

University of Miami Law Review

Volume 75

Number 2 *SYMPOSIUM: What Swings the Vote?
The Influence of the U.S. Legal System and the
Media on Presidential Elections*

Article 5

2-19-2021

Using Election Forecasts to Understand the Potential Influence of Campaigns, Media, and the Law in U.S. Presidential Elections

Peter K. Enns

Cornell Center for Social Sciences

Julius Lagodny

Cornell University Department of Government

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Peter K. Enns and Julius Lagodny, *Using Election Forecasts to Understand the Potential Influence of Campaigns, Media, and the Law in U.S. Presidential Elections*, 75 U. Miami L. Rev. 509 ()

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Using Election Forecasts to Understand the Potential Influence of Campaigns, Media, and the Law in U.S. Presidential Elections

PETER K. ENNS* & JULIUS LAGODNY**

How do campaigns, media, and voting laws influence the outcome of U.S. Presidential elections? Political scientists often argue that these factors influence outcomes much less than commonly thought. To illustrate this argument, we show that we can predict the presidential vote in each state with a high degree of accuracy. Specifically, between 2004 and 2016, we correctly predict 94% of all state presidential vote outcomes. Our predictions are based on a forecasting model of the Electoral College, based primarily on each state's approval rating of the incumbent president (using almost 90,000 survey responses from June and July of election years), current economic conditions in each state, and state votes in the previous election. We use these forecasts to help establish the upper bounds of campaign and media effects. We argue that identifying the limits of these effects is a critical step when trying to estimate their impact. We also show how our forecasts can be used to test the aggregate effects of election-related laws, such as Florida's Amendment 4—which enfranchised hundreds of thousands of Floridians who previously could not vote due to felony convictions—

* Peter K. Enns is professor of Government at Cornell University, co-director of the Cornell Center for Social Sciences, and executive director of the Roper Center for Public Opinion Research. Professor Enns may be reached via email at peterenns@cornell.edu.

** Julius Lagodny is a Ph.D. candidate in the Department of Government at Cornell University. Mr. Lagodny may be reached via email at jsl364@cornell.edu.

and voter ID laws, whose effects are notoriously difficult to study. We have made our data publicly available to facilitate further research on these topics.

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INTRODUCTION

U.S. presidential campaigns spend billions of dollars, run thousands of television advertisements, and develop highly sophisticated social media and micro-targeting campaigns.¹ Seeking any possible

¹ See Christopher Ingraham, *Somebody Just Put a Price Tag on the 2016 Election. It's a Doozy.*, WASH. POST (Apr. 14, 2017, 12:19 PM), <https://www.washingtonpost.com/news/wonk/wp/2017/04/14/somebody-just-put-a-price-tag-on-the-2016-election-its-a-doozy/> (discussing “staggering” election costs); Aaron Bycoffe, *Tracking Every Presidential Candidate's TV Ad Buys*, FIVETHIRTYEIGHT (Apr. 8, 2020, 10:39 AM), <https://projects.fivethirtyeight.com/2020-campaign-ads/> (discussing TV advertisements); Dawn C. Nunziato, *The Marketplace of Ideas Online*, 94 NOTRE DAME L. REV. 1519, 1521-22 (2019) (discussing social media in elections); DIANA OWEN, *New Media and Political Campaigns*, in THE OXFORD HANDBOOK OF POLITICAL COMMUNICATION 823, 823-26 (Kate Kenski & Kathleen Hall Jamieson eds., 2017) (discussing social media and micro-targeting in elections); Michael Beckel, *Team Clinton Sponsored 75 Percent of TV Ads in 2016 Presidential Race*, CTR. FOR PUB. INTEGRITY (Nov. 16, 2016, 5:35 pm ET), <https://publicintegrity.org/politics/team-clinton-sponsored-75-percent-of-tv-ads-in-2016-presidential-race/> (highlighting that, of 500,000 TV

competitive edge, these campaigns carefully navigate and respond to shifting campaign finance and election laws and to the rapidly changing media and information environment.² As Holly Ann Garnett and Toby S. James conclude, “Elections are entering a new digital era in which there are new opportunities and threats for the conduct and contestation of elections.”³ With good reason, “What Swings the Vote: The Influence of the U.S. Legal System and the Media on Presidential Elections” was the focus of the *University of Miami Law Review*’s 2020 Symposium.⁴

To better understand the potential influence of campaigns, media, and the legal system, we focus on understanding the *limits* of these effects. Although pundits and media often portray each aspect of the campaign—the conventions, debates, speeches, and even speaking gaffes—as having massive potential influence on voters and the election outcome, we build on political science research that shows presidential campaigns typically produce limited effects on election outcomes.⁵ The influence of the media and political campaigns is smaller than one would expect despite the vast amounts of time, money, and strategy involved.⁶

advertisements that aired in the 2016 presidential election, “Team Hilary Clinton accounted for 75 percent of them”).

² See Janna Anderson & Lee Raine, *Theme 4: The Information Environment Will Improve, Because People Will Adjust and Make Things Better*, PEW RSCH. CTR. (Oct. 19, 2017), <https://www.pewresearch.org/internet/2017/10/19/theme-4-the-information-environment-will-improve-because-people-will-adjust-and-make-things-better/>; see, e.g., *McCutcheon v. Fed. Election Comm’n*, 572 U.S. 185, 191–93 (2014); *Shelby Cnty. v. Holder*, 570 U.S. 529, 534–36, 556–57 (2013); *Citizens United v. Fed. Election Comm’n*, 558 U.S. 310, 317–22, 371–72 (2010); *Buckley v. Valeo*, 424 U.S. 1, 6–9 (1976); *N.C State Conf. of the NAACP v. McCrory*, 831 F.3d 204, 214–15 (4th Cir. 2016).

³ Holly Ann Garnett & Toby S. James, *Cyber Elections in the Digital Age: Threats and Opportunities of Technology for Electoral Integrity*, 19 *ELECTION L. J.* 111, 123 (2020).

⁴ 2020 Symposium, *UNIV. MIA. L. REV.*, <https://lawreview.law.miami.edu/2020-symposium/> (last visited Jan. 24, 2021).

⁵ See JAMES A. STIMSON, *TIDES OF CONSENT* 94 (2004); Andrew Gelman & Gary King, *Why Are American Presidential Election Campaign Polls So Variable When Votes Are So Predictable?*, 23 *BRIT. J. POL. SCI.* 409, 409 (1993); ROBERT S. ERIKSON & CHRISTOPHER WLEZIEN, *THE TIMELINE OF PRESIDENTIAL CAMPAIGNS* 5 (2012).

⁶ See STIMSON, *supra* note 5, at 93–94.

This analysis proceeds in three steps. Part I offers an overview of the political science literature on presidential campaign effects. This literature, which shows that campaign effects are often much more muted than typically thought,⁷ offers an important foundation for understanding the potential influence, or lack thereof, of presidential campaigns. With this background, Part II presents a model we developed to forecast how *each state* votes in U.S. presidential elections.⁸ This model, which is based primarily on economic conditions and presidential approval ratings in each state in June and July of election years, consistently predicts the national popular vote—and Electoral College outcomes—with a high degree of accuracy.⁹ The ability to predict *state level* outcomes sheds important light on the potential influence of campaigns. After all, if we can predict the outcome with a high degree of accuracy, the opportunity to influence votes must be limited. Part III discusses the implications of these findings for studying campaign effects and opportunities for future research. In particular, we show how the data we use in our analysis, which we have made publicly available, can be extended to evaluate the effects of various legal constraints on elections, such as felon disenfranchisement and voter registration laws.¹⁰

I. EXISTING EVIDENCE OF LIMITED PRESIDENTIAL CAMPAIGN EFFECTS

Political scientists have long noted that a few fundamental variables, such as economic conditions and presidential approval ratings, predict the final vote share of U.S. presidential elections with

⁷ See *id.* at 94.

⁸ See Peter K. Enns & Julius Lagodny, *Forecasting the 2020 Electoral College Winner: The State Presidential Approval/State Economy Model*, 54 PS: POL. SCI. & POL. 81, 81–85 (2021) [hereinafter Enns & Lagodny, *Forecasting the 2020 Electoral College Winner*].

⁹ *Id.*

¹⁰ Peter Enns & Julius Lagodny, *Replication Data for: Forecasting the 2020 Electoral College Winner: The State Presidential Approval/State Economy Model*, HARV. DATAVERSE (Aug. 27, 2020) [hereinafter Enns & Lagodny, *Replication Data*], <https://doi.org/10.7910/DVN/ADMBN9>.

a high degree of accuracy well in advance of the election.¹¹ If the final vote is predictable months in advance,¹² it seems unlikely that the campaign has substantial influence. To see why, consider someone who takes a practice test months before the actual exam. Then, following the practice test, this person studies every day until the actual exam. If we wanted to understand the effect of studying, we would look at the difference in scores between the practice test and the actual test. If the person did much better on the actual test than the practice test, we would have evidence consistent with the hypothesis that studying had a large positive impact on the exam. By contrast, if the scores were identical, we would have evidence that studying was not effective; it did not change the outcome. If the practice exam perfectly predicts the actual exam score (because they are the same), by definition, what came between the practice exam and actual exam did not change the result.¹³ The same intuition applies to election forecasts.¹⁴ It is hard to imagine that a campaign influenced many voters if knowing the fundamental variables months in advance can predict what percentage of the vote the Democratic and Republican candidates will receive on Election Day.

Theoretically, it is possible that the campaign gets an equal number of Democratic voters and Republican voters to switch their positions, implying large but completely offsetting effects of campaigning. In such a situation, we would still correctly predict the outcome, but we would not grasp the underlying vote switching. However, we know from panel data where the same respondents are interviewed in different elections that this type of vote switching

¹¹ See Enns & Lagodny, *Forecasting the 2020 Electoral College Winner*, *supra* note 8, at 1; STEVEN J. ROSENSTONE, *FORECASTING PRESIDENTIAL ELECTIONS* 54–55 (1983); Michael S. Lewis-Beck, *Election Forecasts in 1984: How Accurate Were They?*, 18 *PS: POL. SCI. & POL.* 53, 56–57 (1985).

¹² Gelman & King, *supra* note 5, at 409.

¹³ Of course, someone could argue that the person might have forgotten information and, therefore, would have performed *worse* had they not studied every day between the practice and actual exam. But we are comfortable asserting that the exertion of extreme effort, whether studying every day for a final or spending vast amounts of money on a campaign, is designed to *change* the outcome in a positive direction and the absence of this change implies minimal effects.

¹⁴ See *id.*

from election to election is very rare.¹⁵ Not surprisingly, when the same respondents are interviewed during an election, switching sides within an election campaign is also rare.¹⁶

Based on the predictability of elections, Andrew Gelman and Gary King conclude that the primary effect of campaigns is getting voters to connect their vote choice to the above mentioned fundamentals.¹⁷ They argue that the reason vote intentions in surveys (often referred to as the “horse race polls”)¹⁸ fluctuate throughout the campaign, though the election is predictable, is because early in the campaign some voters have not yet connected their vote intentions to the fundamentals.¹⁹ As Election Day approaches, more and more of the electorate bases their vote intentions on the fundamentals, leading national surveys in the final week or so of the election to correspond very closely with the actual outcome.²⁰

¹⁵ See Tess Eyrich, *What Was Behind ‘Vote-Switching’ in the 2016 Election?*, UC RIVERSIDE NEWS (July 23, 2019), <https://news.ucr.edu/articles/2019/07/23/what-was-behind-vote-switching-2016-election>; Diana C. Mutz & Sam Wolken, *Vote Switching from 2016 to 2020*, ELECTION ANALYSIS, <https://www.electionanalysis.ws/us/president2020/section-2-voters/vote-switching-from-2016-to-2020/> (last visited Jan. 24, 2021).

