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One autumn out of four, election forecasting surpasses baseball as America's national pastime. Then, everyone wants to know who will win, and everyone has a guess. Now, with the ballots carefully counted, forecasters await their awards. Below, I evaluate the quality of a wide range of 1984 presidential and congressional forecasts. The evaluation proceeds from nonscientific to scientific approaches, although this distinction is sometimes blurred. To lower the level of suspense, I should say that some forecasts turned out to be quite good. By way of conclusion, I offer a set of rules for selecting a high-quality forecasting instrument.

Lucky Guesses

Many popular election forecasting rules take advantage of chance, which has been working in their favor. Perhaps the most famous is the World Series forecast, which says, "If the American League wins the World Series, then the Republican presidential candidate will win." This technique was accurate from 1952 to 1976, missed in 1980, but worked again in 1984 with the victory of the Detroit Tigers. A lesser known rule of this type, which is my personal favorite, is based on the Beaujolais wine harvest. Accordingly, "If the Beaujolais vintage looks bad, then the Republican will take the presidency." This has held post-1960, and continues to do so with the poor 1984 crop (yielding a wine too light, with little color). There are other such rules that relate more directly to the candidates themselves and, in that sense, have more verisimilitude. One, based on candidate height, is "the taller presidential candidate will win," which was accurate in 1984 (but not in 1976). Another, derived from name length, is "the longest last name wins," a forecast which missed in 1984 and was not testable in 1980. These recent problems with the "name length" rule suggest that it should be retired, along with the others of course, which all are mere coincidence, even if highly unlikely ones. (It must be noted that scientists have not always been willing to dismiss these occurrences as "mere coincidence." Paul Kammerer, noted Austrian biologist of the early 1900s, developed the "law of seriality," which contends that "a coincidence or a series of coincidences is in reality the manifestation of a universal principle in nature which operates independently from the known laws of physical causation" [Koestler, 1971, p. 137]. C. J. Jung actually adopted this "law of seriality" and Einstein regarded the notion as "by no means absurd" [Koestler, 1971, p. 142].)

However, that some forecasting devices have their roots in coincidence is not always so evident. The best example here is the use of a bellwether county or state, with the idea, "as it goes, so goes the nation." Louis Bean (1948), economist and statistician, employed bellwethers extensively in predicting the outcome of United States elections. Currently, the two counties with the best record are Crook County, Oregon and Palo Alto County, Iowa, both of which voted with the presidential winner in every election from 1896-1980. (Within Palo Alto County itself, there is the claim that Silver Lake Township serves as a bellwether.) How have these counties managed such a remarkable string of successes? According to the editor of the *Emmetsberg Reporter-Democrat,* the citizens of Palo Alto manage this feat because "we are well-read, educated, and we care." While this characterization of Palo Alto voters may be correct, it seems an unlikely explanation for their bellwether status, since it implies they are actually an elite sample of the total American electorate. A more plausible explanation, and one commonly made, is that the bellwether is somehow an electoral microcosm. Still, this accounting is unsatisfactory. Palo Alto, a highly rural, farm county settled by northern Europeans, would seem an improbable candidate to represent the United States in late-twentieth century. Most likely, the stunning

election record of Palo Alto is just coincidence. Out of the more than 3,000 counties in the nation, it is not really surprising that one or two would have such a voting pattern. If chance alone is operating, then we might expect the string to be broken soon. Indeed, this is what happened in 1984 to Palo Alto, whose voters went for Mondale (3,015) over Reagan (2,706). (Upon reflection, it is easy to figure out why this happened. It was a "friends and neighbors" vote. In particular, Walter Mondale grew up just across the border, and played high school basketball in Emmetsburg; on localism in presidential elections, see Lewis-Beck and Rice, 1983.)

Educated Guesses

Another common election forecasting method relies on the "educated guesses" of astute observers or key political participants. It might be argued that, at least for the 1984 presidential contest, not much "astuteness" was required to pick the winner. (In fact, a well-known academic forecaster told me his dog could have called this one!) Nevertheless, Reagan's victory was not obvious to everyone. In an Iowa City preelection survey, eight percent of the voters interviewed flatly forecast a Mondale victory. Among a somewhat more informed population—the students in my Voting and Elections course—everyone did correctly forecast a Reagan win. Still, they ranged widely in their estimates of the margin of victory, giving him from 51 percent to 69 percent of the popular vote.

