Four Suggestions for Making Election Forecasts Better, and Better Known

John Sides, *George Washington University*

Election forecasting will never be the centerpiece of political science, or even the political science study of elections. But forecasting is a worthwhile enterprise for at least two reasons. First, forecasting can provide a useful test of academic theories and models (Schrodt 2013; Ward et al. 2013), although, of course, the merit of a theory or model does not hinge on a single election outcome. Second, election forecasting garners much interest outside the academy—from pundits, journalists, politicians, and citizens alike. Although popular appeal should not dictate scholarly agendas, the psephological fascination that grips the nation in election years provides an important opportunity for political scientists to reach a broader public.

Political scientists have been forecasting election outcomes for many years, at least since Rosenstone (1983). They mainly focus on models of presidential election outcomes in the post-World War II era but also on models of congressional elections and, less often, gubernatorial and state legislative elections. Political scientists have recently become central to poll aggregation, such as Simon Jackman, who developed models for the Huffington Post's Pollster (see Jackman 2012) and Drew Linzer, who combined an aggregate election model and preelection polling at his website Votamatic (Linzer 2013).

All of this work is valuable enough to do even better. I focus on four ways the exposition and presentation of election forecasts can be improved, thereby helping not only to educate the broader public—and more than a few pundits—but also to make the voices of political science forecasters more visible.

EMPHASIZE THE THEORY BEHIND THE MODEL

If the goal of a forecast is simply to predict the outcome correctly, there are many ways to skin the cat. News outlets often highlight colorful predictors, from alleged "bellwether" towns or counties to the outcome of the Washington Redskins' last home game. (A Redskins' victory is supposed to signal a win for the incumbent party in the White House.) This is not the only reason, however, that political scientists forecast elections. Political science forecasting models draw on theories of how voters make decisions (Noel 2011) and are intended both to forecast the election and to test these theories. This is why most models rely on factors, like economic statistics and presidential approval, that capture key elements of retrospective voting (Fiorina 1981; Lewis-Beck and Stegmaier 2000). Relying on theory helps separate the models from cute but coincidental correlations.

Thus, it is important for election forecasters to describe the theory behind their model. Doing so might seem tedious or unnecessary. Who does not understand the necessity of capturing retrospective voting? Here is a case in point. In the spring of 2012, Lynn Vavreck, Seth Hill, and I developed a simple forecasting model for the *Washington Post*'s Wonkblog that included three factors: change in gross domestic product over the first two quarters of the election year, presidential approval in June of that year, and a binary indicator for whether the incumbent president was running.[1] After estimating this model on presidential elections from 1948 to 2008 and generating an expected outcome for each year, the model "predicted" 12 of the 16 elections correctly. (After 2012, this figure is 13 of 17, as the model forecast that Obama would win 52.7% of the major-party vote and in actuality he won 51.9%.)

The prominent political blogger Kevin Drum (2012) suggested we were "overthinking the election":

> Here's a simpler model that gets 13 of the past 16 elections right: the incumbent party wins if it's been in office for four years, and loses if it's been in office for eight or more years. Even if you insist that Al Gore "won" in 2000 because he won the popular vote, it gets 12 of the past 16 elections right. So what's the point of adding two more variables if they don't provide any additional accuracy? I don't get it.

Drum is correct that this factor—what Abramowitz (2012) calls "time for a change"—helps forecast presidential elections. But there are theoretical reasons to include variables like economic growth—above and beyond the fact that they reduce the model's error. Seth Hill explained the logic behind our model:

> Our model tries to balance prediction, which would include every variable you could find that correlates to the results in the past, with sparseness and theory. I can express the theory behind our three variables pretty well. We believe that voters respond to the state of the economy, but especially to the recent economy. We also believe that voters respond to a set of other factors separate from the economy, which are nicely summarized by presidential approval. Finally, we believe sitting presidents have a variety of advantages that make them more likely to win than non-presidents (Sides 2012).

Being explicit about theoretical motivations is valuable to forecasters in two other respects. First, it helps to differentiate aggregate forecasting models from pure polling aggregation. Second, it helps forecasters avoid curve-fitting and ad hoc changes to forecasting models, which have often, and rightly, been criticized (see Bartels 1997).

ESTIMATE HEURISTIC MODELS TOO

If forecasting models are based on theories of voter decision making, then there is heuristic value in models that may not be "fully specified"—as judged by the forecaster—but that isolate the factor or factors most relevant to a theory. This is particularly important with regard to the economy. Among many commentators and pundits, the notion that economic conditions structure election outcomes is treated as the "political science" theory of elections (see Tomasky 2011). Thus, political science forecasting models are frequently treated as if they were economic models—evidence of "economic determinism," says Tomasky—although many such models include noneconomic factors, too.

Even if political scientists are not economic determinists, there is still value in focusing on individual factors like the economy and asking, in essence, "What would we expect if the election depended only on this factor?" No one believes that elections depend only on any one factor; at best, economic indicators explain about 40% of the variation in presidential election outcomes (Silver 2011). But understanding what "the economy" (however measured) would predict foregrounds a factor central to academic theories and popular commentary. More fully specified models can then be evaluated in light of this or other simpler models. Does adding additional factors change the prediction? If so, by how much? An interesting story can be told.