¹⁶ See Alexander Coppock et al., *The Small Effects of Political Advertising Are Small Regardless of Context, Message, Sender, or Receiver: Evidence from 59 Real-Time Randomized Experiments*, 6 SCI. ADVANCES 1, 5 (2020); GABRIEL S. LENZ, FOLLOW THE LEADER? HOW VOTERS RESPOND TO POLITICIANS’ POLICIES AND PERFORMANCE 185–87, 196 (2012); Peter K. Enns & Ashley Jardina, *Complicating the Role of Racial Attitudes and Anti-Immigrant Sentiment in the 2016 U.S. Presidential Election*, PUB. OP. Q. (forthcoming 2021) (manuscript at 17) (on file with authors).

¹⁷ See Gelman & King, *supra* note 5, at 449; PAUL F. LAZARFELD ET AL., THE PEOPLE’S CHOICE: HOW THE VOTER MAKES UP HIS MIND IN A PRESIDENTIAL CAMPAIGN 73 (2d ed. 1948) (emphasizing “activation” of latent predispositions during campaigns); see also ERIKSON & WLEZIEN, *supra* note 5, at 2 (referring to “crystallization of voter preferences over [a] campaign timeline.”).

¹⁸ Clifford Young, *Cliff’s Take: Beware of Horse Race Polls*, IPSOS (Aug. 14, 2020), <https://www.ipsos.com/en-us/cliffs-take-beware-horse-race-polls>.

¹⁹ See Gelman & King, *supra* note 5, at 419, 436 (analyzing more “fundamental” variables, such as partisanship and demographic variables, than those related to economic conditions and presidential approval).

²⁰ *Id.* Although surveys are not always viewed by the public as accurate, the record of high-quality national surveys prior to the election is incredibly strong. Miller & Tomoko Mitamura, *Are Surveys on Trust Trustworthy*, 66 SOC. SCI. Q. 62, 62 (2003); Claudia Deane et al., *A Field Guide to Polling: Election 2020*

While it is true that the fundamentals correlate more strongly with vote intentions as the election approaches, Peter K. Enns and Brian Richman provide substantial evidence that much of this shift is *not* a result of campaign effects or voter learning.²¹ They argue that most voters, even those who are not normally attuned to politics, do not need a campaign to know how to connect fundamental considerations like economic conditions, approval of the incumbent president, their partisan identity, or their race to whether to vote for the Republican or Democratic candidate.²² Enns and Richman argue that well in advance of the election, many survey respondents simply do not treat the survey question, which asks how they *would* vote if the election was held today, like the actual vote choice, which is still months or weeks away.²³

To understand their logic, imagine if someone asked what restaurant you wanted to go to *three months from today*. Three months probably seems like a long way off, so considerations like what restaurant seems new, exciting, or even extravagant might guide your response (perhaps you just read a restaurant review for a five-star restaurant or heard a recommendation from a friend with expensive tastes). Now imagine someone asked you what restaurant you wanted to go to *tonight*. More fundamental considerations like cost, location, and convenience would likely influence your response. In the first scenario, when the choice was three months away, it was not that you did not know how much money you had for dinner or that convenience mattered. It is just that when a choice feels like it

Edition, PEW RSCH. CTR. (Nov. 19, 2019), <https://www.pewresearch.org/methods/2019/11/19/a-field-guide-to-polling-election-2020-edition/#fn-585-1>; Max Witynski, *Should You Trust the 2020 Election Polls? Yes, but...*, UNIV. CHI. NEWS (Oct. 23, 2020), <https://news.uchicago.edu/story/should-you-trust-2020-election-polls-yes>. For example, in 2016, ten days before the election, ABC News reported survey results that were within less than 1% of the outcome. See Gary Langer, *Shift in the Electorate's Makeup Tightens the Presidential Contest (Poll)*, ABC NEWS (Oct. 29, 2016, 7:00 AM), <http://abcnews.go.com/Politics/shift-electorate-makeup-tightens-presidentialcontest-poll/story?id=43142198>; see also Will Jennings & Christopher Wlezien, *Election Polling Errors Across Time and Space*, 2 NATURE HUM. BEHAV. 276, 278 (2018).

²¹ Peter K. Enns & Brian Richman, *Presidential Campaigns and the Fundamentals Reconsidered*, 75 J. POL. 803, 815–17 (2013); see Gelman & King, *supra* note 5, at 419, 436.

²² See Enns & Richman, *supra* note 21, at 804–07.

²³ See *id.* at 808, 816.

is a long way away, different considerations often come to mind. As the choice gets closer, fundamental considerations are more likely to be considered.²⁴ Enns and Richman argue the same process occurs during an election campaign.²⁵ Early in the campaign, some survey respondents might express their vote intention based on the most recent headline, advertisement, or social media post they saw.²⁶ However, as the election gets closer, survey respondents increasingly treat the survey question about who they would vote for like the actual election choice, relying on more fundamental considerations like partisanship, presidential approval, and economic conditions.²⁷ As a result, we observe a closer alignment between the fundamentals and reported vote intentions.²⁸ In other words, it is proximity to the election, not learning from the campaign, that matters.²⁹

This is not to say that U.S. presidential campaigns have no influence. Candidates and campaigns can make certain issues more salient to voters by emphasizing them more during the campaign,³⁰ and these efforts can be heightened by emotional appeals.³¹ In some cases, voters may be persuaded to support a different candidate,³² although this tends to be difficult and rare.³³ Negative campaigning can also influence the political environment by reducing the public's

²⁴ See *id.* at 806.

²⁵ See *id.* at 804, 807.

²⁶ See *id.* at 805–06, 816.

²⁷ See *id.* at 805–06.

²⁸ See *id.* at 806, 816.

²⁹ See *id.* at 815–17. This conclusion aligns with evidence that when voters learn of candidates' policy positions, voters are more likely to adopt the positions of their preferred candidate, not update which candidate they support. See LENZ, *supra* note 16, at 185, 196, 206–13.

³⁰ See LYNN VAVRECK, *THE MESSAGE MATTERS: THE ECONOMY AND PRESIDENTIAL CAMPAIGNS* 14 (2009).

³¹ See TED BRADER, *CAMPAIGNING FOR HEARTS AND MINDS: HOW EMOTIONAL APPEALS IN POLITICAL ADS WORK* 111 (2006); GEORGE E. MARCUS ET AL., *AFFECTIVE INTELLIGENCE AND POLITICAL JUDGMENT* 124 (2000).

³² See D. SUNSHINE HILLYGUS & TODD G. SHIELDS, *THE PERSUADABLE VOTER: WEDGE ISSUES IN PRESIDENTIAL CAMPAIGNS* 68–69 (2008) (e-book); Gregory A. Huber & Kevin Arceneaux, *Identifying the Persuasive Effects of Presidential Advertising*, 51 AM. J. POL. SCI. 957, 976 (2007).

³³ Joshua L. Kalla & David E. Broockman, *The Minimal Persuasive Effects of Political Campaign Contact in General Elections: Evidence from 49 Field Experiments*, 112 AM. POL. SCI. REV. 148, 163 (2018).

sense of “political efficacy” and “trust in government.”³⁴ Campaigns can also have positive effects on voter turnout,³⁵ although there is also debate in political science about how much increased turnout would alter typical presidential elections.³⁶ In other words, presidential campaigns matter but much less than often thought.³⁷ Indeed, in a series of fifty-nine real-time experiments over eight months leading up to the 2016 election, Alexander Coppock, Seth J. Hill, and Lynn Vavreck found only very small average effects of political advertising on voting behavior or even candidate likability.³⁸

Of course, it is important to recognize that in a close election *anything* could tip the final outcome.³⁹ Donald Trump’s Electoral College victory in 2016 came down to less than 80,000 votes across three states.⁴⁰ George W. Bush’s victory in 2000 came down to just 537 votes in Florida.⁴¹ As Barry Richard chronicled in his 2020 Symposium Keynote Address, the law certainly mattered for the

³⁴ Richard R. Lau et al., *The Effects of Negative Political Campaigns: A Meta-Analytic Reassessment*, 69 J. POL. 1176, 1186 (2007).

³⁵ See Ryan D. Enos & Anthony Fowler, *Aggregate Effects of Large-Scale Campaigns on Voter Turnout*, 8 POL. SCI. RES. & METHODS 1, 15–16 (2016). However, get-out-the-vote (“GOTV”) efforts may widen turnout disparities by mobilizing those more likely to vote more than underrepresented citizens who are less likely to vote. Ryan D. Enos et al., *Increasing Inequality: The Effect of GOTV Mobilization on the Composition of the Electorate*, 76 J. POL. 273, 286 (2014).

³⁶ See Glenn E. Mitchell & Christopher Wlezien, *The Impact of Legal Constraints on Voter Registration, Turnout, and the Composition of the American Electorate*, 17 POL. BEHAV. 179, 196 (1995).

³⁷ See J. Alexander Branham & Christopher Wlezien, *Do Election Campaigns Matter? A Comparative Perspective and Overview*, in THE OXFORD HANDBOOK OF ELECTORAL PERSUASION 184, 196 (Elizabeth Suhay et al. eds., 2019); THOMAS M. HOLBROOK, *DO CAMPAIGNS MATTER?* 153 (1996).

³⁸ See Coppock et al., *supra* note 16, at 5.

³⁹ See David W. Nickerson & Todd Rogers, *Campaigns Influence Election Outcomes Less Than You Think*, 369 SCI. MAG. 1181, 1181 (2020).

⁴⁰ Philip Bump, *Donald Trump Will Be President Thanks to 80,000 People in Three States*, WASH. POST (Dec. 1, 2016, 3:38 PM), <https://www.washingtonpost.com/news/the-fix/wp/2016/12/01/donald-trump-will-be-president-thanks-to-80000-people-in-three-states/>.

⁴¹ See David Leip, *2000 Presidential General Election Results – Florida*, DAVE LEIP’S ATLAS OF U.S. PRESIDENTIAL ELECTIONS (Nov. 1, 2020, 1:41 PM), <https://uselectionatlas.org/RESULTS/>.

2000 election outcome in Florida and, therefore, nationally.⁴² Ballot design and felon disenfranchisement also clearly influenced many more than 537 votes in Florida.⁴³ Nevertheless, it is important to recognize that the potential influence of campaigns is much less than often thought.⁴⁴ To offer further insight into understanding the potential influence, or lack thereof, of campaigns, media, and the law in U.S. presidential elections, the following section presents a statistical model to forecast the presidential vote in each state, including Washington, D.C., more than three months prior to the election. This model helps establish the upper bounds on campaign and media influence and offers a path for further understanding the extent to which particular laws influence presidential election outcomes.