Many popular election forecasting rules take advantage of chance, which has been working in their favor. . . . A lesser known rule of this type, which is my personal favorite, is based on the Beaujolais wine harvest. Accordingly, "If the Beaujolais vintage looks bad, then the Republican will take the presidency." This has held post-1960, and continues to do so with the poor 1984 crop (yielding a wine too light, with little color).

Clearly, there is a good deal of error in these "educated guesses." Among political insiders, we would also expect considerable forecasting error, some random, some systematically favoring a preferred candidate. Former President Ford's forecast error for 1984 seems essentially random: "Any Republican who thinks it's going to be a landslide is crazy" (*Chicago Tribune*, June 1, 1984, p. 6). However, the predictions of most politicians clearly reveal strong partisan bias. For instance, Representative Mary Rose Oakar (D-Ohio) announced, in a $1000 bet with Lee Atwater (Reagan's Southern campaign director), that Mondale would take her state (*New York Times*, October 30, 1984, p. 12). In another example, during the last weeks of the presidential campaign in California, the Mondale pollsters consistently reported their candidate trailing Reagan by only about eight to ten points, whereas the Reagan pollsters put the figure around seventeen (*New York Times*, Oct. 28, 1984, p. 1, 12). Mondale himself, predicting the greatest political upset since Truman in 1948, proclaimed, "On Tuesday the pollsters and the Republicans are in for the biggest surprise of their life" (*New York Times*, November 5, 1984, p. 15). Such forecasts, while fully comprehensible given the intensity of political battle, were obviously heavily biased.

Certainly, the bias of the activist did not confine itself to the presidential race. With regard to House contests, the bias of partisan forecasts is easily apparent. Before the election, the composition of the House of Representatives stood at 167 Republicans, 266 Democrats, and two vacancies. Throughout the course of the campaign, Republican congressional strategists repeatedly predicted major gains in the House. President Reagan foresaw "an historic electoral realignment," as Republican contestants rode his coattails into office (*New York Times*, Nov. 5, 1984, p. 1). House Minority Whip Trent Lott of Mississippi

raised the prospect of an actual takeover of the House, thereby projecting a Republican gain of close to 50 seats (*Washington Post*, Sept. 24, 1984, p. 4A). Somewhat less grandly, House Minority Leader Robert H. Michel of Illinois spoke about a Republican advance of 30 to 40 seats, easily sufficient to establish a majority coalition with conservative Southern Democrats (*Washington Post*, Sept. 24, 1984, p. 4A). Heading into the election, Rich Galen, a spokesman for the National Republican Congressional Committee stated, rather more cautiously, "It looks like we could do better than 25 seats" (*New York Times*, Nov. 7, 1984, p. 15). Of course, as we now know, the Republicans achieved a net gain of only 14 House seats, well below the most pessimistic forecasts of party strategists.

Easy Guesses

In the United States, the organized polling of public opinion, with the view to predicting an election outcome, has been going on since the nineteenth century. Newspaper "straw" polls were the most popular method, and are still in use. For example, the *Emmetsburg Reporter-Democrat* has conducted a Presidential Preference Straw Poll for the last nine elections. Its 1984 poll put Reagan as the winner (with 51 percent of the 280 preferences expressed), right for the nation but wrong for Palo Alto County. Further, their polls from previous elections have not always followed the bellwether. Straw votes, of course, are often wrong. One that has had some success, however, is the presidential straw poll among the customers at Harry's New York Bar in Paris. Initiated in 1924, it has only missed in 1976 (no polls were taken during World War II). For 1984, the clientele gave 61 percent of their vote to Reagan (*New York Times*, Nov. 7, 1984, p. 15). A curious coincidence but, as with all straw polls, we do not take its forecasting potential too seriously.

What many take seriously, though, are scientific preelection polls. Nevertheless, trust in these instruments is misplaced according to Steven Rosenstone (1983, pp. 31-32), who argues "that polls are inherently incapable of forecasting elections." Still, such a conclusion certainly does not hold for the 1984 presidential election. In Table 1 are the popular vote estimates from the final preelection surveys of the major polling organizations. What each of the surveys correctly forecasted was, first, that Reagan would win and, second, it would be a landslide. That is impressive evidence in favor of the accuracy of scientific polling.

