A Model of the 2024 Presidential Election with Candidate Quality

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Abstract

I introduce a new model for predicting presidential election outcomes, using it to forecast the two-party Democratic vote share and the electoral college results for the 2024 election. The national two-party vote share prediction builds on the economic fundamentals model from Fair (2009), enhanced by incorporating a candidate quality differential measure based on newspaper endorsements from DeLuca (2024), resulting in what I call the Economy-Quality Model. According to this model, Kamala Harris is projected to win the popular vote with 52.5% of the two-party vote share, approximately 1.5-2 points higher than most other forecasts and polling averages. I then calculate each state's deviation from the national vote share (its relative Democratic or Republican lean) based on recent high-quality polling, adding these deviations to the Economy-Quality Model's national prediction to derive state-level predictions and electoral college results. The model forecasts Kamala Harris winning the electoral college with 319 votes.

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1 Introduction: Yeah, Another Forecast

You're probably sick of all the election forecasts at this point. (Actually, if you're reading this you probably love them, weirdo.) So why do we need another? And why would I make a "fundamentals" model instead of something more complex, given all the methodological advances and improvements in data collection?

First, we don't need another forecast, of course. But I wanted to create a presidential election model that uses the difference in candidate quality to help explain the results, and most models don't really do that. Second, the exercise of building a model and seeing how it performs can be quite useful – even if your model is wrong, we can still learn about elections from it. Third, political scientists *should* be (relatively) good at predicting elections, much as economists should be expected to understand, in broad strokes, how different factors impact the economy.[1] To this point, our election models should be designed and used in a way to advance our understanding of elections, and being able to predict election outcomes from them is one way to evaluate the explanatory power of the model's components. This is not to say we should be able to perfectly predict every election with no uncertainty – just as you would not expect a macroeconomist to be able to exactly predict GDP growth over the next year – but we should be pretty good (even though the predicted outcome is usually what the public and the media are most interested in).

Why a fundamentals model? I am somewhat skeptical of the value of more complex models, at least relative to simple fundamentals models. In particular, most polling-based or more complex models have error rates that are similar (or larger) than well-performing fundamentals models like Abramowitz (1988) or Fair (1978), so it's not clear that the complexity adds much in terms of predictive power. Poll-based model predictions are based on people's self-reported indications of who they are going to vote for, which is of course a good predictor of who they actually vote for, but is less useful for testing political science theories about what voters care about and what ultimately determines election outcomes. Additionally, the accuracy of poll-based forecasts relies heavily on modeling turnout decisions correctly (in order to weight surveys appropriately), which is difficult to do especially while trying to simultaneously estimate partisan vote choice.[2] Fundamental

[1] I am stealing this idea from a joke that Professor Matt Blackwell made about election forecasts being like macroeconomics on Twitter, which honestly has some truth to it.

[2] Professor Josh Clinton has a great blog post about this, showing that poll results can vary by 8 points based on simple and defensible choices about how to weight surveys.

models don't require us to solve how to predict voter turnout before an election. Lastly, we won't ever really have the data necessary to say which of the complex models are "right" and which are "wrong" (Grimmer et al., 2024), which makes it hard to learn from presidential election models in general, but especially as the complexity of the model increases. In this case, I want to know whether incorporating differences in candidate quality into an economics-based fundamentals model can significantly improve its predictive power.

In this paper, I construct a simple presidential election model, based on the Fair Model (Fair, 2009), augmented with the candidate quality differential measure from my own work (DeLuca, 2024). The "quality differential" variable I use in the model is the estimated likelihood that presidential candidates will earn the endorsements of local newspapers across the country, while taking into account the partisan bias of those newspapers. This measures the *relative* quality differential between the two presidential candidates, with higher-quality candidates more likely to be endorsed by local newspapers conditional on the endorsing newspaper's bias. I first replicate and predict the original Fair Model, and then use the Fair Model prediction along with candidate quality differentials to predict election outcomes. I call this new model the "Economy-Quality Model" (for now – if it works really well then you should of course call it the DeLuca Model or maybe the Fair-DeLuca Model), and show that the addition of candidate quality differentials improves the fit of the model significantly. On average, the model is about 1.1 percentage point off on it's national Democratic two-party vote share predictions,[3] and it predicts both 2016 and 2020 two-party Democratic vote shares nearly perfectly.

