

» FORECASTING «
ELECTIONS



MICHAEL S. LEWIS-BECK
TOM W. RICE

Forecasting Elections

Michael S. Lewis-Beck

University of Iowa

Tom W. Rice

University of Vermont



A Division of Congressional Quarterly Inc.
Washington, D.C.

Copyright © 1992 Congressional Quarterly Inc.
1414 22nd Street, N.W., Washington, D.C. 20037

All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopy, recording, or any information storage and retrieval system, without permission in writing from the publisher.

Printed in the United States of America

Cover design: Paula Anderson

Library of Congress Cataloging-in-Publication Data

Lewis-Beck, Michael S.

Forecasting elections / Michael S. Lewis-Beck, Tom W. Rice.
p. cm.

Includes bibliographical references and index.

ISBN 0-87187-600-0

1. Election forecasting--United States. 2. Election forecasting--
France. 3. Election forecasting. I. Rice, Tom W., 1956- .

II. Title.

JK2007.L48 1992

324.973'00112--dc20

91-39418
CIP

PREFACE

As political scientists we aim to *explain* politics. In addition to this goal, which we share with others in our field, we aim to *forecast* political events, specifically, election results. This is not an activity many scholars of elections pursue, which is not to say that election forecasting does not occur; indeed, it goes on all the time. Politicians, journalists, pollsters, and individual voters engage in speculation, even heated debate, about who will win the next election. In essence, all these people are making forecasts. But absent scientific rules of prediction, these forecasts are little more than guesses.

In this book, we systematically develop formulas (models, if you will) to forecast election results for the U.S. presidency, House of Representatives, Senate, governorships, and state legislatures. For comparative purposes, the more complex French electoral system also is studied.

To derive our forecasting models, we examine patterns in historical data from the post-World War II period (1948-1990). After reviewing the relevant research literature, we put forth an explanation of vote choice for each election arena. These explanations, in turn, serve as the foundations of the forecasting models. Take, for example, presidential elections. Why do voters select one candidate over another? Why George Bush and not Michael Dukakis in 1988? Research has demonstrated that economic issues were important vote determinants in 1988, just as they have been in other U.S. presidential elections. Thus, we consider the economy in our explanation of presidential election results, along with other relevant variables, such as party strength and candidate appeal. Our explanation is then summarized in an uncomplicated formula called a regression model, and the model is evaluated for its explanatory and predictive power. At every step, we offer descriptions that we hope will lead to a clear understanding of these models. Good descriptions, coupled with good data, enable readers to make good forecasts for themselves.

Many institutions and individuals contributed to the preparation of this book. We cannot mention them all, but we would especially like to thank the students in our undergraduate classes in American politics,

who were the guinea pigs for much of this material. Their helpful comments and sharp criticisms brought about many improvements in the text. In particular, we wish to acknowledge John Engle, Wendy Sender, and Ellen Faustine for their valuable research assistance. The manuscript also benefited from the valuable critiques and suggestions supplied by the evaluators. Also, our copy editor, Nola Healy Lynch, did an excellent job of identifying trouble spots in the writing. We are grateful to our editorial team at Congressional Quarterly—Brenda Carter, Kerry Kern, and Jenny Philipson—for their insight and skill in producing this text, and to Paul Pressau for his typesetting expertise. We would also like to thank Tracey Bonesteel, who, courtesy of Macro International Inc., helped us prepare the graphics. We take responsibility for any errors that remain.

CONTENTS

Tables and Figures	vii
Preface	xi
1. Prognosticators to Pollsters: Traditional Forecasts	1
Prognosticators	3
Politicos	6
Pundits	7
Pollsters	10
Conclusion	19
2. Presidential Elections: Simple Models	21
Measuring Presidential Election Outcomes	21
What Moves Presidential Voters?	25
Issues in the 1984 and 1988 Presidential Elections	26
The Impact of Economic Issues	30
The Impact of Noneconomic Issues	33
Presidential Popularity: A Simple Forecasting Exercise	38
Conclusion	40
3. Presidential Elections: More Complete Models	45
An Issues Model of Presidential Elections	45
Issues, Candidates, and Party: A More Complete Model	50
Conclusion	55
4. House Elections	57
Measuring House Election Outcomes	58
House Election Outcomes: A Conventional Explanation	60
Revising the Model: Midterms, the Economy, Risk	64
House Seat Change: A Less Conventional Explanation	68
Forecasting House Seat Change	71
Conclusion	74