Having granted that, these survey results are not without problems. For example, the *USA Today* poll predicts a margin of victory for Reagan so wide (25 percent plus) that it cannot merely be dismissed as sampling error. Similarly, the Harris and Roper polls predict margins of victory for Reagan too narrow (ten to eleven percent) to be explained away by standard sampling error. Why the discrepancies from poll to poll? In addition to sampling error, it is necessary to consider question phrasing, interview timing, allocation of

TABLE 1
Final Preelection Poll Predictions for the 1984 Presidential Race*

	Reagan	Mondale	Margin
Popular Vote Results	59%	41%	18
Final Poll Prediction			
USA Today	60	35	25
NBC	58	34	24
New York Times/CBS	58	36	22
Gallup	59	41	18
Washington Post/ABC	54	40	14
Harris	56	44	12
Roper	55	45	10

*As compiled by the *Wall Street Journal*, Nov. 8, 1984, p. 7. When the Reagan plus the Mondale percentages total less than 100, it is because the polling organization did not allocate the undecideds.

"undecideds," and whether the interview was by telephone or face-to-face. Interestingly, Gallup, the oldest of the polling organizations and one of the few to rely on face-to-face interviews, hit the Reagan popular vote percentage right on the head (59 percent).

Such precision is arresting but, at the same time, somehow trivial. After all, the poll, taken only a few days (Nov. 2-3) before the vote, can be viewed as an almost flawless election simulation. As Polsby and Wildavsky (1984, p. 206) observe, "the importance of this kind of prediction is not great. After all, we get to know who has won very soon . . ." In this vein, the most trivial forecasts of all come from the exit polls, which interview a national sample of voters as they leave the voting place. On November 6, at 8:01 p.m. Eastern Time, while people were still voting, Dan Rather of CBS News officially projected Ronald Reagan the presidential winner, on the basis of their exit poll data. This is not election forecasting; rather, it is election reporting as it happens.

Hard Guesses

To forecast correctly means to tell of an event before it happens. The greater the time (the "lead") from the forecast to the election, the harder the task. When the lead is of any size, poll estimates of final voter preference tend to be quite inaccurate. For instance, although it is perhaps difficult to remember, Mondale at certain points in the campaign registered encouraging support in the polls (e.g., after the first debate). Indeed, following the Democratic National Convention in July, the Mondale-Ferraro ticket actually bested the Reagan-Bush ticket in a nationwide Gallup Poll, 48 percent to 46 percent! The conclusion is that voter preference surveys, when conducted at a nontrivial lead time, are not reliable predictors of the election outcome. But, perhaps the more formal voting models of political science can serve.

Unfortunately, few political scientists have tried to develop election forecasting models. Among the few, the first to suggest itself is Tufte's (1978) well-known work. With regard to presidential elections, he holds the popular vote share of the incumbent party to be a function of the election year change in real disposable income per capita, plus net presidential candidate advantage (Tufte, 1978, pp. 120-122). While this multiple regressional model, estimated on the elections from 1948-1976, fits the data well (R-squared = .94), it cannot be used for forecasting because the independent variable measures are not available before the election. In particular, the election year change in real per capita disposable income is not known until the first part of the post-election year and net presidential candidate advantage, based on Michigan SRC-CPS Election Survey items about candidate "likes" and "dislikes," would not be obtainable until after the election (Tufte, 1978, pp. 116-117).

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Another prominent possibility is Rosenstone's (1983) recently published model. Accordingly, presidential vote choice is determined by New Deal social welfare issues, racial issues, economic management, war, incumbency, home-state advantage, and secular political trends. This explanatory model, with 25 independent variables plus numerous state intercept terms, is first estimated using state level aggregate data from 1948-1972 (Rosenstone, 1983, ch. 3). These state level estimates are then used to produce national level predictions. The essential trouble with the Rosenstone model is that it cannot really be used for forecasting because several of the key independent variables are not known before the election. As the author admits, "[t]he election year change in real disposable income per capita is one variable that is unobserved"; "the forecaster must know the voter turnout in each state"; "[v]ariables that comprise the New Deal social welfare and racial scales are not observed prior to the election" (Rosenstone, 1983, p. 119). Furthermore,

description of the index construction is at times difficult to follow, making replication unlikely (see esp. ch. 4 and Appendix C). Also, in trying to predict the 1980 result, the author arbitrarily alters the model. Here is one example: "Relaxing my earlier assumption that foreign policy issues matter only in time of war, I include a measure of the electorate's assessment of the relative ability of each party to provide peace" (Rosenstone, 1983, p. 113).

