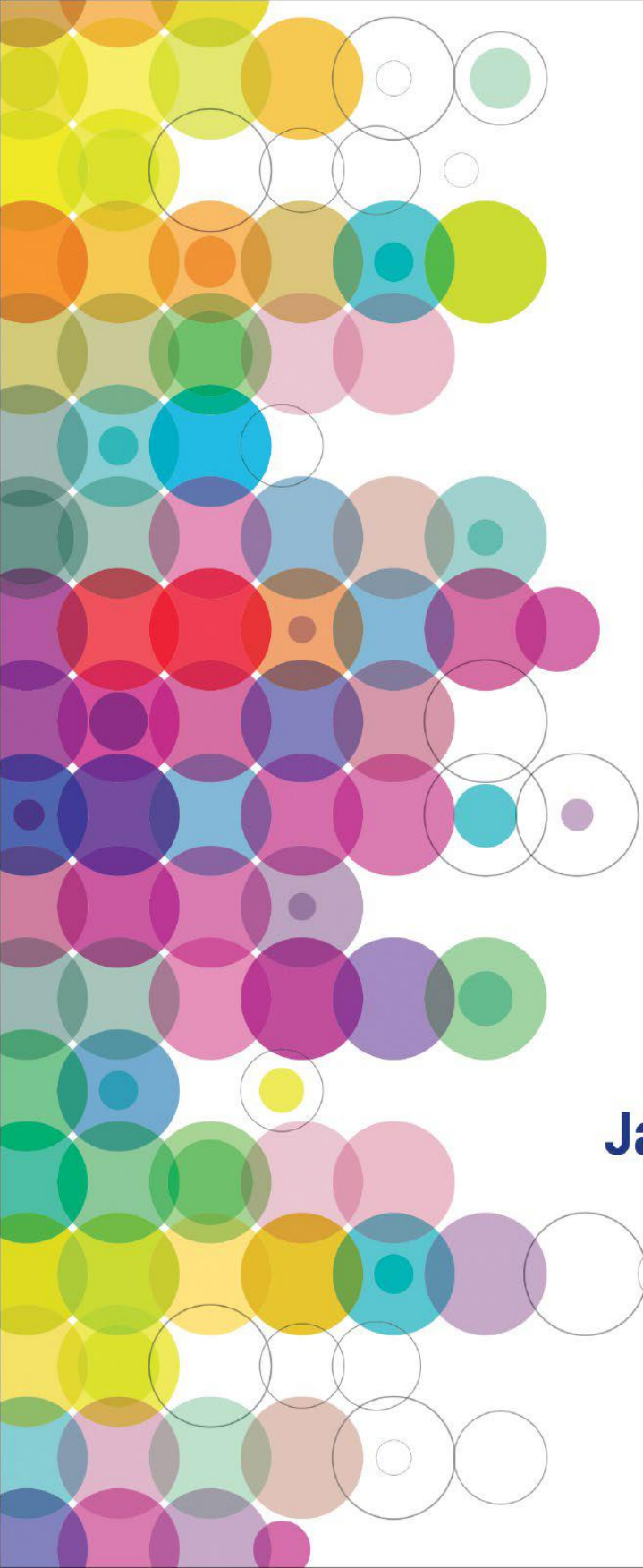

POLITICAL SCIENCE RESEARCH METHODS

9th Edition

Janet Buttolph Johnson
H. T. Reynolds
Jason D. Mycoff

Political Science Research Methods

Ninth Edition

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University of Delaware

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PREFACE

A political science student may ask, "My interest is government and politics; why do I have to study research design, question wording, document analysis, and statistics?" Our goal in *Political Science Research Methods* is to address this question by demonstrating that with a modicum of effort applied toward studying these topics, undergraduates can analyze many seemingly complicated political issues and controversies in ways that go far beyond accounts in the popular press and the political arena.

Political Science Research Methods, now in its ninth edition, continues to hold true to the three primary objectives that have guided us since the book's inception. Our first objective is to illustrate important aspects of the research process and to demonstrate that political scientists can produce worthwhile knowledge about significant political phenomena using the methods we describe in this book. To show this as vividly as possible, we begin again with several case studies of political science research drawn from different areas of the discipline that address key issues and controversies in the study of politics. We made an effort in this edition to include a wide variety of examples from the main subfields of political science using different study designs and methods of data collection. We continue to make changes to fulfill our other two objectives: (1) to give readers the tools necessary to conduct their own empirical research projects and evaluate others' research, and (2) to help students with limited mathematical backgrounds understand the statistical calculations that are part of social science research. Though we are increasingly concentrating on what various procedures can (and cannot) tell us about the real world, we've tried to include examples of procedures and their associated calculations most likely to be used by students. We still provide separate computational details from the narrative by placing many equations in "How It's Done" boxes. The book makes an effort to encourage students to understand and think about the practical and theoretical implications of statistical results. We hope that by meeting these goals, this book will continue to satisfy the needs of our undergraduate and graduate students as they embark on their studies in the field.

STRUCTURE AND ORGANIZATION OF THE BOOK

In this ninth edition, we have responded to feedback that called for increased coverage of qualitative research and a reduction in length. We continued to refine our focus on what instructors say matters most. We carefully streamlined each chapter to deliver greater clarity of concepts and added new learning objectives to encourage close reading of main takeaways. In addition, the colorful interior visually highlights the content's accessibility.

Because research methods may overwhelm some students at first, we have gone to some length (in the first chapter, especially, but also throughout the book) to stress that research methods topics can be relevant to the understanding of current events. This book

is organized to show that research starts with ideas and then follows a series of logical steps. Chapter 1 introduces the case studies that are integrated into our discussion of the research process in the subsequent chapters. We chose these cases, which form the backbone of the book, to demonstrate a wide range of research topics within the discipline of political science: American politics, international relations, comparative politics, and public policy. We refer to these cases throughout the book to demonstrate the issues, choices, decisions, and obstacles that political scientists typically confront while doing research. We want to show what takes place behind the scenes in the production of research, and the best way to do this is to refer to actual articles. The advantage to this approach, which we feel has been borne out by the book's success over the years, is that it helps students relate substance to methods. For this edition, we updated and extended the example of research into the gender gap in politics, which is especially useful as it demonstrates the use of quantitative content analysis as a data collection method. We retained the example on the causes of income inequality and redistribution in Organisation for Economic Co-operation and Development (OECD) countries. We have replaced the other research examples with three new ones, two of which correct earlier omission of case study and qualitative empirical research in political science. The first of these is an investigation into the cause of the difference in tax compliance between northern and southern Italy. We chose this research as an example of qualitative case study research and historical institutionalism. The second new example investigating the cause of different government responses to public protests in three newly consolidated democracies demonstrates the comparative method and the considerations that go into selecting cases for comparison. The third new example is a quantitative analysis of the impact of international election observers on Armenian elections using a natural experimental design. Chapter 2 examines the definition of scientific research and the development of empirical political science. We discuss the role of theory in the research process and review some of the debates in modern and contemporary political science. We have added a section on data access and research transparency underscoring the responsibility of researchers to substantiate their claims. We have also modified a table to reflect that qualitative research can indeed be empirical. In response to adopter input, chapter 3 still focuses on the task of helping students to identify and refine appropriate research topics. For instructors who plan to have their students conduct independent research projects, it makes sense to introduce this topic early in the discussion of the research process. This chapter also contains an extended discussion of how to conduct and write a literature review. Examples of literature searches now use Google Scholar to reflect its common use by students. Chapter 4 addresses the building blocks of social scientific research: hypotheses, core concepts, variables, and measurement. It combines material that was previously covered in chapters 4 and 5. We have eliminated the rather lengthy discussion of scales and their construction. Chapter 5 has been overhauled substantially and now covers sampling. As a result, it is considerably shorter and focuses on the essentials of sampling beginning with a discussion of sampling before moving on to sampling methods. This chapter includes a new section on sample size and margin of error that replaces the more technical discussion of standard error equations that are now first introduced in subsequent statistical chapters. There is a "Helpful Hints" box that reviews symbols in support of a simplified, standardized approach used across all of the statistics chapters.

Chapter 6 has been rewritten to focus on the logic of demonstrating causation. It focuses solely on the classic experimental design, leaving the discussion of other research designs to later chapters. This allows students to grasp an essential aspect of empirical political science research: the identification of causes of political phenomena. Chapters 7 and 8 discuss qualitative research designs and data collection methods, respectively. Chapter 7 is entirely new and focuses on case study designs. It begins with a discussion of the comparative method and the logic of comparative research designs. It then addresses the growing use of case studies to explore causal mechanisms through process tracing research designs and illustrates the practice with an example. Chapter 8 introduces the main sources of data for political science research: observation, documents, and interviews. As in past editions, the advantages and disadvantages of each approach are reviewed, albeit more succinctly. The ethical requirements for research involving human subjects are reviewed. The remainder of the chapter focuses on data collection in qualitative research using examples. The practice of interviewing is given substantial coverage. Challenges associated with presenting qualitative data while adhering to data accessibility and research transparency (DA-RT) and human subjects requirements are discussed.