II. A NEW FORECAST MODEL OF STATE PRESIDENTIAL ELECTION OUTCOMES

As noted above, political scientists often emphasize the predictability of U.S. presidential elections.⁴⁵ But this research focuses primarily on the predictability of the *national* popular vote.⁴⁶ To better

⁴² Barry Richard, Shareholder, Greenberg Traurig P.A., Keynote Address at the 2020 *University of Miami Law Review* Symposium: What Swings the Vote (Feb. 7, 2020).

⁴³ See RICHARD L. HASEN, *THE VOTING WARS: FROM FLORIDA 2000 TO THE NEXT ELECTION MELTDOWN* 16, 28–29 (2012). Of course, given the closeness of the 2000 election, myriad other factors mattered, too; one example is Vice President Gore’s advertising strategy may have cost him his home state of Tennessee. See *id.*; DARON R. SHAW, *THE RACE TO 270* 149–50 (2006).

⁴⁴ See Mike Cummings, *Political Ads Have Little Persuasive Power*, YALE NEWS (Sept. 2, 2020), <https://news.yale.edu/2020/09/02/political-ads-have-little-persuasive-power>.

⁴⁵ Gelman & King, *supra* note 5, at 410–11, 448–49.

⁴⁶ See, e.g., Gelman & King, *supra* note 5, at 419. See *infra* note 74 and accompanying text for state-level models and how they differ from our approach.; *Forecasting the US Elections*, ECONOMIST, <https://projects.economist.com/us-2020-forecast/president> (last visited Jan. 24, 2021) (forecast by Andrew Gelman and Merlin Heidemanns for 2020 election predicting outcome of Electoral College in 2020 election); *How the Economist Presidential Forecast Works*, ECONOMIST, <https://projects.economist.com/us-2020-forecast/president/how-this-works> (last visited Jan. 24, 2021) (“The first step in our model is to generate a prediction for the national popular vote on election day. We use two main sources of information: national polls and ‘fundamentals’, the term in political science for structural factors that influence voter decisions.”).

understand the scope and limits of potential campaign effects, we present a model we developed to forecast how *each state* votes in U.S. presidential elections.⁴⁷ Since the Electoral College, and not the popular vote, decides who will become the next president, predicting state-level outcomes circumvents this American peculiarity.⁴⁸ This way, our model also aligns more closely with strategies of political campaigns that mostly concentrate their efforts on a handful of battle or swings states instead of the whole country.⁴⁹

A. *How Does Our Forecast Model Work?*

This forecast model includes multiple variables based on theoretical and empirical considerations and our full analysis includes data back to 1980.⁵⁰ However, to illustrate the logic of our forecast, we first consider a single variable (presidential approval) from a single year.⁵¹ In Figure 1, the top panel reports each state's presidential approval rating during June and July 2012 on the x-axis.⁵² Higher values correspond with more support for the incumbent president. Presidential approval ranges from -20 to 30 because, as we explain in the next Part, we adjust the standard approval rating so values below zero imply an incumbent disadvantage and values above zero

⁴⁷ Peter K. Enns & Julius Lagodny, *Online Supplementary Appendix: Forecasting the 2020 Electoral College Winner: The State Presidential Approval/State Economy Model*, CAMBRIDGE U. PRESS Online A-1, Online A-2 (2020) [hereinafter Enns & Lagodny, *Supplementary Appendix*], <https://static.cambridge.org/content/id/urn:cambridge.org:id:article:S1049096520001407/resource/name/S1049096520001407sup001.pdf>; Enns & Lagodny, *Forecasting the 2020 Electoral College Winner*, *supra* note 8, at 1.

⁴⁸ SHAW, *supra* note 43, at 125.

⁴⁹ See *Swing States Keep Campaigns Guessing*, SHAREAMERICA (Oct. 29, 2020), <https://share.america.gov/swing-states-keep-campaigns-guessing/>; Robert Alexander, *The Battle to be the President of the Swing States of America*, CNN (Oct. 14, 2020, 10:57 AM), <https://www.cnn.com/2020/10/14/opinions/president-swing-states-of-america-opinion-alexander/index.html>; Tamara Keith, *Biden, Trump Focus on Swing States as November's Election Nears*, NPR (Oct. 19, 2020, 7:08 AM), <https://www.npr.org/2020/10/19/925278573/biden-trump-focus-on-swing-states-as-novembers-election-nears>.

⁵⁰ See Enns & Lagodny, *Forecasting the 2020 Electoral College Winner*, *supra* note 8, at 1.

⁵¹ See *infra* Figure 1.

⁵² *Id.*

imply an incumbent advantage.⁵³ On the y-axis, we graph the percentage of the two-party Democratic vote share in 2012 for each state.⁵⁴ In 2012, the Democratic candidate, Barack Obama, was the incumbent President.⁵⁵ We see that Utah had the lowest approval rating of and the lowest vote support for President Obama.⁵⁶ Washington, D.C., by contrast, had the highest approval rating and the highest percentage of votes for President Obama.⁵⁷ The other states (not labeled) are scattered around the linear regression line, which represents the best fitting line to the data (e.g., the line that minimizes the distance between the dots and a linear line through the dots).⁵⁸ Furthermore, the slope of the line is positive, relatively steep, and the values of the states are very close to the best fitting line.⁵⁹ These patterns indicate a strong and positive relationship between presidential approval and vote choice in 2012.

⁵³ See Enns & Lagodny, *Supplementary Appendix*, *supra* note 47, at Online A-2.

⁵⁴ *Infra* Figure 1. The two-party Democratic vote share is estimated as follows: % Democrats / (% Democrats + % Republicans) in each state.

⁵⁵ See David Jackson, *Obama's Biggest Advantage: Incumbency*, USA TODAY (Oct. 20, 2012, 9:10 AM), <https://www.usatoday.com/story/the-oval/2012/10/20/barack-obama-incumbent-mitt-romney-election-2012-history/1646047/>; Ford O'Connell, *Barack Obama Won the Debate Because of Incumbent Advantage*, U.S. NEWS (Oct. 23, 2012), <https://www.usnews.com/debate-club/who-won-the-obama-romney-foreign-policy-debate/barack-obama-won-the-debate-because-of-incumbent-advantage>.

⁵⁶ See Enns & Lagodny, *Forecasting the 2020 Electoral College Winner*, *supra* note 8, at 1, for a discussion of state-level approval data. For other state approval data, see Jeffrey M. Jones, *Thirteen States and D.C. Give Obama Majority Approval*, GALLUP (Aug. 1, 2012) [hereinafter Jones, *Thirteen States and D.C. Give Obama Majority Approval*], <https://news.gallup.com/poll/156389/thirteen-states-give-obama-majority-approval.aspx> ("His highest ratings by state were in Hawaii (63%) and Rhode Island (58%), in addition to the 83% approval from District of Columbia residents. In 16 states, his approval rating averaged below 40%, with residents of Utah, Wyoming, and Alaska least approving."); *Live Election Results: Utah, 270 TO WIN*, <https://www.270towin.com/states/Utah> (last visited Dec. 17, 2020); and Figure 1.

⁵⁷ See Enns & Lagodny, *Forecasting the 2020 Electoral College Winner*, *supra* note 8, at 1 for a discussion of state-level approval data. For other state approval data, see Jones, *Thirteen States and D.C. Give Obama Majority Approval*, *supra* note 56 and *infra* Figure 1.

⁵⁸ See *infra* Figure 1.

⁵⁹ *Id.*

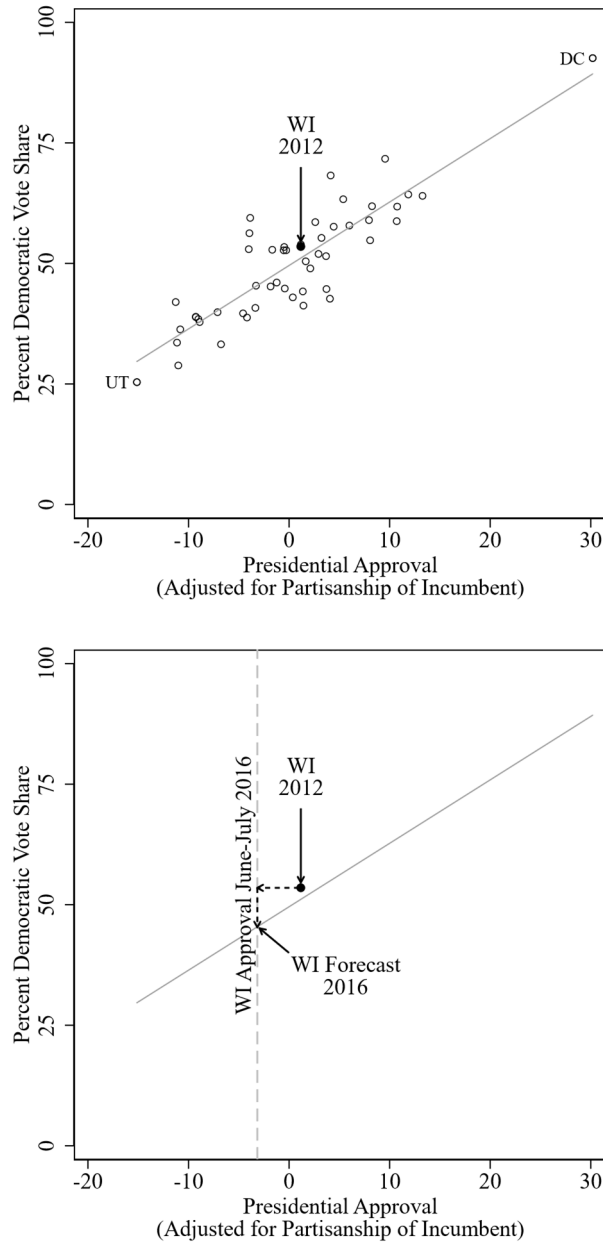


Figure 1: A Simplified Illustration of Our Forecast Approach.⁶⁰

⁶⁰ This Figure uses the relationship between presidential approval and state vote in 2012 to forecast Wisconsin’s 2016 vote based on presidential approval

Still focusing on the top panel, we highlight Wisconsin, which had an adjusted approval rating of 1.2 (shown on the x-axis), meaning just above what we would consider no incumbent advantage (when adjusted, approval = 0).⁶¹ On the y-axis, we see that in 2012, President Obama received 53.5% of the two-party vote in Wisconsin.⁶²

Now, focusing on the bottom panel (which repeats the regression line and the dot for Wisconsin from the top panel), we use Wisconsin to illustrate how we can use this information to forecast the expected Democratic vote share in 2016 for Secretary Hillary Clinton.⁶³ In 2016, the adjusted presidential approval rating for President Obama from June and July 2016 had dropped to -3.2 (vertical dashed line).⁶⁴ The diagonal line is identical to the top panel and still represents the relationship between presidential approval and vote choice in 2012 (e.g., the previous election).⁶⁵ We can now use the information about the relationship between presidential approval and vote choice in 2012 and the information about presidential approval in June and July 2016 to predict the November 2016 election outcome. Note, this prediction does not use any information after July, more than three months before the election.

First, we need to consider the presidential approval rating in June and July 2016, which is lower (e.g., the vertical dashed line is to the left of the Wisconsin dot) than in 2012.⁶⁶ This suggests we should expect Secretary Clinton to get a lower vote share than President Obama did in 2012. To determine how much, we follow the

from June–July of 2016. Our actual forecast model uses multiple variables and data from all available prior years. Enns & Lagodny, *Forecasting the 2020 Electoral College Winner*, *supra* note 8, at 1.

