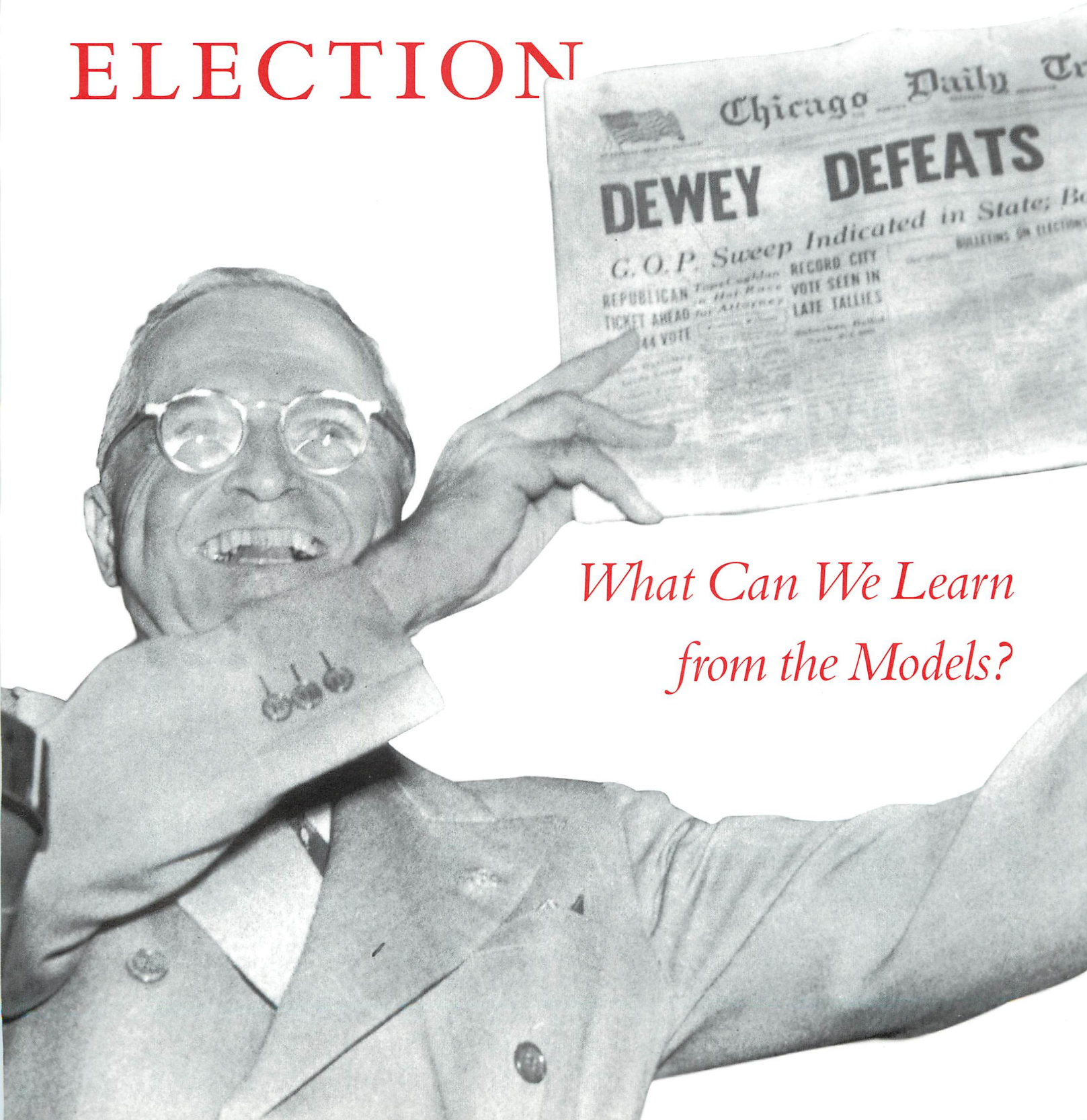
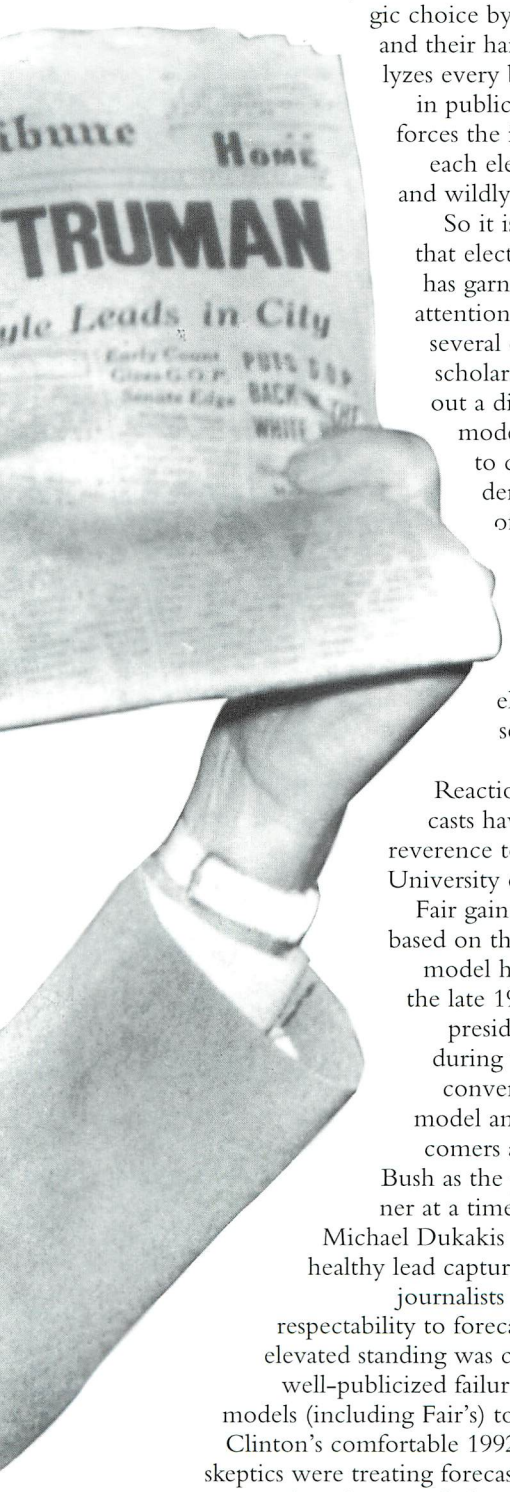
FORECASTING THE PRESIDENTIAL ELECTION