Chapters 9 and 10 parallel the previous two chapters by focusing on quantitative research designs and data collection methods. Chapter 9 presents more experimental designs, natural experiments, and field experiments. Quasi-experiments and commonly used observational research designs (cross-sectional and longitudinal designs) are also discussed. Chapter 10 discusses sources of data for quantitative studies: statistical data compiled by others, quantitative content analysis, and survey research. It includes updated and web-based sources of aggregate statistics and survey questions and data.

Chapters 11 through 14 focus on data analysis and how we interpret data and present them to others. Chapter 11 has been revised to simplify the presentation of descriptive statistics. One small data set—for ease of calculation—is used to demonstrate calculations, and the use of technical terms is consistent and kept to a minimum. There is a greater emphasis on interpretation of the statistics. Chapter 12, on statistical inference and hypothesis testing, has been streamlined to focus on the normal distribution and how to calculate z and t scores, how to use their associated tables, and their interpretation. It covers testing of statistical hypotheses and includes examples of significance tests for means and proportions as well as calculating confidence intervals. Our goal is to make the logic of the tests more comprehensible. The material included in chapters 13 and 14 has been substantially rearranged and streamlined compared to the eighth edition. In chapter 13, we investigate relationships involving categorical data, both bivariate and multivariate. Construction and interpretation of contingency tables are explained. Measures of association are presented including calculations for some to demonstrate the logic behind them and to help their interpretation. The chapter concludes with an explanation of analysis of variance (ANOVA) and the F test. Chapter 14 covers regression, both ordinary least squares regression (bivariate and multivariate) and logistic regression, an increasingly important statistical tool in social research. In all of this, we attempted to be as rigorous as possible without overwhelming readers with theoretical fine points or computational details. The content is still accessible to anyone with a basic understanding of high school algebra. Our goal, as always, is to provide an intuitive understanding of these sometimes intimidating topics without distorting the concepts or misleading our readers.

Finally, in chapter 15, we present a new research report, using a published journal article that investigates the impact of the March for Science on the public's attitudes toward science and scientists to illustrate the research process. As in the past, this article is annotated, although we have changed the format so that students can see more clearly where in the article the authors address key aspects of the research process. We strongly suggest that instructors who assign a research paper have their students consult the example in this chapter and use it to pattern their own writing.

In addition to the "How It's Done" feature, the "Helpful Hints" boxes continue to give students practical tips. Each chapter contains suggested reading lists and lists of terms introduced. A glossary at the end of the book, with more than 250 definitions, lists important terms and provides a convenient study guide.

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- **Instructor manual** for each chapter, including a chapter overview, learning objectives, lecture outline, discussion questions, and written assignments and projects, to support your teaching
- **All tables and figures** from the textbook
- **Solutions manual and data sets** that accompany the exercises in *Working with Political Science Research Methods,* Fifth Edition

ACCOMPANYING WORKBOOK

In addition to updating all of the website materials, Jason D. Mycoff has substantially revised the accompanying workbook, *Working with Political Science Research Methods*, fifth edition, to align with the new organization of the ninth edition, and provided many new exercises while retaining the ones we feel worked well in the previous edition. Based on user feedback, Mycoff looked for opportunities to add more problems for practicing statistical calculations, more variation in subfield coverage, and new data sets. The new edition also includes the student version of SPSS so students can work with their own copy in courses that use SPSS. Each workbook chapter briefly reviews key concepts covered by the corresponding chapter in the text. Students and instructors will find data sets

and other documents and materials used in the workbook exercises at http://edge.sagepub.com/johnson9e. The data sets, available on a variety of platforms, may also be used for additional exercises and test items developed by instructors. Instructors may want to add on to the data sets or have their students do so as part of a research project. A solutions manual for adopters of the workbook is also available online at http://edge.sagepub.com/johnson9e.

In closing, we would like to make a comment on statistical software. Instructors remain divided over the extent to which computers should be part of an introductory research course and what particular programs to require. While the student version of SPSS is included with the workbook, neither the workbook exercises nor the textbook problems are written specifically for SPSS. We encourage instructors and students alike to explore the many online statistical resources such as Survey Documentation Analysis (SDA), Inter-university Consortium for Political and Social Research (ICPSR), American FactFinder, Rice Virtual Lab in Statistics, and VassarStats in addition to software like SPSS, Stata, and SAS for their analytical needs.

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Each of these reviewers has helped make the ninth edition stronger than ever, and we are grateful for their assistance.

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Finally, Jan and Jason wish to thank H. T. Reynolds for his many contributions to the previous eight editions of the text.

Janet Buttolph Johnson
H. T. Reynolds
Jason D. Mycoff

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Janet Buttolph Johnson is associate professor emerita of political science and international relations at the University of Delaware, where she specializes in public policy, state and local politics, and environmental policy and politics.

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1 INTRODUCTION

Political scientists are interested in learning about and understanding a variety of important political phenomena.

Some of us are interested in the political differences among countries and wonder why women make up a larger percentage of legislators in some countries than in others, or we may wonder what conditions lead to stable and secure political regimes without civil unrest, rebellion, or government repression.

Another area of interest is the relationships and interactions between nations and how some nations exercise power over others.

Other political scientists are more interested in the relationship between the populace and public officials in democratic countries and, in particular, whether or not public opinion influences the policy decisions of public officials.

Still others are concerned with how particular political institutions function. Does Congress serve the interests of well-financed groups rather than of the general populace? Do judicial decisions depend upon the personal values of individual judges, the group dynamics of judicial groups, or the relative power of the litigants? To what extent can American presidents influence the actions of federal agencies? Does the use of nonprofit service organizations to deliver public services change government control of and accountability for those services?

CHAPTER OBJECTIVES

1.1 Describe how political scientists use empirical research methods to investigate important questions about politics and government.

1.2 Understand why researchers use a variety of data collection methods in their empirical study of political phenomena.

1.3 Understand why some research findings are summarized quantitatively using statistics while others are summarized qualitatively using categorical assessments.

These are just a very few examples of the types of questions political scientists investigate through their research.

This book is an introduction to **empirical research**—a methodology that requires scholars to clearly state hypotheses or propositions that can be evaluated with actual, "objective" observation of political phenomena. Students should learn about how political

scientists conduct empirical research for three major reasons. First, citizens in contemporary American society are often called upon to evaluate statements and arguments about political phenomena and the validity of information used to support those statements and arguments. Debates about the wisdom of the death penalty, for example, frequently (but not always) hinge on whether or not it is an effective deterrent to crime, and debates about term limits for elected officials involve whether or not such limits increase the competitiveness of elections and the responsiveness of elected officials to the electorate. How do we know if these claims are true? What does the research on these topics tell us? Similarly, evaluating current developments in the regulation of financial markets can be informed by research on what influences the behavior of regulatory agencies and their staff. In these and many other cases, thoughtful and concerned citizens find that they must evaluate the accuracy and adequacy of the theories and research of political (and other social) scientists.

A second reason is that an understanding of empirical research concepts is integrally related to students' assimilation and evaluation of knowledge in their coursework. An important result of understanding the scientific research process is that a student may begin to think more independently about concepts and theories presented in courses and readings. For example, a student might say, "That may be true under the given conditions, but I believe it won't remain true under the following conditions." Or, "If this theory is correct, I would expect to observe the following." Or, "Before I will accept that interpretation, I'd like to have this additional information." Students who can specify what information is needed and what relationships among phenomena must be observed in support of an idea are more likely to develop a deeper understanding of the subjects they study.

A third, and related, reason for learning about political science research methods is that students often need to conduct research of their own, whether for a term paper in an introductory course on American government, a research project in an upper-level seminar, a senior thesis, or a series of assignments in a course devoted to learning empirical research methods. Familiarity with empirical research methods is generally a prerequisite to making this a profitable endeavor.

The prospect of learning empirical research methods is often intimidating to students. Sometimes, students dislike this type of inquiry because it involves numbers and statistics. To understand empirical research well, one must have a basic knowledge of statistics and how to use statistics in analyzing data and reporting research findings. But not all empirical research involves the collection of numerical data requiring statistical analysis. It may involve listening to and interpreting what people say or reading and classifying documents such as treaties or constitutions. The empirical research process we describe here is first and foremost a way of thinking and a prescription for disciplined reasoning. Statistics will be introduced only after an understanding of the thought process involved in empirical research is established, and then in a way that should be understandable to any student familiar with basic algebra. On a final note, understanding the research process involves an appreciation of the ethical obligations of conducting research, including transparency and integrity in the collection and reporting of data, and avoiding harm to humans in the course of research from choice of research topic to publication of findings. We will be

discussing the ethical dimensions of conducting research at appropriate points throughout the chapters.

The plan for this book is as follows:

Chapter 2 discusses what we mean by the scientific study of political phenomena. We also review the historical development of political science as a discipline and introduce alternative perspectives on what is the most appropriate approach to the study of political phenomena; not all political scientists agree that politics can be studied scientifically or that the results of such efforts have been as useful or inclusive of important political phenomena as critics wish.

In chapter 3, we address an aspect of the research process that often poses a significant challenge to students: finding an interesting and appropriate research topic and developing a clearly stated research question. Therefore, in this edition, we show how to explore "the literature" and find out what political scientists and others have written about political phenomena in order to sharpen the focus of a research topic, a discussion that came later in previous editions. Chapter 3 focuses on investigating relationships among concepts and developing explanations for political phenomena. It also includes an example and discussion of how to write the literature review section of a research paper.

