over potential values of our key predictor of interest given observed values of the covariates at the time of the prediction. To best articulate this prediction method, consider the example of making a prediction of the 2024 two-party popular-vote percentage for incumbent President Joe Biden. First, we take the best fitting model which predicts this outcome variable as a function of presidential approval, the incumbent party's percentage on the generic ballot, the party of the administration, and a counter variable of the amount of quarters the president's party has controlled the White House. After estimating the parameters of this model, we then estimate the predicted value of the two-party popular vote percentage over a series of potential values of our key predictor presidential approval ranging from 38% to 55% while holding all observed values of the covariates constant at what they are currently observed at the time of the prediction. As such, we set the observed value for the incumbent party generic ballot covariate at 49.66% since this is what was reported on January 1<sup>st</sup>, 2024 by *FiveThirtyEight* when this prediction was derived.<sup>10</sup> We set the observed values of the two remaining covariates of the model as the party in power being the Democratic Party and the “time-in-power” counter at 16 quarters since Democrats will have controlled the presidency for this amount of time on election day 2024.

We repeat this process for all election outcomes, with one key difference for congressional elections. Since we find that the generic ballot is the key predictor for congressional election outcomes rather than presidential approval, we derive 2024 predictions for the Senate and House outcomes over potential values of the generic congressional ballot (i.e., party brand) while holding presidential approval constant. As of January 1<sup>st</sup>, 2024 President Biden’s approval rating stood at 41.46% according to the polling aggregator *FiveThirtyEight*, which we consider the observed

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<sup>10</sup>The *FiveThirtyEight* polling aggregator showed that the Democratic Party was polling at 43.6% on the generic ballot compared to the 44.2% for the Republican Party on January 1<sup>st</sup>, 2024. To derive 49.66% we calculate the two-party generic ballot value with the following calculation:  $\frac{\text{Dem Generic Ballot}\%}{\text{Dem Generic Ballot}\% + \text{GOP Generic Ballot}\%} \times 100$ .

value for the calculation of the 2024 prediction.<sup>11</sup> We report our forecasting estimates with 95% confidence intervals estimated from HC2 robust standard errors.

Table 1: 2024 Presidential Popular Vote Prediction Over Presidential Approval Levels

Presidential Approval Rating Level	Popular Vote Percentage Estimate	95% Votes Lower Bound CI	95% Votes Upper Bound CI
38.00	47.66	44.50	50.82
39.00	48.15	45.11	51.20
40.00	48.64	45.70	51.58
41.00	49.13	46.30	51.97
42.00	49.62	46.88	52.37
43.00	50.12	47.46	52.77
44.00	50.61	48.03	53.18
45.00	51.10	48.59	53.60
46.00	51.59	49.14	54.03
47.00	52.08	49.69	54.47
48.00	52.57	50.22	54.93
49.00	53.06	50.73	55.39
50.00	53.55	51.24	55.86
51.00	54.04	51.74	56.35
52.00	54.53	52.22	56.85
53.00	55.03	52.69	57.37
54.00	55.52	53.14	57.89
55.00	56.01	53.59	58.43

Predictions derived from best-fitting Model (4) & observed covariate values on 1/1/2024.

95% confidence intervals around the forecast estimates derived from HC2 robust standard errors.

Table 1 shows our popular vote percentage forecasting estimate for President Joe Biden in the forthcoming 2024 elections this November over potential values of his approval rating. As demonstrated, assuming about a roughly 41% approval rating which is observed at the time of this writing, our model forecasts President Biden winning 49.13% of the popular vote [95% CI: 45.96, 52.31]. Assuming that President Biden does not improve on his relatively low presidential approval rating, our model forecasts as narrow loss in the presidential popular vote but we note that the upper bound of the 95% confidence interval indicates that an upset on this outcome is not

<sup>11</sup>Just like in the congressional generic ballot footnote, the *FiveThirtyEight* polling aggregator estimated President Biden's approval rating at 39.3% while estimating the disapproval rating at 55.5% on January 1<sup>st</sup>, 2024. To derive 41.46% we calculate the “two-category” presidential approval rating value with the following calculation:  

$$\frac{\text{Approval}\%}{\text{Approval}\% + \text{Disapproval}\%} \times 100.$$

out of the realm of possibility. As Table 1 further shows, a dramatic increase in President Biden's approval rating to 48% would predict a robust popular vote majority at 52.57% with the lower bound of the 95% confidence interval being over 50%, indicating a very high degree of confidence of this majority at this presidential approval level.

Table 2: 2024 Presidential Electoral Vote Prediction Over Presidential Approval Level

Presidential Approval Rating Level	Electoral Votes Won Estimate	95% Votes Lower Bound CI	95% Votes Upper Bound CI
38.00	127.86	64.52	191.20
39.00	141.89	81.96	201.81
40.00	155.91	99.27	212.56
41.00	169.94	116.41	223.47
42.00	183.96	133.36	234.57
43.00	197.99	150.08	245.90
44.00	212.01	166.53	257.49
45.00	226.04	182.67	269.41
46.00	240.06	198.45	281.68
47.00	254.09	213.82	294.36
48.00	268.11	228.74	307.49
49.00	282.14	243.18	321.10
50.00	296.16	257.12	335.21
51.00	310.19	270.57	349.81
52.00	324.21	283.55	364.88
53.00	338.24	296.09	380.39
54.00	352.26	308.23	396.29
55.00	366.29	320.04	412.54

Predictions derived from best-fitting Model (1) & observed covariate values on 1/1/2024.

95% confidence intervals around the forecast estimates derived from HC2 robust standard errors.