What Can We Learn from the Models?

JAMES E. CAMPBELL AND THOMAS E. MANN

The search for order in a seemingly chaotic and volatile political world is perfectly understandable. The unceremonious reversals of fortune suffered in recent years by George Bush, Bill Clinton, and Newt Gingrich suggest the tenuousness of political advantage and the risks of simple extrapolations from the present to the future. The pattern of media coverage of presidential elections, which chronicles every unforeseen event and strategic choice by the candidates and their handlers and analyzes every blip of reaction in public opinion, reinforces the impression that each election is in flux and wildly unpredictable. So it is not surprising that election forecasting has garnered increasing attention. Over the past several election cycles, scholars have churned out a dizzying array of models that purport to capture the underlying structure of past presidential elections and, on that basis, to predict the outcome of the election that lies some months in the future.



Reactions to the forecasts have ranged from reverence to ridicule. Yale University economist Ray Fair gained prominence based on the accuracy of a model he developed in the late 1970s to forecast presidential elections during the 1980s. The convergence of Fair's model and several newcomers around George Bush as the projected winner at a time in 1988 when Michael Dukakis was enjoying a healthy lead captured the fancy of journalists and lent a new respectability to forecasting. But that elevated standing was cut short by the well-publicized failure of two of the models (including Fair's) to anticipate Bill Clinton's comfortable 1992 victory. Soon skeptics were treating forecasts as curiosities on a par with such reputed election bellwethers as which league won the World Series and whether fashion hemlines were going up or down.