5. Senate Elections	77
Measuring Partisan Change: The Senate Compared with the House	78
The House Model Applied to the Senate	81
Forecasting Senate Seat Change	85
Comparing the House and Senate Models	87
Conclusion	89
6. National Election Outcomes: Rival Models	91
Presidential Election Models	91
House Election Models	96
Conclusion	102
7. Governors and State Legislatures	103
Forecasting Gubernatorial Elections	105
Forecasting State Legislative Elections	110
Conclusion	114
8. French Elections: President and National Assembly	117
Presidential Elections	119
National Assembly Elections	124
A Unified Model for French National Elections	127
Conclusion	131
9. Models Applied: Forecasting the Next Election	133
Forecasting the Next Presidential Election	134
Forecasting the Next House Election	136
Forecasting the Next Senate Election	138
Conclusion	140
Appendix: Election Forecasting Data	143
References	153
Index	159

TABLES AND FIGURES

Tables

1.1	Iowa Poll Results for the 1978 Senate Race	15
1.2	Final Preelection Poll Forecasts for the 1984 Presidential Race	16
1.3	Gallup Presidential Preelection Poll Results, 1948-1988	17
2.1	Winning Candidate's Share of the Popular and Electoral Vote, 1948-1988	22
2.2	Incumbent Party's Share of the Popular and Electoral Vote, 1948-1988	23
2.3	Issues in the 1984 and 1988 Presidential Campaigns	27
2.4	"Most Important Problem" Over Time, 1948-1989	29
2.5	Evaluation of the National Economy and Presidential Vote Choice, 1988 National Election Survey	31
2.6	Unemployment Rate Change and Presidential Election Outcomes, 1948-1988	32
2.7	Correlation (Pearson's r) Between Macroeconomic Measures and the Electoral Vote	33
2.8	Presidential Popularity and Presidential Election Outcomes, 1948-1988	35
2.9	Prediction Accuracy of Electoral Vote Outcomes from Presidential Popularity, 1948-1988	40
3.1	Correlations Between Economic Measures	46
3.2	Issues Model: Prediction Error	49
3.3	Full Presidential Model: Prediction Error	54
3.4	Predictive Stability of the Full Presidential Model	55
4.1	Presidential Success and Partisan Balance in the House	58
4.2	Partisan Composition and Seat Change in the House, 1946-1990	59
4.3	The Number of Exposed Seats for the President's Party: House Elections, 1948-1990	67
4.4	Forecasting Accuracy of the House Model	71

4.5	Stability of the House Model	73
5.1	Seat Change in the Senate and House	80
5.2	Forecasting Accuracy of the Senate Model	86
5.3	Stability of the Senate Model	87
5.4	Comparison of Regression Coefficients (Standardized) for the House and Senate Models	88
6.1	Rival Presidential Election Outcome Models	92
6.2	Forecasting Accuracy and Lead Time of Rival Presidential Models	95
6.3	Rival House Election Outcome Models	97
6.4	Evaluating Rival House Election Models	98
7.1	Partisan Composition of Governorships, 1946-1990	106
7.2	Forecasting Accuracy of the Gubernatorial Model, 1948-1990	109
7.3	Partisan Composition of State Legislatures, 1946-1990	111
7.4	Forecasting Accuracy of the State Legislative Model, 1948-1990	114
8.1	French National Assembly Results, by Party, Popular Vote, First Ballot, 1958-1988	118
8.2	Fifth Republic Presidential Election Results, Second Ballot, 1965-1988	120
8.3	Correlations (r) of Selected Presidential Popularity and GDP Growth Indicators (at Different Lags) with Presidential Vote	123
8.4	Prediction Results from the French National Elections Model	130
9.1	Presidential Election Forecasts (Share of Electoral College Vote, 1992), Under Different Popularity and Economic Conditions	135
9.2	House Election Forecasts (Change in Incumbent Seats, 1992), Under Different Popularity and Economic Conditions	137
9.3	Before-the-Election Senate Forecasts, 1990	139
9.4	Senate Election Forecasts (Change in Incumbent Seats, 1992), Under Different Popularity and Economic Conditions	140
9.5	Forecasts for Republicans in 1992, Best and Worst Case Scenarios	141
A.1	Presidential Model	144
A.2	Dependent Variables: Senate, House, Gubernatorial, and State Legislative Models	145
A.3	Independent Variables: Income	146
A.4	Independent Variables: GNP	147
A.5	Independent Variables: Presidential Popularity (PP)	148