While not the main purpose of the model, I also derive a method to predict the electoral college based on the national vote shares prediction. To create state-level vote shares predictions (for the electoral college), I calculate the relative partisanship each state (expected Democratic two-party vote share relative to the national Democratic two-party vote share) according to recent high-quality polling, and add these to the national vote shares prediction from the Economy-Quality Model.

The results show a sizable lead expected for Harris: the Economy-Quality model predicts she'll win 52.5 percent of the vote share, implying a D+5 national lead over Trump. This is a very favorable prediction for Harris, relative to a large majority of other prediction models and polling (Graefe, 2024). Paired with the relative partisanship of states according to polls, the model predicts

[3]Throughout the paper, when I say "vote shares" I usually mean "Democratic two-party vote shares."

Harris will win all seven swing states, with safe leads in Michigan (D+3.5), Nevada (D+3.1), Pennsylvania (D+3.0), and Wisconsin (D+3.8), and very narrow wins in Arizona (by D+0.4) and Georgia (D+0.9). Assuming all other states go as expected, then Harris would win the electoral college with 319 votes.

2 The Economy-Quality Model

Candidate quality is difficult to incorporate into election forecasting models in part because candidate quality is hard to measure. When measures of candidate quality are included in electoral models, they are usually things that proxy for quality – like incumbency status, or previous experience. These factors are related to candidate quality, but they are coarse measures that do not pick up on harder-to-measure traits, such as candidate competency or other abilities. Specifically, for presidential elections, most candidates for president have at least some relevant political experience, which makes it hard to assess who is higher quality in presidential races using such indicators. Some models do include things like presidential approval ratings, which are likely correlated with candidate quality,[4] but do not take into account incumbents' *challenger's* quality. At least some of the unexplained variation in fundamentals models could be due to the exclusion of differences in candidate quality from the model.

The model I develop here simply augments the Fair Model (Fair, 1978, 2009) predictions with the newspaper endorsement-based relative quality differentials measure from DeLuca (2024). On his blog with his predictions for 2024, Ray Fair points out that in both 2016 and 2020, there was a negative residual for Trump, meaning that the economic conditions in the Fair model *over*-estimated how well Trump would do. Specifically, the model overestimated Trump by 5.4 points in 2016 and by 3.4 points in 2020. He notes that "[i]t could be, of course, that the errors can be attributed to above average positive characteristics of H. Clinton and Biden in the two elections."[5]

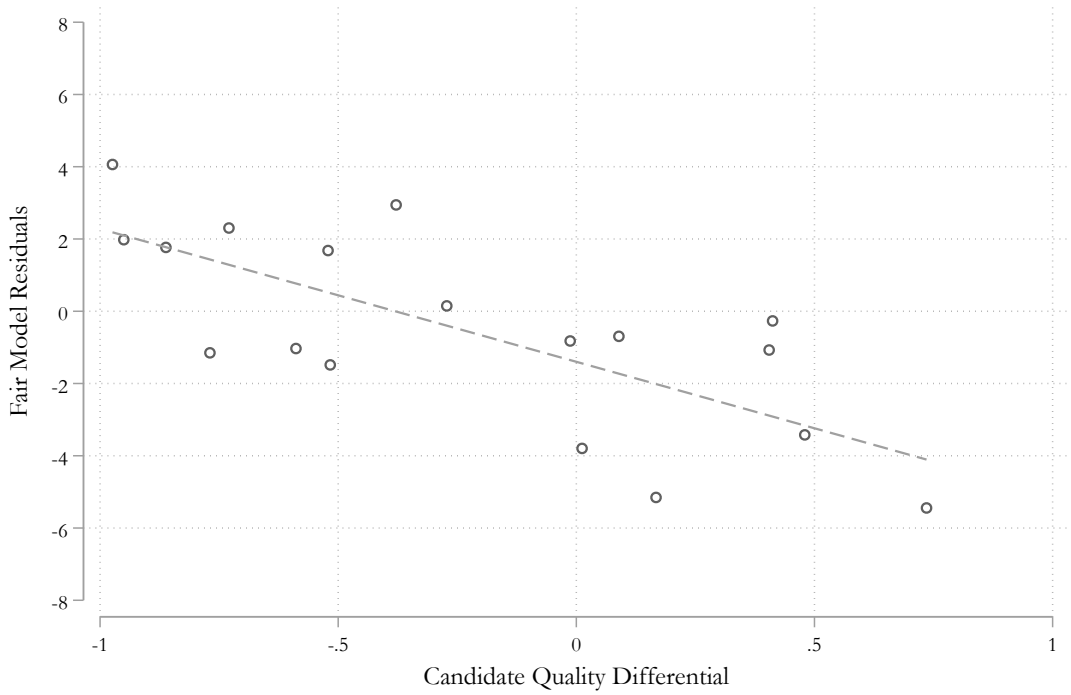
The measure of relative candidate quality from DeLuca (2024) is positive when the Democrat is higher-quality, negative when the Republican is higher-quality, and 0 when both candidate are of equal quality (standardize to have unit variance). The endorsement-based quality differential

