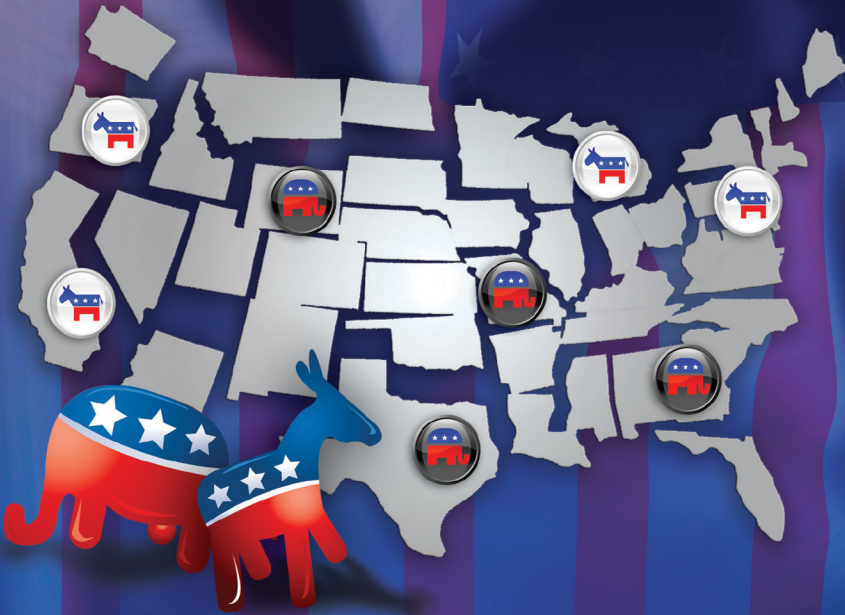


 CRC Press
Taylor & Francis Group
AN A K PETERS BOOK

THE PRESIDENTIAL ELECTION GAME



STEVEN J. BRAMS

The Presidential Election Game



Taylor & Francis

Taylor & Francis Group

<http://taylorandfrancis.com>

The Presidential Election Game

Steven J. Brams



CRC Press

Taylor & Francis Group

Boca Raton London New York

CRC Press is an imprint of the
Taylor & Francis Group, an **informa** business

AN A K PETERS BOOK

CRC Press
Taylor & Francis Group
6000 Broken Sound Parkway NW, Suite 300
Boca Raton, FL 33487-2742

First issued in hardback 2017

© 2008 by Taylor & Francis Group, LLC
CRC Press is an imprint of Taylor & Francis Group, an Informa business

No claim to original U.S. Government works

ISBN 13: 978-1-138-42753-2 (hbk)
ISBN 13: 978-1-56881-348-6 (pbk)

This book contains information obtained from authentic and highly regarded sources. Reasonable efforts have been made to publish reliable data and information, but the author and publisher cannot assume responsibility for the validity of all materials or the consequences of their use. The authors and publishers have attempted to trace the copyright holders of all material reproduced in this publication and apologize to copyright holders if permission to publish in this form has not been obtained. If any copyright material has not been acknowledged please write and let us know so we may rectify in any future reprint.

Except as permitted under U.S. Copyright Law, no part of this book may be reprinted, reproduced, transmitted, or utilized in any form by any electronic, mechanical, or other means, now known or hereafter invented, including photocopying, microfilming, and recording, or in any information storage or retrieval system, without written permission from the publishers.

For permission to photocopy or use material electronically from this work, please access www.copyright.com (<http://www.copyright.com/>) or contact the Copyright Clearance Center, Inc. (CCC), 222 Rosewood Drive, Danvers, MA 01923, 978-750-8400. CCC is a not-for-profit organization that provides licenses and registration for a variety of users. For organizations that have been granted a photocopy license by the CCC, a separate system of payment has been arranged.

Trademark Notice: Product or corporate names may be trademarks or registered trademarks, and are used only for identification and explanation without intent to infringe.

Visit the Taylor & Francis Web site at
<http://www.taylorandfrancis.com>

and the CRC Press Web site at
<http://www.crcpress.com>

Library of Congress Cataloging-in-Publication Data

Brams, Steven J.,
The presidential election game / Steven J. Brams – [Rev. ed.]
p. cm.
Includes bibliographical references and index.
ISBN 13: 978-1-56881-348-6 (alk. paper)
ISBN 10: 1-56881-348-1 (alk. paper)
1. Presidents–United States–Election. 2. Political games. I. Title.