By contrast, the 2024 forecast is much less optimistic for President Biden with respect to the Electoral College. Our model forecasts President Biden would secure about 170 electoral votes [95% CI: 104.12, 235.75] assuming a presidential approval rating of 41% on election day. Given the fact that the upper bound of our 95% confidence interval for this electoral college vote forecast sits at 235.75, our model is very pessimistic regarding President Biden's re-election chances while holding a roughly 41% approval rating. If this observed approval rating holds, President Biden would have the third lowest incumbent party presidential approval rating since 1940 according

to our estimates, only besting the 35.9% approval rating for President Bush heading into the 2008 election and 39.2% approval for President Truman on the eve of the 1952 election.<sup>12</sup> Out of presidential re-election bids, President Biden would have the lowest approval since 1940, with his approval rating being lower than the 41.97%, 42.37%, and 43.11% held by Presidents Carter, H.W. Bush, and Trump ahead of their re-election defeats in 1980, 1992, and 2020, respectively. Given these preceding cases, it is clear why our model is fairly pessimistic regarding President Biden's re-election odds in the Electoral College given his current approval at the writing of this manuscript.

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<sup>12</sup>Reflecting this unpopularity in incumbent approval, the 1952 and 2008 elections ushered in Electoral College landslides for the out-party in each case along with robust congressional majorities.

Table 3: 2024 U.S. Senate Prediction Over Generic Ballot Levels

Generic Ballot Support Level	U.S. Senate Seats Won Estimate	95% Votes Lower Bound CI	95% Votes Upper Bound CI
47.00	42.96	37.71	48.21
48.00	44.53	38.92	50.15
49.00	46.11	40.03	52.19
50.00	47.68	41.06	54.31
51.00	49.26	42.02	56.49
52.00	50.83	42.94	58.72
53.00	52.41	43.82	60.99

Predictions derived from best-fitting Model (5) & observed covariate values on 1/1/2024.

95% confidence intervals around the forecast estimates derived from HC2 robust standard errors.

Turning to the U.S. Senate in Table 3, our model is also fairly pessimistic regarding Democratic chances to hold the chamber this November. Assuming the current observed generic ballot percentage for Democrats at the time of this writing at roughly 50%, our model forecasts Democrats to control about 48 Senate seats [95% CI: 41.06, 54.31]. However, we note the fairly large confidence intervals around our forecast estimate, suggesting volatility in this estimate. Reflected across all potential values of generic ballot support percentage ranging from 47% to 53%, the confidence intervals show a great degree of volatility, perhaps owing to the traditional finding that Senate races are much more idiosyncratic candidate-driven contests that can buck national partisan tides ([Algara, 2019](#)). This is perhaps reflected in the fact that political prognosticators currently rate the two pivotal Senate races as being those found in Montana and Ohio, where three-term Democratic Senators Jon Tester and Sherrod Brown are polling fairly competitively against potential Republican challengers despite the two states being considered electorally safe for the Republicans at the presidential level.

Table 4: 2024 U.S. House Prediction Over Generic Ballot Levels

Generic Ballot Support Level	U.S. House Seats Won Estimate	95% Votes Lower Bound CI	95% Votes Upper Bound CI
47.00	189.23	176.01	202.44
48.00	197.61	183.39	211.83
49.00	206.00	190.41	221.59
50.00	214.38	197.14	231.62
51.00	222.77	203.68	241.86
52.00	231.16	210.06	252.26
53.00	239.54	216.32	262.76

Predictions derived from best-fitting Model (4) & observed covariate values on 1/1/2024.

95% confidence intervals around the forecast estimates derived from HC2 robust standard errors.

Lastly, we turn to the 2024 forecasts for the U.S. House found in Table 4. As the forecast shows, Democrats are *highly* competitive in their quest of reclaiming the majority lost in 2022. At roughly 50% in the generic congressional ballot, Democrats are predicted to hold 214 seats [95% CI: 197.14, 231.62] which would mirror the number of Democratic seats following former Democratic Rep. Tom Suozzi's special election victory in New York's 3<sup>rd</sup> congressional district earlier this year caused by the expulsion of disgraced former Republican Congressman George Santos in late 2023. If the incumbent party can increase their generic ballot percentage by roughly 1.3% to 51%, they would be forecasted to win about 223 seats [95% CI: 203.68, 241.86], which is five more than required for retaking the majority in the U.S. House of Representatives.

## 5 Discussion: Looking Towards November

In this research note, we make two contributions. First, by leveraging new estimates of presidential approval and party brands, we show that these two considerations are distinct and thus could potentially be used as independent predictors of U.S. national election outcomes within the same model. Indeed, while presidential approval and party brands are weakly correlated, we show a large degree of variation in the incumbent party brand that is not explained by the mass public's job evaluation of the president, who by definition is the leader of the incumbent party.

Second, after showing that the presidential approval and party brands are distinct concepts, we test how well each variable predicts U.S. election results across four outcomes and leverage the best fitting model to make predictions about the 2024 presidential and congressional elections. Our models consistently show that presidential elections are largely a story of the mass public's approval of the president while congressional elections are decided by the mass public's assessment of the incumbent party relative to the out-party.

In terms of our 2024 forecasts, we find evidence that Republicans are favored to win a robust Electoral College majority and a narrow popular vote majority due to President Joe Biden's historically low approval rating eleven months out from the election. This disconnect between our forecasting predictions in the popular vote and Electoral College perhaps reflects the pro-Republican bias found in the Electoral College during contemporary elections ([Erikson, Sigman & Yao, 2020](#)), with Republicans being more strongly favored in carrying a majority in the Electoral College as opposed to the popular vote. In terms of congressional elections, our forecasts show that Republicans are well suited to win a majority in the U.S. Senate while control of the U.S. House is essentially a toss-up contest.

