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FORESIGHT

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SPECIAL FEATURE

When and How Should Statistical
Forecasts be Judgmentally Adjusted?

THE FORECASTING CANON

Ways to Improve Forecast Accuracy

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"Knowledge of truth is always more than theoretical and intellectual. It is the product of activity, as well as its cause. Scholarly reflection therefore must grow out of real problems, and not be the mere invention of professional scholars." John Dewey, University of Vermont

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SPECIAL FEATURE

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RECOGNITION FOR FORECASTING ACCURACY: politicalforecasting.com

HOW WE COMPUTED THE POLLYVOTE

by Alfred Cuzán, J. Scott Armstrong, Randall J. Jones, Jr.

Preview: No one came closer to predicting the outcome of the 2004 U.S. presidential election than the team at politicalforecasting.com, also called pollyvote.com. They tell us how they did it and whether they think they can do it again.



Alfred G. Cuzán joined the faculty at the University of West Florida in 1980. In 1992, he was appointed Chairman of the Department of Government. A Woodrow Wilson Fellow, a Fulbright Scholar, and a Henry Salvatori Fellow, Alfred is the author or co-author of more than forty scholarly items. He has lectured on the impact of fiscal policy on American presidential elections in Argentina, Mexico, and Spain.



J. Scott Armstrong is Professor of Marketing at the Wharton School, University of Pennsylvania. He is a founder of the *Journal of Forecasting*, the *International Journal of Forecasting*, and the *International Symposium on Forecasting*. He is the creator of the Forecasting Principles website, (forecastingprinciples.com) and editor of *Principles of Forecasting: A Handbook for Researchers and Practitioners*. He is one of the first six Honorary Fellows of the International Institute of Forecasters, and was named Society for Marketing Advances/JAI Press Distinguished Marketing Scholar for 2000.



Randall J. Jones, Jr. is Professor of Political Science at the University of Central Oklahoma. His published work in forecasting relates to elections and international political risk analysis. He is author of *Who Will Be in the White House? Predicting Presidential Elections* (Longman, 2002) and co-editor of *21 Debated Issues in World Politics* (Prentice Hall, 2000, 2004). Among the awards Jones has received are Oklahoma Political Science Scholar of the Year and Oklahoma Political Science Teacher of the Year.

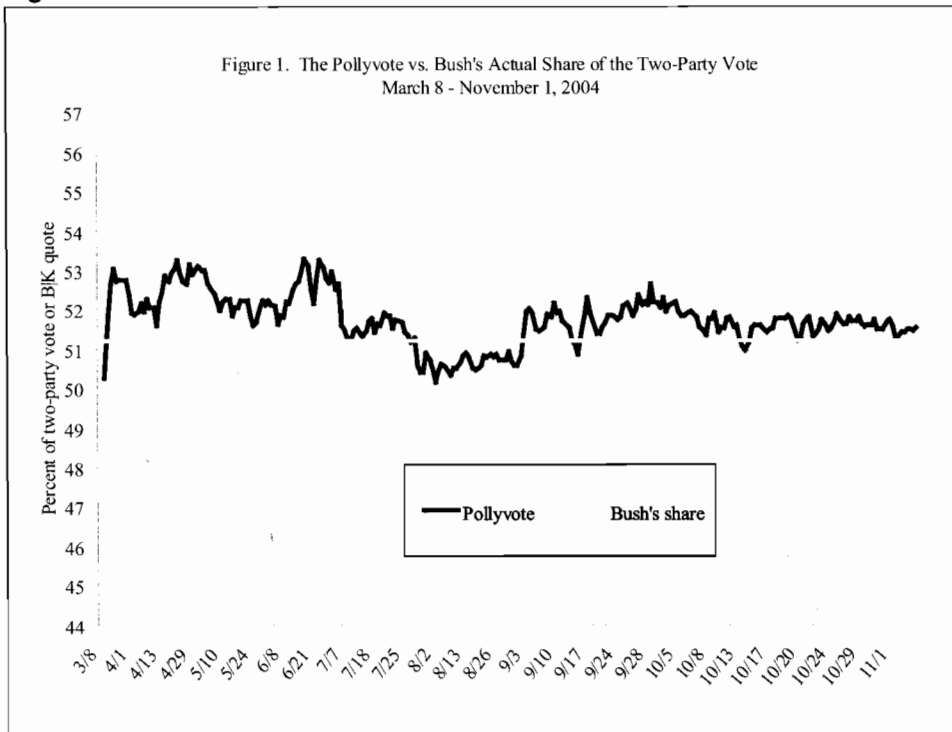
In March 2004, we set out to apply the combination principle in forecasting (Armstrong, 2001) to forecast President Bush's share of the two-party popular vote (omitting minor candidates). To that end, we collected 268 polls, 10 quantitative models, and 246 days of Bush/Kerry futures contracts quotes in the Iowa Electronic Markets. We also administered three Delphi surveys in as many months to a panel of 17 experts on US politics, asking them for their predictions.

In applying the combination principle, we first combined predictions *within* the first three forecasting methods, averaging recent polls, averaging the average daily quotes of Bush/Kerry futures contracts for the previous week, and averaging results of the quantitative models. We then

averaged the forecast vote *across* all four methods—the combined (averaged) forecasts of the polls, the IEM quotes, and the models, plus the predictions of the experts' panel, assigning them equal weights. We call the resulting forecast the Pollyvote – “pol” for political and “poly” for many methods. From March to November 2004, we updated the Pollyvote at first once a week and then, as the campaign progressed and more polls were published, twice a week.

When tested across the 163 days preceding the election, the mean absolute error of the Pollyvote predictions was only three-fourths as large as the error of the next most accurate method, the Iowa Electronic Markets. Also, unlike the IEM, the Pollyvote never dropped below 50 percent. In other words it never predicted a Bush defeat. (Figure 1).

Figure 1.



On the morning of the election, the Pollyvote predicted a Bush victory with 51.5 percent of the two-party vote, which came within 0.3 percent of the outcome (51.2 percent).

When we began this project, we anticipated that we would need to recalibrate the Pollyvote after the election, adjusting the weights of its components and the averaging formula within them. Yet, in retrospect, at least in this project they yielded results that would be hard to beat.

Reference

Armstrong, J.S. (2001). Combining forecasts. In: J.S. Armstrong (Ed.), *Principles of Forecasting: A Handbook for Researchers and Practitioners*. Boston: Kluwer Academic Publishers.

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