JK528.B73 2007
324.973001'5193–dc22

2007031961

To Julie and Michael



Taylor & Francis

Taylor & Francis Group

<http://taylorandfrancis.com>

Contents

Preface to the Second Edition	xi
Preface to the First Edition	xiii
Introduction	xvii
1 The Primaries: Who Survives the Hurdles?	1
1.1 Introduction	1
1.2 The Primacy of Issues and Their Spatial Representation	2
1.3 Rational Positions in a Two-Candidate Race	4
1.4 Rational Positions in a Multicandidate Race	8
1.5 The Winnowing-Out Process in Primaries	11
1.6 The Factor of Timing	17
1.7 Fuzzy Positions and Alienation	20
1.8 Multiple Issues in Campaigns	24
1.9 Conclusions	27
2 Party Conventions: Who Wins the Nomination?	29
2.1 Introduction	29
2.2 The Need for Explanatory Models of National Party Convention Nominations	30
2.3 Calculating the Probabilistic Contribution of a Shift of Delegates in National Party Conventions	33
2.4 The Consequences of a Hypothetical Reverse Shift	38
2.5 Calculating the Share of Spoils	39
2.6 What the Model Does Not Explain	43
2.7 How Rational Are Delegates in National Party Conventions?	44
2.8 The Percent Shift in Strength	50
2.9 Conclusions	52

3	The General Election: How to Run the Final Stretch	55
3.1	Introduction	55
3.2	Two Models of Resource Allocation in Presidential Campaigns	57
3.3	The Need for Models to Assess the Consequences of Electoral Reform	58
3.4	Presidential Campaigns and Voting Behavior	60
3.5	The Goals of Candidates	62
3.6	The Popular-Vote Model	63
3.7	The Electoral-Vote Model	67
3.8	The 3/2's Allocation Rule	70
3.9	Why the Large States Are Favored	72
3.10	Testing the Models	75
3.11	Campaign Allocations and Biases through 1980	78
3.12	Limitations and Extensions of the Models	85
3.13	Conclusions	88
4	Coalition Politics: No Permanent Winners	91
4.1	Introduction	91
4.2	Political Parties: Three-Headed Monsters	92
4.3	Reconciling the Conflicting Interests	93
4.4	Optimal Positions in a Campaign	94
4.5	Empirical Examples of Different Optimal Positions in Campaigns	97
4.6	The Size Principle	100
4.7	Applications of the Size Principle to American Politics	104
4.8	An Alternative Goal: Maximizing One's Share of Spoils	108
4.9	The Bandwagon Curve	114
4.10	Conclusions	118
5	The Unmaking of a President: How an Election Mandate Was Upset	119
5.1	Introduction	119
5.2	Game Theory and the White House Tapes Case	120
5.3	The Players and Their Preferences	121
5.4	The Outcomes and Their Preference Rankings by the Players	124
5.5	The Game Tree and Revised Payoff Matrix	127
5.6	A Paradox of Rational Choice	130
5.7	Conclusions	131

6	Approval Voting: A New Election Reform	133
6.1	Introduction	133
6.2	Preview of the Analysis	134
6.3	Negative Voting in Two-Candidate Contests	136
6.4	Negative Voting in Three-Candidate Contests without a Runoff	137
6.5	Negative Voting in Three-Candidate Contests with a Runoff . .	140
6.6	Advantages of Approval Voting	142
6.7	General Results for Approval Voting	145
6.8	The Possible Confounding Effects of a Poll	150
6.9	Approval Voting and Presidential Elections	154
6.10	Conclusions	159
	Notes	161
	Index	182



Taylor & Francis

Taylor & Francis Group

<http://taylorandfrancis.com>

Preface to the Second Edition

The first edition of this book was published in 1978, and the original text is largely preserved. Readers should keep the initial publication date in mind when reading discussions with temporal words such as “recently” and “not yet.” The Introduction, added for this edition, provides an overview of events, relevant to the topics discussed in the book, from the past seven presidential elections.

Though the political facts and examples in most of the book are all from 1978 or before, this does not mean that the theories and mathematics are out-dated. In fact, the public’s awareness of game theory has greatly increased in recent years; indeed, game theory models that I develop in Chapters 1, 2, and 3 may be *more* applicable today, as discussed in the new Introduction. Also, election reform (including arguments for and against the Electoral College) is as hotly debated now as it was thirty years ago—especially after the election in 2000 of George W. Bush, who did not receive even a plurality of the popular vote. Finally, several professional societies have now adopted approval voting, the election reform discussed in Chapter 6.

I am grateful to Yale University Press for giving me the rights to reproduce the original edition of *The Presidential Election Game* and to A K Peters for their encouragement and support in publishing this second edition.