We conclude with two potential limitations of our forecasting approach. First, in addition to standard economic and contextual predictors, our model only considers presidential approval and party brands to generate 2024 election forecasts. We concur with recent scholarship by [Highton & Stone \(2024\)](#) showing that presidential election outcomes are more than just mere referendums on the incumbent's performance in the mind's of voters, but rather about *candidate choice* presented to the mass public. Indeed, our model does not incorporate a differential measuring a relative advantage or disadvantage of the incumbent relative to the challenger independent of other traditional predictors of electoral outcomes such as presidential approval or economic considerations. However, as [Highton & Stone \(2024\)](#) alludes to, such pre-election measures of candidate-based differentials on dimensions such as valence and policy are far less systematically collected as opposed to pre-election measures such as presidential approval.<sup>13</sup> Nevertheless, for our

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<sup>13</sup>We note that these candidate-based differentials are measured from post-election data provided by the *American National Election Study* beginning in 1952, thus contributing to greater difficulty with respect to evaluating this

purposes, this could be a salient variable to include in forecasting the 2024 presidential elections given the unpopularity of *both* President Joe Biden and his Republican challenger, former President Donald Trump.

Secondly, our forecast estimates of the 2024 elections are predicated on *observed values of presidential approval and the generic congressional ballot over eleven months from the November election*. To be sure, President Biden's historically low approval rating could increase (or decrease) ahead of the November election, with a potential increase only serving to boost his chances of re-election. Likewise, the Democratic brand may fall or rise ahead of the congressional elections. Simply put, much can happen between the time of the forecast estimates and the presidential elections. But for now, our forecasting model is pessimistic regarding President Biden's chances of re-election and the ability of congressional Democrats to convincingly garner a majority in both chambers of the U.S. Congress.

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theoretical framework prior to the election, which is of interest to election forecasters.

## References

- Abramowitz, Alan I. 1988. "An Improved Model for Predicting Presidential Election Outcomes." *PS: Political Science and Politics* 21(4):843–847.
- Abramowitz, Alan I. 2006. "National conditions, strategic politicians, and U.S. congressional elections: Using the generic vote to forecast the 2006 house and senate elections." *PS: Political Science Politics* 39(4):863–866.
- Abramowitz, Alan I. 2023. "The Generic Ballot Model and the 2022 Midterm Election." *Polity* 55(3):633–637.
- Algara, Carlos. 2019. "The Conditioning Role of Polarization in U.S. Senate Election Outcomes: A Direct-Election Era Voter-Level Analysis." *Electoral Studies* 1(1):1–16.
- Algara, Carlos. 2023. "Dynamics of Partisan Competition for Legislative Majorities in the U.S. House Senate, 1959-2020".
- Algara, Carlos & Byengseon Bae. 2023. "Do Quality Candidates and Incumbents Still Matter in the Partisan World? Comparing Trends Relationship Between Candidate Differentials and Congressional Election Outcomes, 1900-2022." *The Journal of Political Marketing* .
- Amlani, Sharif & Carlos Algara. 2021. "Partisanship nationalization in American elections: Evidence from presidential , senatorial , gubernatorial elections in the U . S . counties , 1872 – 2020." *Electoral Studies* 73(July):102387.
- Bafumi, Joseph, Robert S. Erikson & Christopher Wlezien. 2010. "Forecasting house seats from generic congressional polls: The 2010 midterm election." *PS: Political Science Politics* 43(4):633–636.
- Bawn, Kathleen, Martin Cohen, David Karol, Seth Masket, Hans Noel & John Zaller. 2012. "A Theory of Political Parties: Groups, Policy Demands and Nominations in American Politics." *Perspectives on Politics* 10(03):571–597.
- Campbell, James E. & Joe A. Sumners. 1990. "Presidential Coattails in Senate Elections." *American Political Science Review* 84(2):513–524.
- Cervas, Jonathan R. & Bernard Grofman. 2017. "Why noncompetitive states are so important for understanding the outcomes of competitive elections: the Electoral College 1868–2016." *Public Choice* 173(3-4):251–265.
- Cox, Gary W. & Mathew D McCubbins. 2005. *Setting the Agenda: Responsible Party Government in the U.S. House of Representatives*. Cambridge, MA: Cambridge University Press.
- Erikson, Robert S., Karl Sigman & Linan Yao. 2020. "Electoral College bias and the 2020 presidential election." *Proceedings of the National Academy of Sciences of the United States of America* 117(45):27940–27944.

- Grofman, Bernard & Haotian Chen. 2023. “Understanding the Factors that Affect the Incidence of Bellwether Counties: A Conditional Probability Model.” *Political Research Quarterly* 76(1):119–126.
- Hetherington, Marc J. 2001. “Resurgent Mass Partisanship: The Role of Elite Polarization.” *American Political Science Review* 95(3):619–631.
- Highton, Benjamin & Walter J. Stone. 2024. “Extending the Referendum Model of Presidential Election Outcomes: Both Candidates Matter.” *American Politics Research* 52(1):3–10.
- Jacobson, Gary C. & Samuel Kernell. 1983. *Strategy Choice in Congressional Elections*. New Haven, CT: Yale University Press.
- Kernell, Samuel. 1977. “Presidential Popularity and Negative Voting.” *American Political Science Review* 71(1):44–66.
- Key, V. O. 1966. *The Responsible Electorate: Rationality in Presidential Voting 1936-1960*. Cambridge, MA: Harvard University Press.
- Shino, Enrijeta, Seth C. McKee & Daniel A. Smith. 2023. “The fall of Trump: Mobilization and vote switching in the 2020 presidential election.” *Political Science Research and Methods* pp. 229–248.
- Stimson, James A. 1998. *Public Opinion in America: Moods, Cycles, and Swings*. Second ed. Boulder, CO: Westview Press.
- Tufte, Edward R. 1975. “Determinants of the Outcomes of Midterm Congressional Elections.” *American Political Science Review* 69(3):812–826.
- Victor, Jennifer Nicoll. 2021. “Let’s Be Honest about Election Forecasting.” *PS: Political Science Politics* 54(1):107–109.