Thus, the models of Tufte and Rosenstone, while they may help us understand the vote decision, simply cannot be employed to generate before-the-fact presidential election forecasts. Luckily, some remaining models can be, namely, those of Brody and Sigelman (1983), Hibbs (1982), and Lewis-Beck and Rice (1984a). Consider first the Brody and Sigelman (1983) bivariate regression model, which simply predicts the popular vote share of the presidential party candidate, (V_t) from the presidential approval rating in the last Gallup Poll released prior to the election (P_t).[1]

$$\hat{V}_t = 29.8 + .406P_t \qquad \text{Eq. 1}$$
$$4.56 = t$$
R-squared = .71 N = 11 (1940-1980 elections)

For 1984, this last Gallup Poll value comes from July 27-29, carrying a value of 53 percent, which yields a November forecast of 51.3 percent of the popular vote for Reagan.

The Hibbs (1982, p. 394) model, which is rather more complicated, argues that the two-party popular vote share of the incumbent party candidate is a function of "the (geometrically) weighted average of the (OPEC adjusted) annualized quarter-on-quarter percentage rate of growth of real personal disposable income per capita (R) cumulated over the 15 preelection quarters in each administration":

$$\hat{V}_t = \underset{(3.27)}{45.7} + \underset{(1.49)}{3.30}\left[\frac{\sum_{i=0}^{14} 0.8^i R_{t-i-1}}{(.19)}\Big/\sum_{i=0}^{14} 0.8^i\right] \qquad \text{Eq. 2}$$
R-squared = .63 standard error of est. = 5.09
standard errors in parentheses, N = 8 (1952-1980 elections)

For 1984, Eq. 2 generates a forecast of 55.3 percent for Reagan (Hibbs, 1984, personal communication).

Lastly, the Lewis-Beck and Rice (1984b) model, combining economic and noneconomic predictors, forecasts the popular vote share of the incumbent party candidate (V_t) from the real GNP per capita growth rate in the second quarter of the election year (G_{t-6}) plus the Gallup presidential approval rating in May of the election year (P_{t-6}).

$$\hat{V}_t = 33.03 + 1.42G_{t-6} + .34P_{t-6} \qquad \text{Eq. 3}$$
$$1.78 = t \quad 4.05 = t$$
R-squared = .82 standard error of est. = 3.68
N = 9 (1948-1980 elections)

For 1984, $G_{t-6} = 1.60$ and $P_{t-6} = 53$, yielding a Reagan popular vote forecast of 53.3 percent.

[1]Lewis-Beck and Rice (1982) had proposed a more restricted version of this model, which predicts the popular vote share of a president running for reelection from his Gallup approval rating in June prior to the election. For 1984, this "June model" generates a forecast of 53.7 percent for Reagan.

TABLE 2
1984 Election Forecasts From Different Models

Model	Presidential Forecast for Reagan	House Forecast for Republicans
Brody and Sigelman	51.3%	
Hibbs	55.3	+14
Lewis-Beck and Rice	53.2	+ 8
Jacobson		+17
Trial Heat	57.7	
Presidential Result: 59% popular vote to Reagan		
House Result: 14 seat gain to Republicans		

These three models above have in common the capacity to generate *ex ante* forecasts for the 1984 contest. The predictions are summarized in Table 2. How did they do? First, these forecasts all correctly select Reagan as the winner. Second, each of these forecasts, with the possible exception of the Brody and Sigelman one, indicates a "comfortable" victory for Reagan, especially when the popular vote-electoral college vote ratio is taken into account.[2] However, none forecasted a landslide, which is what happened.