Taylor & Francis

Taylor & Francis Group

<http://taylorandfrancis.com>

Preface to the First Edition

There is nothing to match the hoopla, pageantry, and excitement of a presidential campaign in American politics. No less dramatic, though quieter, are the strategic, gamelike features of a presidential campaign, which often are a good deal more consequential.

The use of the term “game” in the title of this book is intended to convey both the competitive character of presidential elections and the strategic interdependence of decisions made by the players at each stage in a presidential campaign. A game, by definition, is the sum total of the rules that describe it. (Parenthetically, players in a game are referred to throughout the book by masculine pronouns, but this is simply a convenience: women play games, too.)

In this book, the tools of modern decision theory and game theory are used to analyze presidential campaigns and elections. Much of the analysis is quite involved and probably will not be easy going for the reader unaccustomed to arguments of a more formal, mathematical nature. I would stress, however, that this book is written for, and I believe can be understood by, any conscientious reader with a reasonably good background in high school mathematics.

Since there are other books on presidential elections that require less perseverance to read, it is fair to ask what added benefits mathematical analysis brings to the study of presidential elections. I will respond in two ways.

First, it offers more than good hindsight in trying to determine better and worse strategies in presidential campaigns. For example, consider what good hindsight would say after replaying the “mistakes” of the 1972 campaign: Jimmy Carter should not run for his party’s nomination in all states in 1976 because Edmund Muskie had done so in 1972 and lost. Of course, this good hindsight is now bad hindsight, since Carter followed this very strategy and won, which illustrates the dubious scientific status of hindsight.

In contrast to the hindsight approach, I have attempted to develop scientific models that can impart a deeper and more general understanding of underlying factors at work in the presidential election process. By “models” I mean simplified representations that abstract the essential elements of some

phenomenon or process one wants to study. By deducing consequences from models, one can see more clearly what is happening than one can by trying to deal with reality in all its unmanageable detail.

The second reason for using mathematical arguments (and models) is relevant particularly to those with normative concerns who are interested in reforming the system. I can see no way to estimate the probable effects of alternatives to the system without modeling them and then testing the models—insofar as possible—by applying them to empirical data. My arguments, for example, for abolishing the Electoral College and switching to the popular-vote election of a president in Chapter 3, and for adopting approval voting in Chapter 6, would not be persuasive if they were simply asserted without the backup theoretical and empirical analyses. Good reform, I believe, depends on good analysis.

An overview of the book may be helpful to prospective readers. In the first three chapters, I develop models to analyze the three major phases of the presidential election game—state primaries, national party conventions, and the general election. While the evidence presented in Chapter 1 is mostly suggestive—examples from presidential primary campaigns that seem roughly in accord with the implications of the spatial models are discussed—the evidence in the second and third chapters is more systematic and quantitative. Specifically, data on bandwagon and underdog effects in all national party conventions since 1832 in which there have been multiballot nominations of presidential and vice-presidential candidates are analyzed in Chapter 2, and data on resource allocations by presidential and vice-presidential candidates in the 1960 through 1972 general-election campaigns are analyzed in Chapter 3.

Three different models are developed in Chapter 4 around the theme of coalition politics, which is central to the building and maintenance of a presidential candidate's support both within and outside his party. Several examples from early and recent presidential campaigns illustrate how coalitions form and break up.

President Nixon's resignation in 1974 was unprecedented, and his confrontation with the Supreme Court that precipitated his resignation is analyzed in Chapter 5 as a case study in how an election mandate can be upset. Finally, in Chapter 6, the most technical of all the chapters, a new form of voting is proposed, its theoretical properties are analyzed, and its likely empirical effects are assessed.

This, in capsule form, is the sum and substance of *The Presidential Election Game*. The game is not a frivolous one: its stakes are high, and the material and emotional investments made by the candidates and their supporters are sub-

stantial. I believe that the search for scientific models that illuminate the complexities of this game is a challenging and fascinating intellectual task. When a better understanding of the game also suggests how some of its problematic features might be solved, and the rules of the game are changed to correct these features, then there may be practical payoffs as well.

Acknowledgments

I am grateful to William H. Riker and Philip D. Straffin Jr. for their detailed and very helpful comments on a first draft of this book. Neither should be held responsible for deficiencies that remain.

I would also like to thank Marian Neal Ash at Yale University Press for the strong support she gave to the book, and Dianne W. Zolotow for her excellent editing of the manuscript. Several journals, acknowledged in the footnotes, kindly gave permission to use previously published material.

As always, my wife, Eva, gave me unstinting encouragement and support. Our children, to whom this book is dedicated, campaigned hard for their fair time. I venture to say they could have offered some political candidates good lessons on effective, attention-getting strategies.