# A Supporting Appendix for “Forecasting Partisan Collective Accountability During the 2024 U.S. Presidential & Congressional Elections”

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## A.1 Quarterly Models Testing Approval & Brands as Distinct Concepts

### A.1.1 Descriptive Statistics

Table A1: Quarterly Descriptive Statistics, 1937-2022

	N	Mean	Min	Max	Median	Std. Dev.
Incumbent Party Brand	346	49.54	41.56	57.49	49.39	3.19
Presidential Approval	346	52.54	34.87	69.05	52.16	8.07
Quarterly Incumbent Party Time in Power	346	22.44	1.00	80.00	19.00	17.69
Quarterly GDP Growth	306	0.01	-0.09	0.07	0.01	0.01
Quarterly Unemployment Rate	343	5.94	0.97	19.57	5.50	2.76

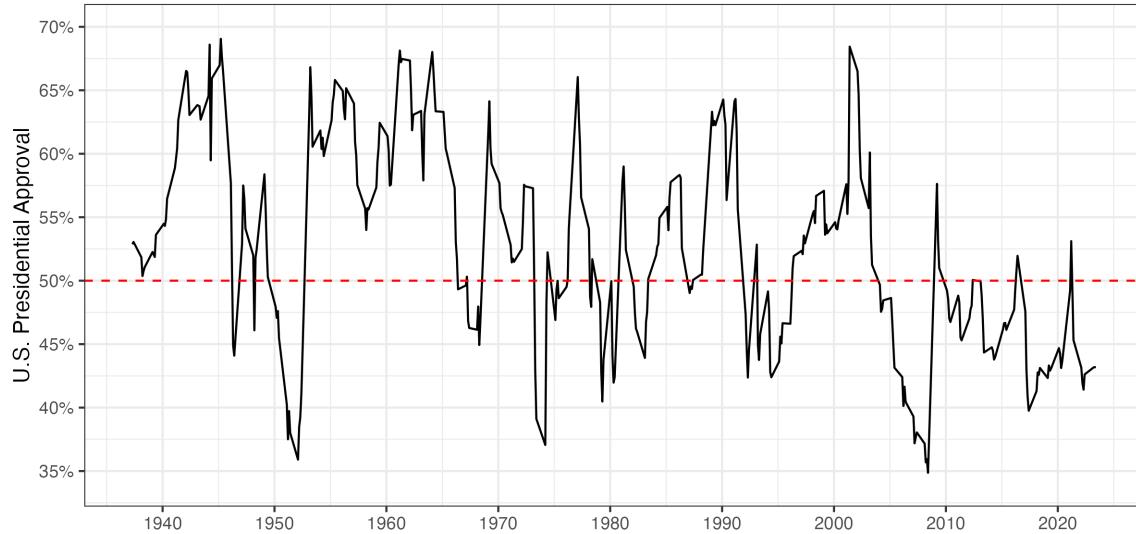
GDP missing = 1937.3-1947.1 & 2023.4 (40 Qs)

Unemployment missing = 1937.3-1937.4 & 2023.4 (3 Qs)

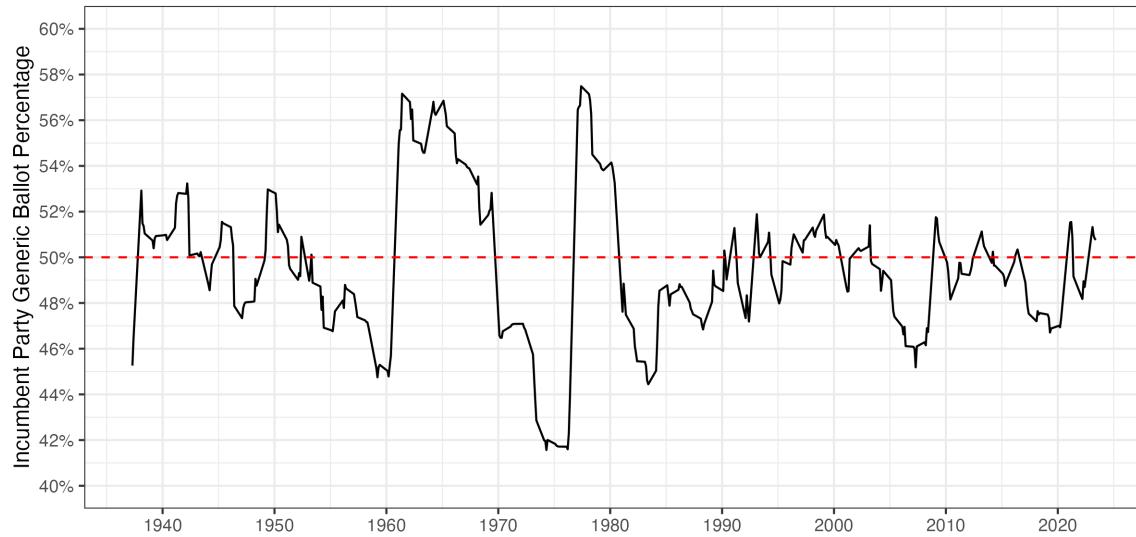
## A.2 Figures of Presidential Approval & Incumbent Party Brands

Figure A1: Presidential Approval & Incumbent Party Congressional Generic Percentage

