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The Jobs Model Forecast: Well Done in 2004

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The Jobs Model of presidential election forecasting predicted well in 2004. The model, based on data available in August 2004, generated an error of only 1.3 percentage points when forecasting the incumbent share of the two-party popular vote (Lewis-Beck and Tien 2004). In contrast, the median forecast from seven teams of statistical modelers was off 2.6 percentage points (Campbell 2004, 734). We believe that the Jobs Model was more accurate because it broadened measurement of economic performance, a conceptual variable lying at the core of most of these efforts. Take, as a representative example, the Growth Model in Table 1, Column 1. Its forecast for George W. Bush was 54.0% (almost exactly at the median for the above-mentioned group of forecasters). This model was earlier reported by us, but rejected on grounds of specification error (Lewis-Beck and Tien 2004). We argued that the changing nature of the American economy required attention to a hitherto neglected variable—job creation. When this variable, new jobs over the presidential term, is added to the Growth Model, the fit statistics improve dramatically (see Table 1, Column 2).

The Jobs Model correctly forecast an extremely close race (49.9% for Bush to 50.1% for Senator John Kerry). This forecast was preliminary, based on an official but early (August) estimate of GNP growth for the second quarter (yielding an estimate of 1.32% growth, non-annualized, across the first two quarters of 2004). With the more accurate GNP growth number (1.47% growth for these two quarters), available in September, the final model forecast was 50.2% for Bush v. 49.8% for Kerry. In other words, the prediction was a Bush victory, the error only one percentage point (i.e., actual 51.2%—predicted 50.2%).

Our final point estimate compares quite favorably to other estimates, regardless of the forecasting approach. With respect to the forecasts from the above seven teams, all of whom employ an aggregate statistical model, it bests all except the first Wlezien and Erikson forecast of 51.7% (Campbell 2004, 734). Besides these macro-models, there are micro-models (based on vote intention or vote expectation). With respect to the polls, which examine vote intention, the Final Gallup Pre-Election Survey results were allocated 49% Bush, 49% Kerry, 1% Ralph Nader (Gallup Poll, November 1, 2004). In other words, they placed Bush and Kerry in a dead heat for the two-party vote, at 50-50 each, giving Gallup a final error of 1.2 percentage points.

Another micro-approach comes from the Iowa Electronic Market (IEM), which reflects candidate forecasts daily through stock trader expectations. This year, the IEM gave Bush 50.5% on November 1, the day before the election, for an error of only 0.7 of a percentage point. A final micro-model, also based on expectations of voter behavior, is “citizen forecasting” (Lewis-Beck and Skalaban 1989). It has been demonstrated that survey respondent guesses about who will win the presidential election can be highly predictive of the outcome (Lewis-Beck and Tien 1999). According to data from the Pew Research Center’s Final Pre-Election Survey (October 27–30), 75% of those with an opinion declared that Bush would win. That translates into a prediction of 52.9% for the incumbent Bush (Lewis-Beck and Tien 1999, 181). Hence, this citizen forecast also does well, with an error of only 1.7 percentage points.

Reviewing these rival approaches, certain conclusions are possible. First, in general, forecasters, regardless of method—equations, polls, markets, citizens—did well. That is, they almost all saw it would be a close race, with the win going to Bush. Second, and more specifically, our statistical model bested all other macro-models except that of Wlezien and Erikson, and all micro-models except that of the IEM. The IEM gets the edge, with an error of 0.7 of a percentage point, as opposed to our error of one percentage point. However, that slight gain in precision from the IEM comes at the cost of considerable lead time. IEM’s 50.5% forecast was available November 1, the day before the election, whereas our 50.2% forecast was available September 29. In forecasting, the advantage a model has in lead time should not be disregarded, for it is here that the real value of forecasting lies (Lewis-Beck and Rice 1992, 96).

What of the future? The Jobs Model, updated with the 2004 observations, appears re-estimated in Table 1, Column 3. Including these current data strengthens the statistics (over Column 2): the standard error of estimate (SEE) is lower, the t-ratio for the Jobs variable is higher, and the Durbin-Watson statistic shows a reduced auto-correlation...
threat. We are encouraged that this specification is essentially sound, at least as far as it goes. What does it suggest about Republican chances in the 2008 contest? When the incumbent party is running the president for reelection, it gains, on average, over two percentage points in the popular vote. The Republicans will lose this incumbent party advantage, since George W. Bush cannot compete again. Thus, to bolster party prospects, President Bush could deliver a better job performance at the end of his second administration, compared to the end of his first (measured by presidential popularity at 47). The implication is that perceptions of the war on terror and in Iraq must improve. To further compensate, President Bush could boost the economy, in particular creating many more new jobs this time around. These are tall orders. The Republicans appear to have an uphill battle for the presidency in 2008.