[4]See DeLuca (2024), for example, which shows that governors and senators who are measured as being relatively higher-quality during their election also have higher net approval ratings when in office.

[5]See: https://fairmodel.econ.yale.edu/vote2020/indeane2.htm

variable in 2016 showed a Clinton quality advantage of about 0.74, when the residual on the Fair Model was -5.4 (underestimated the Democratic vote share by 5.4 points). In 2020, when the residual on the Fair Model was a smaller 3.4 point underestimation of the Democratic vote share, the differential indicated a smaller 0.48 quality advantage for Biden. Looking across all election since 1952 (the first year where the endorsement-based quality differential is available for Presidential candidates), the quality differential is correlated with Fair Model residuals. The residuals and quality differentials are plotted in Figure 1. This patterns suggests the Fair Model predictions could be improved by incorporating the quality differentials into the model.

Figure 1: Fair Model Residuals and Candidate Quality



The full specification for the Fair Model is:

$$V^p = \alpha + (G * I) + (P * I) + (Z * I) + DPER + DUR + I + WAR$$

where V^p is the Democratic share of the two-party presidential vote; G is the growth rate of real per capita GDP in the first three quarters of the on-term election year; P is the absolute value of the growth rate of the GDP deflator in the first 15 quarters of the administration (annualized), except

for in years 1920, 1944, and 1948, where the values are 0; Z is the number of quarters in the first 15 quarters of the administration in which the growth rate of real per capita GDP is greater than 3.2 percent (annualized), except for in years 1920, 1944, and 1948, where the values are 0; I is equal to 1 if there is a Democratic presidential incumbent at the time of the election and -1 if there is a Republican presidential incumbent; $DPER$ is equal to 1 if a Democratic presidential incumbent is running again, -1 if a Republican presidential incumbent is running again, and 0 otherwise; DUR is 0 if either party has been in the White House for one term, 1 [-1] if the Democratic [Republican] party has been in for two consecutive terms, 1.25 [-1.25] if the Democratic [Republican] party has been in for three consecutive terms, and so on; and WAR is equal to 1 for the elections of 1918, 1920, 1942, 1944, 1946, and 1948 (definitions take from Fair (2022) - see for more details).[6] I replicate the results of the Fair Model (Fair, 2022) for the 2024 election in column 1 of Table 1 below.

Unfortunately, because the endorsement-based quality measure is only available for 1952 onward it is not so straightforward to include it as an explanatory variable in the Fair Model. The key problem is that running the Fair Model on only 1952 data onward changes the estimated coefficients for the effects of the economic variables significantly. Specifically, the coefficient on $G * I$ increases from 0.71 to 0.99, the coefficient on $P * I$ decreases from -0.61 to -0.75, and the coefficient on $Z * I$ decreases from 0.87 to 0.56, and is no longer statistically significant (additionally, due to these changes, the predicted value for the 2024 Democratic vote shares also changes dramatically, from 49.3 according to the original model to 54.3).