(a) Quarterly U.S. Presidential Approval, 1937-2023

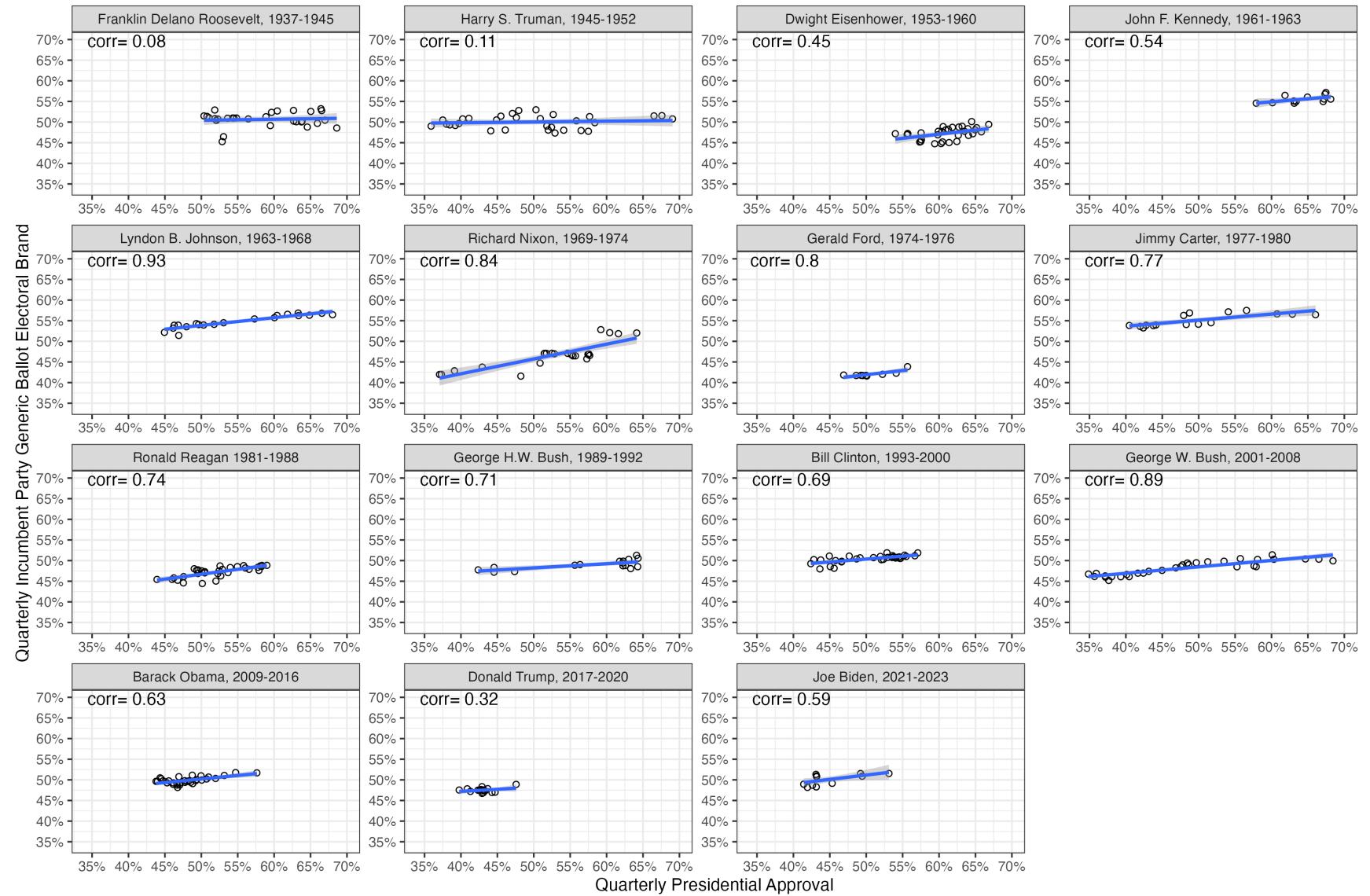


(b) Quarterly Incumbent Party Lead in Congressional Generic Ballot, 1937-2023



$N = 346$  quarterly time-points from 1937 Q3 to 2023 Q4. Both variables created using Stimson's (1998) dyadic ratios model derived from survey marginals. Presidential approval. Presidential approval latent time-series estimated from  $N = 6,361$  survey marginals across 96 unique pollsters. Generic incumbent party lead in congressional generic ballot latent time-series estimated from  $N = 8,162$  survey marginals across 107 unique pollsters.

Figure A2: Correlation of Quarterly Presidential Approval & Incumbent Party Brand By President



### A.2.1 Quarterly Model Results

Table A2: Quarterly OLS Models Predicting Incumbent Party Electoral Brand, 1937-2022

	(1)	(2)	(3)	(4)
Presidential Approval	0.10*** (0.03)	0.13*** (0.03)	0.09** (0.03)	0.15*** (0.02)
Time in Power	-0.02 (0.05)	-0.02 (0.02)	-0.02 (0.05)	-0.02 (0.03)
GDP Growth			0.77 (4.47)	8.49 (12.03)
Unemployment Rate			0.12 (0.13)	-0.09 (0.15)
<i>N</i>	346	346	306	306
R <sup>2</sup>	0.976	0.852	0.979	0.885
Adjusted R <sup>2</sup>	0.967	0.845	0.972	0.878
Fixed-Effects & Clustered Std. Errors	Yearly	Administration	Yearly	Administration

DV: Incumbent party electoral generic ballot brand.

## A.3 Models Predicting Aggregate Election Outcomes

### A.3.1 Descriptive Statistics

Table A3: Annual Descriptive Statistics, 1938-2022

	N	Mean	Min	Max	Median	Std. Dev.
Incumbent Party Two-Party Vote % Won	21	52.03	44.55	61.79	51.24	5.02
Incumbent Party Electoral Votes Won	21	307.57	49.00	525.00	286.00	140.30
Incumbent Party U.S. Senate Seats Won	43	50.28	34.00	71.00	49.00	8.53
Incumbent Party U.S. House Seats Won	43	208.91	143.00	295.00	203.00	36.27
Incumbent Party Party Brand	43	49.40	41.56	56.47	49.14	3.16
Presidential Approval	43	51.12	35.93	65.03	50.99	7.53
Midterm Election Cycle	43	0.51	0.00	1.00	1.00	0.51
Democratic Administration	43	1.53	1.00	2.00	2.00	0.50
Quarterly Incumbent Party Time in Power	43	25.05	7.00	79.00	23.00	17.73
Quarterly GDP Growth	43	6.55	-6.10	28.30	5.90	5.03
Annual Unemployment Rate	43	6.08	1.27	19.12	5.57	2.99

### A.3.2 Presidential Popular Vote Percentage Models

Table A4: OLS Models Predicting Incumbent Party Popular Vote Percentage, 1940-2020

	(1)	(2)	(3)	(4)	(5)
Presidential Approval	0.53*** (0.08)		0.52*** (0.08)	0.49*** (0.09)	0.44** (0.13)
Incumbent Party Brand		0.31 (0.48)	0.19 (0.27)	0.43 (0.33)	0.44 (0.43)
Democratic Administration				-2.19 (1.65)	-2.39 (1.89)
Time in Power				-0.04 (0.04)	-0.05 (0.05)
GDP Growth					0.26 (0.29)
Unemployment Rate					0.00 (0.16)
<i>N</i>	21	21	21	21	21
<i>R</i> <sup>2</sup>	0.640	0.032	0.652	0.715	0.736
Adjusted <i>R</i> <sup>2</sup>	0.622	-0.019	0.614	0.643	0.623

DV: Two-party presidential vote-share won by incumbent party.