⁶¹ See *supra* Figure 1.

⁶² See *id.*

⁶³ See *id.*

⁶⁴ See *id.*

⁶⁵ See *id.*

⁶⁶ *Id.* See Enns & Lagodny, *Forecasting the 2020 Electoral College Winner*, *supra* note 8, at 1, for a discussion of state-level approval data. For other state approval data, see *Wisconsin: Obama Job Approval*, HUFFPOST POLLSTER, <https://elections.huffingtonpost.com/pollster/wisconsin-obama-job-approval> (last visited Jan. 24, 2021), and see also *Presidential Approval Ratings – Barack Obama*, GALLUP, <https://news.gallup.com/poll/116479/barack-obama-presidential-job-approval.aspx> (last visited Jan. 24, 2021) (illustrating Barack Obama's approval ratings through both terms in office).

arrow down to the regression line. The point at which Wisconsin's 2016 approval rating⁶⁷ (-3.2, vertical dashed line) intersects with the regression line from 2012 represents our 2016 prediction for Wisconsin.⁶⁸ In this simple model, 100 days before the election, we would predict that Secretary Clinton would receive 45.4% of the two-party vote; she ended up receiving 49.6%.⁶⁹ Although this simple model correctly predicts that Secretary Clinton would lose Wisconsin,⁷⁰ our prediction is a notable 4% off. Thus, our actual models include additional relevant variables and additional years of prior data.⁷¹ However, the logic of the forecast model remains the same: when including multiple variables, we estimate the relationship between these variables and vote outcomes in each state in prior years.⁷² We then use these estimated relationships (represented by the regression line in Figure 1) and actual variable values through July of the next election to predict each state's presidential vote.⁷³ We detail our model's variables below.

B. *Forecast Model Details*

Although national election forecasts are the most common, scholars have developed important forecast models of state vote

⁶⁷ See Enns & Lagodny, *Forecasting the 2020 Electoral College Winner*, *supra* note 8, at 1, for a discussion of state-level approval data. For other state approval data, see *Washington Post SurveyMonkey 50 State Poll*, WASH. POST, <https://assets.documentcloud.org/documents/3098997/2016-09-01-50-State-Survey-Trend-for-Release.pdf> (last visited Jan. 24, 2021); *New Marquette Law School Poll Finds Clinton, Feingold Leading; Parties Remain Divided*, MARQ. UNIV. L. SCH. POLL, <https://law.marquette.edu/poll/2016/11/02/mlsp41release/> (last visited Jan. 24, 2021).

⁶⁸ See *supra* Figure 1.

⁶⁹ *WEC Canvass Reporting System*, WIS. ELECTIONS COMM'N., <https://elections.wi.gov/sites/elections.wi.gov/files/Statewide%20Results%20All%20Offices%20%28post-Presidential%20recount%29.pdf> (last visited Jan. 24, 2021). Based on two-party vote share (% Clinton / (%Clinton+%Trump)). *Id.*

⁷⁰ See *id.*

⁷¹ Enns & Lagodny, *Supplementary Appendix*, *supra* note 47, at Online A-3–A-4.

⁷² See Enns & Lagodny, *Forecasting the 2020 Electoral College Winner*, *supra* note 8, at 1; *supra* Figure 1.

⁷³ Enns & Lagodny, *Supplementary Appendix*, *supra* note 47, at Online A-4–A-5.

outcomes.⁷⁴ Our approach differs from existing approaches in three important ways. First, in contrast to previous state-level election forecasts, we measure approval of the incumbent president at the *state level*.⁷⁵ Prior forecasts, even those forecasting state-level outcomes, have focused on national-level approval ratings.⁷⁶ Second, we use the Federal Reserve Bank of Philadelphia's monthly index of coincident economic indicators⁷⁷ to measure economic conditions in each state.⁷⁸ This index is advantageous in our forecast model because it combines multiple economic measures and, therefore, incorporates multiple aspects of the economy.⁷⁹ The strength of these

⁷⁴ See Michael J. Berry & Kenneth N. Bickers, *Forecasting the 2012 Presidential Election with State-Level Economic Indicators*, 45 PS: POL. SCI. & POL. 669, 670 (2012); Patrick Hummel & David Rothschild, *Fundamental Models for Forecasting Elections at the State Level*, 35 ELECTORAL STUD. 123, 123–24, 129, 133 (2014); Bruno Jérôme & Véronique Jérôme-Speziari, *Forecasting the 2012 US Presidential Election: Lessons from a State-by-State Political Economy Model*, 45 PS: POL. SCI. & POL. 663, 664–66 (2012); Bruno Jérôme & Véronique Jérôme-Speziari, *State-Level Forecasts for the 2016 US Presidential Elections: Political Economy Model Predicts Hillary Clinton Victory*, 49 PS: POL. SCI. & POL. 680, 682 (2016) [hereinafter *State-Level Forecasts for the 2016 US Presidential Elections: Political Economy Model Predicts Hillary Clinton Victory*]; Carl E. Klarner, *State-Level Forecasts of the 2012 Federal and Gubernatorial Elections*, PS: POL. SCI. & POL. 655, 656 (2012); James E. Campbell et al., *Forecasting the Presidential Vote in the States, 1948–2004*, 5 J. POL. MKTG. 33, 38, 42–43 (2006).

⁷⁵ Enns & Lagodny, *Supplementary Appendix*, *supra* note 47, at Online A-2; Enns & Lagodny, *Forecasting the 2020 Electoral College Winner*, *supra* note 8, at 1; *see, e.g.*, Gelman & King, *supra* note 5, at 419; *Forecasting the US Elections*, *supra* note 46; *How the Economist Presidential Forecast Works*, *supra* note 46.

⁷⁶ *See* Berry & Bickers, *supra* note 74, at 670; Hummel & Rothschild, *supra* note 74, at 123–24, 129, 133; *Forecasting the 2012 US Presidential Election: Lessons from a State-by-State Political Economy Model*, *supra* note 74, at 664–66; *State-Level Forecasts for the 2016 US Presidential Elections: Political Economy Model Predicts Hillary Clinton Victory*, *supra* note 74, at 682; Klarner, *supra* note 74, at 656; Campbell et al., *supra* note 74, at 38, 42–43.

⁷⁷ *State Coincident Indexes*, FED. RSRV. BANK PHILA., <https://www.philadelphiafed.org/research-and-data/regional-economy/indexes/coincident> (last visited Jan. 24, 2021); Enns & Lagodny, *Forecasting the 2020 Electoral College Winner*, *supra* note 8, at 1.

⁷⁸ Enns & Lagodny, *Supplementary Appendix*, *supra* note 47, at Online A-2–A-3; Enns & Lagodny, *Forecasting the 2020 Electoral College Winner*, *supra* note 8, at 1.

⁷⁹ *State Coincident Indexes*, *supra* note 77; *see* Enns & Lagodny, *Forecasting the 2020 Electoral College Winner*, *supra* note 8, at 1.

two measures leads to a much more parsimonious model, which is our third advantage. Where past state-level forecast models range between thirteen and nineteen variables,⁸⁰ our model predicts past elections as well or better with just nine variables.⁸¹ The parsimony of our model highlights how just a few key variables can predict the election outcome and avoids overfitting our model, which can make predictions worse.⁸²

Another notable feature of our forecast is that we make it more than three months *prior* to the election, using economic data available through June of election year and presidential approval data available through June and July of election year.⁸³ Thus, our forecasts are made around the time of or *before* the Republican and Democratic nomination conventions,⁸⁴ prior to the presidential and vice-presidential debates,⁸⁵ and before the onset of the most salient campaign activities and media coverage.⁸⁶ This timing implies that if we are able to make accurate predictions, the influence of these subsequent activities must be limited, or at least mostly offsetting,

⁸⁰ See Hummel & Rothschild, *supra* note 74; *State-Level Forecasts for the 2016 US Presidential Elections: Political Economy Model Predicts Hillary Clinton Victory*, *supra* note 74.

⁸¹ *Infra* Figure 2.

⁸² Douglas M. Hawkins, *The Problem of Overfitting*, J. CHEM. INFO. & COMPUT. SCI. 1, 2 (2004).

⁸³ Enns & Lagodny, *Supplementary Appendix*, *supra* note 47, at Online A-7.

⁸⁴ Enns & Lagodny, *Forecasting the 2020 Electoral College Winner*, *supra* note 8, at 1. The earliest convention during our period of analysis was the 1980 Republican National Convention held between July 14 and 17. See Elizabeth Drew, *1980: The Republican Convention*, NEW YORKER, Aug. 11, 1980, at 38 (1980).

⁸⁵ Enns & Lagodny, *Supplementary Appendix*, *supra* note 47, at Online A-7; see *Presidential Debates (1960-2020)*, AM. PRESIDENCY PROJECT, <https://www.presidency.ucsb.edu/documents/presidential-documents-archive-guide-book/presidential-campaigns-debates-and-endorsements-0> (last visited Jan. 24, 2021).

⁸⁶ Enns & Lagodny, *Supplementary Appendix*, *supra* note 47, at Online A-4; see *1980 Debates*, COMM'N ON PRESIDENTIAL DEBATES, <https://www.debates.org/debate-history/1980-debates/> (last visited Jan. 24, 2021); *1984 Debates*, COMM'N ON PRESIDENTIAL DEBATES, <https://www.debates.org/debate-history/1984-debates/> (last visited Jan. 24, 2021); *1988 Debates*, COMM'N ON PRESIDENTIAL DEBATES, <https://www.debates.org/debate-history/1988-debates/> (last visited Jan. 24, 2021); *1992 Debates*, COMM'N ON PRESIDENTIAL DEBATES, <https://www.debates.org/debate-history/1992-debates/> (last visited Jan. 24, 2021).

since by definition, our model does not take them into account and only looks at the underlying fundamentals.⁸⁷ If campaign activities, media, and social media were influencing votes and the election outcome, we would not be able to predict each state's vote accurately.

As indicated above, while most political science election forecasts include presidential approval,⁸⁸ a key contribution of our approach is estimating the percent approving of the president in *each state*.⁸⁹ Building on our earlier work,⁹⁰ we use a statistical technique called multi-level regression with poststratification ("MRP") to estimate state-level public opinion from national surveys.⁹¹

MRP is a three-step approach that involves estimating a multilevel model to identify the relationship between demographic categories and the probability of survey response (in this case indicating approval of the president's handling of the job of president), using these estimates to predict the probability of approval for each demographic-geographic [category] (e.g., African American females, age 30-44, with some college education, in Texas [or White males, age 65+, with no high school degree in New York]),

⁸⁷ See *supra* Part I; Enns & Lagodny, *Forecasting the 2020 Electoral College Winner*, *supra* note 8, at 1.

⁸⁸ Enns & Lagodny, *Forecasting the 2020 Electoral College Winner*, *supra* note 8, at 1–2; Enns & Lagodny, *Supplementary Appendix*, *supra* note 47, at Online A-2.

⁸⁹ Enns & Lagodny, *Forecasting the 2020 Electoral College Winner*, *supra* note 8, at 1.