For all these models, then, the 1984 result was an outlier which they failed to capture. This suggests the models require some tinkering. Tom Rice and I had developed a model in 1983 (unpublished) which turns out to have the precision necessary to forecast the Reagan landslide. It forecasts the presidential popular vote share as a function of the September Gallup trial heat question (T_{t-2}) coupled with the previously used second quarter real GNP growth rate per capita:

$$\hat{V}_t = 26.84 + .52T_{t-2} + 1.42G_{t-6} \qquad \text{Eq. 4}$$

$$7.77 = t \qquad 3.08 = t$$

R-squared = .94 st. error of est. = 2.15

N = 9 (1948-1980 elections)

where V_t, G_{t-6}, and the statistics are defined as with Eq. 3; and T_{t-2} = the percentage favoring the incumbent party presidential candidate in the trial heat question nearest September 1: "Suppose the presidential election were being held today. If X were the Democratic candidate and Y were the Republican candidate, which would you like to see win?" The appropriate independent variable values for 1984 are, respectively, G_{t-6} = 1.60 and T_{t-2} = 55 percent. These yield a forecast of 57.7 percent for President Reagan, only about one percentage point off the actual figure.

Congressional Elections

What about congressional election forecasting? Here statistical models are especially important, because even the best voter preference polls cannot generate good predictions. For instance, the Gallup organization, after asking their respondents on November 2 and 3 whether they would vote Democrat or Republican in the House race, suggested the Republicans might gain 33 seats (*New York Times*, Nov. 5, 1984, p. 17). A prime difficulty with such surveys, of course, is that they must ask for the party name, rather than the candidate name. (Imagine the cost of conducting proper surveys within 435 congressional

[2]When electoral college vote is regressed on popular vote percentage, the R-squared = .92, with a "swing" ratio of 4.15 (Lewis-Beck and Rice, 1984a, p. 18).

districts. It would involve interviews with around three-quarters of a million people!) Hence, models based on aggregate time series will continue to be relied upon for some time in congressional election forecasting (except for the Senate, where no models exist). The pioneering work here was done by Tufte (1978, pp. 106-115) in his efforts to predict midterm House elections. However, his model for on-year House elections differs, containing the same independent variables as his presidential model above, and therefore does not permit forecasting (Tufte, 1978, pp. 115-119). Nevertheless, other researchers provide models which allow before-the-fact predictions of overall seat change in the House: Jacobson (1981); Hibbs (1982); Lewis-Beck and Rice (1984b).

The Jacobson (1981) equation for on-year elections predicts the aggregate Republican popular vote share for the House (V) as a function of two independent variables: the difference in the percentage of each party's challengers who have held elected office, H (which measures the relative quality of the challengers); and, the yearly change in real disposable income per capita from the first quarter of the year prior to the election to the first quarter of the election year, I:

$$\hat{V} = 42.8 + .27H + .78I \qquad \text{Eq. 5}$$

$$2.45 = t \quad 1.67 = t$$

adj. R-squared = .37 N = 9 (1948-1980 elections)

This model predicts a 1984 aggregate Republican vote share of 47.4 percent which, from his votes-seats translation equation, leads to a forecast of 17 more Republican House seats (Jacobson and Kernell, 1982, p. 426; Jacobson, 1984, personal communication).

The Hibbs (1982, p. 397) model for House on-year elections utilizes the same independent variable as his above presidential model—the (OPEC adjusted) cumulative growth rate of per capita real disposable income over the fifteen pre-election quarters (the last being the July-September quarter before election day). The dependent variable, first used by Tufte (1978, ch. 5), is V, the aggregate House vote percentage for the president's party less the average aggregate House vote percentage for the president's party in the eight prior elections:

$$\hat{V} = \underset{(.83)}{-3.57} + \underset{(.29)}{1.19}\left[\sum_{i=0}^{14} \underset{(.12)}{0.56^i}\, R_{t-i-1} \quad (1/\sum_{i=0}^{14} 0.56^i)\right] \qquad \text{Eq. 6}$$

R-squared = .78 st. error of est. = 1.56

standard errors in parentheses N = 8 (1952-1980 elections)

This equation forecasts a 1984 Republican advance of 2.6 percentage points in the aggregate House vote. Utilizing a 1982 swing ratio of votes to seats of 1.22, this yields a forecasted Republican gain of 14 seats (Hibbs, 1984, personal communication).