We come neither to praise election forecasting nor to bury it, but to explore whether the enterprise does in fact shed light on presidential campaigns and elections. Certainly forecasters have grounds for humility. Building models based on a small number of elections, involving questionable assumptions and rough measures of only a few of the factors that may affect specific election outcomes, they produce forecasts that often have wide confidence intervals and can be highly sensitive to specification choices. It doesn't inspire confidence to see data mined and equations refitted in the aftermath of inaccurate forecasts. But there are reasonable standards to use in judging the utility of various models, from the accuracy of out-of-sample forecasts to the plausibility of the underlying theory of individual behavior and the stability of the estimated effects over time. By using these standards in reviewing recent experience with these models, we can draw useful lessons about presidential elections and provide some baseline expectations with which to view the final months of this year's campaign.

The Lessons of Presidential Election Forecasting

1 *The fundamentals of a presidential election are in place before the traditional beginning of the general election campaign on Labor Day.*

This is not to say that the election is over before the campaign begins or that idiosyncratic events throughout the campaign make no difference. But forecasting models can succeed—and several have been quite accurate—because the critical factors affecting a presidential election are in place before the fall campaign begins. Among the fundamentals are the general course of the economy, the advantages of presidential incumbency, and, most important, the predisposition of the electorate toward the candidates. Before the fall campaign gets under way, a critical mass of voters has either already decided on a candidate or is strongly predisposed toward one.

Election forecasting offers a useful lesson about when polling becomes meaningful in a presidential election. In keeping with conventional wisdom, early polls should be taken with a grain of salt. The opinions they register are so ephemeral as to offer no real clues about the election. In the 12 presidential elections since 1948, for example, the leader in June Gallup Polls won 7 times and lost 5. But, as the successful forecasting models have discovered, between early summer and the fall campaign, public opinion gels. Whereas May and June polls are of, at most, marginal forecasting value, late July to early September polls tell us a great deal. By then, public opinion has firmed up, and what hasn't yet firmed up can be accurately predicted. The track record is clear. In the 12 elections from 1948 to 1992, when the party controlling the White House had a July presidential approval rating exceeding 50 percent, it won. When the approval rating was below 50 percent, the "in-party" won only once—the much ballyhooed come-from-behind victory of Harry Truman in 1948. The pattern in preference polls is much the same. Every nominee since 1952 who led by more than 53 to 47 in the post-convention polls has won the November election.

James E. Campbell is professor of political science at Louisiana State University and author of Cheap Seats: The Democratic Party's Advantage in U.S. House Elections *(Ohio State University, 1996). Thomas E. Mann is director of the Brookings Governmental Studies program and holds the W. Averell Harriman Chair in American Governance.*

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Table 1. The Battleground States: States That Voted for Bush in 1988 and Clinton in 1992

STATE	MEAN TWO-PARTY DEMOCRATIC VOTE, 1988 AND 1992	ELECTORAL COLLEGE VOTES	CUMULATIVE ELECTORAL VOTE	
			REPUBLICAN	DEMOCRAT
18 Republican states	42.5	168	168	538
New Hampshire	43.7	4	172	370
Georgia	45.1	13	185	366
Nevada	45.5	4	189	353
Tennessee	47.2	11	200	359
New Jersey	47.3	15	215	338
Ohio	47.8	21	236	323
Kentucky	48.0	8	244	302
Louisiana	48.7	9	253	294
Montana	49.4	3	256	285
Colorado	49.4	8	264	282
Delaware	49.5	3	267	274
Maine	50.2	4	271	271
Michigan	50.4	18	289	267
Connecticut	50.7	8	297	249
New Mexico	51.3	5	302	241
Pennsylvania	52.2	23	325	236
Missouri	52.3	11	336	213
California	53.4	54	390	202
Maryland	53.4	10	400	148
Illinois	53.7	22	422	138
Vermont	54.2	3	425	116
11 Democratic states + District of Columbia	57.9	113	538	113