Rather than running a new version of the Fair Model using only 1952 and onward data along with candidate quality, I take an alternative approach: I first replicate the Fair Model, and then estimate an augmented prediction model on elections between 1952-2020, which is:

$$V^p = \alpha + \hat{V^p}_{Fair} + \beta\delta_q$$

where $\hat{V^p}_{Fair}$ is the original prediction from the Fair Model using 1916-2020 elections, and δ_q is the endorsement-based quality differential. In this model, β is the effect of the difference in candidate quality on two-party vote shares, and it assumes that this effect is independent of the effects of the economy. This model, which I call the Economy-Quality Model, essentially just tries to improve

[6] Some of these years are non-presidential years, because Fair (2009) also uses a variation of this model to predict U.S. House two-party vote shares in presidential and mid-term years.

the economy-based prediction from Fair using the endorsement-based quality measure from DeLuca (2024). The results of both models are presented in Table 1.

Table 1: Fair Model Specifications

VARIABLES	(1) Original Fair Model	(2) Economy-Quality
G*I	0.71***	
	(0.13)	
P*I	-0.61*	
	(0.32)	
Z*I	0.87***	
	(0.26)	
I	-0.85	
	(2.27)	
DPER	2.11	
	(1.58)	
DUR	-3.45**	
	(1.39)	
WAR	3.90	
	(2.77)	
Fair Model Pred		0.81***
		(0.10)
Quality Differential		4.41***
		(0.87)
Observations	27	18
Adjusted R-squared	0.79	0.90
Sample	1916-2020	1952-2020
MAE	2.11	1.14
RMSE	2.53	1.59
2024 Prediction	49.3	52.5

Notes: See text for Fair Model variable definitions. Column 1 uses all presidential elections from 1916-2020, and replicates the model in Fair (2022). Column 2 uses only presidential elections from 1952-2020, where the quality differential variable from DeLuca (2024) is available). The "Fair Model Pred" variable is the predicted value of the original Fair Model (model in column 1). The "Quality Differential" variable is the newspaper endorsement-based quality differential measure from DeLuca (2024), with negative quality differentials indicating that the Republican is higher quality while positive values indicating that the Democrat is higher quality, and unit variance. MAE is the Mean Absolute Error, and RMSE is the Root Mean Squared Error. $^{*} = p < 0.10$, $^{**} = p < 0.05$, $^{***} = p < 0.01$.

The Fair Model predicted value is unsurprisingly very predictive of the actual values in the specification in column 2. The effect of candidate quality β, is estimated to be about 4.4 – meaning that a one standard deviation increase in relative quality increases a candidates' vote shares by 4.4 percentage points. This estimate is very close to the estimate found in DeLuca (2024), run on a large sample of congressional, statewide, and state legislative races, which finds a candidate quality effect size of about 3.4 percentage points.

At the bottom of Table 1, I report the adjusted R-Squared, the mean absolute error (MAE), the root mean squared error (RMSE), and the model's prediction for 2024. The adjusted R-Squared of the Economy-Quality Model is 0.90 compared to 0.79 for the Fair Model, suggesting an improved fit that is high in absolute terms (for reference, the adjusted R-Squared of Abramowitz's "Time for a Change" Model (Abramowitz, 2024) is 0.86). The MAE for the Economy-Quality Model is only 1.14 – meaning that, on average, the model is only off by 1.14 percentage points (in terms of two-party vote shares, which is about 2.3 average error in terms of margins). This is a nearly 50% reduction in the MAE of the original Fair Model. The RMSE of the Economy-Quality Model is also lower than the RMSE of the Fair Model. While the Fair Model predicts a tiny Trump advantage in the two-party vote share, the Economy-Quality Model predicts a Harris advantage (as expected by the quality differential used to predict 2024, as explained in the next section).

2.1 Candidate Quality in 2024

In general, using the endorsement-based quality measure would not be a great far-in-advance predictive tool since newspaper endorsements tend to happen very close to the election – almost always in October or November, and many the weekend or two before the election. In fact, one reason endorsements may reflect quality differentials (and their effects on the election) so well is that they are published so close to election day, after campaigns have helped to illuminate candidate quality and before any ex-post assessments of quality are made.

