

## The PollyVote's Year-Ahead Forecast of the 2012 U.S. Presidential Election

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**PREVIEW:** *In 2004, Scott Armstrong, Alfred Cuzán, and Randy Jones launched the PollyVote to see if combining forecasts from different methods could improve the accuracy of election forecasting relative to individual forecasting methods. Scott had previously reported evidence that combining nearly always reduced forecast error below the typical individual method. As you'll see in this article, Polly has performed up to and perhaps beyond expectations. Now she looks a year ahead (as of this writing) to predict the outcome of the U.S. presidential election. She thinks it will be close. You can read more about the origin and computation of the PollyVote in an article we printed in the very first issue of Foresight: Cuzán and colleagues (2005).*

### COMPONENTS OF THE POLLYVOTE

During the past two U.S. presidential elections, in 2004 and 2008, Polly the Parrot, the mascot of the PollyVote, provided predictions of the two-party, popular vote shares by averaging forecasts *within* and *across* four categories of methods: trial-heat polls, forecasts from the Iowa Electronic Market (IEM), quantitative models, and experts' forecasts.

Combining forecasts from methods within a category aggregates forecasts based on a similar approach and similar information. It is more powerful, however, to average *across* methods, especially when the methods draw upon different information (Armstrong, 2001). Using equal weights, the final PollyVote forecast is computed as an average of the forecasts across the four categories, giving equal weight to each.

For the upcoming presidential election in 2012 Polly added a new component: models that are based on the *index method*. This method, which has a long history in forecasting and decision making, is useful for identifying the best of several options. It draws upon prior evidence to determine which variables are important and how they affect the outcome. The method works well when there are many important variables and good prior knowledge (Armstrong & Graefe, 2011).

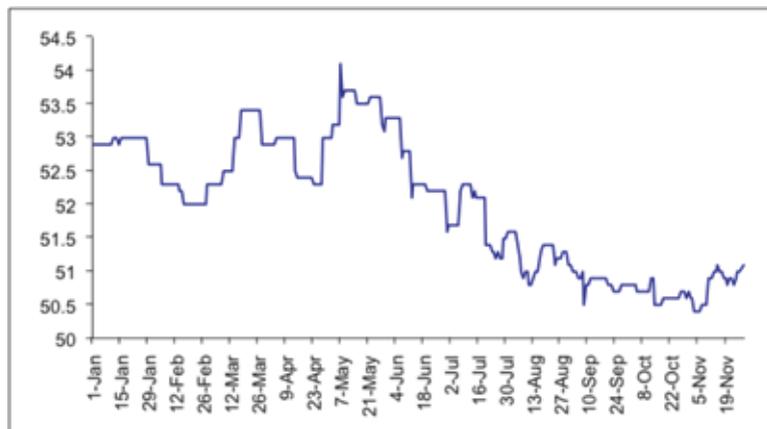
The first index model used for presidential election forecasting was the "Keys to the White House" by Allan Lichtman (2010), which first appeared before the 1984 election. As noted by Nadeau and Lewis-Beck (2012) in this issue, the Keys forecast the election winner by assessing how well the party in the White House has governed the country. Since the Lichtman index first appeared, other index models have been developed that predict the election outcome based on information about candidates' biographies or voters' perceptions of candidates' ability to handle issues facing the country. Detailed information on each of the models can be found at <http://pollyvote.forecastingprinciples.com>.

Indexes are a proven forecasting method and draw upon different information than traditional approaches to election forecasting. Therefore, including them as a separate component is expected to further increase Polly's forecast accuracy.

### POLLY'S TRACK RECORD

With its simple averaging procedure, the PollyVote has provided highly accurate forecasts of election outcomes. In 2004 Polly posted updated forecasts every two or three days. An automated system developed in 2008 enabled Polly to provide daily forecasts. In both elections PollyVote forecasts were

Figure 1. Predicted Two-Party Vote Share (%) for Obama, Across 2011



made beginning more than half a year before Election Day. Each single PollyVote forecast — even those generated several months before the election — has been correct in predicting the election winner. In the final forecasts released on election eve, Polly missed the candidates' actual two-party vote-shares by 0.3 percent in 2004 and 0.7 percent in 2008 — an average error of only 0.5 percentage points.

Andreas Graefe and colleagues (2011) looked at the predictive performance of the PollyVote for the past five U.S. presidential elections, reporting retrospective analyses of the 1992, 1996, and 2000 elections, in addition to the ex ante forecasts for 2004 and 2008. They found that the PollyVote forecasts reduced error by more than half compared to forecasts of the typical randomly chosen poll, model, or expert. Compared to the IEM, which is essentially a means of aggregating information from disparate sources, the PollyVote reduced error by 10%.

### POLLYVOTE 2012

On January 1, 2011, almost two years before Election Day, the PollyVote was launched to forecast the 2012 presidential election. Since then, the daily updated forecast (Figure 1) has consistently predicted Obama to win the two-party popular vote, with a vote-share forecast ranging from about 54% shortly after the death of Osama bin Laden in May to almost 50% in early November.

As of mid-November 2011, the combined PollyVote forecast predicts Obama to win 51% of the vote. Thus the forecasts of the four component methods currently available suggest a close race. While the combined poll forecast shows a slight advantage for Obama (50.5%), the IEM (49.6%) and the average of five econometric models (49.5%) put him slightly behind the Republican candidate. Only the average forecast of four index models predicts a clear victory for Obama (54.4%).

These forecasts will, of course, continuously change during the run-up to the election. In particular, the selection of the Republican candidate may have a big impact. In addition, econometric and index models may not have been released yet, and results from other indicators will be updated as new data becomes available. Current polls and updated IEM prices are published almost daily — and generally become more accurate closer to Election Day. Finally, Polly is waiting for her fifth component method, the experts' forecasts, which will be added as soon as available.

You can track Polly's forecast updates at <http://pollyvote.forecastingprinciples.com>.

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