Taylor & Francis

Taylor & Francis Group

<http://taylorandfrancis.com>

Introduction

When the first edition of *The Presidential Election Game* appeared in 1978, game theory was barely a blip on the radar screens of political scientists. True, there was one graduate text (Riker and Ordeshook, 1973) and two earlier books of mine (Brams, 1975; Brams, 1976) that gave prominence to game theory as a tool for political analysis.

But this was still twenty years before the biography of John Nash, *A Beautiful Mind* (Nasar, 1998), and the subsequent Academy Award-winning movie of the same title (2001) that made the public—and most of my students—aware of game theory. Awareness, however, is no substitute for the careful formulation and testing of game-theoretic models.

As one measure of game theory's scientific achievement, the Nobel Memorial Prize in Economics has repeatedly been awarded to mathematicians and mathematical economists who have made extensive use of game theory, including Nash in 1994. Indeed, from the 1970s on, game theory has played an important role in the development and sophistication of several different fields of economics and has been applied to such practical problems as the design of auctions.

In political science, most applications of game theory came somewhat later. Now the theory is used to analyze everything from voting in committees to military escalation in international crises. In computer science, operations research, management science, business, biology, philosophy, and other disciplines, including literature and religion, game theory has increasingly been used to study a host of strategic issues. There are now three volumes of the *Handbook of Game Theory* (Aumann and Hart, 1992, 1994, 2002), which contain 62 long review articles on the theory and its most noteworthy applications.

The game theory models that I developed to study presidential primaries, conventions, general elections, and related topics may be more applicable today than they were thirty years ago when *The Presidential Election Game* was published. For one thing, campaign managers and strategists are more knowledgeable and technologically sophisticated. Also, with campaigns beginning earlier and earlier, there is more opportunity for careful planning and anticipation of opponents' moves, which is at the heart of a game-theoretic perspective.

Before making any explicit connections to the models in the book, I briefly recount the recent history of presidential elections, beginning in 1980. Then, chapter by chapter, I refer to the models and discuss their applicability to recent presidential elections.

Recent History

Party primaries are more influential today than ever before in the choice of a party nominee. In 1980, they were instrumental in the selection of Ronald Reagan as the Republican nominee, who defeated George H. W. Bush and several other candidates. Jimmy Carter, a Democrat who had been elected president in 1976, easily defeated Ted Kennedy and other challengers in the 1980 Democratic primaries, but he lost in a landslide to Reagan in the general election.

In 1984, Walter Mondale bested several Democratic candidates, but he was decisively defeated by Reagan, who was renominated by the Republicans with virtually no opposition. In 1988, George H. W. Bush, Reagan's vice president for eight years, and George Dukakis, governor of Massachusetts, emerged after some early losses as the winners in their respective party primaries.

Although Bush won the presidency, his reputation was tarnished when he ran for reelection in 1992. While coasting to victory in the Republican primaries, Bush did not have the full support of Republicans in the general election, in part for reneging on his promise in 1988 not to raise taxes.

Bill Clinton, despite difficulties that he encountered in the early caucuses and primaries in 1992, handily won the Democratic nomination and beat both Bush and Ross Perot, who received 19 percent of the popular vote as a third-party candidate, in the general election. (Perot drew almost equally from both Clinton and Bush.) Bob Dole, who won the 1996 Republican nomination in a relatively close race in 1996, was no match for Clinton in the general election.

Like Clinton in 2000, George W. Bush had serious opposition in the early Republican primaries, losing in New Hampshire (as had Clinton and Dole earlier), but he quickly bounced back. On the Democratic side, Al Gore, Clinton's vice president, easily secured the Democratic nomination.

After beating Gore in one of the closest elections in U.S. history (more on this below), Bush was shoo-in for his party's renomination in 2004, but the Democratic nomination turned into a hot race. John Kerry eventually won, only to be narrowly defeated by Bush in the general election.

Primaries

Since 1980, the nomination races when an incumbent president or vice president did *not* run have been crowded and tight, especially in the beginning. The momentum gathered in the early caucuses and primaries, not necessarily by the front-runner in public opinion polls, usually helps a candidate win his party's nomination.

But it is the policy positions of the successful candidates on the issues that help the most. Since 1980, candidates who took centrist positions, or at least appeared to, have won, although this has not always been the case (Republican Barry Goldwater in 1964 and Democrat George McGovern in 1972 did not). This is partially explained by the fact that most nomination contests reduce quickly to two strong contenders, in which the median candidate, if there is one, receives the most support. In this manner, the spatial models that I develop to analyze primaries continue to explain a good deal about the positioning of the candidates on the issues.