### Table 1
Comparing Growth and Jobs Models

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Growth Model (1)</th>
<th>Jobs Model (2)</th>
<th>Updated Jobs Model (3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Two Party Vote</td>
<td>37.48* (19.08)</td>
<td>31.16* (12.63)</td>
<td>32.05* (15.67)</td>
</tr>
<tr>
<td>Pres. Popularity</td>
<td>.26* (6.03)</td>
<td>.26* (8.21)</td>
<td>.26* (8.67)</td>
</tr>
<tr>
<td>GNP x Elect</td>
<td>1.50* (3.35)</td>
<td>1.58* (4.74)</td>
<td>1.56* (4.94)</td>
</tr>
<tr>
<td>Incumbent Party</td>
<td>2.07* (3.02)</td>
<td>2.30* (4.31)</td>
<td>2.28* (4.52)</td>
</tr>
<tr>
<td>Advantage Jobs</td>
<td>.59* (3.09)</td>
<td>.51* (3.36)</td>
<td>.51* (3.36)</td>
</tr>
<tr>
<td>2004 Forecast</td>
<td>53.8</td>
<td>50.2</td>
<td></td>
</tr>
<tr>
<td>R2</td>
<td>.91</td>
<td>.96</td>
<td>.96</td>
</tr>
<tr>
<td>Adj. R2</td>
<td>.88</td>
<td>.94</td>
<td>.94</td>
</tr>
<tr>
<td>SEE</td>
<td>2.04</td>
<td>1.52</td>
<td>1.44</td>
</tr>
<tr>
<td>D-W</td>
<td>1.63</td>
<td>1.28</td>
<td>1.67</td>
</tr>
</tbody>
</table>

Where Two Party Vote = percentage of the two-party popular vote received by the incumbent party. 
Pres. Popularity = Gallup approval rating of the president’s job handling measured in the first July poll before the election. 
GNP x Elect = the growth rate in the real GNP across the first six months of the election year times whether an elected president is running (scored 1) or not running (scored 0.5). 
Incumbent Party Advantage = 1 if incumbent party candidate is the elected president (1956, 1972, 1980, 1984, 1992, 1996) or following a president who died in office (1948, 1964), 0 if incumbent party candidate has a tolerable association with the previous president (1952, 1976, 1988), – 1 if incumbent party candidate and the president are not united (1960, 1968, 2000). 
Jobs = growth in jobs over first 3.5 years of president’s term. Data (not seasonally adjusted) are the number of employed in Civilian Labor Force (16 years and older) from Bureau of Labor Statistic’s Current Population Survey of Households. Entries calculated by taking ((# employed in June of election year - # employed in January of inauguration year) / # employed in January of inauguration year) * 100. 
Figures in parentheses are t-ratios; * = statistical significance at the .05 level, two-tail test. 
The 2004 forecast is based on observations of the independent variables as of September 29, 2004: P = 47, G x E = 1.47, I = 1, J = 3.67. 
R-sq. = the coefficient of multiple determination; adj. R-squared = the coefficient of multiple determination adjusted for degrees of freedom; SEE = the standard error of estimate; N = sample size. 
D-W = the Durbin-Watson statistic.

Note
1. Campbell (2004, 733) states that models should be judged by the accuracy of their two-party popular vote prediction, not by whether they predict the winning candidate, for that prediction might be many points off. He goes on to say that “a forecast that incorrectly identifies the plurality winner but is close to the actual vote ought to counted as doing well,” which applies to our preliminary forecast. But in any case, with our final forecast of 50.2, based on the more accurate second quarter GNP estimate, the actual winner—Bush—is correctly predicted.
References

ton, DC.: Congressional Quarterly Press.

In recognition of his contributions to the scholarly community and the profession, friends of Seymour Martin Lipset have established a fund to endow the Centennial Center for Political Science and Public Affairs Library in his name.

The library is at the heart of APSA’s new study center, located in its Washington, DC headquarters building. The library will provide resources for scholars conducting research in Washington and provide an ideal location for small meetings and interaction between Center visiting scholars.

Paul Rich, University of the Americas and the Hoover Institution; Larry Diamond, Hoover Institution; and Walter Beach, Helen Dwight Reid Educational Fund, are spearheading the fundraising effort which seeks to raise an endowment of $100,000. The campaign has already raised nearly $30,000 in gifts and pledges.

To join this effort, make contributions online at www.apsanet.org/future or by check, to APSA, and mailed to: 1527 New Hampshire Avenue, NW, Washington, DC 20036.