Chapter 4 builds on the discussion in chapter 3 by adding the "building blocks" of scientific research: defining complex concepts, formulating hypotheses, identifying independent and dependent variables, and specifying units of analysis. This chapter also addresses the challenge of developing valid and reliable measures of political phenomena. It also discusses how our choices about how we measure variables affect the statistics we may use later to analyze the data we collect. The concept of level of measurement is introduced.

Chapter 5 covers the logic and basic statistical features of sampling. Various types of samples, including probability and nonprobability samples, are described. Much of our information about political phenomena is based on samples, so an understanding of the strengths and limitations of sampling is important.

Chapter 6 introduces the challenge of demonstrating causation in empirical research. The classic experimental research design is presented and explained as a basis for evaluating the ability of other research designs to support causal claims.

Chapter 7 is the first of two chapters devoted to qualitative research methods. This chapter stresses the contribution that qualitative research makes to the understanding of political phenomena including establishing causation. Qualitative research designs, the logic of comparative case study designs, and process tracing are discussed.

Chapter 8 provides a general introduction to the main sources of data used by political scientists, discusses their advantages and disadvantages, and reviews

the obligation of researchers to adhere to ethical requirements where human subjects are involved. The remainder of the chapter is devoted to a discussion of observation, interviewing, and document use as sources of data in qualitative research. Particular attention is paid to demonstrating validity and reliability of data used in qualitative studies especially as it relates to professional guidelines for data accessibility and research transparency (DA-RT) guidelines.

Chapters 9 and 10 parallel the chapters on qualitative research. Chapter 9 discusses quantitative research designs: experimental designs, field experiments, quasi-experimental designs, and nonexperimental designs, comparing them to the classic experimental design with respect to demonstrating causation. Chapter 10 introduces the major data collection methods used in quantitative analyses: surveys or polling, content analysis, and the running record. It reviews various types of polls and their strengths and weaknesses, as well as the design of survey instruments. The basics of quantitative content analysis are explained. The chapter addresses issues arising with the use of statistical and other records and concludes with some guidelines for data management.

Chapter 11 offers an extensive discussion of descriptive statistics and the analysis of single variables. We present a variety of graphical options useful in displaying data, as visual representations of data are often an extremely effective way to present information. Tips on recognizing and avoiding misleading uses of graphical displays are an essential part of this chapter.

Chapter 12 is devoted to the concepts of statistical inference, hypothesis testing, and calculating estimates of population parameters. This chapter builds on the foundation established in the earlier chapter on sampling.

Chapter 13 then moves on to the analysis of categorical data analysis—the investigation of the relationship between variables when the independent variable is measured at the nominal or ordinal level. Contingency table analysis with and without a control variable is covered as is analysis of variance (ANOVA). Measures of association are presented.

Chapter 14 is the final statistics chapter. Here we explore regression techniques used in the quest for explanation and demonstrating causality. These involve multivariate analysis, as the explanation of a political phenomenon rarely is based on simply one other factor or variable.

As in previous editions, we conclude with an annotated example of an actual, peer-reviewed research article. Chapter 15 contains a new example that allows students to see the discussion and application of many of the concepts and statistical procedures covered in earlier chapters.

Researchers conduct empirical studies for two primary reasons. One reason is to accumulate knowledge that will apply to a particular problem in need of a solution or to a condition in

need of improvement. Studies of neighborhood beautification efforts and their effect on crime rates, the impact of raising the minimum wage on the number of minimum wage jobs, or the effectiveness of alternative approaches to get residents to reduce their water consumption during droughts are some examples. Such research is often referred to as **applied research** because it has a fairly direct, immediate application to a real-world situation.

Researchers also conduct empirical research to satisfy their intellectual curiosity about a subject, regardless of whether the research will lead to changes in government policy or private behavior. Many political scientists, for example, study the decision-making processes of voters, not because they are interested in giving practical advice to political candidates but because they want to know if elections give the populace influence over the behavior of elected public officials. Such research is sometimes referred to as **pure, theoretical, or recreational research** to indicate that it is not concerned primarily with practical applications.[1]

Political scientists ordinarily report the results of their research in books or articles published in political science research journals (see chapter 3 for a discussion of how to find articles in these journals). Research reported in academic journals typically contains data and information from which to draw conclusions. It also undergoes peer review, a process by which other scholars evaluate the soundness of the research before it is published. Political science research questions and analyses also may appear in newspapers and magazines, which have a wider audience. Such popularly presented investigations may use empirical political science methods and techniques as well.

In the remainder of this chapter, we describe several political science research projects that were designed to produce knowledge about significant political phenomena. We will refer to these (and other) examples throughout this book to illustrate many aspects of the research process. These examples illustrate a variety of research topics and methods of investigation. They also show how decisions about aspects of the research process affect the conclusions that may be drawn about the phenomena under study. And they represent attempts by political scientists to acquire knowledge by building on the research of others to arrive at increasingly complete explanations of political behavior and processes.

RESEARCH ON INCOME INEQUALITY

In 1936, Harold Lasswell published *Politics: Who Gets What, When, How*.[2] Ever since, political scientists have liked this title because it succinctly states an important truth: politics is about winning and losing. No political system, not even a perfectly democratic one, can always be all things to all people. Inevitably, policies favor some and disadvantage others. So important is this observation that one of political science's main tasks is to discover precisely which individuals and groups benefit the most from political struggle and why.

A major controversy in the early years of the twenty-first century has been the apparent growth of economic inequality in the United States. Although there is disagreement among social scientists about the extent of the problem, many now believe that large disparities in income and well-being threaten not just the economy but democracy as well. At times, the rhetoric can become feverish:

> The 99.99 percent is lagging far behind. The divide between the haves and have-nots is getting worse really, really fast. . . . If we don't do something to fix the glaring inequities in this economy, the pitchforks are going to come for us. No society can sustain this kind of rising inequality. In fact, there is no example in human history where wealth accumulated like this and the pitchforks didn't eventually come out. You show me a highly unequal society, and I will show you a police state. Or an uprising. There are no counterexamples. None. It's not if, it's when.[3]

Other commentators, however, are not as concerned:

> If one looks at after-tax income, the increase in income inequality over time is greatly reduced. If one goes further and factors in the government's attempts to redistribute income, income inequality is not increasing in the U.S. at all. This after-tax, after-transfer income essentially is a measure of how much stuff you can consume (either by buying it or because somebody gave you free stuff). And, as demonstrated by Gary Burtless of The Brookings Institution (a center-left think tank), income inequality measured this way has actually decreased in the U.S. over the decade from 2000–2010.[4]

Inequality has concerned political scientists for decades. Democracy, after all, assumes political equality, and if people have widely varying levels of income, are they (can they be) politically equal? Before reaching definitive conclusions, however, one needs to study systematically and objectively the level, the causes, and the effects of disparities in income and wealth.

In a 2005 study, Lane Kenworthy and Jonas Pontusson analyzed trends in the distribution of gross market income—the distribution of income before taxes and government transfers—for affluent Organisation for Economic Co-operation and Development (OECD) countries using data from the Luxembourg Income Study.[5] Kenworthy and Pontusson were interested in whether inequality in market income had increased and to what extent government policies had responded to changes in market income inequality. In particular, they were interested in testing the median-voter model developed by Allan H. Meltzer and Scott F. Richard.[6]

According to the median-voter model, support for government redistributive spending depends on the distance between the income of the median voter and the average market income of all voters. The greater the average market income in comparison to the median income, the greater the income inequality and, thus, the greater the demand from voters for government spending to reduce this gap. Countries with the greatest market inequalities should have more such government spending.

One way to test the median-voter model is to see whether changes in redistribution are related to changes in market inequality. One would expect that larger changes in market inequality would cause larger changes in redistribution if governments were responsive to the median voter. Kenworthy and Pontusson found this to be the case, although the United States, Germany, and the United Kingdom did not fit the pattern very well. In further analyses in which they looked at country-by-country responsiveness to market

inequality over several decades, they found that most OECD countries are responsive to market income inequalities, although to varying degrees, and that the United States is the least responsive.

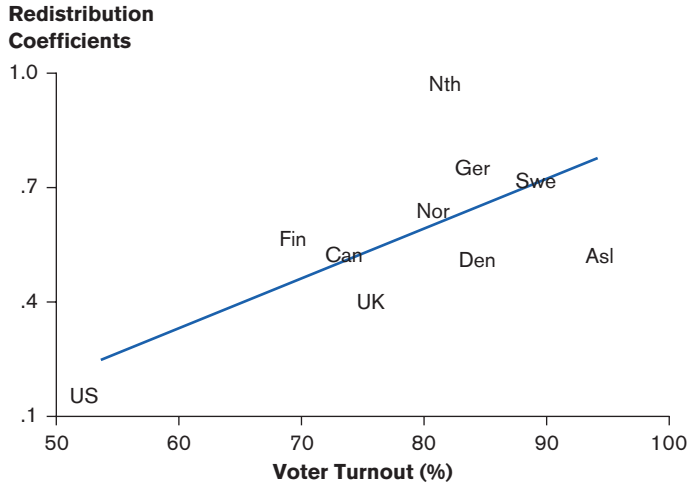
Perhaps, Kenworthy and Pontusson suggested, government responsiveness to market inequality is related to voter turnout. If one assumes that lower-income voters are less likely to turn out to vote than are higher-income voters, then one would expect that the lower the turnout, the less likely governments would be pressured to respond to income inequality. The median-voter model still would apply, but in countries with low voter turnout, the median voter would be less likely to represent lower-income households. Kenworthy and Pontusson used regression analysis and a scatterplot (you will learn about these in chapter 14), shown in figure 1-1, to show that the higher the voter turnout, the more responsive a country is to market income inequality. The results provide a possible explanation for why the United States is less responsive to changes in market inequality than are other nations: the United States has the lowest turnout rate among the nations included in the analysis.