Note: The solid Democratic and Republican states were those that voted in both 1988 and 1992 for the same party. Arkansas, as Clinton's home state, was also added to the Democratic base. The 18 Republican states are Alabama, Alaska, Arizona, Florida, Idaho, Indiana, Kansas, Mississippi, Nebraska, North Carolina, North Dakota, Oklahoma, South Carolina, South Dakota, Texas, Utah, Virginia, and Wyoming. The 11 Democratic states are Arkansas, Hawaii, Iowa, Massachusetts, Minnesota, New York, Oregon, Rhode Island, Washington, Wisconsin, and West Virginia. The cumulative electoral vote counts are the number of electoral votes that a party would win if it carried the specific state plus all of those leaning more in its direction. For instance, if Dole carried Michigan and all states that had on average voted more Republican than Michigan in the 1988 and 1992 elections, he would have an Electoral College majority of 289 votes to 249 for Clinton.

2 *Third-party and independent candidacies generate noise, but do not affect an election's predictability.*

It is certainly reasonable to question whether presidential elections can be forecast accurately when a significant third-party or independent candidate is involved, but the track record is again clear. The forecasting models most accurate in predicting the two-party presidential popular vote are equally accurate whether outside candidates receive a significant vote or only negligible support. In fact, the mean out-of-sample errors of two leading models were smaller when outside candidates won a larger portion of the vote (1968, 1980, and 1992). This is not to say that third parties make it easier to predict elections or that they might not someday have greater effects on a two-party contest, but, at least to date, they have not been an impediment. Presumably, the reason the strong independents—George Wallace, John Anderson, and Ross Perot—did not confound the forecast models was that each drew support fairly evenly from both major parties and attracted the rest of their support from voters who otherwise might not have voted.

3 *Campaigns narrow the lead of front-runners.*

The presidential race almost always tightens up over the course of the campaign. In 10 of the 12 elections since 1948, the front-runner's lead in June has notably declined or evaporated by election day. The two exceptions, both working to the advantage of incumbents seeking reelection, were in 1972 when Richard Nixon widened his lead over the ill-fated George McGovern and in 1984 when Ronald Reagan extended his lead over Walter Mondale.

Campaigns narrow the front-runner's lead for many reasons. Once the campaign heats up, any recognition advantage that either candidate might have had disappears. Excepting the incumbent's Rose Garden strategy, the playing field is nearly level. Both candidates have plenty of money, good advisors, and loads of media coverage. Whatever party divisions plagued a candidate on his way to the nomination can heal through the convention and into the campaign. For instance, after the bitter 1968 Democratic Convention in Chicago, Hubert Humphrey trailed Richard Nixon by 12 points in the polls. By election day the gap had closed to a single point. Leads also close because big leads simply cannot be sustained. Two-party politics is too competitive to preserve wide margins, as campaigns activate the underlying partisan attachments of voters. Add the media's closer scrutiny of front-runners and their desire for a real contest, and leads are bound to erode.

4A *It's more than the election-year economy.*

Long before James Carville phrased it in his own refined way—"It's the economy, stupid"—politicians and analysts had fully appreciated the political consequences of the economy. Herbert Hoover and Jimmy Carter learned this lesson the hard way. But the key question is timing. When does the economy matter? Here we can learn from Ray Fair's heralded forecasting model, which was built primarily on presidential incumbency and election-year economics, and which overestimated George Bush's 1992 vote by 9 percentage points. In evaluating the wreckage, Fair concluded that voters must have a longer-range view of the economy. Election year 1992 was not such a bad one economically, but voters may have blamed Bush for slow growth during 1990–91. In a similar vein, Christopher Wlezien and Robert Erikson find predictive power in income growth over the president's term. A longer perspective is also implicit in the James Campbell/Kenneth Wink and Alan Abramowitz models that rely more heavily on public opinion for their forecasts. In

short, voters do not suffer from economic amnesia. They may not recall the details, but they know whether the economy has been on track for the past few years. And voters may not look just to the past: a revised model by Michael Lewis-Beck and Charles Tien suggests that elections are also predictable based on public evaluations of which party will better maintain prosperity in the future.