A.6	Independent Variables: Exposure	149
A.7	Independent Variables: Trends and Terms	150
A.8	Variables for the French Model	152

Figures

2.1	Presidential Elections, 1948-1988: Incumbent Party Popular Vote Share and Electoral College Vote Share	24
2.2	Presidential Elections, 1948-1988: July Presidential Popularity and Electoral College Vote Share	36
2.3	Correlation Between Presidential Approval and Incumbent Electoral Vote Share, 1948-1988	37
4.1	The Relationship Between Collective Economic Evaluations and the Vote	61
4.2	Income Growth and Incumbent Party Seat Change in House Elections, 1948-1988	63
4.3	Income Growth and Incumbent Party Seat Change in House Elections in Presidential and Midterm Election Years, 1948-1990	65
4.4	A Model of House Seat Change	69
8.1	GDP Annual Growth Rate and Incumbent Presidential Vote (Second Ballot), 1965-1988	122
8.2	Presidential Popularity (Lagged Six Months) and Opposition Parties Vote in National Assembly Elections (First Ballot), 1958-1988	125
8.3	Opposition Parties Vote in National Assembly Elections (First Ballot) and Seats Won by Opposition Parties	128

Prognosticators to Pollsters: Traditional Forecasts

Forecasts fill our daily lives. Before venturing out in the morning most of us check the weather forecast, and some of us consult the horoscope page of the newspaper. Listening to the radio on the way to school or work, we hear the latest economic forecasts. At lunch our waiter suggests that we will enjoy the leek and potato soup. In the afternoon we hear a botany professor discuss the dangers of acid rain, or perhaps we hear our boss predict climbing company profits in the months ahead. Back home for the evening, we review the latest line on the big game before calling a fellow fan to make a friendly wager. And many of us finish the day the way we started it, by checking the weather forecast.

The events just described are disparate in many ways, but they all involve forecasts. The horoscope “forecasting” our day, the waiter “forecasting” our taste for a soup, and our boss “forecasting” company profits—all predict things to come. Indeed, any guess about some condition in the future is a forecast.

By this definition, elections rank among the most frequently forecasted public events. Take the 1988 presidential race, for instance. In the weeks and months before the balloting countless political observers offered their predictions on who would win. The techniques they used to generate their forecasts varied widely. A few, with tongue in cheek, relied on simple methods such as the famous World Series dictum: “If the American League wins the series, the Republican candidate will win the election.” For those prognosticators 1988 was a bad year; Republican George Bush handily defeated Democrat Michael Dukakis, despite a World Series victory by the Los Angeles Dodgers of the National League.

2 Forecasting Elections

Other, more prudent, forecasters stuck to their own intuition and experience. But many of these guesses were wide of the mark as well. For example, former President Richard Nixon predicted Dukakis would defeat Bush “decisively” (Andrew Sullivan, *New Republic*, August 29, 1988, 15). And, at one point, *Washington Post* columnist Haynes Johnson detailed a state-by-state scenario for a Democratic victory (*Washington Post*, March 11, 1988). Finally, major polling firms, examining the electorate’s current preferences, saw Dukakis in the lead until the waning weeks of summer.

Of course, not everyone predicted the Democrats would capture the White House. Election forecasters never speak in one voice. For each of the sages who foresaw a Dukakis victory, there were several others who thought Bush would win. Divided predictions may confuse the citizen who simply wants to know who is likely to win.