Conventions

There have been no multiballot conventions since the 1950s, which would seem to make recent party conventions uninteresting from a game-theoretic point of view. Although it is likely that conventions will continue to be rituals that affirm an already chosen winner from the primaries rather than true contests for delegate votes, rituals have game-theoretic aspects that are worthy of study, especially in how they use information and make it common knowledge (Chwe, 2001).

It is not impossible that a future nomination race may come down to the wire—if not at the convention, then just before it—as happened in the Ford-Reagan race in 1976. The “win/share principle” that I discuss in Chapter 2 and the bandwagon curve that I analyze in Chapter 4 would be relevant in such a contest.

General Election

How the Electoral College influences resource allocation in the final phase of the election game, as well as the outcome itself, continues to be a major issue. This was dramatically illustrated in the 2000 election, in which Al Gore beat George W. Bush by more than half a million votes, but the result was the opposite in the Electoral College, wherein Bush won by three (out of 538) electoral votes.

This outcome was complicated by the intervention of the Supreme Court, which effectively decided the winner of Florida's electoral votes and the nationwide winner. In this controversial election, the so-called battleground states, to which the candidates devoted enormous resources, proved decisive, as they did again in 2004.

Campaigning in these recent elections was very much in line with the "3/2's rule" analyzed in Chapter 3, which confers inordinate influence on the largest states if they are truly up for grabs. This large-state bias has been an issue in other close presidential elections besides that of 2000, but not since the nineteenth century has there been a "divided verdict," whereby the winner of the electoral vote is different from the winner of the popular vote.

I continue to advocate the abolition of the Electoral College, at least its winner-take-all feature, which is not a constitutional issue. As I write, some states are passing legislation that would award all their electoral votes to the nationwide winner of the popular vote, which would preclude divided verdicts. It would also eliminate the nonegalitarian bias of the Electoral College that I discuss in Chapter 3 if states with a majority of electoral votes pass such legislation.

Coalition Politics

The three models of coalition politics that I discuss in Chapter 4 still seem compelling:

1. Because the resources that a candidate needs to be a serious presidential contender are greater than ever, most candidates are forced, especially in the primaries, to take relatively extreme positions on either the left or the right to garner crucial financial support.
2. Coalitions that become oversized, such as Reagan's majorities in 2000 and 2004, disappear, in accordance with Riker's "size principle" and the "share of spoil" calculations I describe.
3. Straffin's bandwagon curve, which modeled well the Ford-Reagan Republican race in 1976, is pertinent to understanding the dynamics of future competitive two-person races, either in the primaries or in a multi-ballot convention.

Clearly, building coalitions, particularly of minorities, remains essential to winning both one's party nomination and the general election.

Unmaking of a President

I do not expect to see a replay of anything like the Watergate scandal that enveloped Richard Nixon and forced him to resign, which I analyze in Chapter 5. But it is useful to recall that Nixon resigned before he was impeached, whereas Bill Clinton was impeached in 1998 but hardly forced from office.

Also, the Supreme Court played no role in Clinton's impeachment, as it did in Nixon's. Nonetheless, game-theoretic calculations certainly underlie attempts to impeach a president, which come up with some regularity. In the case of Clinton, there was never a Senate trial to try to convict him.

Short of impeachment, maneuvering among the different branches of government to gain some advantage is ceaseless. While a president can veto bills passed by Congress, or threaten a veto, Congress can override a veto. The Supreme Court can declare legislation unconstitutional. These possible moves and countermoves—and their success or failure—may enhance or diminish the standing of a president, which obviously affects his or her prospects, or those of his or her party, for reelection. Manifestly, the game that presidential candidates play does not end on election day.

Approval Voting

This election reform is as much needed today as it was in 1978, especially in primaries in which strong centrists are not always chosen because of the fragmentation of the vote among several candidates. When a noncentrist is selected as a party's nominee, as happened in 1964 and 1972, he or she offers no strong opposition to a centrist nominee from the opposing party, which obviates a competitive general election.

There have been many studies of approval voting and one book-length treatment (Brams and Fishburn, 1983) since 1978. Several professional societies have adopted this election reform, but it has had only limited use in public elections (Brams and Fishburn, 2005). Game-theoretic analyses of approval voting and other voting systems, which highlight their strategic properties (including their manipulability), have been the focus of much recent literature that is analyzed in (Brams, 2008).

To conclude, it has become almost commonplace to view presidential elections as games—some would say “horse races”—and use the tools of game theory to analyze their strategic features. This is all for the good, in my view, making our understanding of these features deeper and more rigorous.