For example, Eric McGhee and I developed a multilevel House elections forecasting model in 2012 that relied on four national indicators—change in gross domestic product, presidential approval, an indicator for midterm elections, and an indicator for the party of the president—and two district-level factors—whether an incumbent was running and the district-level presidential vote (see McGhee 2012a). We did not consider this model "complete" in any sense and said so explicitly. Instead, we believed that it tapped the most important fundamentals of congressional elections and wanted to

the election have already emerged well before the late August APSA Annual Meeting, during which an election forecasting panel takes place, and the publication of the October issue of *PS*—which, in 2012, was accompanied by an APSA-sponsored event on October 16 in Washington, DC. Indeed, by October, an interested lay person who wants to know how the presidential election will turn out should most likely rely on polls, which are highly predictive by that point (Erikson and Wlezien 2012). It is possible to do better. The model that Vavreck, Hill, and I helped develop for Wonkblog appeared on the *Washington Post's* webpage at the end of April 2012. Other forecasters weighed in even earlier (Abramowitz 2011).

The work of political science forecasters needs a publicly available home that is promoted sooner and more widely. The website Pollyvote offers one such outlet, but needs more visibility. Forecasters should also take to political blogs early and often—as Alan Abramowitz did at Larry Sabato's Crystal Ball, Lewis-Beck and Tien did at The Monkey Cage, and Thomas Holbrook and Jay DeSart did at Politics by the Numbers. APSA could issue press releases and schedule events in the late spring or summer. True, some forecasting models that depend on later values of key variables, such as polls, may not have a "final" forecast before the fall. But most models, and aggregations of those models (Montgomery, Hollenbach, and Ward 2012), could be promoted earlier. The important thing is for the academic forecasting community to develop some strategies for raising its profile.

ENGAGE THE CAMPAIGN NARRATIVE

Most forecasting models make a single prediction and do not lend themselves to the campaign narrative. A one-shot announcement of "the political science forecasts"—even if well-timed—may therefore not be enough. Political scientists need to add their

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investigate how the model would compare to others that incorporated polls or the sorts of qualitative factors that go into forecasts of the *Cook Political Report* and its kindred.

As it turned out, the model was fairly accurate (McGhee 2012b). It forecast a shift of one seat in the Democratic Party's favor—in fact, the Democrats won eight additional seats—and outperformed several other forecasts. Perhaps the model will be similarly accurate in future elections, and perhaps not. It seems, for example, to underestimate the seat swing in years with large partisan tides. Regardless, we think that the model is instructive. In the case of a partisan tide that the model fails to anticipate, we can then investigate factors that are not in the model but might be driving this tide, such as policy issues (Nyhan et al. 2012).

BE TIMELY

The existing modes of publicizing political science forecasts leave the discipline substantially behind the news cycle. Forecasts of

voices weekly if not daily. Regular and interesting output is Nate Silver's strength, for example. The goal for political scientists is continually to assess where the race stands and where it is likely to end up on Election Day.

The 2012 campaign offered several examples of how to do this. Lynn Vavreck and I undertook a book-length account of the election in close to real time, which involved regular blogging at The Monkey Cage and other sites (see Sides and Vavreck 2013). Dynamic forecasting offers even more opportunities for scholars. Simon Jackman's work for Pollster was accompanied by numerous posts explaining the method of aggregation and providing regular diagnostics of the polls. Sam Wang also did poll aggregation and related blogging at the Princeton Election Consortium. Drew Linzer's work provides perhaps the best example of how to link a forecasting model to the ongoing narrative. Because his model blended a static component (Abramowitz's "Time for a Change" model) with regular updates based on poll numbers,

he could write about how the model's forecast did or did not change as the polls shifted. He could also provide commentary and analysis about hotly debated topics—such as whether the polls were somehow untrustworthy (Linzer 2012). Linzer also created a website, votamatic.org, that provided crisp graphics and a blog, and regularly tweeted. He and others showed how the same theories and empirics that underlie forecasts can illuminate the events that happen during the campaign and speak to the ongoing debates about what those events mean.

The same is true after the election. A forecasting model can provide a basis for understanding and interpreting an election's outcome. For example, House forecasting models helped illuminate whether the Republican's continued control of the House after the 2012 election was because of their efficient gerrymandering of districts in many states in 2011 (Sides and McGhee 2013). Political scientists should think creatively about how to provide an ongoing contribution to the conversation about an election.

CONCLUSION

At one point during the 2012 campaign, what was deemed a "nerdfight" broke out among several commentators about the validity of presidential election forecasts. One skeptic, Sean Trende of Real Clear Politics, wrote a lengthy post on the "fuzzy math and logic" of forecasting models (Trende 2011). But the success of most models and poll aggregators in 2012 has only confirmed the value of these approaches. Not two years later, Trende's view of presidential elections looked a lot like the view animating forecasting models: "My overall view of presidential elections is that they are like giant algebra problems that suddenly simplify down to three or four variables at the end" (Trende 2013). This validation of forecasting is good news for political scientists—as it confirms that political science theories, data, and models provide valuable insights about elections. Ideally, better models and better publicity will ensure that the perspective of political scientists, and political science forecasts, reaches and thereby educates people outside of the academy. ∎

NOTES

1. The *Washington Post* then developed a widget that readers could play with to "run" the election under different conditions: http://www.washingtonpost.com/wp-srv/special/politics/2012-election-predictor/.

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