4B *Voters are not cash registers.*

While the economy unquestionably matters greatly and helps color the general mood of a campaign as favorable or hostile to the party controlling the White House, it is not the sole, and may not even be the most important, determinant of an election. Voters always identify economic problems as important, but they also cite a range of noneconomic problems from crime to the environment to civil rights to the size of government.

Again, the Fair model is instructive. All the major forecasting models include the economy, but Fair relied most heavily on it and excluded measures of public opinion—and missed the 1992 election results by a mile. In the Abramowitz and Campbell/Wink models, the most accurate in 1992, economic conditions directly accounted for about a third of the forecast. Indirectly, through presidential approval or preference polls, economics may have had a greater impact on the forecast and vote, but it was clearly not the overriding factor in the election. Narrowly considering economic conditions while ignoring other facets of public opinion reduces chances of accurately predicting and correctly interpreting the results of elections.

5 *Presidential incumbents have a decided edge over their opponents.*

It was not that long ago that conventional wisdom regarded two-term presidents as an endangered species. At least on the Democratic side, evidence seemed to support the one-term-and-out thesis. The last Democrat to win two consecutive presidential elections was Franklin Roosevelt. Though the conventional wisdom has now changed, it is unclear whether presidential incumbency puts a candidate at an advantage or a disadvantage. The record of the past 12 elections suggests that it is neither. Of the 8 incumbents seeking reelection, 5 won and 3 lost. Not much of a bellwether.

All the forecasting models, however, indicate that incumbency matters and that a presidential party seeking a second term has a decided edge over the opposing party. While several models predict the vote for the party holding the White House and therefore do not explicitly include incumbency as a variable, under neutral conditions (50 percent approval ratings, tied preference polls, and average economic growth) each predicts an in-party popular vote victory with the in-party candidate receiving 52–56 percent of the two-party vote. The models differ over whether the incumbency advantage is a personal or a party advantage and whether it extends beyond a second consecutive term for a party, but each finds at least a first-term reelection advantage. As Helmut Norpoth has observed, only three times since the Civil War has the in-party been denied a second term, and the incumbent president did not run for reelection in two of these three cases. In the third case the incumbent, Democrat Jimmy Carter, did seek reelection and lost—the only instance in this century of a one-term party hold on the White House.

A comparison of the average votes for incumbents and challengers also suggests an incumbency advantage. The mean vote for the eight incumbents seeking reelection since 1948 was 54.2 percent. Presidential candidates of the out-party, on the other hand, received a mean vote of only 47.4 percent. And while three of the eight incumbents lost, none was trounced. The poorest showing was Carter's in 1980, and he got better than 45 percent of the two-party vote. Five of the nine defeated nonincumbents since 1948 lost by a greater margin. Presidential challengers sometimes lose by landslides. Incumbents almost never do. The last exception was Herbert Hoover in the 1932 Depression-era election.

6 *Party identification explains voting behavior, but does not explain or help predict presidential elections.*

Party identification remains the central influence on individual voting decisions. Most American voters identify themselves as either Democrats or Republicans, and most partisans loyally vote for their party's presidential candidate. But as important as partisanship is in guiding *individual* choices, none of the forecasting models has been able to come up with an aggregate measure of partisanship that has predictive value. Recent presidential elections illustrate the point. Over most of the past 30 years, more Americans thought of themselves as Democrats than as Republicans, yet Republicans won five of the last seven presidential elections.