In 2010, an entire issue of the journal *Politics & Society* was devoted to the topic of income inequality. In the lead article, "Winner-Take-All Politics: Public Policy, Political Organization, and the Precipitous Rise of Top Incomes in the United States," Jacob S. Hacker and Paul Pierson took issue with much of the previous research on the causes of income inequality in the United States.[7] First, they dismissed economic accounts that attribute growth in inequality to "apolitical processes of economic change" for failing to explain differences among nations, as illustrated in figure 1-2. This figure shows that the top 1 percent's share of national income is the highest in the United States (16 percent) and that it increased the most, almost doubling, between the 1970s and 2000. Second, they attacked previous political analyses on three counts: for downplaying "the extreme concentration of income gains at the top of the income ladder" (figure 1-3 shows the gain in the top 1 percent's share of national pretax income from 1960 to 2007), for missing the important role of government policy in creating what they called a "winner-take-all" pattern, and for focusing on the median-voter model and electoral politics instead of important changes in the political organization of economic interests. They argued that the median-voter model and the extreme skew in income don't add up. Even accounting for lower turnout among lower-income voters, the difference between the income of the median voter and the incomes at the very top is too big to argue that politicians are responding to the economic interests of the median voter.

Their explanation for the "precipitous rise" in top incomes in the United States rejects the median-voter model. Instead, they argue that policies governing corporate structure and pay, the functioning of financial markets, and the framework of industrial relations have had much to do with changes in pretax income (so-called market income).

This brief review of some of the research on income inequality illustrates that political science research is relevant to important issues in American politics and shows how political scientists use theory, comparison, and historical analysis in their investigations. One can be certain that additional research will be conducted to measure the impact of the 2017 changes in federal tax law on income distribution in the United States.

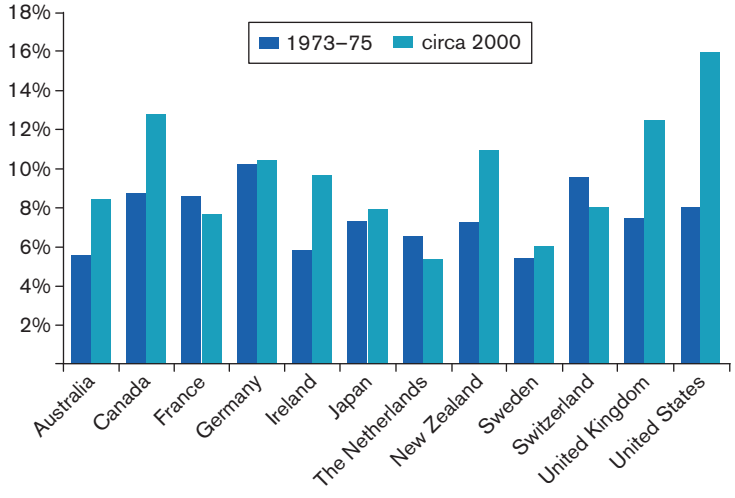
FIGURE 1-1 ■ Redistribution Coefficients by Average Voter Turnout



Source: Reprinted from Lane Kenworthy and Jonas Pontusson, "Rising Inequality and the Politics of Redistribution in Affluent Countries," *Perspectives on Politics* 3, no. 3 (2005): 462. © 2005 American Political Science Association, published by Cambridge University Press.

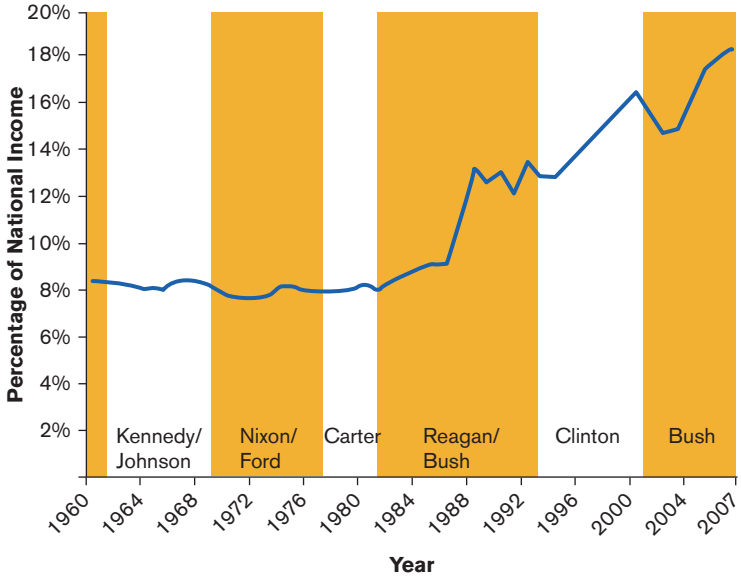
Note: Asl = Australia; Can = Canada; Den = Denmark; Fin = Finland; Ger = Germany; Nth = The Netherlands; Swe = Sweden; UK = United Kingdom; US = United States. Presidential elections for the United States; general parliamentary elections for the other countries. Redistribution data are for working-age households only.

FIGURE 1-2 ■ The Top 1 Percent's Share of National Income, Mid-1970s versus Circa 2000



Source: Andrew Leigh, "How Closely Do Top Incomes Track Other Measures of Inequality?" *Economic Journal* 117, no. 524 (2007): 619–33, https://doi.org/10.1111/j.1468-0297.2007.02099.x, cited in Jacob S. Hacker and Paul Pierson, "Winner-Take-All Politics: Public Policy, Political Organization, and the Precipitous Rise of Top Incomes in the United States," *Politics & Society* 38, no. 2 (2010): fig. 2, p. 160. Copyright © 2010 SAGE Publications. Reprinted by Permission of SAGE Publications.

FIGURE 1-3 ■ The Richest 1 Percent's Share of National Pretax Income, 1960–2007



Sources: Thomas Piketty and Emmanuel Saez, "Income Inequality in the United States, 1913–1998," *Quarterly Journal of Economics* 118, no. 1 (2003): 1–39; updated tables and figures for Piketty and Saez available at http://elsa.berkeley.edu/~saez/TabFig2007.xls, as cited in Jacob S. Hacker and Paul Pierson, "Winner-Take-All Politics: Public Policy, Political Organization, and the Precipitous Rise of Top Incomes in the United States," *Politics & Society* 38, no. 2 (2010): fig. 1, p. 156. Copyright © 2010 SAGE Publications. Reprinted by Permission of SAGE Publications.

Note: Excluding capital gains.

POLITICS AND THE GENDER GAP

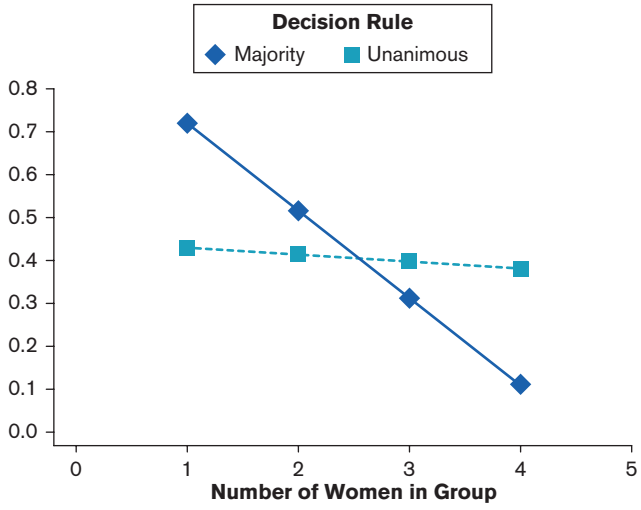
Much has been written about underrepresentation of women in public office. Based on data from 193 countries, women made up on average only 24.1 percent of legislators in the lower house of parliament in 2018.[8] Rwanda had the highest percentage, with 61.3 percent. The United States ranked 75th: in the 115th U.S. Congress, there were 110 women, or 20.5 percent of the membership.[9] In the 116th Congress (2019–2021), women make up 23.7 percent of the members: 23.4 percent of the House of Representatives and 25 percent of the Senate.[10] At the state level in 2019, the average of female state legislators is 28.7 percent, up from 25.4 percent in 2018, but the picture is quite varied, with Nevada at the top, with 50.8 percent, and Mississippi at the bottom, with 13.8 percent.[11] What accounts for this gender gap? Is it because women make up a small proportion of the professions that are typical recruiting grounds for candidates? Are women less interested in politics and running for office, and if so, why? Do family considerations weigh more heavily on women, making the demands of public office too difficult to contemplate?