HC2 robust standard errors reported in parenthesis.

### A.3.3 Presidential Electoral Votes Models

Table A5: OLS Models Predicting Incumbent Party Electoral Votes, 1940-2020

	(1)	(2)	(3)	(4)	(5)
Presidential Approval	14.03*** (2.25)		14.06*** (2.53)	13.30*** (2.85)	12.44* (4.53)
Incumbent Party Brand		2.11 (12.84)	-1.13 (9.23)	3.21 (12.23)	4.47 (15.51)
Democratic Administration				-41.00 (57.64)	-49.76 (63.97)
Time in Power				-1.10 (1.12)	-1.03 (1.71)
GDP Growth					6.81 (9.80)
Unemployment Rate					4.81 (8.30)
<i>N</i>	21	21	21	21	21
<i>R</i> <sup>2</sup>	0.582	0.002	0.583	0.626	0.655
Adjusted <i>R</i> <sup>2</sup>	0.560	-0.051	0.536	0.532	0.508

DV: Electoral votes won by incumbent party.

HC2 robust standard errors reported in parenthesis.

### A.3.4 U.S. Senate Seats Models

Table A6: OLS Models Predicting Incumbent Party U.S. Senate Seats, 1938-2022

	(1)	(2)	(3)	(4)	(5)
Presidential Approval	0.18		0.03	0.06	0.04
	(0.16)		(0.11)	(0.12)	(0.16)
Incumbent Party Brand		1.87***	1.86***	1.48***	1.57**
		(0.27)	(0.28)	(0.36)	(0.44)
Midterm Election				-0.85	-0.71
				(2.04)	(1.88)
Democratic Administration				3.24	2.27
				(2.58)	(2.68)
Time in Power				-0.08+	-0.05
				(0.04)	(0.05)
GDP Growth				0.24	
				(0.17)	
Unemployment Rate				1.00*	
				(0.44)	
<i>N</i>	43	43	43	43	43
<i>R</i> <sup>2</sup>	0.025	0.480	0.481	0.511	0.610
Adjusted <i>R</i> <sup>2</sup>	0.002	0.467	0.455	0.445	0.532

DV: U.S. Senate seats won by incumbent party.

HC2 robust standard errors reported in parenthesis.

### A.3.5 U.S. House Seats Models

Table A7: OLS Models Predicting Incumbent Party U.S. House Seats, 1938-2022

	(1)	(2)	(3)	(4)	(5)
Presidential Approval	0.64 (0.71)		-0.10 (0.40)	0.07 (0.41)	0.04 (0.49)
Incumbent Party Brand		9.34*** (0.68)	9.39*** (0.67)	8.39*** (1.31)	8.53*** (1.46)
Midterm Election				-12.32+ (6.75)	-12.10+ (6.80)
Democratic Administration				10.07 (11.02)	8.57 (11.77)
Time in Power				-0.02 (0.22)	0.04 (0.23)
GDP Growth					0.37 (0.83)
Unemployment Rate					1.54 (1.65)
<i>N</i>	43	43	43	43	43
<i>R</i> <sup>2</sup>	0.018	0.660	0.661	0.700	0.713
Adjusted <i>R</i> <sup>2</sup>	-0.006	0.652	0.644	0.659	0.655

DV: U.S. House seats won by incumbent party.

HC2 robust standard errors reported in parenthesis.

## A.4 Out-Of Sample Model Predictions of Aggregate Predictive Models

### A.4.1 Presidential Popular Vote Model Out-of-Sample Predictions

Table A8: Out of Sample Predictions for Incumbent Party Popular Vote Percentage, 1940-2020

Election Model	Adjusted $R^2$	Observed Result	Model Prediction	95% Lower Bound CI	95% Upper Bound CI	Residual Error	Absolute Error	Discrete Correct Prediction
1940	0.62	55.00	54.09	52.27	55.92	0.91	0.91	Yes
1944	0.64	53.77	56.95	54.49	59.41	-3.18	3.18	Yes
1948	0.62	52.37	52.56	51.09	54.03	-0.19	0.19	Yes
1952	0.58	44.55	46.20	44.47	47.93	-1.65	1.65	Yes
1956	0.59	57.75	58.41	55.11	61.71	-0.66	0.66	Yes
1960	0.69	49.92	56.08	54.16	57.99	-6.16	6.16	No
1964	0.55	61.35	58.89	55.24	62.54	2.46	2.46	Yes
1968	0.62	49.59	48.88	47.65	50.11	0.71	0.71	Yes
1972	0.64	61.79	55.00	53.11	56.88	6.79	6.79	Yes
1976	0.67	48.95	54.06	52.44	55.68	-5.11	5.11	No
1980	0.59	44.70	47.73	46.50	48.95	-3.03	3.03	Yes
1984	0.67	59.17	52.80	51.36	54.24	6.37	6.37	Yes
1988	0.62	53.90	52.74	51.23	54.26	1.16	1.16	Yes
1992	0.60	46.55	47.72	46.33	49.11	-1.17	1.17	Yes
1996	0.63	54.74	52.00	50.63	53.37	2.74	2.74	Yes
2000	0.64	50.27	53.94	52.27	55.61	-3.67	3.67	Yes
2004	0.62	51.24	50.39	49.19	51.60	0.85	0.85	Yes
2008	0.61	46.31	43.54	41.73	45.35	2.77	2.77	Yes
2012	0.62	51.96	50.48	49.28	51.69	1.48	1.48	Yes
2016	0.62	51.11	52.03	50.66	53.40	-0.92	0.92	Yes
2020	0.61	47.73	48.01	46.66	49.36	-0.28	0.28	Yes

DV: Two-party presidential vote-share won by incumbent party.