In this book, we try to make forecasting something other than so much mumbo jumbo. This is an important task, for several reasons. First, and most obviously, as citizens we are concerned about the political future of the country, namely who will govern in our democracy. Thus it is important to be able to tell good forecasting methods from bad. Second, as students of politics, we want to better explain election outcomes. As shall be seen, good explanations lead to better forecasts, and vice versa. Finally, as professional political scientists we hope to encourage the practice of macro-level forecasting, already followed in fields such as economics, where important indicators like the unemployment rate or the gross national product (GNP) are regularly forecast.

To begin, we concentrate on the distinction between nonscientific and scientific modes of election prediction. In brief, the nonscientific approaches—those of prognosticators, pundits, and politicians—are flawed in that they do not rely on carefully formulated reasons, or hypotheses, that are subjected to systematic test. By way of contrast, the scientific approaches—polling and modeling, for example—employ modern methods of sampling and statistical estimation. We elaborate on the strengths and weaknesses of these different approaches in the remainder of this chapter. Then, in subsequent chapters, we develop explanations for national election outcomes, based on leading theories of voting behavior. In testing these explanations, the basics of regression analysis are explicated. Initially, we construct a forecasting model for presidential elections. Then we move on to Congress and the American states. For purposes of comparison, we also formulate a French national elections model. Finally, we apply our models to forecasting the 1992 election outcomes, the next national elections as of this writing. Our explanation of traditional election forecasting methods begins with prognosticators.

Prognosticators

Election prognosticators, in our definition, rely on signs or rules to foretell outcomes. Usually these signs or rules have no ostensible connection to the political process. A classic example, from early Greece, is the study of animal entrails to divine who will be chosen to lead. A more contemporary example comes in the aforementioned World Series rule. Other signs used by prognosticators to prophesy who will be elected president of the United States include these:

- The Beaujolais rule: “If the Beaujolais wine harvest is poor, then the Republican will win.”
- The height rule: “The taller candidate will win.”
- The name rule: “The candidate with the longest last name will win.”

Although such rules provide good sport, they are not to be taken seriously because their apparent predictive power is based on chance. To express this important criticism in everyday language, we say “it just so happens” that Republican success is associated with American League victories or bad Beaujolais. Or, it is “only a coincidence” that name length relates to candidate success. The laws of probability tell us that out of the millions of events that precede American presidential elections every four years, at least a few will correlate highly with the party that captures the White House.

Given the laws of probability, any of us can become prognosticators of this sort: simply identify an event that happens before presidential elections and varies systematically with the winner. With this in mind, we set out to discover some other “chance” rules. As our standard for accuracy, we decided to use the World Series rule. In the post-World War II era the rule has predicted eight of the eleven presidential contests correctly, missing only in 1988 and 1980 (when Republicans George Bush and Ronald Reagan won despite an American League loss) and in 1948 (when Democrat Harry Truman won despite a National League loss). Searching the pages of a standard reference volume, we quickly came up with the following rules:

- The mascot rule: “If the mascot of the team that wins the Rose Bowl is an animal, the Democrat will win.”
- Easter Sunday rule: “If Easter falls in April, the Republican will win.”
- The Academy Awards rule: “If two different pictures win at least two each of the top six awards (best actor, best actress, best supporting actor, best supporting actress, best director, and best picture), the Democrat will win.”
- The Stanley Cup rule: “If Montreal or Toronto wins hockey’s Stanley Cup, the Democrat will win.”

Our exercise demonstrates how easy it is to find events that correlate with the party that wins the presidency. But, intriguing as these congruences are, they must be attributed to luck. Moreover, these rules, like the World Series maxim, do not always work. The mascot rule fails to forecast correctly three presidential elections (1964, 1972, 1976). The Easter rule, the Academy Awards rule, and the Stanley Cup rule break down twice each (respectively in 1960 and 1976, 1964 and 1972, 1956 and 1968). Similarly, each of the more widely known rules have erred. The Beujolais rule, dating back to 1960, did not get it right in 1988: the classically fruity wine produced by that autumn's harvest did not precede a Democratic president. The height rule accurately forecasted the Bush victory in 1988, but it missed the 1976 race (Carter versus Ford). The longest name rule was wrong in 1988, as well as in 1984. Of course, these failures are not surprising, since the rules are not based on any serious causal connection between the prognostication sign and presidential choice. These correlations are chance events and, even when nearly perfect, do not imply causation.¹

However, the argument that prognostication rules rest on chance is not always so easy to make. Take the following rule, for example:

- The bellwether rule: "As the bellwether goes, so goes the nation."