Research by Richard L. Fox and Jennifer L. Lawless addresses these questions. In a national random sample of nearly four thousand high school and college students, they found "a dramatic gender gap in political ambition."[12] In looking for explanations for this gender gap, they found that parental encouragement, politicized educational and peer experiences, participation in competitive activities, and a sense of self-confidence are associated with a young person's interest in running for public office, but that young women report fewer of these factors than young men and that the gap between men and women in college is greater than in high school. In other research, Fox and Lawless study the political ambitions of men and women in professions (lawyers, business leaders, educators, and political activists) typically thought of as recruitment grounds for candidates for public office. Even though they found a "deeply gendered distribution of household labor and child care among potential candidates," they deemed that differences in family roles and responsibilities did not account for lower levels of political ambition reported by women. Even women unencumbered by family responsibilities reported less political ambition than men. They conclude that candidate recruitment and self-perceived qualifications are the best explanations for the gender gap in political ambition. Women are less likely than men to report that they have been recruited to run for public office by a party leader, elected official, or political activist, or to consider themselves qualified to run for public office even after controlling for differences in family structures, roles, and responsibilities.[13]

What happens when women are elected to political office? What is the effect of the presence of women in legislative bodies? Does it result in substantive as well as symbolic representation (the perception that women can and should govern)? Is a "critical mass" necessary before such representation effects occur? Is the number of women in a legislative body the critical factor, or might the rules governing deliberation in the legislature also be important? This latter factor is one investigated by Tali Mendelberg, Christopher F. Karpowitz, and J. Baxter Oliphant.[14] They note that research has not shown a clear, positive effect of descriptive representation (number or proportion of women) for women's substantive or symbolic representation. They propose that "the way in which participants interact while speaking may enhance or undermine women's status in deliberation, and that numbers affect this interaction, but in combination with rules." In particular, they note that previous research on the "authoritative use of speech acts" indicates that men are more likely to speak first and talk longer, receive positive feedback on their input, interrupt others in a negative manner, and fail to yield when interrupted. Women tend to speak less and not in the beginning of deliberations, receive little or no positive feedback on their ideas, be interrupted in a negative manner, and yield when interrupted.

Mendelberg, Karpowitz, and Oliphant investigate whether these patterns are affected by a group's decision rule: by majority or by consensus or unanimity. They hypothesize that under a unanimous rule, women will receive more respect in deliberations and the expectation of deference by women during discussions will be overridden, *but* only when women are in the minority, not when they predominate (based on previous research). To test their hypothesis, they set up 94 five-member discussion groups composed of between 0 and 5 women, and randomly assigned each group to unanimous or majority rule. Each group was given the identical decision task except for the decision rule. The researchers recorded and

FIGURE 1-4 ■ Negative Proportion of Negative and Positive Interruptions Received by Women from Men by Group Decision Rule



Source: Tali Mendelberg, Christopher F. Karpowitz, and J. Baxter Oliphant, "Gender Inequality in Deliberation: Unpacking the Black Box of Interaction," *Perspectives on Politics* 12, no. 1 (2014): fig. 1, p. 24.

transcribed each individual's speech. They counted the number of times each person spoke and coded the number and tone (positive, neutral, or negative) of interruptions, the gender of the speaker, and the gender of the person interrupting.

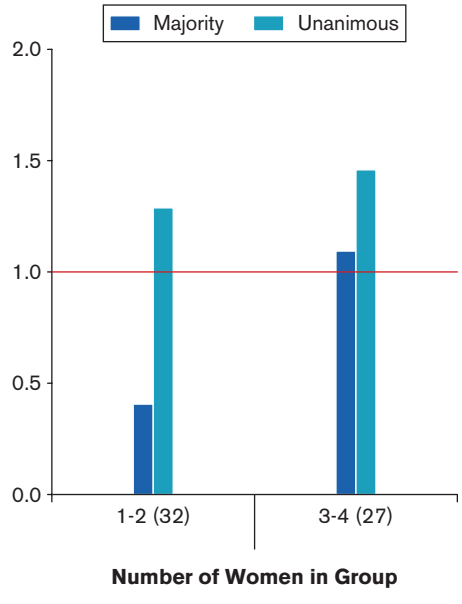
Figure 1-4 shows just some of the results. Graphical representation of data is an efficient and effective way of presenting research findings, and learning how to interpret such graphs is an important, albeit at times challenging, aspect of reading research articles. This figure shows the negative proportion of negative and positive interruptions (neutral interruptions are not included in this analysis) received by women from men by group decision rule and number of women in the group. The proportion of negative interruptions is measured on the vertical axis, the number of women in the group is measured along the horizontal axis, and each line represents the type of decision rule. In majority-rule groups, the composition of the group has a clear effect on the proportion of negative comments, ranging from over 70 percent when there is only one woman in the group to less than 20 percent when there are four women. Under unanimous rule, the tone of interruptions women receive from men is positive (less than half of the interruptions are negative), and the number of women in a group has no effect on the proportion of negative interruptions. Compared to majority rule, the unanimous rule helps women when they are in the minority; when women are in the minority in majority-rule groups, the tone of interruptions they receive from men is negative. But when women are in the majority in majority-rule groups (and their votes are necessary to win), the tone of men's interruptions becomes positive. In this decision-making context, women's status is important, and they are afforded more respect.

Another way of looking at the gender gap in deliberation is to compare men and women with respect to the relative frequency with which they receive positive interruptions. Relative frequencies, a data analysis technique described at length in chapter 11, are a common method of summarizing data. To make the graph in Figure 1-5, for every mixed-gender group the researchers take the proportion of a person's speaking turns that received a positive interruption and calculate the group's average for women divided by its average for men. Next, they separate the groups by decision rule and average the results for groups in which women are in the minority and for groups in which they are in the majority. One can see in figure 1-5 that women receive less than half of the proportion of positive interruptions (the horizontal red line represents equal proportions) when they are in the minority in majority-rule groups. In other decision-making contexts, women receive about the same or even higher proportions of positive interruptions compared to men.

This research by Mendelberg, Karpowitz, and Oliphant makes an important contribution to understanding links between demographic representation and substantive and symbolic representation of women, as well as to the broader question of under what circumstances participation in group deliberations by low-status individuals leads to their voices being heard.

We include one last example of gender politics research. It investigates whether and when Hillary Clinton chose to "talk like a man" throughout her political career. This

FIGURE 1-5 ■ Ratio of Women's to Men's Positively Interrupted Speaking Turns, Mixed Groups (Raw)



Source: Tali Mendelberg, Christopher F. Karpowitz, and J. Baxter Oliphant, "Gender Inequality in Deliberation: Unpacking the Black Box of Interaction," *Perspectives on Politics* 12, no. 1 (2014): fig. 1, p. 24.

research by Jennifer J. Jones has several noteworthy features from the perspective of research methods.[15] One, it is an example of content analysis—the quantitative analysis of written and spoken language, pictures, and other aspects of human communication, which we will discuss in greater depth in chapter 10. Two, it illustrates the importance of measurement and how researchers add to our understanding of political phenomena by using novel measurement schemes (in this case, measuring "talking like a man"). And, three, it raises questions about the scope of research: What are the implications of choosing to focus on a single case, one woman? On one hand, by analyzing Clinton's speech, Jones has selected a very important case as Clinton has been a highly visible political figure for several decades and she has served in multiple political capacities or roles. And, not inconsequential for the researcher, transcripts of Clinton's speech (interviews and debates) were readily available. On the other hand, research focusing on a single, atypical case may limit the extent to which we can expect other women with different political careers to exhibit the same patterns as Clinton. Or, stated in more formal research terms, are the research results *generalizable*?

Jones reviews previous research that notes that women in leadership positions face competing expectations: women are expected to possess certain character and behavior traits (warm, sympathetic, and friendly), yet the traits voters typically associate with leadership (strong, determined, and authoritative) are considered masculine rather than feminine traits.[16] Thus, Jones argues that women in politics have to be concerned about their self-presentation. In particular, she argues that when women in policy-making contexts interact with their male colleagues, they adopt masculine styles of communication in order to be effective and exercise power because such contexts are governed by male norms.

In order to test this hypothesis, Jones needs to define what is meant by masculine and feminine linguistic style. Drawing upon research that found reliable and consistent gender differences in linguistic style and incorporating some aspects of previously used coding schemes for measuring gendered communication, Jones creates two indices of linguistic style, one for feminine style and one for masculine style. Each index consists of six linguistic markers as shown in table 1-1. Her indices include "function words" (articles, prepositions, pronouns, and auxiliary verbs), which "shape and connect the content of our thoughts into meaningful forms of communication."[17] She argues that "[b]y analyzing function words, which are often discarded or ignored in coding schemes, my approach picks up on less overt, more implicit expressions of gender than is typical of many studies in the politics and gender literature."[18] Furthermore, function words can be consistently measured—a pronoun is a pronoun, a preposition is a preposition, and an article is an article.