19/21 correctly predicted. Predictions from best-fitting Model (4). 95% CI'S estimated from HC2 robust SE'S reported.

#### A.4.2 Presidential Electoral Vote Model Out-of-Sample Predictions

Table A9: Out of Sample Predictions for Incumbent Party Electoral Votes, 1940-2020

Election Model	Adjusted $R^2$	Observed Result	Model Prediction	95% Lower Bound CI	95% Upper Bound CI	Residual Error	Absolute Error	Discrete Correct Prediction
1940	0.56	449.00	358.35	311.01	405.69	90.65	90.65	Yes
1944	0.54	432.00	428.72	361.70	495.74	3.28	3.28	Yes
1948	0.56	304.00	322.19	279.70	364.69	-18.19	18.19	Yes
1952	0.51	89.00	155.82	89.61	222.04	-66.82	66.82	Yes
1956	0.53	457.00	478.14	392.33	563.94	-21.14	21.14	Yes
1960	0.65	220.00	418.25	370.76	465.74	-198.25	198.25	No
1964	0.52	486.00	509.51	408.15	610.88	-23.51	23.51	Yes
1968	0.55	191.00	227.95	180.94	274.97	-36.95	36.95	Yes
1972	0.55	521.00	390.89	338.72	443.06	130.11	130.11	Yes
1976	0.59	241.00	360.64	315.50	405.78	-119.64	119.64	No
1980	0.53	49.00	200.93	158.40	243.46	-151.93	151.93	Yes
1984	0.61	525.00	326.48	287.63	365.34	198.52	198.52	Yes
1988	0.57	426.00	322.89	281.01	364.76	103.11	103.11	Yes
1992	0.54	168.00	191.71	135.87	247.56	-23.71	23.71	Yes
1996	0.57	379.00	306.64	265.61	347.67	72.36	72.36	Yes
2000	0.58	267.00	358.00	312.18	403.82	-91.00	91.00	No
2004	0.56	286.00	263.83	221.97	305.69	22.17	22.17	No
2008	0.56	173.00	75.70	4.83	146.57	97.30	97.30	Yes
2012	0.57	332.00	264.70	223.69	305.72	67.30	67.30	No
2016	0.57	232.00	310.06	269.33	350.79	-78.06	78.06	No
2020	0.56	232.00	196.11	143.35	248.88	35.89	35.89	Yes

DV: Electoral votes won by incumbent party. 15/21 correctly predicted.

Predictions from best-fitting Model (1).

95% confidence intervals estimated from HC2 robust standard errors reported.

### A.4.3 U.S. Senate Model Out-of-Sample Predictions

Table A10: Out of Sample Predictions for Incumbent Party U.S. Senate Seats, 1938-2022

Election Model	Adjusted $R^2$	Observed Result	Model Prediction	95% Lower Bound CI	95% Upper Bound CI	Residual Error	Absolute Error	Discrete Correct Prediction
1938	0.50	71.00	54.62	35.94	73.31	16.38	16.38	Yes
1940	0.49	66.00	61.46	47.52	75.41	4.54	4.54	Yes
1942	0.53	57.00	61.12	49.87	72.36	-4.12	4.12	Yes
1944	0.58	57.00	44.03	38.10	49.96	12.97	12.97	No
1946	0.53	45.00	47.73	42.04	53.42	-2.73	2.73	Yes
1948	0.55	54.00	46.72	41.48	51.97	7.28	7.28	No
1950	0.53	49.00	51.28	45.77	56.79	-2.28	2.28	Yes
1952	0.53	47.00	44.48	38.67	50.28	2.52	2.52	Yes
1954	0.53	47.00	46.60	41.00	52.20	0.40	0.40	Yes
1956	0.53	47.00	47.36	42.70	52.02	-0.36	0.36	Yes
1958	0.55	34.00	46.90	42.85	50.95	-12.90	12.90	Yes
1960	0.51	36.00	42.61	38.26	46.97	-6.61	6.61	Yes
1962	0.49	68.00	61.97	56.46	67.47	6.03	6.03	Yes
1964	0.49	68.00	61.10	54.54	67.67	6.90	6.90	Yes
1966	0.52	64.00	56.10	52.32	59.88	7.90	7.90	Yes
1968	0.53	58.00	53.10	47.72	58.47	4.90	4.90	Yes
1970	0.53	45.00	43.89	39.90	47.88	1.11	1.11	Yes
1972	0.53	43.00	47.01	43.66	50.37	-4.01	4.01	Yes
1974	0.51	38.00	35.78	28.81	42.76	2.22	2.22	Yes
1976	0.51	38.00	41.78	36.22	47.34	-3.78	3.78	Yes
1978	0.53	59.00	65.78	56.58	74.99	-6.78	6.78	Yes
1980	0.62	47.00	63.80	58.23	69.38	-16.80	16.80	No
1982	0.55	54.00	45.89	40.70	51.08	8.11	8.11	No
1984	0.53	53.00	49.57	45.42	53.73	3.43	3.43	No
1986	0.53	45.00	49.09	44.83	53.35	-4.09	4.09	Yes
1988	0.53	45.00	44.87	41.94	47.79	0.13	0.13	Yes
1990	0.53	44.00	49.90	43.99	55.81	-5.90	5.90	Yes
1992	0.53	43.00	47.76	42.36	53.17	-4.76	4.76	Yes
1994	0.54	48.00	53.41	49.07	57.75	-5.41	5.41	No
1996	0.56	45.00	54.35	50.31	58.39	-9.35	9.35	No
1998	0.55	45.00	52.59	49.14	56.04	-7.59	7.59	No
2000	0.53	50.00	51.51	46.85	56.17	-1.51	1.51	Yes
2002	0.53	51.00	50.20	45.70	54.70	0.80	0.80	Yes
2004	0.55	55.00	47.52	42.89	52.15	7.48	7.48	No
2006	0.55	49.00	41.99	36.81	47.17	7.01	7.01	Yes
2008	0.52	41.00	43.95	37.79	50.11	-2.95	2.95	Yes
2010	0.53	53.00	53.47	47.95	58.99	-0.47	0.47	Yes
2012	0.53	55.00	53.56	48.64	58.49	1.44	1.44	Yes
2014	0.54	46.00	51.10	47.80	54.41	-5.10	5.10	No
2016	0.53	48.00	50.96	46.52	55.40	-2.96	2.96	No
2018	0.57	53.00	41.83	36.79	46.88	11.17	11.17	No
2020	0.53	50.00	46.79	41.57	52.00	3.21	3.21	No
2022	0.53	51.00	48.22	42.07	54.37	2.78	2.78	No