The idea is straightforward: certain geopolitical units (usually states or counties) accurately reflect the voting preferences of the entire country. Thus, if you know how the citizens of the bellwether region plan to vote, you know how the nation as a whole will vote.²

The notion of bellwethers has long been part of American political lore. Perhaps the most famous bellwether is Maine. From 1860 to 1932 the state voted for the winning presidential candidate in sixteen of the nineteen elections, prompting the cry, "As Maine goes, so goes the nation!" Its special standing was threatened in 1936, however, when only Vermont joined Maine in voting Republican. Gleeful Democrats immediately coined a new bellwether aphorism, "As Maine goes, so goes Vermont!" Lamentably for Maine, the 1936 miscue proved to be the first of many. Over the 1936 to 1988 period the state voted for the winning presidential candidate in only seven of the fourteen elections.

The demise of Maine as a barometer of national preferences led many observers of elections to search for a replacement. Economist Louis Bean devoted much of his impressive scholarly life to the pursuit of the perfect bellwether. For forecasting presidential elections he favors watching the larger states, especially New York, California, and Illinois (Bean 1972, 34). More recently, C. Anthony Broh (1980) concluded that New Mexico was the state to monitor—that state, from its beginning, has gone for the presidential winner in every election but 1976. Henry Kenski and Edward Dreyer (1977) picked Delaware, citing its string of perfect

predictions from 1964 through 1988. Edward Tufte (1974, 46-54), in a thorough analysis of the topic, identified three “superbellwether” counties: Crook County, Oregon; Laramie County, Wyoming; and Palo Alto County, Iowa. All three voted for the winner in every presidential contest from 1916 to 1972.

How do these bellwethers work? Consider the celebrated Palo Alto County example. By the 1980s the county’s reputation as a bellwether was so well established that the national media sampled the preferences of its citizens in the weeks before the election. (There is even talk of a super-superbellwether within the county, the small Silver Lake Township.) One reason commonly offered for the predictive success of the county is that, somehow, it is a microcosm of the nation. That is, Palo Alto may be a representative sample of American voters and their attitudes and behaviors. But if that is what it takes to be a good bellwether, Palo Alto seems an unlikely candidate. The county’s small, scattered population (mostly descendants of nineteenth-century Northern European settlers), live on farms or in small towns. They certainly do not represent a typical cross-section of late twentieth-century America.

Another explanation for Palo Alto’s success is that the residents have special predictive qualities. That view was espoused by the editor of the county’s largest newspaper, the *Emmetsburg Reporter-Democrat*. When asked to account for her county’s remarkable record, she replied, “We are well-read, educated, and we care” (Lewis-Beck 1985, 53). If these are the special qualities of the citizens of Palo Alto County, they are more an informed elite than a representative sample of Americans. If that is the case, it becomes even more difficult to explain how the county’s voting preferences manage to match those of the American public in election after election.

Most likely, the citizens of Palo Alto County are not a microcosm of the U.S. electorate, nor do they have special predictive qualities. What seems more probable is that their predictive success derives primarily from chance. The same judgment would apply, of course, to the citizens of Crook and Laramie counties, the citizens of New Mexico and Delaware, and the citizens of any other geopolitical unit. Given that there are more than 3,000 counties in the United States, it is not all that surprising that a few counties have voted for the winning presidential candidate every time between 1916 and 1972. Palo Alto just happened to be one of the lucky few, along with Crook and Laramie. When the number of observations (counties) gets so large, the laws of probability suggest that seemingly amazing coincidences will occur.³

Especially because there is no plausible causal explanation or set of reasons for the bellwether’s success, the expectation is that its luck will run out. In fact, this has happened. The first of the three counties to fall was Laramie, which voted for Ford in 1976. Both Palo Alto and Crook

County survived the 1980 contest, but Palo Alto fell in 1984, when it went for Mondale. A common explanation was that Mondale grew up in a nearby Minnesota county and often visited Palo Alto. The citizens of Palo Alto appear to have been swayed by a well-documented determinant of vote choice termed "friends and neighbors" voting (see Key 1949; Lewis-Beck and Rice 1983). The implication is that vote choices in Palo Alto County, like vote choices everywhere, are subject to standard explanations of electoral behavior. In this sense, the county's citizens are no different from other Americans; they are just luckier when it comes to voting for winning presidential candidates.