⁹⁰ See Peter K. Enns & Juliana Koch, *Public Opinion in the U.S. States: 1956 to 2010*, 13 ST. POL. & POL'Y Q. 349, 350 (2013); Peter K. Enns & Juliana Koch, *State Policy Mood: The Importance of Over-time Dynamics*, 15 ST. POL. & POL'Y Q. 436, 436–37 (2015); Peter K. Enns et al., *Understanding the 2016 US Presidential Polls: The Importance of Hidden Trump Supporters*, 8 STAT., POL. & POL'Y 41, 51–52 (2017); PETER K. ENNS, INCARCERATION NATION: HOW THE UNITED STATES BECAME THE PUNITIVE DEMOCRACY IN THE WORLD 134–35 (2016).

⁹¹ See Andrew Gelman & Thomas C. Little, *Poststratification into Many Categories Using Hierarchical Logistic Regression*, 23 SURV. METHODOLOGY 127, 129–34 (1997); Jeffrey R. Lax & Justin H. Phillips, *How Should We Estimate Public Opinion in the States?*, 53 AM. J. POL. SCI. 107, 108–10 (2009); Julianna Pacheco, *Measuring and Evaluating Changes in State Opinion Across Eight Issues*, 42 AM. POL. RSCH. 986, 987–1002 (2014).

and then using census data to poststratify (i.e., weight) the responses to match actual state population values. MRP has repeatedly been shown to recover valid state-level measures of public opinion from national surveys.⁹²

Our MRP estimates of state presidential approval use seventy surveys with almost 90,000 respondents from June and July of each election year.⁹³ We follow past research for national-level approval and “subtract a constant [from this value] so that when our approval variable equals zero, it is roughly equivalent to having no incumbent advantage” after we estimate the percentage of voters in each state who approve of the president.⁹⁴ In a second step, we multiply the approval rating by -1 when the incumbent is a Republican because our outcome of interest is Democratic vote share.⁹⁵

Because presidential election outcomes also reflect economic conditions,⁹⁶ we measure each state’s economic conditions with the Federal Reserve Bank of Philadelphia’s monthly index of coincident economic indicators.⁹⁷ These data begin in January 1979, so 1980 is the first election included in the analysis.⁹⁸ This index uses four separate economic components, “nonfarm payroll employment, average hours worked in manufacturing, the unemployment rate . . . , and wage and salary disbursements,” to measure current economic

⁹² Enns & Lagodny, *Supplementary Appendix*, *supra* note 47, at Online A-2–Online A-4.; *see* Gelman & Little, *supra* note 91, at 129–34; Lax & Phillips, *supra* note 91, at 108–09; Pacheco, *supra* note 91, at 987–88.

⁹³ We accessed the survey data from the Roper Center for Public Opinion Research at Cornell University (with one survey from Gallup Analytics), as explained in Enns & Lagodny, *Forecasting the 2020 Electoral College Winner*, *supra* note 8, at 1; Enns & Lagodny, *Supplementary Appendix*, *supra* note 47, at Online A-2–A-4, Online A-10–A-17.

⁹⁴ Enns & Lagodny, *Supplementary Appendix*, *supra* note 47, at Online A-2.

⁹⁵ *See* Hummel & Rothschild, *supra* note 74, at 126.

⁹⁶ *Id.* at 124.

⁹⁷ Enns & Lagodny, *Forecasting the 2020 Electoral College Winner*, *supra* note 8, at 1; *see* *State Coincident Indexes*, *supra* note 77.

⁹⁸ Enns & Lagodny, *Forecasting the 2020 Electoral College Winner*, *supra* note 8, at 1; *see* *State Coincident Indexes*, *supra* note 77; *Beige Book Report: Philadelphia*, FED. RSRV. BANK MINNEAPOLIS (Nov. 14, 1979), <https://www.minneapolisfed.org/beige-book-reports/1979/1979-11-ph>.

conditions in each state.⁹⁹ Similar to Erikson and Wlezien,¹⁰⁰ we calculate the cumulative percentage change in coincident indicators through June of election year, weighting months closer to the election more heavily.¹⁰¹

The model also includes each state's past presidential vote, measured as the deviation from the national vote in the past election,¹⁰² home state of the presidential candidate, the home state of the presidential candidate in the previous election (to account for the return to typical voting levels in that state in the subsequent election), and the vice presidential candidate's home state.¹⁰³ The forecast model also controls for the percentage of the vote in each state that went to influential third-party candidates in the *previous* election and a binary indicator for the formerly Confederate states, capturing their Republican lean during the analysis period.¹⁰⁴

Figure 2 presents the model including all data from 1980 through 2016.¹⁰⁵ Values greater than zero mean that the estimated relationship between the variable and the percentage Democratic vote is positive.¹⁰⁶ Negative numbers imply a negative relationship.¹⁰⁷ All variables show the theoretically expected direction.¹⁰⁸ The horizontal lines around the point estimates represent the 95% confidence interval.¹⁰⁹ This is a measure of uncertainty. None of the 95%

⁹⁹ *State Coincident Indexes*, *supra* note 77.

¹⁰⁰ See Robert S. Erikson & Christopher Wlezien, *Forecasting the Presidential Vote with Leading Economic Indicators and the Polls*, 49 PS: POL. SCI. & POL. 669, 669–71 (2016).

¹⁰¹ Enns & Lagodny, *Supplementary Appendix*, *supra* note 47, at Online A-2–A-3. We have calculated the monthly percent change in each state's coincident index, weighting economic changes closer to the election more than changes earlier in the incumbent's presidency. *Id.*

¹⁰² *Id.* at Online A-7; see Campbell et al., *supra* note 74, at 36; Hummel & Rothschild, *supra* note 74, at 127 tbl.2.

¹⁰³ Enns & Lagodny, *Supplementary Appendix*, *supra* note 47, at Online A-4. “[W]e code the state of the Democratic candidate 1, the state of the Republican candidate -1, and all other states 0.” *Id.*

¹⁰⁴ *Id.* at Online A-4.

¹⁰⁵ *Id.* at Online A-3, Online A-5.

¹⁰⁶ See *infra* Figure 2.

¹⁰⁷ See *id.*

¹⁰⁸ See *id.*

¹⁰⁹ See *id.*

confidence intervals overlap zero, indicating that all variables in the model are statistically significant.¹¹⁰

All variables have been rescaled to range from 0 to 1, so the coefficients reported in Figure 2 are directly comparable.¹¹¹ Not surprisingly, the percentage of the two-party vote that the Democratic candidate received in a state in the previous presidential election is the biggest predictor of that state's vote share in the current election.¹¹² This relationship indicates that voting outcomes in states tend not to vary too much from election-to-election. State presidential approval and state economic conditions show the next largest relationships.¹¹³ Substantively, these relationships suggest that if a state went from the lowest to the highest approval rating, we would expect about a 22% shift in Democratic vote share (+/- about 2.5%). The magnitude for a similar shift in economic conditions is about the same, but the uncertainty around this estimated relationship is much greater. Model fit is excellent, with about 90% of the variance in the dependent variable explained by the model.¹¹⁴

¹¹⁰ *See id.*

¹¹¹ *See id.*

¹¹² *See id.*; Enns & Lagodny, *Forecasting the 2020 Electoral College Winner*, *supra* note 8, at 1–2.

¹¹³ *See infra* Figure 2.

¹¹⁴ Enns & Lagodny, *Forecasting the 2020 Electoral College Winner*, *supra* note 8, at 1.

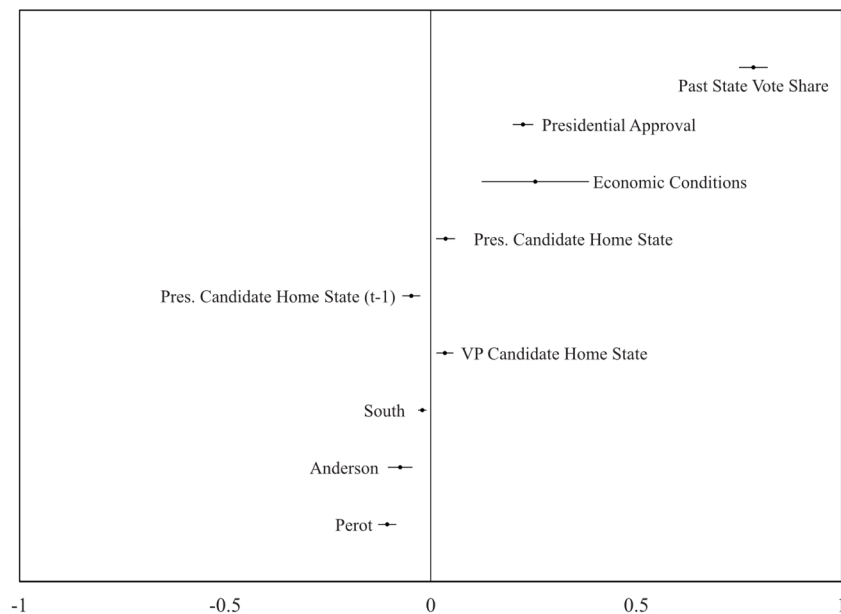


Figure 2: Estimated Relationship (and 95% Confidence Intervals) Between Forecast Model Variables and Percent Democratic Vote in Each State, 1980–2016.

C. Forecast Accuracy, 2004–2016

To generate our forecasts, we first estimate the relationship between the above variables and the percent of votes for the Democratic candidate (out of the votes received by each of the two major parties) in each state in *prior* elections.¹¹⁵ As described above, we then combine information from these relationships with data through July of election year to forecast the vote in each state.¹¹⁶ Our data begin in 1980, which is when the first election for which the

¹¹⁵ *Id.* at 1–2. Most election forecasts focus on two-party vote share because the winner of the two-party vote is what ultimately matters in a majoritarian system, and this avoids the confounding effect of third parties. See *HPR 2020 Presidential Election Forecast*, HARV. POL. REV. (Nov. 2, 2020), <https://harvardpolitics.com/hpr-2020-presidential-election-forecast/>. The decision to focus on Democratic vote share is arbitrary; the Republican vote share would produce identical conclusions.

¹¹⁶ Enns & Lagodny, *Forecasting the 2020 Electoral College Winner*, *supra* note 8, at 1.

state-level index of coincident indicators data are available.¹¹⁷ Thus, our 2004 forecast was based on the model from 1980 through 2000 and data through July 2004.¹¹⁸ Our 2008 forecast was based on a model using data from 1980 through 2004 and data through July 2008.¹¹⁹ Using these model estimates that are based on previous elections and information on model variables available through July of election year, we forecast the election.¹²⁰ Because all information is from *before* the election, we refer to these as “before-the-fact” forecasts.¹²¹

In this section, we discuss our forecasts from 2004 through 2016. While our forecast model does well in all years,¹²² we are particularly interested in the four most recent presidential elections because they include the elections that would be most influenced by social media campaigns and the new digital era.¹²³ These years also ensure we have enough year-state data points from prior elections to make reliable and stable forecasts, and they allow us to compare our forecast with other prominent forecasts of state-level presidential vote outcomes.¹²⁴

Figure 3 presents our before-the-fact forecast for each state (and Washington, D.C.) for each of these elections (y-axis) along with

¹¹⁷ *Id.* These data are first available in January 1979. *Id.*; Enns & Lagodny, *Supplementary Appendix*, *supra* note 47, at Online A-3. Because we use a weighted cumulative average, having only 6 quarters of data for 1980 (instead of 14) does not pose a problem (average for 1980 is based on 6 quarters instead of 14). Enns & Lagodny, *Supplementary Appendix*, *supra* note 47, at Online A-3 (discussing full details on this economic measure).