The final model, that of Lewis-Beck and Rice (1984b), employs the independent variables of their presidential equation, i.e., presidential approval in the Gallup Poll (P_{t-6}), and quarterly real GNP growth per capita (G_{t-6}), both measured six months before the election. Further, it differs from the above models in that the dependent variable directly measures actual seat change, S, rather than popular vote change. Lastly, it covers midterm as well as on-year congressional elections, capturing the difference in a dummy variable, D (1 = on-year):

$$S = -70.0 + .84P_{t-6} + 5.37G_{t-6} + 25.9D \qquad \text{Eq. 7}$$

$$4.19 = t \quad 2.30 = t \quad 4.30 = t$$

R-squared = .80 st. error of est. = 11.8

N = 17 (1950-1982 elections)

For 1984, this equation generates a forecast of plus eight seats for the Republicans.

Overall, these three models [of the 1984 congressional elections] did rather well in 1984 (see summary in Table 2). Most importantly, each foretells the real political outcome of the 1984 contests. That is, contrary to the confident predictions of many party pros, they foresaw that the Republicans would fail to regain the ideological working majority lost in 1982. Hibbs manages to call the 14 seat Republican advance exactly. Jacobson is three seats too high, Lewis-Beck and Rice are six seats too low. But these errors are small and, especially when joined with the different R-squared values, do not afford a clear guide to which model should be generally preferred.

The Proper Evaluation of a Forecasting Instrument

We have reviewed numerous forecasting tools. How to select the best? Many elements compose a good forecasting instrument. First, obviously, is accuracy (A). For accuracy alone, one should simply rely on the final Gallup preelection poll. But accuracy is not everything. It is not very interesting to know, on the day before, who will win the presidential election. Clearly, then, "lead" (L) is also critical. The quality of a forecast is judged partly by the length of time between its announcement and the election. In general, we are more dazzled, the farther a prediction from the event itself. (Astronomers always astound us with predictions of comets that will appear 100 years from now!) Besides accuracy and lead, other variables contribute to a sound forecasting model, namely, usability (U), clarity

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(C), parsimony (P), and specification (S). After reading over the model, could a reasonably intelligent voter make the necessary calculations? Is the model understandable, at least after a little thought? Does it contain a few variables, or all but the kitchen sink? How plausible is the causal explanation that is suggested? These variables, taken together, determine forecast quality (Q). Let me propose a formalization of the relationship:

$$Q1 = \frac{(3A + P + S + U + C)\,(L)}{M} \qquad \text{Eq. 8}$$

where Q1 = a measure of the quality of the forecasting instrument, A = accuracy, P = parsimony, S = specification, U = usability, C = clarity, L = lead, M = the maximum possible score in the numerator (included simply in order to give Q1 a theoretical upper bound of 1.0).

In this equation for Q1 we see that, since accuracy is so important, it is assigned three times the weight of the other additive elements. Moreover, because lead is a necessary condition, it is made to enter the equation multiplicatively. The *sine qua non* of any forecasting device is that it allows a prediction before the event, i.e., L>0. For example, if a good explanatory model can only generate an after-the-fact prediction, then L = 0 and, consequently, Q1 = 0. (The presidential election models of Tufte and Rosenstone considered earlier would appear to be instances here.) If numbers can be assigned to these variables, the assessment of overall quality of our various forecasting instruments is possi-

ble. Therefore, assume each variable follows a scale from low to high, with numerical values from 0 to 3.

As an illustration, let us now evaluate the forecasting quality of the Lewis-Beck and Rice (1984b) congressional model in Eq. 7. Its accuracy is not perfect, but not bad, so A = 2 (out of the 3 possible). With regard to parsimony, it has only two simple substantive independent variables, giving it a high score, P = 3. The model specification seems plausible, although the authors explicitly state they are interested in prediction rather than explanation, for a middling S = 2. The model is presented fairly clearly, and enough information given on the variables to make replication feasible, yielding C = 3 and U = 3. Considering the lead time, it forecasts from events measured six months before the election, which makes it more long-range than the other models, thus a top score of L = 3. Inserting these values into Eq. 8 produces a Q1 = .81, implying its quality is reasonably good (note that with a perfect score Q1 = 1.0).