There are at least two reasons why partisanship does not help forecast presidential elections. First, the parties are sufficiently competitive and the presidential candidates so well known nationally that elections are determined not by the fairly evenly distributed standing decisions of partisan voters but by the reactions of both weak partisans and independents to the particular presidential candidates and issue disputes of the election year. Second, as much as voters are influenced by national and historical forces, their choice ultimately boils down to a matter of the here and now. Partisanship colors a whole range of political attitudes about the campaign, but once one knows these attitudes, knowing the partisanship behind them adds nothing in a predictive sense.

7 *In the geography of presidential elections, states matter more than regions.*

When it comes to analyzing electoral geography, as we must given the Electoral College, we commonly think in regional terms. Regions share social, cultural, and economic characteristics that have important political

Table 2. The Presidential Forecasting Models

MODEL	Campbell & Wink	Abramowitz	Lewis-Beck & Tien	Fair	Wlezien & Erikson
1992 STATUS	Accurate	Accurate	Revised	Revised since 1992	New model
DEPENDENT VARIABLE	2-party vote for in-party	2-party vote for in-party	2-party vote for in-party	2-party vote for Democrats	2-party vote for in-party
PUBLIC OPINION					
Preference poll around Labor Day	.56 (10.60)	—	—	—	—
July presidential approval rating	—	.20 (3.57)	.12 (1.17)	—	.22 (2.87)
Party of peace and prosperity index	—	—	.18 (2.40)	—	—
THE ECONOMY					
Real economic growth in election year	2.08 (5.14)	1.17 (2.69)	1.70 (2.60)	.66 (8.04)	—
Absolute inflation rate for prior 15 quarters	—	—	—	-.83 (3.40)	—
Cumulative economic growth during term	—	—	—	.99 (4.47)	—
Cumulative leading economic indicators	—	—	—	—	28.37 (3.38)
INCUMBENCY					
Party of the incumbent (Dem=+1, GOP=-1)	—	—	—	-3.35 (1.26)	—
Party of incumbent during war years	—	—	—	4.69 (2.09)	—
Incumbent president seeking reelection	—	—	—	5.17 (4.58)	—
Party seeking third term or more	—	-4.85 (3.30)	—	-2.36 (2.23)	—
Constant	22.69	43.77	24.96	46.77	39.06
Number of elections	12	12	11	20	11
R^2	.95	.91	.89	.96	.87
Adjusted R^2	.94	.88	.84	.94	.83
Mean absolute error	1.01	1.42	1.63	1.14	1.70
Standard error	1.49	2.13	2.54	1.90	2.71
1996 Clinton vote forecast:	*	57.02	53.31	49.50	55.59
Forecast winner:	*	Clinton	Clinton	Dole	Clinton

* See table 3 for Campbell and Wink conditional forecasts.

Note: t-ratios are in parentheses. The first three equations have been estimated dividing minor party votes evenly between the two major parties. Undecided and minor party preferences are similarly divided in the presidential preference poll variable. The Party Peace and Prosperity Index is based on two Gallup election-year survey items asking which party would be more likely to keep the nation out of war and which would do the better job of keeping the country prosperous. The index is the sum of the two 0-100 scales and is oriented in terms of the in-party. The economic growth variable is the second quarter (non-annualized) GDP growth rate in the Campbell and Wink equation, the first half year's annualized GDP growth rate in the Abramowitz and Lewis-Beck and Tien equations (reestimated using the same economic series as the first equation), and the third-quarter GDP growth rate per capita in Fair's equation (except for the war years). Interaction terms in Fair's (1996) equation specifies economic growth and inflation to be irrelevant during the war years. The cumulative index of Leading Economic Indicators is a weighted average with each successive quarter weighed 1.11 times the previous quarter. The third-term penalty variable in the Abramowitz equation is coded one when a party is seeking more than a second consecutive term and zero otherwise. In the Fair equation the index is one for a party seeking a third consecutive term and increases by an increment of .25 with each additional term. Since the Fair equation is oriented in terms of the Democratic Party, the sign is reversed when the Republicans are the in-party. The personal incumbency variable is coded one if the incumbent is personally seeking reelection and zero otherwise (as an unelected incumbent Ford is coded as a nonincumbent). The sign of the economic growth rate, inflation, and the number of 3 percent plus growth quarters are positive when Democrats are the in-party and are reversed when Republicans are the in-party.