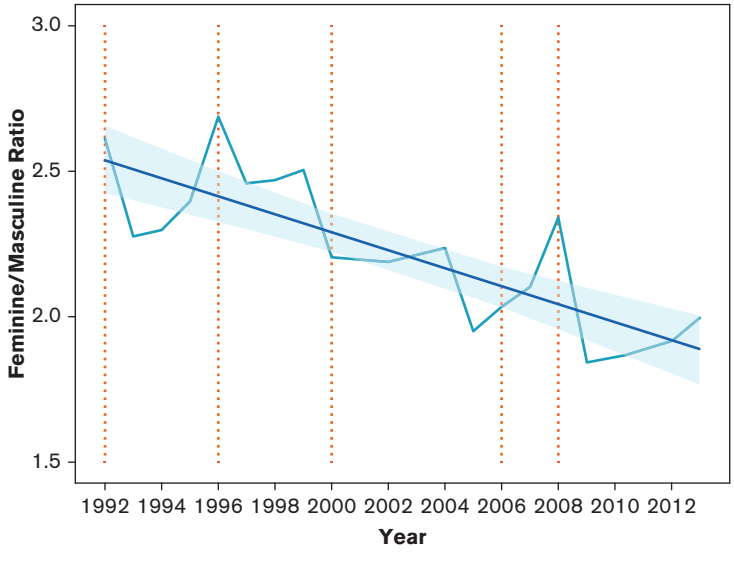
Jones analyzes 567 interview and debate transcripts from 1992 to 2013 for linguistic markers using Linguistic Inquiry and Word Count (LIWC), a text analysis program. Jones does not include speeches or other formal addresses on the grounds they do not reflect a person's natural language. For each transcript, she calculated a feminine to masculine ratio by taking the sum of feminine linguistic markers and dividing by the sum of masculine linguistic markers. The ratio of feminine to masculine styles over time is shown in Figure 1-6. The ratio of feminine to masculine styles is consistently positive although there is a general downward trend with significant variations.

TABLE 1-1 ■ Differences in Linguistic Style between Men and Women

Feminine		Masculine	
Linguistic Marker	**Examples**	**Linguistic Marker**	**Examples**
Pronouns, especially first-person singular	*anyone, she, this, yours, I, me, myself*	First-person plural pronouns	*let's, our, ourselves, us, we, we're*
Verbs and auxiliary verbs	*listening, need, went, am, been, will*	Articles	*a, an, the*
Social references	*children, citizen, email, said, talking, who*	Prepositions	*above, for, in, to, under, without*
Emotion words	*brave, cried, disagree, evil, relief, safe*	Anger words	*annoyed, cruel, disgust, hate, kill*
Cognitive mechanisms	*because, believe, know, result, think, thus*	Big words (> 6 letters)	*American, industrial, reconciliation*
Tentative words	*chance, guess, maybe*	Swear words	*bastard, bitch, shit*

Source: Jennifer J. Jones, "Talk 'like a Man': The Linguistic Styles of Hillary Clinton, 1992–2013," *Perspectives on Politics* 14, no. 3 (2016): table 1, p. 631.

FIGURE 1-6 ■ Ratio of Feminine to Masculine Styles over Time



Source: Jennifer J. Jones, "Talk 'like a Man': The Linguistic Styles of Hillary Clinton, 1992–2013," *Perspectives on Politics* 14, no. 3 (2016): fig. 1, p. 632.

Note: Figure 1-6 gives a yearly time-series plot ratio of feminine to masculine linguistic markers. The dotted lines represent election years in which Clinton actively campaigned for herself (2000, 2006, 2008) or Bill (1992, 1996). The light gray line represents a smoothed generalized linear estimate (with shaded confidence intervals) from the ratio modeled in table 2 (see original article for table).

Jones argues that changes in the ratio are consistent with what one might expect: when Hillary Clinton was campaigning for her husband in 1992 and 1996, she used a higher ratio of feminine to masculine markers, which would be consistent with her "expected role as a supportive wife and first lady."[19] The abrupt decline in the ratio by 1993 coincides with Clinton's leading role on the administration's health reform task force where "she was charged with communicating details of the policy and persuading industry and interest group leaders, lawmakers, and the public to support it."[20] Once her role on the task force ended in 1995 and she was no longer charged with pushing the president's agenda, her language returned to a more feminine style. Clinton's style changed abruptly once again when she ran for the U.S. Senate in 2000, which Jones points out is "consistent with the expectation that female candidates adopt a masculine self-presentation to look 'tough enough' for the job."[21] Clinton's linguistic style was most masculine when she served in the Senate and as secretary of state during which time, Jones argues, her "self-presentation was constrained by the masculine norms of behavior and interaction within these institutions."[22]

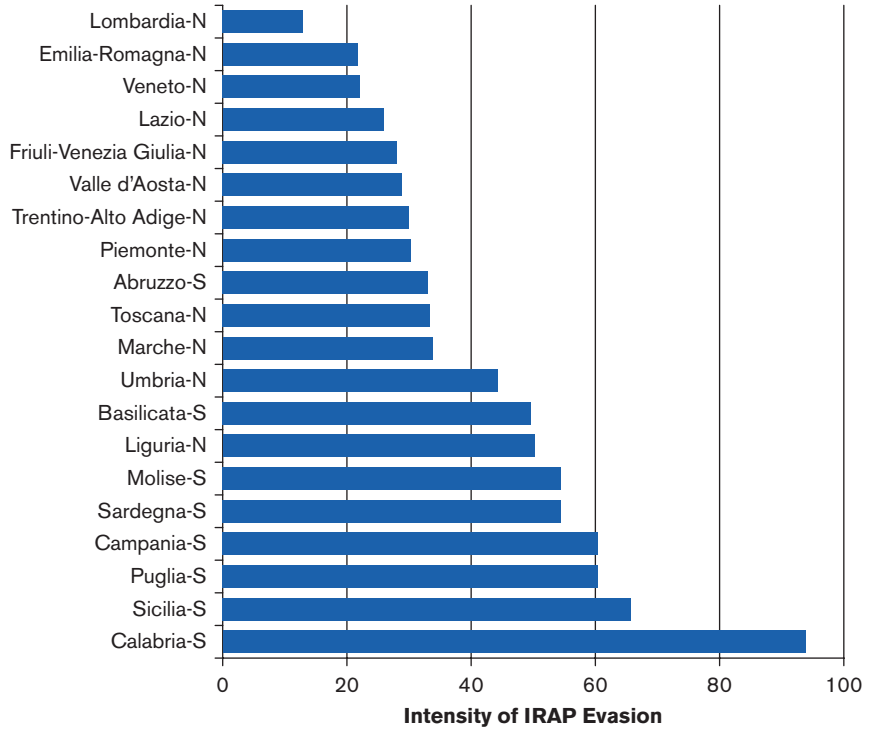
While we don't show the results here, Jones's data allow her to analyze Clinton's linguistic style during her campaign for the Democratic presidential nomination as she struggled to present both a masculine (leadership capability) and feminine (likable) side. In addition, Jones examines how individual markers change as Clinton's style changes. Jones's research examines the linguistic style of only one politically ambitious woman, albeit a notable and important one, but it suggests a promising direction for future work into the ways in which male and female politicians communicate over time and in different political contexts.

THE CASE OF ITALIAN (NON) TAX COMPLIANCE

John D'Attoma's examination of the tax compliance in Italy and explanation of why tax compliance is higher in northern regions compared to southern regions is an example of research using historical institutional analysis.[23] That is, he focuses on the institutional context in which politics is conducted to explain political outcomes. His research demonstrates at least two important aspects of the research process: (1) different research approaches may lead to different conclusions; and (2) there may be important ethical dimensions to research conclusions if, for example, they imply that some populations are morally deficient. According to D'Attoma, tax compliance is known to be low in Italy and lower in the south than in the north as shown in figure 1-7.

D'Attoma's explanation of why this is the case differs from previous explanations, which focused on cultural factors and personal morals. Researchers employing what is known as the "social capital" approach concluded that southern Italians have less civic virtue (defined as "high civic awareness and a shared consensus regarding the legitimacy of political institutions and public policy, together with political competence and trust") and lower levels of social capital (defined as "features of social life, such as networks and trust").[24] Lower tax compliance, as well as lower levels of economic development and government performance in southern regions, has been blamed on the "faulty character" and presence of "amoral familism" among their inhabitants. Societies characterized by amoral familism are tied together by "bonding" social capital and emphasize family relations to the exclusion of all

FIGURE 1-7 ■ Intensity of Evasion of the Regional Production Tax (IRAP) by Region, 1998–2002



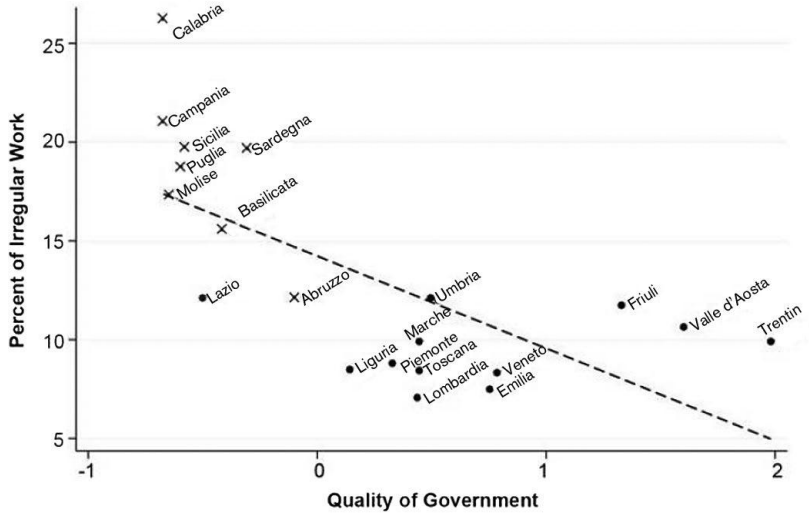
Source: John D'Attoma, "Divided Nation: The North-South Cleavage in Italian Tax Compliance," *Polity* 49, no. 1 (January 2017): fig. 1, p. 79.

others. In "bonding" societies, ethical behavior is confined to the immediate family and closest friends. Because taxes can be perceived as hurting the family by imposing a cost in order to benefit people outside the familial unit, compliance is low. In contrast, in societies characterized by "bridging" social capital, individuals are drawn together regardless of socioeconomic status, race, or ethnic background: tax compliance is higher because taxes are perceived as going toward common benefits.[25]

D'Attoma notes there is ample evidence that, in general, individuals are more likely to pay taxes if they believe the government is spending their tax money honestly and efficiently and if there is a perception that their tax burden and the quality of services received in return are well matched.[26] Tax compliance in Italy fits this pattern. Italy's tax burden (the ratio of tax revenue to gross domestic product) is one of the highest in the European Union, and it consistently ranks near the bottom of the European Quality of Government index[27] compared to other European nations, with the south ranking lower than the north.