In order to predict the 2024 presidential election with the Economy-Quality Model, I used an expert-informed estimate for the endorsement-based quality differential in this election cycle (translation: I, myself, guessed a value). In this case, I pick a quality differential value of 0.4 – which is a significant advantage for Harris. There is an argument to be made that it should be larger – after all, Trump in 2020 did not have the baggage of the January 6th insurrection, criminal charges

and indictments, was four years younger, etc., which all make him a potentially worse candidate now than he was in 2020 (the quality differential value in 2020 was a 0.48 advantage for Biden). Harris has less experience than Biden did in 2020, though it is quite similar (both were senators and then vice presidents). I still think a differential of 0.4 is a reasonable guess; in part, because I am worried that the things many political scientists and newspaper editors would consider "low-quality" traits – such as having authoritarian tendencies and not respecting the rule of law – may not necessarily make Trump "low-quality" in the eyes of every voter. In other words, some voters may prefer an authoritarian leader. I take a conservative approach and estimate the quality difference to be 0.4, which I personally think may understate the quality differences between the candidates.

Of course, the model's accuracy will rely on the accuracy of my guess of the quality differential. Since I'm mostly doing this model as an exercise for my Election Fundamentals and Forecasting class, I think it is acceptable. Given that I've seen a lot of quality differentials, I think I'm relatively good at guessing. Also, I can't really imagine the pattern of newspaper endorsements changing too much from 2024: I expect most papers who endorsed Trump in 2020 to endorse him again, and for those who didn't endorse Trump in 2020 to endorse Harris in 2024. Preliminary data I've collected on 2024 endorsements suggest such a pattern,[7] which implies that a differential of 0.4 would be close to what is eventually estimated with the full dataset. After I collect data for 2024, I can assess the accuracy of my guess, and whether the prediction would be more accurate with a more accurate prediction of the quality differential.

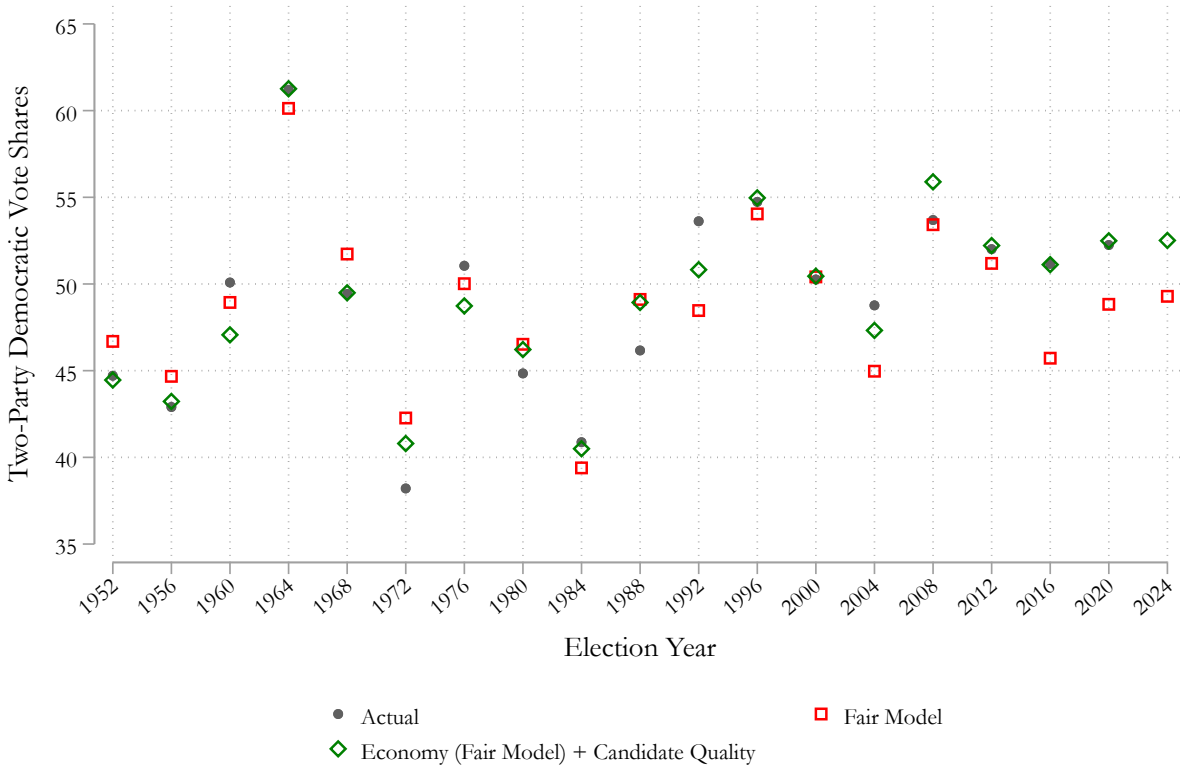
2.2 Prediction: National Two-Party Vote Shares