¹¹⁸ Enns & Lagodny, *Supplementary Appendix*, *supra* note 47, at Online A-2, Online A-10–A-15.

¹¹⁹ *Id.*

¹²⁰ Enns & Lagodny, *Forecasting the 2020 Electoral College Winner*, *supra* note 8, at 1.

¹²¹ Enns & Lagodny, *Supplementary Appendix*, *supra* note 47, at Online A-4.

¹²² See Enns & Lagodny, *Forecasting the 2020 Electoral College Winner*, *supra* note 8, at 1 (discussing earlier forecasts from our model).

¹²³ See Garnett & James, *supra* note 3, at 112.

¹²⁴ Enns & Lagodny, *Supplementary Appendix*, *supra* note 47, at Online A-7–A-8 (listing relevant comparison data); see Berry & Bickers, *supra* note 74, at 672 tbl.3; Hummel & Rothschild, *supra* note 74, at 136; *Forecasting the 2012 US Presidential Election: Lessons from a State-by-State Political Economy Model*, *supra* note 74, at 666 tbl.3; *State-Level Forecasts for the 2016 US Presidential Elections: Political Economy Model Predicts Hillary Clinton Victory*, *supra* note 74, at 683 tbl.2; Klarner, *supra* note 74, at 660 tbl.4.

the actual percentage of the two-party vote the candidate received in each state in each of these elections (x-axis).¹²⁵ If we perfectly predicted each state's vote share, all dots would align on top of the gray forty-five-degree diagonal line. While perfect predictions are, of course, implausible, the predictions follow the line quite closely indicating a very high degree of accuracy. We predict the winner correctly in 94% of states during this period.¹²⁶

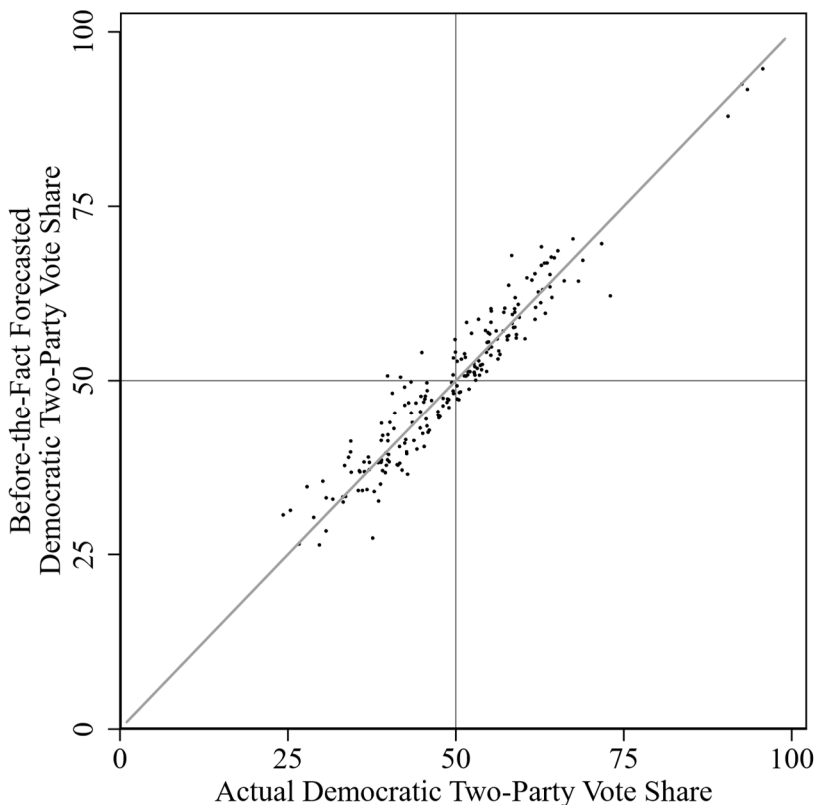


Figure 3: Before-the-fact Forecasts and Actual Vote Share, 2004–2016.

To get a more concrete sense of the accuracy of our forecasts, Figure 4 compares our forecasts with other prominent forecasts of

¹²⁵ See *infra* Figure 3.

¹²⁶ Enns & Lagodny, *Forecasting the 2020 Electoral College Winner*, *supra* note 8, at 1.

U.S. state presidential votes.¹²⁷ The left side of the figure compares the absolute mean error across states for each forecast of the 2012 election.¹²⁸ Our average error was the lowest across models and just over 2% in 2012.¹²⁹ The bottom panel compares our 2016 before-the-fact forecast with that of Bruno Jérôme and Véronique Jérôme-Speziari (the other scholars did not report 2016 state forecasts).¹³⁰ Again, our model does quite well in a comparative sense.¹³¹

¹²⁷ *Infra* Figure 4; Enns & Lagodny, *Supplementary Appendix*, *supra* note 47, at Online A-4, Online A-7; see Hummel & Rothschild, *supra* note 74, at 133–34; *Forecasting the 2012 US Presidential Election: Lessons from a State-by-State Political Economy Model*, *supra* note 74, at 665–66 tbls.2–3; *State-Level Forecasts for the 2016 US Presidential Elections: Political Economy Model Predicts Hillary Clinton Victory*, *supra* note 74, at 682–85; Klarner, *supra* note 74, at 660–61 tbl.4; Berry & Bickers, *supra* note 74, at 673 tbl.3.

¹²⁸ *Supra* Figure 3.

¹²⁹ See Enns & Lagodny, *Forecasting the 2020 Electoral College Winner*, *supra* note 8, at 3 tbl.2.

¹³⁰ *Supra* Figure 3; see Enns & Lagodny, *Forecasting the 2020 Electoral College Winner*, *supra* note 8, at 1; Enns & Lagodny, *Supplementary Appendix*, *supra* note 47, at Online A-7–A-8; *State-Level Forecasts for the 2016 US Presidential Elections: Political Economy Model Predicts Hillary Clinton Victory*, *supra* note 74, at 682–83.

¹³¹ See Enns & Lagodny, *Forecasting the 2020 Electoral College Winner*, *supra* note 8, at 1, 3; Enns & Lagodny, *Supplementary Appendix*, *supra* note 47, at Online A-7–A-8; *State-Level Forecasts for the 2016 US Presidential Elections: Political Economy Model Predicts Hillary Clinton Victory*, *supra* note 74, at 682–83.



Figure 4:¹³² Absolute Mean Error of Our Model and Other State-Level Forecast Models in 2012 (top panel) and 2016 (bottom panel).¹³³

¹³² Values closer to the left indicate less error.

¹³³ Enns & Lagodny, *Forecasting the 2020 Electoral College Winner*, *supra* note 8, at 3 tbl.2.

Remember that our model only uses information available about 100 days prior to the election.¹³⁴ The most important variables in the model are the fundamentals (economic conditions and presidential approval) and how the state voted in the previous election.¹³⁵ With these, and a few other variables (candidates' state of residence, whether the state was part of the former Confederacy, and the percent of the vote previously received in the state by prominent third-party candidates), we are able to forecast each state's vote with an average error of about +/- 2% in 2012 and about +/- 3% in 2016.¹³⁶ In a close election, 2 or 3% can obviously swing the outcome.¹³⁷ But recall that we correctly predict the winner in 94% of the states in our analysis.¹³⁸ Further, this appears to be the upper bound of potential influence. It is possible that if we added additional variables or data to our forecast model, we could improve the forecasts even more.

Candidates, political parties, and organized interest groups spend hundreds of millions of dollars and vast amounts of time and energy on campaigns.¹³⁹ Yet, the outcome of the election in each state—both in terms of who wins and the percent of votes received—ends about where we would have expected before most of this took place. This continued to be the case in 2020. Based on data from 104 days before the 2020 election, our model correctly predicted every state outcome, except for one.¹⁴⁰

¹³⁴ *Id.* at 1.

¹³⁵ *Id.*

¹³⁶ See Enns & Lagodny, *Supplementary Appendix*, *supra* note 47, at Online A-3–A-4.

¹³⁷ See, e.g., Richard A Posner, *The 2000 Presidential Election: A Statistical and Legal Analysis*, 12 SUP. CT. ECON. REV. 1, 2 (2004).

¹³⁸ Enns & Lagodny, *Forecasting the 2020 Electoral College Winner*, *supra* note 8, at 1.

¹³⁹ See Brian Schwartz, *The \$10.8 Billion Election: 2020 Campaign Spending is Smashing Records*, CNBC (Oct. 1, 2020, 2:50 PM EDT), <https://www.cnbc.com/2020/10/01/election-2020-campaign-spending-set-to-hit-record-11-billion.html>; Rebecca Jacobs & Walker Davis, *Special Interest Groups Likely Spent More Than \$13 Million at Trump Properties. They Got What They Paid For.*, CITIZENS FOR ETHICS (Oct. 30, 2020), <https://www.citizensforethics.org/reports-investigations/crew-investigations/special-interest-groups-spent-13-million-trump-properties/>.

¹⁴⁰ Peter K. Enns & Julius Lagodny, *We Predicted the States Biden Would Win 100 Days Before the Election*, WASH. POST (Nov. 12, 2020, 7:00 a.m. EST),

III. IMPLICATIONS FOR UNDERSTANDING WHAT SWINGS THE VOTE: DISENFRANCHISEMENT

A. *Our Methodology*

Popular media stories often imply that a candidate's rhetorical missteps¹⁴¹ or behavioral subtleties like “wishful thinking” or “complacency” can swing the election outcome.¹⁴² However, if we truly want to understand what swings the vote, we must understand how much the vote can actually swing. We have argued that the potential for political campaigns, candidate debates, and traditional and new media to influence U.S. presidential elections is more limited than often thought.¹⁴³ Our argument builds on the longstanding view in political science that national presidential election outcomes can be predicted with a high degree of accuracy based on a few fundamental variables, such as economic conditions and approval of incumbent presidents.¹⁴⁴

We extended this literature by presenting our state-level forecasting model to predict the Electoral College using only data available in June and July of the election year.¹⁴⁵ Our mean error in 2012 is about 2%, and in 2016, it was less than 3%.¹⁴⁶ From 2004 to 2016, we accurately predict the winner of 94% of all states, and our forecast was even more accurate in 2020.¹⁴⁷ The main implication of these findings is that campaigning and media attention seem to contribute surprisingly little to the overall outcome of elections since very little variation is “left” to be explained.¹⁴⁸ Of course, the

<https://www.washingtonpost.com/politics/2020/11/12/we-predicted-states-biden-would-win-100-days-before-election/>.

¹⁴¹ See Bret Stephens, *Biden's Loose Lips Could Sink His Chances*, N.Y. TIMES (Aug. 24, 2020), <https://nyti.ms/31olVrt>.

¹⁴² George Packer, *This Is How Biden Loses*, THE ATLANTIC (Aug. 28, 2020), <https://www.theatlantic.com/ideas/archive/2020/08/how-biden-loses/615835/>.

¹⁴³ See *supra* Part I.

¹⁴⁴ See Hummel & Rothschild, *supra* note 74, at 123-24; Enns & Richman, *supra* note 21, at 815-17; Gelman & King, *supra* note 5, at 419, 436.

¹⁴⁵ Enns & Lagodny, *Forecasting the 2020 Electoral College Winner*, *supra* note 8, at 1.