Figure 1-8 shows the relationship between percentage of irregular work (used as a measure of tax avoidance) and quality of government ratings for regions in Italy. Northern

FIGURE 1-8 ■ Relationship between Irregular Work and Quality of Government



Source: John D'Attoma, "Divided Nation: The North-South Cleavage in Italian Tax Compliance," *Polity* 49, no. 1 (January 2017): fig. 2a, p. 75.

regions generally rank lower than southern regions on percentage of irregular work and higher in quality of government. The question is, what is at the root of this difference?

Critics, including D'Attoma, of the social capital approach argue that researchers have overlooked evidence of substantial social capital in the south. Therefore, lack of social capital in the south can't be a valid explanation for differences between the north and south. Furthermore, D'Attoma argues, isn't it possible that public institutions and the elites that govern them cause or foster civic attitudes? D'Attoma contends that the moralist argument fails to take into account historical differences between the north and the south in institutions (both the government and the Catholic Church), political competition, and impact of public policies.

To provide evidence in support of his contention that historical institutional context is a more valid explanation of variation in tax compliance in Italy, D'Attoma examines the Italian political landscape dating from the unification of Italy in the nineteenth century to the fall of the First Republic in 1992. Among the features of this landscape are

- After unification, the politically dominant north demanded disproportionate tax revenues from the south, which were used to fund public works projects largely benefiting the north.
- The Catholic Church largely disintegrated in the south as the state sold off church lands to the wealthy landed elite such that Catholic associations were nonexistent,

while in the north a Catholic workers' movement emerged to challenge the socialist labor movement. This enhanced political competition.

- During the Fascist period, industrial policies concentrated economic development in the north, exacerbating economic differences.
- After the fall of Fascism and the end of World War II, the rise of political parties and active political competition in the north contrasted with a political monopoly by the Christian Democrats in the south. The result was a large difference in the pattern of distributing government spending and benefits—in the north through public institutions and in the south through the distribution of individualized benefits based on personal and private connections so that a perception that there was a link between paying taxes and the provision of government benefits did not develop.

Thus, D'Attoma argues, there is ample evidence to support an alternative explanation for differences in attitudes and political behavior, including tax compliance, between northern and southern Italians. Historical differences in government and church institutions and political environments as well as tax burdens and distribution of government services explain differences between the north and south tax behavior today. Thus, according to D'Attoma, historical institutional analysis gets to the real root or cause of these differences.

PROTESTS AND REPRESSION IN NEW DEMOCRACIES

Our final example of recent research by political scientists examines why elected governments respond to protests, in particular, backlash protests, the way they do. Backlash protests refer to the expansion of protests after governments respond to initial protests with violence, albeit with less-lethal tools of repression. Governments are then confronted with a choice between expanding the use of tools of repression to include more violent, perhaps lethal methods and exercising restraint and finding alternative means to resolve a political crisis. What do they choose to do, and why? It is an example of comparative research—here the researchers (S. Erdem Aytaç, Luis Schiumerini, and Susan Stokes) select three cases of countries that responded differently to backlash protests.[28] Turkey, Brazil, and Ukraine each faced national uprisings in 2013, which began similarly: "modest-sized groups of protesters pressing for policy (but not regime) change were attacked by police; the attacks were widely publicized, in large part through the social media; and major national uprisings ensued."[29] Authorities in Turkey responded by increasing the level of repression resulting in deaths and injuries, whereas authorities in Brazil and Ukraine instructed their police to back off and offered concessions to the protesters.

By studying these cases in depth using public opinion polls and surveys of demonstrators and interviews with elites such as police officials, Aytaç, Schiumerini, and Stokes are able to compare and contrast the factors related to rival explanations such as differences in degree of political centralization, democratic consolidation, civilian control over the police,

governments' ideologies, costliness of protesters' demands, the social class composition of demonstrators, their network structures, or the extent to which authorities expect they will be held to account for high levels of repression. It is this last factor that the authors found to be critical:

> [W]e argue that the decision of an elected government often boils down to its assessment of the degree to which it will be held accountable for high levels of repression. Secure governments, ones that maintain a stable electoral support base that maps closely onto an overlapping social cleavage, are relatively free to inflict harm at high levels. By contrast, less secure governments, those with volatile electoral support, are more sensitive to electoral sanctioning and have incentives to refrain from repression.[30]

Their assessment of the factors for the three countries is shown in table 1-2. Tables such as these are a common method of summarizing information and make it easier to compare and contrast cases on critical dimensions identified by researchers.

Aytaç, Schiumerini, and Stokes conclude that the key relevant feature distinguishing Turkey from Brazil and Ukraine was the security of the government's hold on office. Party affinities in Turkey coincide with socioreligious cleavages in Turkish society, and supporters of the ruling party were not prevalent among the protesters. It could be anticipated by authorities that harsh treatment of protesters would not erode support of the ruling party among its popular base.

TABLE 1-2 ■ Extrication Strategies: Where the Cases Fall on Favored and Rival Explanations

	Security of Office	Centralization	Democratic Consolidation	Control over the Police	Extrication Strategy
Turkey	High	High	Low	High	Repression
Brazil	Low	Low	High	High	Restraint
Ukraine	Low	High	Low	Medium	Restraint

	Ideology of Government	Nature of Threat	Social Class of Protesters	Extrication Strategy
Turkey	Conservative	Low	High	Repression
Brazil	Leftist	Medium	High	Restraint
Ukraine	Conservative	High	High	Restraint

Source: S. Erdem Aytaç, Luis Schiumerini, and Susan Stokes, "Protests and Repression in New Democracies," *Perspectives on Politics* 15, no. 1 (2017): table 4, pp. 74–75.

THE OBSERVER EFFECT IN INTERNATIONAL POLITICS: EVIDENCE FROM A NATURAL EXPERIMENT

Political scientists often confront a thorny issue when conducting their research: How do they prove causation? We will have much to say about this issue in later chapters, but for the moment, let's consider that political scientists often have very little control over factors (frequently referred to as treatment factors) they think are important in explaining political outcomes: they must wait for these factors to occur or change in the real world. Furthermore, observable variation in outcomes of interest typically takes place in complex environments, which may include many other factors besides the one researchers are interested in, that could affect or cause outcomes. Our mental picture of a political scientist is not one of a person in a lab coat conducting a tightly controlled experiment. Nonetheless, there are times when variation in a causal factor occurs naturally in a relatively controlled setting. These so-called natural experiments allow researchers to be more confident in their claims that differences in outcomes are due to differences in occurrences in the causal factor.

Such is the case in our last example of political science research. Susan Hyde took advantage of a natural experiment to investigate whether the presence of international election monitors leads to cleaner elections.[31] As Hyde explains:

> Until 1962, there had been no recorded cases in international election observation in sovereign states. By 2004 upwards of 80 percent of elections held in nonconsolidated democracies were monitored, and any leader of a developing country wishing to hold a legitimate election was expected to invite international election observers. Although the record of election observation demonstrates that observers grew willing to condemn fraudulent elections over the course of the 1990s, it remains unknown whether international monitors can actually bring about cleaner elections, as proponents of election monitoring assert.[32]

Numerous types of electoral manipulation have been reported by international observers: military intimidation of voters, ballot-box stuffing, improper attempts to influence voters inside the voting booth, vote-buying schemes, intentional inflation of the vote tallies, jailing of opposition voters, failure to distribute ballots to opposition strongholds, and manipulation of voter-registration lists.[33] Hyde's research is limited to manipulations that occur in and around the polling station on Election Day. Hyde takes advantage of a natural experimental situation that occurred in the 2003 presidential elections in Armenia in which international observers were assigned to polling stations on Election Day using a method that resembled random assignment. Because the majority of election fraud in the election could be expected to benefit the incumbent, if the presence of international observers caused a reduction in Election Day fraud, the share of the vote received by the incumbent should be lower at the polling stations that were visited by observers compared to those polling stations that were not visited.

In addition to the method by which observers were assigned to polling stations and that assignments were not preannounced, Hyde's research benefited from two other factors. One was that widespread and centrally orchestrated fraud occurred on Election Day,

and the other was that polling-station-level election results were made public. There were two rounds in the Armenian presidential election, which permitted numerous comparisons among polling stations as reported in table 1-3.