At this juncture, the luckiest citizens of all remain those of Crook County; a Bush vote in 1988 preserved their string of victories. However, eventually even the citizens of Crook County will probably back a losing candidate. When that happens some new county, perhaps one that has predicted every race since 1920 or 1924, will assume center stage for a brief run as a bellwether.

Politicos

Rules for prognostication, whether based on the World Series or bellwethers, are entertaining. However, in the end they are unconvincing forecasting tools because they are mere games of chance. To make reliable election forecasts we must look less at coincidences and more at politics. That is, the political process itself must be directly examined for clues. This is something party activists do continually. Campaign workers, party regulars, officeholders, and candidates themselves constantly assess how they are doing among prospective voters. These *politicos*, as we will label them, frequently make their predictions public before an election. As forecasters, their great appeal is that they are political insiders. They live and breathe politics; they know the ins and outs. In preparing a forecast, they draw from experience and from a vast network of contacts. When they say So-and-So is going to win, they are often believed. Their hunches seem to make good sense. After all, they have been "on the Hill," "with the staff," or "on the campaign trail."

Here is a sampling of the predictions that *politicos* made about the 1984 presidential and congressional election outcomes. Consider first the presidential race. Rep. Mary Rose Oaker (D-Ohio) declared that Mondale would capture her state, underlining her conviction in a \$1,000 bet with Reagan's southern campaign director, Lee Atwater (*New York Times*, October 30, 1984, 12). While campaigning in California, Mondale staffers regularly announced that their candidate was behind the president by only 8 points or so, while the Reagan people put the number at about 17 points (*New York Times*, October 28, 1984, 1, 12). Just days before the

election, candidate Mondale asserted that “the Republicans are in for the biggest surprise of their life” (*New York Times*, November 5, 1984, 15). Of course, after the votes were counted, President Reagan had been reelected in a landslide. Obviously, the forecasts of these Democratic politicians, while perhaps motivated by a necessary optimism, contained considerable error.

However, at least in 1984, the error was not all on the Democratic side, as evidence from the House of Representatives contests shows. Going into the election, the House was composed of 167 Republicans, 266 Democrats, and 2 vacant seats. During the campaign, Republican leadership hammered away at the notion that the party would achieve a major victory. President Reagan forecasted that Republican House candidates would be swept into office on the coattails of his reelection in “an historic electoral realignment” (*New York Times*, November 5, 1984, 1). Trent Lott (R-Mississippi), the minority whip, boldly projected an absolute Republican majority, which would have required a net gain of about 50 seats (*Washington Post*, September 24, 1984, 4A). A bit more cautiously, the minority leader, Robert Michel (R-Illinois), speculated that there would be a Republican surge of 30 to 40 seats (*Washington Post*, September 24, 1984, 4A). In the end, Republicans picked up only 14 seats, far below the forecasts of these politicians.

What unites all these erroneous forecasts? Partisan bias. When politicians forecast they tend to favor their own candidates and party, regardless of objective conditions. As a result, they will almost invariably project a greater margin of victory (or narrower margin of defeat) than in fact occurs. Of course, this behavior is understandable. They believe—or at least want to say publically—that their party will do well. In particular, they may hope to convey a sense of confidence in order to rally the party faithful, worry the opponents, and sway the undecided. Further, many politicians rely on likeminded politicians for their information. All this makes it unlikely that politicians will openly forecast defeat. (Or, if defeat is too obvious to be denied, they will probably underestimate the extent of the losses.) In short, the partisan bias that infects politicians renders them unreliable forecasters. If a politician makes a surprisingly accurate prediction, we may well suspect, as with prognostication rules, that it was a lucky guess.

Pundits

Politicians are not the only “experts” who routinely forecast elections. Journalists, essayists, think-tank scholars, and other learned critics also speculate on election outcomes. We group these professional commentators into the category of pundits. An essential difference between