I use the Economy-Quality Model from column 2 of Table 1 to predict the 2024 national Democratic two-party vote shares, assuming the quality differential in 2024 is a 0.4 in favor of Harris. I plot the actual and model-predicted values (both from the original Fair Model and the Economy-Quality Model) in Figure 2 below. The figure demonstrates that in most cases, the Economy-Quality Model produces a closer predicted value than the Fair Model, and nearly perfectly predicts both the 2016 and 2020 election results, whereas the Fair Model had large, negative residuals.

The 2024 prediction of the Economy-Quality Model indicates that Harris will get 52.5 percent

[7]For example, the *New York Post* recently endorsed Donald Trump again, and the *Los Angeles Times* and *Washington Post* both were *going to* endorse Harris (not-Trump endorsements, again), even though their owners did not let them publish the endorsements.

Figure 2: Model Predictions and Actual Results



of the Democratic two-party vote share, which translates to a national margin on D+5. This is notably higher than the average of popular election forecasts, polling aggregators, and models by political scientists, as noted in Table 2 below. However, the estimate is not so far off as to suggest it is not in the possible realm of recent polling errors (which also affect model predictions).

Table 2: Vote Share Predictions for 2024, Across Models

Model	Two-Way Vote Share Prediction	Two-Way Margin
Economy-Quality Model	**52.5**	D+5.0
Fair Model	49.3	R+1.4
Models Average	51.0	D+2.0
Polling Average	50.6	D+1.2
Pollyvote Average	50.8	D+1.6

Notes: The Economy-Quality Model vote share prediction assumes Kamala Harris has a quality differential value of 0.4. Models Average is the mean vote share prediction from the following models: *JHK Forecasts*, *FiveThirtyEight*, *Split Ticket*, and *Race to the White House* on the morning of October 29th, 2024. Polling Average is the mean of the poll aggregator values for national vote shares (converted to two-party vote shares) from *FiveThirtyEight*, *Split Ticket*, *Race to the White House*, *Silver Bulletin*, *JHK Forecasts*, *Economist*, and *New York Times* on the morning of October 29th, 2024. Pollyvote Average is the two-party popular vote share average from Graefe (2024).

2.3 Prediction: Electoral College

To turn the national vote shares prediction into an electoral college prediction, I attempt a new method. I use recent high-quality polls to calculate the "relative partisanship" of each swing state[8] based on the average deviation of the state's polled Democratic vote share from the national polling average. So, for example, Arizona's polling average of two-party Democratic vote shares is 48.4, which is 2.3 points less Democratic than the national vote share polling average for Harris of 50.7, which means the relative partisanship of Arizona is -2.3. I then add this relative partisanship measure to the predicted national vote shares from the Economy-Quality Model to estimate the outcome in each swing state and the electoral college outcome. Each state's relative partisanship is displayed below in Table 3.

[8]For this exercise, and for the electoral college prediction, I classify the swing states as: Arizona, Georgia, Michigan,

Table 3: Swing State Relative Partisanship

State	Average Dem Share	Relative Partisanship	N Polls
National	50.7	0	51
Arizona	48.4	-2.3	19
Georgia	48.7	-2.0	17
Michigan	49.9	-0.8	24
Nevada	49.8	-0.9	13
North Carolina	49.4	-1.3	23
Pennsylvania	49.7	-1.0	27
Wisconsin	50.1	-0.6	23

Notes: Poll data comes from *FiveThirtyEight*, downloaded the evening of October 29th, 2024. Includes only polls since September, with a quality numeric score of 2 or higher, reporting likely voter samples. Relative Partisanship is how much more Democratic leaning the swing state is relative to the national average. N Polls is the number of polls from each state included in the calculations.