consequences. Certainly Republican inroads across Southern states in the 1994 midterm elections demonstrated the potency of regional politics. Yet forecasting models at the state level, while recognizing the importance of regions, indicate that differences among states are crucial. Among the most important predictors of a state's vote in the upcoming election are its votes in the past two elections. These tend to be pretty consistent. The two-party popular vote at the state level in 1992 was very highly correlated with the vote in 1988 and 1984.

Table 1 places the states in order based on the average of their 1988 and 1992 two-party Democratic presidential votes. States that supported the same party in both elections are grouped together at opposite ends of the list, with Arkansas added to the Democratic base because of President Clinton's home state advantage. The 21 states that voted for Bush in 1988 and swung to Clinton in 1992—the 1996 battleground states—are ordered along with their electoral votes. The list highlights several features of modern presidential politics. First, while Republicans do not have a lock on the Electoral College, they do have an advantage. Even with the two-party popular vote margins for Bush in 1988 and Clinton in 1992 being about equal (53.5 percent and 54 percent of the vote), Republicans won 18 states in both years for an Electoral College base vote of 168 votes while Democrats held 11 states and the District of Columbia for an Electoral College base vote of only 113. From a different perspective, however, if the 1996 election runs true to form, Republicans will need to win at least 30 states to get an Electoral College majority, while Democrats will need to carry 21 plus the District of Columbia.

Second, there is no single battleground region. The 21 swing states are spread all over the country: 4 in the Middle Atlantic, 4 in New England, 2 in the South, 3 border states, 4 in the West, 1 in the Southwest, and 3 big ones in the Midwest. As for individual states, Georgia, New Jersey, and Ohio are "must win" for Dole; Illinois, California, and Pennsylvania are "must win" for Clinton. Of the big electoral vote states, Michigan is a "must win" for both parties. But Maine, with its 4 votes, holds the balance in the Electoral College—dusting off the old maxim, "As Maine goes, so goes the nation."

The Forecast Models

Table 2 compares five of the major national presidential vote forecasting models. Clearly, the models use a wide assortment of variables. But with only a single exception (Fair's model), all incorporate measures of public opinion, economic performance, and incumbency (implicitly included in the constant of the four models predicting the in-party vote). The models also vary in complexity, from parsimonious two-variable models (Campbell and Wink, Wlezien and Erikson) to a seven-variable model (Fair) and from simple indicators (widely reported preference polls and approval ratings) to complicated indices (a geometrically decaying cumulative index of the leading economic indicators). Most produce forecasts with the release of the

second-quarter growth rates at the beginning of August, though Campbell and Wink's model requires Gallup preference poll data a month later, and the timing of Fair's forecast is indefinite, for it depends on growth rate and inflation data for the third quarter that are unavailable until late in the campaign and therefore must themselves be forecast.

The trial-heat model developed by Campbell and Wink, though the latest to yield a forecast, is the most accurate and one of the simplest. It indicates that the poll results in early September offer important clues to the November vote, but should be heavily discounted, owing to the tendency of campaigns to narrow, and adjusted by economic circumstances. The 1992 version of the model missed the division of the two-party vote by only about half a percentage point, despite the Perot disruption.

Although no candidate on record, including Harry Truman, has come back to win from as far behind as Dole was in late July (a 15-point gap), it is still too early at this writing to produce a definite forecast from the Campbell and Wink model. Table 3, however, offers contingent forecasts based on the historical range of polls around Labor Day. With a preference poll standing of more than 45 percent of two-party preferences at Labor Day, Clinton would be the predicted two-party popular vote winner. With a 51 percent Labor Day standing, his popular vote plurality would be a virtual certainty, based on past errors of the model.