Quality estimates for the other forecast instruments under review appear in Table 3. Observe that the bellwether of Palo Alto has a Q1 value of .00, as it should, given that its results do not precede the election itself. Turning to those forecasting tools with non-zero quality ratings, the polls fare the most poorly, especially exit polls (Q1 = .03). For both presidential and congressional elections, the Lewis-Beck and Rice models register the largest values, although the Jacobson (1981) model for Congress is a close second (Q1 = .59). One possible objection to these rankings is that the quality formula contains extraneous variables. Specifically, it might be argued that the only important factors are accuracy and lead, with the former clearly being much more important (say three times more). Further, the presence of both is necessary. From such a perspective, the following streamlined formula for forecasting quality would be preferable:

$$Q2 = \frac{(3A)\ (L)}{M} \qquad \text{Eq. 9}$$

TABLE 3
Evaluation of Various Forecasting Instruments

$$Q1 = \frac{(3A + P + S + U + C)\ (L)}{M} \qquad Q2 = \frac{(3A)\ (L)^*}{M}$$

	Presidential Election		House Election	
Model	**Q1**	**Q2**	**Q1**	**Q2**
Brody and Sigelman	.43	.11		
Hibbs	.19	.22	.24	.33
Lewis-Beck and Rice	.67	.33	.81	.67
Jacobson			.59	.56
Trial Heat	.60	.67		
Palo Alto County	.00	.00		
Gallup Final Poll	.15	.17		
Exit Poll	.03	.03		

*Q1 and Q2 are quality ratings; A = accuracy, P = parsimony, S = specification, U = usability, C = clarity, L = lead, M = maximum possible score for the numerator. Here are the scores on each of these, in order, for each model. Brody and Sigelman, .5, 3, 1, 2, 3, 3, 2; Hibbs presidential, 2, 2, 2, 1, 1, 1; Hibbs congressional, 3, 2, 2, 1, 1, 1; Lewis-Beck and Rice presidential, 1, 3, 2, 3, 3, 3; Lewis-Beck and Rice congressional, 2, 3, 2, 3, 3, 3; Jacobson, 2.5, 3, 3, 2, 3, 2; Trial Heat, 3, 3, 1, 3, 3, 2; Palo Alto, 2.5, 3, 1, 2, 3, 0; Gallup Final Poll, 3, 3, 1, 3, 3,.5; Exit Poll, 3, 2, 1, 2, 2, .1.

where Q2 = a measure of the quality of a forecasting instrument, A = accuracy, L = lead, M = the maximum possible score for the numerator.

The Q2 scores for each of the forecasting instruments are also reported in Table 3. The exclusive focus on accuracy and lead, with the heavier weighting on the former, reduced the quality rating of the Lewis-Beck and Rice congressional model, to Q2 = .67, moving the Jacobson model relatively closer, with Q2 = .56. Turning to the presidential models, the "trial heat" model pulls way ahead of the others, Q2 = .67. No doubt, these ratings will be met with less than universal acceptance. In particular, the charge of bias (mine) might be levied. Be that as it may, they stand as an attempt to measure comprehensively the quality of competing forecasting instruments, at the least providing targets for other forecasters.

Forecasting the 1986 and 1988 Elections

The forecasting lessons of 1984 are clear. "Lucky guesses" break down suddenly (e.g., the Palo Alto bellwether, the name length rule), and "educated guesses" tend to be exaggerated (e.g., the House predictions of Republican party professionals). Scientific preelection polls can be quite accurate, but forecast too late in the game. In contrast, certain statistical models manage accurate forecasts well before the elections occur. What do these models foretell, then, about 1986 and 1988? Nothing, for those elections are still too far away. At this distance (November 1984), we must fall back on the forecasts of the odds makers. With respect to the presidential race, smart money seems to be going with New York Governor Mario Cuomo. For instance, Jimmy "The Greek" makes him an 8-5 favorite for the Democratic nomination, and the best bet to win the White House. But, I am rather tempted by London bookmakers, who are taking bets on Robert Redford for 1988 president, at 33-1 odds!

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