The benefit of this method is that rather than relying on polling averages *per se*, I am only relying on the *relative* Democratic lean of each state to be accurate. That means that if there is a systematic issue with polls where they all under- or over-estimate Trump, this systematic bias will not be reflected in the relative lean of each state. Of course, this model won't be accurate if polling errors differ across states, as is common. In particular, in 2022 there were relatively large polling errors that differed significantly between states – though they tended to underestimate Democrats in swing states, like the ones I look at here, while overestimating Democrats in safer states like Florida, New York, and Iowa.[9]

I use this technique to construct estimates of the two-party vote in each state, and the results are displayed in Figure 3 (in terms of vote shares) and Figure 4 (in terms of Democratic margins). The prediction is that Harris will win all seven of these swing states, which would put her at 319 electoral college votes.

In Arizona, where the predicted Democratic margin is smallest, she would only win by 0.4 percentage points. In Georgia, only by 0.9 percentage points. However, in North Carolina she is predicted to win by 2.4 percentage points, and in Michigan, Nevada, Pennsylvania, and Wisconsin she is expected to win by 3 or more points. Given the model's average error of about 1.14 points,

Nevada, North Carolina, Pennsylvania, and Wisconsin, and assume that all other states will vote as expected based on historical patterns.

[9]See: https://split-ticket.org/2024/10/29/are-gop-leaning-pollsters-biasing-the-averages/

which is an about 2.3 point error in terms of margins, I would be more confident in saying the model predicts she'll win in Michigan, Nevada, Pennsylvania, and Wisconsin; that she'd win in North Carolina more likely than not but only barely (as long as the model's performance is at least as good as average); while Arizona and Georgia are much more uncertain and could easily go the other way even if the model performs better than average this cycle. If Harris were to lose Arizona and Georgia, however, she would still be at 292 electoral college votes, and even losing North Carolina she'd be at 276 votes, and would still be elected president in these cases.

3 Final Thoughts

There are a number of ways my forecast could be wrong this year. First, of course, my estimate of quality differentials in 2024 could be wrong. Harris might not have as much of a quality advantage as I assume – the polls, taken at face value, would imply a quality advantage of about 0 (i.e.,no quality difference).[10] Second, the Economy-Quality Model is obviously not perfect and makes errors, so a larger than average error could lead the model to predict the wrong winner (in 1972, for example, the model over-estimated Democratic vote shares by 2.5 points).

The relative partisanship calculations are also an approximation, and depend heavily on polling being equally accurate across states, which is almost certainly not the case (but if you could know how the errors were going to differ in advance, you (and pollsters) could fix it in advance). Future work on fundamentals models should develop better ways to translate national vote shares into electoral college predictions, which requires state-level predictions.[11] Notably, the relative partisanship calculations in this model for 2024 imply a electoral college bias that is about half than the electoral college bias was in 2020. If polls and current forecasts are correct, and/or if Harris loses, it could be that Democrats in 2024 underperformed fundamentals predictions the fundamentals (Abramowitz (2024) also predicts a Harris victory, though with only 51.5 percent of the vote).

[10] Plugging in a polling average of 50.6 as the V^P value into the Economy-Quality Model and calculating δ_q.

[11] Using electoral college votes as an outcome, as done in Abramowitz (2024), may get you in the right ball park but doesn't really make sense theoretically since it depends on the electoral college bias.