The Abramowitz model, also right on target in 1992, uses the July presidential approval rating, real GDP growth in the first half of the election year, and a "time for a change" penalty variable for any party seeking more than a second consecutive term. It suggests that a party seeking a second presidential term is virtually certain to win if the economy is not in recession. With first-half GDP growth near normal (1.54 percent, non-annualized), it predicts that Clinton would be reelected even with approval ratings below 30 percent. With his July approval rating at 57 percent, Clinton is forecast to win reelection handily, with 57 percent of the two-party vote.

The Lewis-Beck and Tien model is a revision of a model (Lewis-Beck and Rice) that incorrectly predicted a Bush victory in 1992. After dropping indicators of midterm partisan trends and internal party divisiveness and testing alternative measures of prospective economic conditions, Lewis-Beck and Tien added an index of perceptions of the parties' relative abilities to preserve peace and prosperity to the first-half real growth in the economy and July presidential approval ratings. With about average first-half economic growth, neutral views of the parties' ability to deliver peace and prosperity, and a Clinton approval standing of 57 percent, the model would have to err by more than 3 percentage points for Dole to squeeze out a popular vote majority.

Fair's thoroughly revamped 1996 model predicts the Democratic share of the two-party popular vote with seven variables estimated over the 20 elections from 1916 to 1992. The model has no public opinion indicator, and despite the widespread perception of it as an economic model of elections, it is as much about incumbency as about the economy. Although it accounts for the past 20 elections quite well, it is not an easy fit and skeptics might well wonder whether future forecasts will require further tailoring. As for 1996, anticipating per capita GDP growth of 2.1 percent, inflation at 3.0 percent, and 8 quarters of good economic news during Clinton's first term, Fair forecasts the president garnering 49.5 percent of the two-party vote, a virtual dead heat.

The forecast of the new Wlezien and Erikson model is based on a cumulative index of the leading economic indicators over the presidential term (discounting early values) up through the second quarter of the election year and the president's approval rating in July. Based on the index computed through the first quarter of 1996 and with Clinton's 57 percent approval rating, the model tentatively forecasts a Clinton victory between 55 percent and 56 percent of the vote.

With the exception of Fair's (and the indeterminacy at this writing of Campbell and Wink's), the models forecast a fairly easy reelection for President Clinton. Based on historical experience since the end of World War II, he seems very likely to ride his resurgence in presidential stature since the disastrous 1994 elections and a reasonably healthy economy to four more years in the White House. If Kenneth Starr's independent investigation of the Whitewater, White House Travel Office, and FBI files affairs produces the ultimate "October surprise"—the damning evidence of serious misbehavior by the Clintons long sought by their Republican critics—this prediction would be put in jeopardy. But this would also be a first in American politics, something that by their very nature forecasting models cannot anticipate. ■

Table 3. Early September Trial-Heat and Economic Growth Model: Conditional Forecasts of the 1996 Two-Party Vote for Clinton

Percentage favoring Clinton in early September trial-heat poll	Predicted Clinton share of the two-party vote	Probability that the prediction of the winning candidate is correct
40%	47.21	91%
42	48.33	81%
44	49.44	61%
46	50.56	61%
48	51.68	81%
50	52.80	91%
52	53.92	96%+
54	55.03	96%+
56	56.15	96%+
58	57.57	96%+
60	58.39	96%+

Note: Based on the model by James Campbell and Kenneth Wink reported in Table 2 and a reported second-quarter GDP growth rate of 1.04 percentage points (non-annualized). The trial-heat polls divide undecideds and those with third-candidate preferences evenly between the two major-party candidates. The probability that the vote forecast correctly identified the winning candidate is based on the distribution of the forecast model's out-of-sample errors for previous elections.