DV: U.S. Senate seats won by incumbent party.

29/43 correctly predicted. Predictions from best-fitting Model (5).

95% confidence intervals estimated from HC2 robust standard errors reported.

#### A.4.4 U.S. House Model Out-of-Sample Predictions

Table A11: Out of Sample Predictions for Incumbent Party U.S. House Seats, 1938-2022

Election Model	Adjusted $R^2$	Observed Result	Model Prediction	95% Lower Bound CI	95% Upper Bound CI	Residual Error	Absolute Error	Discrete Correct Prediction
1938	0.67	263.00	224.73	216.55	232.91	38.27	38.27	Yes
1940	0.66	269.00	221.35	213.79	228.91	47.65	47.65	Yes
1942	0.66	223.00	235.95	225.33	246.56	-12.95	12.95	Yes
1944	0.67	245.00	205.72	199.36	212.09	39.28	39.28	No
1946	0.67	189.00	219.06	212.05	226.07	-30.06	30.06	No
1948	0.70	264.00	204.53	198.55	210.51	59.47	59.47	No
1950	0.66	236.00	222.62	214.94	230.31	13.38	13.38	Yes
1952	0.66	214.00	206.87	200.37	213.38	7.13	7.13	Yes
1954	0.66	203.00	199.44	192.33	206.55	3.56	3.56	Yes
1956	0.66	201.00	203.90	197.23	210.56	-2.90	2.90	Yes
1958	0.65	153.00	191.09	182.53	199.66	-38.09	38.09	Yes
1960	0.65	175.00	174.33	161.19	187.46	0.67	0.67	Yes
1962	0.64	258.00	270.05	249.56	290.53	-12.05	12.05	Yes
1964	0.61	295.00	263.79	244.68	282.90	31.21	31.21	Yes
1966	0.65	248.00	248.46	233.97	262.95	-0.46	0.46	Yes
1968	0.65	243.00	231.93	222.12	241.74	11.07	11.07	Yes
1970	0.65	180.00	184.34	174.17	194.51	-4.34	4.34	Yes
1972	0.66	192.00	188.06	178.76	197.36	3.94	3.94	Yes
1974	0.63	144.00	139.38	116.78	161.98	4.62	4.62	Yes
1976	0.63	143.00	151.16	128.80	173.53	-8.16	8.16	Yes
1978	0.63	277.00	263.79	243.07	284.51	13.21	13.21	Yes
1980	0.65	243.00	245.26	232.54	257.97	-2.26	2.26	Yes
1982	0.65	166.00	179.17	167.64	190.71	-13.17	13.17	Yes
1984	0.66	182.00	196.37	188.72	204.02	-14.37	14.37	Yes
1986	0.66	177.00	203.67	197.00	210.34	-26.67	26.67	Yes
1988	0.65	175.00	187.75	178.39	197.10	-12.75	12.75	Yes
1990	0.68	167.00	214.16	208.00	220.32	-47.16	47.16	Yes
1992	0.66	176.00	194.95	187.19	202.72	-18.95	18.95	Yes
1994	0.66	205.00	216.13	209.39	222.88	-11.13	11.13	Yes
1996	0.67	209.00	220.06	212.89	227.22	-11.06	11.06	No
1998	0.66	212.00	221.58	214.12	229.04	-9.58	9.58	No
2000	0.66	214.00	219.16	212.05	226.27	-5.16	5.16	No
2002	0.67	229.00	216.05	209.32	222.78	12.95	12.95	No
2004	0.67	232.00	204.73	198.27	211.19	27.27	27.27	No
2006	0.67	202.00	188.49	179.22	197.77	13.51	13.51	Yes
2008	0.65	178.00	187.86	178.45	197.26	-9.86	9.86	Yes
2010	0.66	193.00	203.81	197.04	210.57	-10.81	10.81	Yes
2012	0.67	201.00	210.79	204.41	217.17	-9.79	9.79	Yes
2014	0.67	188.00	211.42	205.03	217.80	-23.42	23.42	Yes
2016	0.68	194.00	216.10	209.49	222.71	-22.10	22.10	Yes
2018	0.66	199.00	193.00	184.77	201.23	6.00	6.00	Yes
2020	0.67	213.00	191.38	182.96	199.80	21.62	21.62	Yes
2022	0.66	213.00	204.92	198.35	211.48	8.08	8.08	Yes

DV: U.S. House seats won by incumbent party.

35/43 correctly predicted. Predictions from best-fitting Model (2).

95% confidence intervals estimated from HC2 robust standard errors reported.

## References

Stimson, James A. 1998. *Public Opinion in America: Moods, Cycles, and Swings*. Second ed. Boulder, CO: Westview Press.