¹⁴⁶ *Id.* at 3 tbl.2.

¹⁴⁷ *Id.*; see *Historical Presidential Elections, 270 TO WIN*, <https://www.270towin.com/historical-presidential-elections/> (last visited Jan. 24, 2021).

¹⁴⁸ See *supra* Part I; see, e.g., STIMSON, *supra* note 5, at 93-95; ERIKSON & WLEZIEN, *supra* note 5, at 7.

millions of dollars spent on the campaign trail, vast social media campaigns, and micro-targeting matter some;¹⁴⁹ however, we must remember that the fundamentals matter most, and there is relatively little vote shifting that results from the campaign.¹⁵⁰

In addition to helping understand the bounds or limits of campaign effects, our forecast approach also offers a potential path for understanding how states' policies and the law influence presidential elections. Specifically, we propose using the variation in the accuracy of forecasts to evaluate the effect of state laws.

B. *Estimating the Effects of Disenfranchisement and Voter Registration Laws on Election Outcomes*

Almost six million individuals in the United States are disenfranchised because they have been convicted of a felony.¹⁵¹ These disenfranchisement laws vary dramatically, however, both across states and over time.¹⁵² Vermont and Maine do not limit voting in any way for those convicted of a crime.¹⁵³ There, everyone has the right to vote, even those currently in prison.¹⁵⁴ Kentucky and Virginia law, by contrast, *permanently* disenfranchise anyone with a felony conviction.¹⁵⁵ Alabama, Arizona, Florida, Mississippi,

¹⁴⁹ See *supra* Part I; see, e.g., OWEN, *supra* note 1, at 7, 11–12; Coppock et al., *supra* note 16, at 6–7.

¹⁵⁰ See *supra* Part I.

¹⁵¹ See CHRISTOPHER UGGEN ET AL., 6 MILLION LOST VOTERS: STATE-LEVEL ESTIMATES OF FELONY DISENFRANCHISEMENT 3–4 (2016), <https://www.sentencingproject.org/wp-content/uploads/2016/10/6-Million-Lost-Voters.pdf>; *Felony Disenfranchisement Laws (Map)*, ACLU, <https://www.aclu.org/issues/voting-rights/voter-restoration/felony-disenfranchisement-laws-map> (last visited Jan. 24, 2021).

¹⁵² *Felony Disenfranchisement Laws (Map)*, *supra* note 151.

¹⁵³ *Id.*

¹⁵⁴ *Id.*

¹⁵⁵ In 2019, Kentucky Governor, Andy Beshear, signed Executive Order 2019-003 *Relating to the Restoration of Civil Rights for Convicted Felons*, which restored voting rights to more than 140,000 Kentuckians who had completed their sentences for nonviolent felonies. See Ky. Exec. Order No. 2019-003 (Dec. 12, 2019). In 2016, Virginia Governor Terry McAuliffe issued an order that restored voting rights to Virginians with felony convictions, but this order was overturned by the Virginia Supreme Court in *Howell v. McAuliffe*, 788 S.E. 2d 706, 724 (Va. 2016). See Laura Vozzella, *Virginia's McAuliffe to Announce Restoration of*

Tennessee, and Wyoming are slightly less strict, having eliminated voting rights for some felony convictions.¹⁵⁶ Election forecasts might help explain how these laws influence election outcomes.

Our state forecasts are generally quite accurate,¹⁵⁷ but these forecasts do differ from the actual outcomes, and a handful of states differ by a fair amount (e.g., more than 5%).¹⁵⁸ While numerous factors account for these forecast errors, prohibiting those who have been released from prison from voting may be an important potential factor. Recall that presidential approval ratings in each state are one of the most important predictors in our forecast model.¹⁵⁹ These approval estimates come from nearly 90,000 randomly selected adults, reweighted to represent the demographic composition within each state.¹⁶⁰ Thus, presidential approval corresponds to the entire (non-institutionalized) adult population of each state, even though some states prohibit individuals from voting because of past felony convictions—even after they have served time in prison.¹⁶¹ As a result of this mismatch, we might expect larger forecast errors in states that have disenfranchised a greater proportion of the population.¹⁶² Further, given the disproportionate incarceration of African Americans

Voting Rights to 13,000 Felons, WASH. POST (Aug. 21, 2016), https://www.washingtonpost.com/local/virginia-politics/virginias-mcauliffe-to-announce-restoration-of-voting-rights-to-13000-felons/2016/08/20/590b43ee-6652-11e6-96c0-37533479f3f5_story.html. As a result, Governor McAuliffe announced that he would restore voting rights on an individual basis to those who had completed their sentences. See *id.*; *Felony Disenfranchisement Laws (Map)*, *supra* note 151.

¹⁵⁶ See *Felony Disenfranchisement Laws (Map)*, *supra* note 151.

¹⁵⁷ See Enns & Lagodny, *Forecasting the 2020 Electoral College Winner*, *supra* note 8, at 1–3.

¹⁵⁸ Between 2004 and 2016, just twenty-three states (or 11% of all state forecasts) have a forecast error greater than 5% with the highest forecast error being Arkansas, just under 11% in 2008.

¹⁵⁹ Enns & Lagodny, *Forecasting the 2020 Electoral College Winner*, *supra* note 8, at 1. For other state approval data, see Jeffrey M. Jones, *Presidential Job Approval Related to Reelection Historically*, GALLUP (May 29, 2020), <https://news.gallup.com/poll/311825/presidential-job-approval-related-reelection-historically.aspx>.

¹⁶⁰ Enns & Lagodny, *Forecasting the 2020 Electoral College Winner*, *supra* note 8, at 1.

¹⁶¹ See *Felon Voting Rights*, NAT'L CONF. STATE LEGISLATURES (Oct. 1, 2020), <https://www.ncsl.org/research/elections-and-campaigns/felon-voting-rights.aspx>; *Felony Disenfranchisement Laws (Map)*, *supra* note 151.

¹⁶² See *Felon Voting Rights*, *supra* note 161.

who tend to lean strongly Democratic,¹⁶³ we might expect to over-predict Democratic support in these states because our presidential approval ratings include these individuals, who cannot vote. Accordingly, vote outcomes would not mirror projected Democratic support because of disenfranchisement laws.¹⁶⁴

The negative relationship between our southern state variable and Democratic vote share in Figure 2 may provide preliminary support for this hypothesis.¹⁶⁵ We code the formerly Confederate states as “Southern,” which are among the most restrictive in terms of disenfranchisement.¹⁶⁶ It may be that part of the reason our model over-estimates Democratic vote share in these states (as indicated by the negative relationship on this variable) is that those who are most likely to be disenfranchised by the criminal legal system are most likely to support Democratic candidates.¹⁶⁷ To further test this hypothesis, future research might add a variable to the forecast model to control for the portion of the state population that is ineligible to vote due to disenfranchisement laws. A decrease in forecast error when this variable is included in the model would provide evidence

¹⁶³ See *How Groups Voted in 2016*, ROPER CTR. FOR PUB. OP. RSCH., <https://ropercenter.cornell.edu/how-groups-voted-2016> (last visited Jan. 24, 2021) (around 90% of African Americans typically vote for the Democratic presidential candidate.); Peter K. Enns et al., *What Percentage of Americans Have Ever Had a Family Member Incarcerated?: Evidence from the Family History of Incarceration Survey (FamHIS)*, 5 SOCIO. RSCH. FOR DYNAMIC WORLD 1, 5–6 (2019); see also ASHLEY NELLIS, *THE COLOR OF JUSTICE: RACIAL AND ETHNIC DISPARITY IN STATE PRISONS* 3–4 (2016), <https://www.sentencingproject.org/wp-content/uploads/2016/06/The-Color-of-Justice-Racial-and-Ethnic-Disparity-in-State-Prisons.pdf> (discussing racial disparities in prison).

¹⁶⁴ See *Felony Disenfranchisement Laws (Map)*, *supra* note 151.

¹⁶⁵ See *supra* Figure 2.

¹⁶⁶ See *Felon Voting Rights*, *supra* note 161. Specifically, our Southern variable includes Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Texas, and Virginia. See *id.*; Enns & Lagodny, *Supplementary Appendix*, *supra* note 47, at Online A-4. All these states prohibit voting until after parole ends, which is considered part of the sentence. *Felon Voting Rights*, *supra* note 161; see also *State Elections Legislation Database*, NAT’L CONF. STATE LEGISLATURES (Oct. 5, 2020), <https://www.ncsl.org/research/elections-and-campaigns/elections-legislation-database.aspx> (provides an up-to-date database of election laws in fifty states).

¹⁶⁷ Christopher Uggen & Jeff Manza, *Democratic Contraction? Political Consequences of Felon Disenfranchisement in the United States*, 67 AM. SOCIO. REV. 777, 779 (2002).

of how disenfranchising those convicted of felonies influences presidential election outcomes.

Recent changes in state law and policy offer another analytic approach. For example, in November 2018, Floridians voted to restore voting rights of those convicted of felonies (except for murder or sexual offenses) after they completed all terms of their sentences, including parole or probation.¹⁶⁸ Initially, up to 1.4 million Floridians were expected to gain the right to vote from Amendment 4.¹⁶⁹ However, the number able to vote in 2020 was closer to 800,000 because Florida Governor Ron DeSantis and the Republican-controlled legislature passed legislation to require that “all court-imposed fees, restitution and other financial obligations” be paid before those who regained their right to vote through Amendment 4 can register to vote.¹⁷⁰

Although the exact number of new Floridians eligible to vote is less than originally thought after Amendment 4 passed, the number is still substantial.¹⁷¹ Most scholars argue that Florida’s permanent disenfranchisement of those who have committed a felony has been a pivotal factor in past elections,¹⁷² but there is some debate on that

¹⁶⁸ FLA. CONST. art. VI, § 4 (amended 2018).

¹⁶⁹ *Id.*; P.R. Lockhart, *Florida Legislature Approves Bill Requiring Former Felons to Pay Fines and Fees Before Voting*, VOX (May 3, 2019, 5:30 PM), <https://www.vox.com/policy-and-politics/2019/5/3/18528564/amendment-4-florida-felon-voting-rights-fees>; *Florida Ex-Felons Can Begin Registering to Vote as Amendment Takes Effect*, CBS NEWS (Jan. 8, 2019, 3:26 PM), <https://www.cbsnews.com/news/florida-ex-felons-begin-registering-to-vote-as-amendment-4-takes-effect/>.

¹⁷⁰ See Jeffrey Schweers, ‘*New Beginning*’ for Florida Felons: Registrations Continue Amid Voting Rights Fight, TALLAHASSEE DEMOCRAT (Nov. 21, 2019, 7:20 PM), <https://www.tallahassee.com/story/news/local/state/2019/11/21/florida-felons-still-registering-amidst-amendment-4-legal-battle/4223319002/>.