Figure 3: Swing State Two-Party Vote Share Predictions

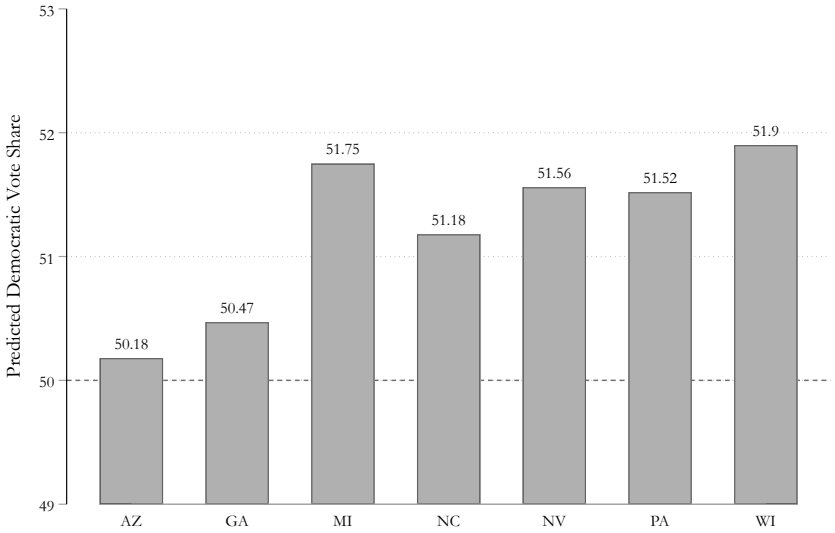
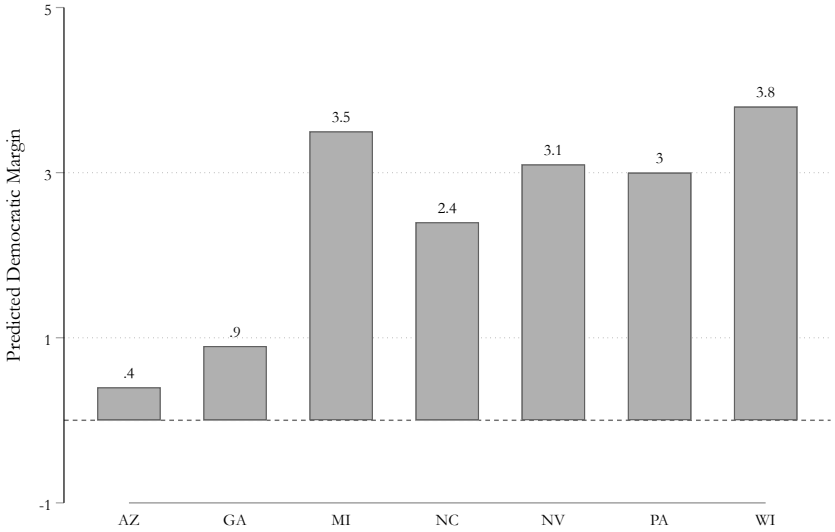


Figure 4: Swing State Democratic Margin Predictions



If the Economy-Quality Model does end up being correct, then it implies the polls are systematically underestimating Democratic support this cycle. Of course we can't predict which way the errors will go with certainty, but in Table 4 I compare the predictions of the original Fair Model with the polling averages in 2016, 2020, and 2024.[12] In 2016 and 2020, the Fair Model underestimated support for Democrats (overestimated support for Trump), and is predicted to do so again in 2024. Polls overestimated Democrats in 2016 and 2020, and some believe they might again in 2024. What is notable about Table 4 is that the polling average in 2024 is much closer to the Fair Model prediction in 2024 – polls are only 1.3 points higher than the Fair Model, compared to 6.1 points higher in 2016 and 5.4 points higher in 2020. This could be evidence that polls are not overestimating Democrats this year, and that in fact the polls are underestimating Democrats now compared to the prediction of 52.5. If Harris does end up winning 52.5 percent of the national vote share, then polls would have underestimated Democrats by about 1.9 percentage points (3.8 in terms of Democratic margins) at the national level.

Table 4: Comparing Fair Model Predictions and Polling Averages

Year	Fair Model	Polling	Difference
2016	45.7	51.8	+6.1
2020	48.8	54.2	+5.4
2024	49.3	50.6	+1.3

Notes: Difference is equal to Polling minus Fair Model.

The Economy-Quality Model offers a new, accurate framework for explaining presidential election results by integrating both economic conditions—long recognized as a key influence on voting behavior—and candidate quality, a factor often overlooked in fundamentals-based models. This model achieves lower average and maximum forecast errors than polling averages across comparable election cycles, proving to be more accurate, on average, than polls and poll-based forecasts. More broadly, the findings suggest that candidate quality has a substantial impact on electoral success, indicating that political parties that fail to nominate high-quality candidates are likely to face penalties from voters at the ballot box.

[12]Source: https://aapor.org/wp-content/uploads/2022/11/AAPOR-Task-Force-on-2020-Pre-Election-Polling_Report-FNL.pdf

Replication Files

Replication files at: https://github.com/KevinMDeLuca/economy_quality_presmodel/tree/main

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