¹⁷¹ *Id.*

¹⁷² See Amber Philips, *How a Court Battle on Felon Voting Rights in Florida Could Affect the 2020 Election*, WASH. POST (Feb. 19, 2020, 2:54 PM), <https://www.washingtonpost.com/politics/2020/02/19/florida-felon-voting-rights-explained/>; Coulter Jones & Jon Kamp, *In 2020 Election, Florida Felon Voting Limits Could Sway State Outcome*, WALL ST. J. (Sept. 30, 2020, 8:03 AM), <https://www.wsj.com/articles/in-2020-election-florida-felon-voting-limits-could-sway-state-outcome-11601467381>; see also Uggen & Manza, *supra* note 167, at 786, 792 (“[T]he survey data suggest that Democratic candidates would have received about 7 of every 10 votes cast by the felons and ex-felons in 15 of the back 15 Senate Election years.”).

point.¹⁷³ Our forecast model offers a direct method of estimating the effects of Amendment 4. Specifically, since those with felony convictions who have been released from prison have always been eligible to participate in the surveys that estimate Floridians' presidential approval,¹⁷⁴ we would expect our forecast in Florida to become more accurate as more of these individuals become eligible to vote. Of course, there are other sources of forecast error that also vary from year-to-year, such as uncertainty around economic conditions (recall that state economic conditions are also in our forecast model).¹⁷⁵ However, all else equal, less forecast error in 2020 would be consistent with evidence of Amendment 4 influencing Florida's presidential vote.¹⁷⁶

Similar analyses could be done in other states that have restored voting rights.¹⁷⁷ For example, as noted above, while Virginia law still permanently prohibits those with a felony conviction from ever voting, Governors Terry McAuliffe and Ralph Northam have restored approximately 200,000 voters through executive action.¹⁷⁸ Shifts in other laws related to voting, such as voter ID laws, whose effects are notoriously difficult to study,¹⁷⁹ can also be studied by comparing the size of forecast errors over time. If changes in voter

¹⁷³ See Traci Burch, *Did Disenfranchisement Laws Help Elect President Bush? New Evidence on the Turnout Rates and Candidate Preferences of Florida's Ex-Felons*, 34 POL. BEHAV. 1, 24 (2012).

¹⁷⁴ See Enns & Lagodny, *Supplementary Appendix*, *supra* note 47, at Online A-2–A-4 (discussing variables within model).

¹⁷⁵ *Id.*

¹⁷⁶ See Enns & Lagodny, *Supplementary Appendix*, *supra* note 47, at Online A-7–A-8; Andrew Quintana & Daniela Flamini, *Guide to Florida's 2020 General Election: What Will Be on the Ballot?*, NBC MIA. (Oct. 9, 2020, 12:44 PM), <https://www.nbcmiami.com/news/politics/decision-2020/guide-to-floridas-2020-general-election-what-will-be-on-the-ballot/2292377/>.

¹⁷⁷ Nolan D. McCaskill, *Felons Have the Potential to Swing Close 2020 Races*, POLITICO (Sept. 11, 2020, 4:30 AM), <https://www.politico.com/news/2020/09/11/felon-votes-swing-2020-races-409495>.

¹⁷⁸ Margaret Barthel, *Nearly 200,000 Formerly Incarcerated Virginians Have Their Voting Rights Back. Will They Use Them?*, WAMU88.5 (Nov. 5, 2019), <https://wamu.org/story/19/11/05/nearly-200000-formerly-incarcerated-virginians-have-their-voting-rights-back-will-they-use-them/>.

¹⁷⁹ See Benjamin Highton, *Voter Identification Laws and Turnout in the United States*, 20 ANN. REV. POL. SCI. 149, 150 (2017); Justin Grimmer et al., *Obstacles to Estimating Voter ID Laws' Effect on Turnout*, 80 J. POL. 1045, 1045, 1050–51 (2018).

ID laws have a disproportionate effect on turnout, we would expect our forecast errors to increase after the implementation of such a law, as certain groups are less likely to turn out in the subsequent elections, adding some bias to forecasts in those states.¹⁸⁰

Evaluating forecast errors across states and time allows a direct test of the aggregate effects of state laws that affect who votes.¹⁸¹ To facilitate these types of analyses, we have made all our forecast data publicly available.¹⁸² When scholars conduct these types of analyses, several factors must be kept in mind. First, the proposed research design to use forecasts can only identify *aggregate* effects: If re-enfranchising citizens or increased voter restrictions push the election outcome in one direction, but another factor pushes the vote in the opposite direction, the aggregate result will be offsetting and will appear like no effect—even though the effect was real.¹⁸³ Second, the effects of these laws could differ from election to election, which would complicate the proposed analysis.¹⁸⁴ For example, the effects might differ depending on whether the election outcome was expected to be close.¹⁸⁵ Third, scholars must remember that many unobserved factors influence forecast error.¹⁸⁶ Thus, we propose that researchers evaluate whether a change in election-related law led to a vote outcome *beyond* what we would have expected based on the

¹⁸⁰ *Oppose Voted ID Legislation - Fact Sheet*, ACLU (May 2017), <https://www.aclu.org/other/oppose-voter-id-legislation-fact-sheet>.

¹⁸¹ See Enns & Lagodny, *Supplementary Appendix*, *supra* note 47, at Online A-7–A-8; *State Felon Voting Laws*, BRITANNICA, <https://felonvoting.procon.org/state-felon-voting-laws/> (last visited Jan. 24, 2021) (providing a fifty-state survey of election laws relating to felons).

¹⁸² Enns & Lagodny, *Replication Data*, *supra* note 10.

¹⁸³ See Jason D. Mycoff et al., *The Effect of Voter Identification Laws on Aggregate and Individual Level Turnout 15 (2007)* (unpublished manuscript) (on file with the Brennan Center for Justice).

¹⁸⁴ See *What Affects Voter Turnout Rates*, FAIRVOTE, https://www.fairvote.org/what_affects_voter_turnout_rates (last visited Jan. 24, 2021).

¹⁸⁵ See *id.*

¹⁸⁶ See Marc Meredith & Neil Malhotra, *Convenience Voting Can Affect Election Outcomes*, 10 ELECTION L.J. 227, 228 (2011); Johannas Tang Kristensen, *Factor-Based Forecasting in the Presence of Outliers: Are Factors Better Selected and Estimated by the Median Than by the Mean?*, 18 STUD. NONLINEAR & ECONOMETRICS 309, 310, 330 (demonstrating that “outliers” are important to account for in factor-based forecasting).

distribution of potential forecast outcomes in that particular state.¹⁸⁷ That is, researchers should seek to identify whether a shift in a state's law corresponds with a statistically significant shift in forecast error. States that did not have an election-related law change can be used as a placebo analysis because we would expect no corresponding divergence between forecasts and outcomes in states that did not have changes in election-related laws.¹⁸⁸

Importantly, even if future works find limited or no effects on election outcomes, there are still numerous reasons to challenge laws that disenfranchise citizens or limit voter turnout. First, as noted above, effects may be real but offset by other factors, or the effects may be moderated by the election context, such as how close the outcome is expected to be.¹⁸⁹ Second, our proposed analysis focuses on U.S. presidential elections. It is possible, perhaps even likely, that effects are more pronounced in state-level and local elections. Third, even if election outcomes remain the same, there are legal and moral considerations for increasing access to vote.¹⁹⁰ Finally, evidence suggests that re-enfranchising those who have been convicted of a felony carries social benefits, such as reduced recidivism and positive economic outcomes.¹⁹¹ It is important to understand how election-related laws influence election outcomes, but

¹⁸⁷ See Enns & Lagodny, *Forecasting the 2020 Electoral College Winner*, *supra* note 8, at 1.

¹⁸⁸ See *State Felon Voting Laws*, *supra* note 181.

¹⁸⁹ See *What Affects Voter Turnout Rates*, *supra* note 184.

¹⁹⁰ See Kendall Thomas, *Racial Justice: Moral or Political?*, 17 NAT'L BLACK L. J. 222, 244 (2002); Ako Ufodike, *U.S. Election Results May Suggest Ethics No Longer Matter . . . Just Like in Canada*, CONVERSATION, <https://theconversation.com/u-s-election-results-may-suggest-ethics-no-longer-matter-just-like-in-canada-149248> (last visited Jan. 24, 2021); Judy Nadler & Miriam Schulman, *Campaign Ethics*, MARKKULA CTR. APPLIED ETHICS, <https://www.scu.edu/government-ethics/resources/what-is-government-ethics/campaign-ethics/> (last visited Jan. 24, 2021); see also *Ethics: Public Service is a Public Trust*, CLC, <https://campaignlegal.org/issues/ethics> (last visited Jan. 24, 2021) (acting as a “watchdog” and proposing that solutions for greater accountability at all level of government).

¹⁹¹ See Guy Padraic Hamilton-Smith & Matt Vogel, *The Violence of Voicelessness: The Impact of Felony Disenfranchisement on Recidivism*, 22 BERKELEY LA RAZA L.J. 407, 413–14 (2012); WASH. ECON. GRP., INC., ECONOMIC IMPACTS OF RESTORING THE ELIGIBILITY TO VOTE FOR FLORIDIANS WITH FELONY CONVICTIONS AS A RESULT OF PASSAGE OF AMENDMENT 4, at 1–2 (2018).

this is *not* the only criterion that should be used to evaluate these laws.

CONCLUSION

We have extended past work on the predictability of U.S. presidential elections by presenting a forecast model of each state's presidential vote.¹⁹² The accuracy of these “before-the-fact” forecasts offer several insights into U.S. elections.¹⁹³ First, the accuracy of forecasts helps establish an upper bound for the potential of campaigns, traditional media, and even social media to influence election outcomes.¹⁹⁴ Our average state forecast error was between 2 and 3%, suggesting that the potential to swing the vote is quite limited.¹⁹⁵ Our 2020 forecast correctly predicted the winner in all but one state.¹⁹⁶ That being said, recent U.S. presidential elections have seen a few thousand votes in specific states (as in 2016) or even a few hundred votes in one state (as in 2000) determine the final outcome.¹⁹⁷ In these types of elections, almost anything can tip the final outcome.

However, even when elections are this close,¹⁹⁸ we have shown how forecasts offer an additional analytic tool for estimating the effects of election-related laws, such as legal or policy changes relating to enfranchising those who have been convicted of felonies or laws increasing restrictions on voter ID requirements.¹⁹⁹ While

¹⁹² See Enns & Lagodny, *Forecasting the 2020 Electoral College Winner*, *supra* note 8, at 1–4.

¹⁹³ See *id.* at 1.

¹⁹⁴ See *supra* Part I.

¹⁹⁵ See Enns & Lagodny, *Forecasting the 2020 Electoral College Winner*, *supra* note 8, at 3 tbl.2.

¹⁹⁶ See Enns & Lagodny, *supra* note 140.

¹⁹⁷ David Catanese, *The 10 Closest States in the 2016 Election*, U.S. NEWS (Nov. 14, 2019, 4:39 PM), <https://www.usnews.com/news/the-run-2016/articles/2016-11-14/the-10-closest-states-in-the-2016-election>; *November 7, 2000 General Election Official Results: President of the United States*, FLA. DEP'T OF STATE: DIV. OF ELECTIONS, <https://results.elections.myflorida.com/SummaryRpt.asp?ElectionDate=11/7/2000&Race=PRE&DATAMODE=> (last visited Jan. 24, 2021).

¹⁹⁸ See Catanese, *supra* note 197; *November 7, 2000 General Election Official Results: President of the United States*, *supra* note 197.

¹⁹⁹ See *supra* Part III.A.

estimating these effects are notoriously difficult, we believe forecasts offer an additional analytic strategy. Thus, we have made our data and replication code publicly available to support these efforts.²⁰⁰

²⁰⁰ Enns & Lagodny, *Replication Data*, *supra* note 10.

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