Table 1-3 reports the results of comparing the average incumbent vote share for polling stations under different observation conditions. The third column of the table presents the difference in the vote share between the two polling station conditions. In the first comparison, the difference was 5.9 percent, and as expected, the average incumbent vote share was greater among polling stations that were not observed in round 1 of the election compared to those that were observed. The results of an appropriate *t* test are also reported. *T* tests are a statistical procedure used to test how risky (risk in terms of making a wrong conclusion) it is to conclude that the difference between the two groups is due to the difference in the treatment condition. The risk is reported as a probability represented by *P*. The closer *P* is to zero, the lower the risk and the more confident you can be in concluding that the observed difference is due to the experimental treatment. You will learn how to conduct *t* tests in a later chapter.

TABLE 1-3 ■ Difference of Means Tests Comparing "Treatment" and "Control" Groups

	Average Incumbent Vote Share among Polling Stations That Were . . .	vs.	Average Incumbent Vote Share among Polling Stations That Were . . .	Difference
1.	Not observed in R1 54.2% (R1 vote share)	vs.	Observed in R1 48.3% (R1 vote share)	5.9% $t(1762) = 5.92$ $P > \|t\| = 0.00$
2.	Not observed in R2 69.3% (R2 vote share)	vs.	Observed in R2 67.3% (R2 vote share)	2.0% $t(1761) = 2.47$ $P > \|t\| = 0.014$
3.	Never observed 70.7% (R2 vote share)	vs.	Observed in both R1 and R2 66.2% (R2 vote share)	4.5% $t(1116) = 4.48$ $P > \|t\| = 0.00$
4.	Never observed 62.8% (Average of R1 and R2 vote share)	vs.	Observed in both R1 and R2 57% (Average of R1 and R2 vote share)	5.8% $t(1116) = 5.36$ $P > \|t\| = 0.00$
5.	Never observed 62.7% (Average of R1 and R2 vote share)	vs.	Observed in one or both rounds 58.1% (Average of R1 and R2 vote share)	4.6% $t(1761) = 5.65$ $P > \|t\| = 0.00$
6.	Never observed 70.7% (R2 vote share)	vs.	Observed only in R1 66.3% (R2 vote share)	4.4% $t(1138) = 4.40$ $P > \|t\| = 0.00$

(Continued)

TABLE 1-3 ■ (Continued)

	Average Incumbent Vote Share among Polling Stations That Were . . .	vs.	Average Incumbent Vote Share among Polling Stations That Were . . .	Difference
7.	Never observed 70.7% (R2 vote share)	vs.	Observed only in R2 68.7% (R2 vote share)	2.0% $t(1013) = 1.73$ $P > \|t\| = 0.084$
8.	Observed only in R2 68.7% (R2 vote share)	vs.	Observed in both R1 and R2 66.2% (R2 vote share)	2.5% $t(621) = 1.93$ $P > \|t\| = 0.054$
9.	Observed in both R1 and R2 66.3% (R2 vote share)	vs.	Observed only in R1 66.2% (R2 vote share)	.11% $t(746) = 0.094$ $P > \|t\| = 0.93$
10.	Observed only in R1 68.7% (R2 vote share)	vs.	Observed only in R2 66.3% (R2 vote share)	2.4% $t(643) = 1.83$ $P > \|t\| = 0.067$

- Reported results reflect two-sample *t* tests with equal variances.

Source: Susan Hyde, "The Observer Effect in International Politics: Evidence from a Natural Experiment," *World Politics* 60, no. 1 (2007): table 1, p. 53.

CONCLUSION

Political scientists are continually adding to and revising our understanding of politics and government. As the several examples in this chapter illustrate, empirical research in political science is useful for satisfying intellectual curiosity and for evaluating real-world political conditions. New ways of designing investigations, the availability of new types of data, and new statistical techniques contribute to the ever-changing body of political science knowledge. Conducting empirical research is not a simple process, however. The information a researcher chooses to use, the method that he or she follows to investigate a research question, and the statistics used to report research findings may affect the conclusions drawn. For instance, some of these examples used sample surveys to measure important phenomena such as public opinion on a variety of public policy issues. Yet surveys are not always an accurate reflection of people's beliefs and attitudes. In addition, how a researcher measures the phenomena of interest can affect the conclusions reached. Finally, some researchers conducted experiments in which they were able to control the application of the experimental or test factor, whereas others compared naturally occurring cases in which the factors of interest varied.

Sometimes, researchers are unable to measure political phenomena themselves and have to rely on information collected by others, particularly government agencies. Can we always find readily available data to investigate a topic? If not, do we choose a different topic or

collect our own data? How do we collect data firsthand? When we are trying to measure cause and effect in the real world of politics, rather than in a carefully controlled laboratory setting, how can we be sure that we have identified all the factors that could affect the phenomena we are trying to explain? Finally, do research findings based on the study of particular people, agencies, courts, communities, or countries have general applications to all people, agencies, courts, communities, or countries? To develop answers to these questions, we need to understand the process of scientific research, the subject of this book.

TERMS INTRODUCED

Applied research. Research designed to produce knowledge useful in altering a real-world condition or situation. 5

Empirical research. Research based on actual, "objective" observation of phenomena. 1

Pure, theoretical, or recreational research. Research designed to satisfy one's intellectual curiosity about some phenomenon. 5

NOTES

1. *Recreational research* is a term used by W. Phillips Shively in *The Craft of Political Research*, 2nd ed. (Englewood Cliffs, NJ: Prentice-Hall, 1980), chap. 1.
2. Harold Lasswell, *Politics: Who Gets What, When, How* (New York: Whittlesey House, 1936). A more recent statement of the idea is found in Benjamin I. Page, *Who Gets What from Government* (Berkeley: University of California Press, 1983).
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11. Center for American Women and Politics, "Women in State Legislatures 2019." Accessed February 11, 2019. Available at http://www.cawp.rutgers.edu/women-state-legislature-2019.
12. Richard L. Fox and Jennifer L. Lawless, "Uncovering the Origins of the Gender Gap in Political Ambition," *American Political Science Review* 108, no. 3 (2014): 499–519.

13. Richard L. Fox and Jennifer L. Lawless, "Reconciling Family Roles with Political Ambition: The New Normal for Women in Twenty-First Century U.S. Politics," *The Journal of Politics* 76, no. 2 (2014): 398–414.
14. Tali Mendelberg, Christopher F. Karpowitz, and J. Baxter Oliphant, "Gender Inequality in Deliberation: Unpacking the Black Box of Interaction," *Perspectives on Politics* 12, no. 1 (2014): 18–44.
15. Jennifer J. Jones, "Talk 'like a Man': The Linguistic Styles of Hillary Clinton, 1992–2013," *Perspectives on Politics* 14, no. 3 (2016): 625–42.
16. Ibid., 627.
17. Ibid., 630.
18. Ibid., 631.
19. Ibid., 632.
20. Ibid., 633.
21. Ibid.
22. Ibid., 635.
23. John D'Attoma, "Divided Nation: The North-South Cleavage in Italian Tax Compliance," *Polity* 49, no. 1 (January 2017): 66–99.
24. Ibid., 71.
25. Ibid., 71–72.
26. Ibid., 73–75.
27. The European Quality of Government index is based on nationally representative public opinion surveys conducted in 251 European regions about perceptions of local education, health, and law enforcement institutions. Participants are asked to rate each of the three institutions on quality, impartiality, and corruption. The index was developed by researchers at the University of Gothenburg in Sweden. See Ibid.
28. S. Erdem Aytaç, Luis Schiumerini, and Susan Stokes, "Protests and Repression in New Democracies," *Perspectives on Politics* 15, no. 1 (2017): 62–82.
29. Ibid., 63.
30. Ibid., 64.
31. Susan Hyde, "The Observer Effect in International Politics: Evidence from a Natural Experiment," *World Politics* 60, no. 1 (2007): 37–63.
32. Ibid., 38.
33. Ibid., 42.

STUDENT STUDY SITE

2 THE EMPIRICAL APPROACH TO POLITICAL SCIENCE

Political scientists Jeffrey Winters and Benjamin Page wonder if the United States, despite being a nominal democracy, is not in fact governed by an oligarchy, a relatively small number of very wealthy individuals and families.[1] Their work leads them to conclude:

> We believe it is now appropriate to . . . think about the possibility of *extreme* political inequality, involving great political influence by a very small number of wealthy individuals. We argue that it is useful to think about the US political system in terms of oligarchy.[2]

What are we to make of a (perhaps startling) claim such as this? How do we know it's true? Should we accept it?

As the title of our book and this chapter suggest, we have confidence in a statement like Winters and Page's *if* they arrive at their (tentative) conclusion through **empiricism**. This term is perhaps best explained by reference to an old joke.

Three baseball umpires are discussing their philosophy of calling balls and strikes. The first umpire says, "I call 'em as I see 'em." The next one replies, "That's nothing. I call 'em as they *are*." Finally, the third chimes in, "Oh yeah! Well, they ain't *nothing* until I call 'em."

We put aside Umpires 1 and 3 until later in the chapter. For now, let's concentrate on the second one. We call him a strict or strong empiricist. He believes there are in fact things like balls and strikes, and he can always tell the difference by merely looking at the pitches as they are thrown. He believes no interpretation is necessary; the facts (the pitches) speak for themselves, and the umpire simply reports on where the ball travels, nothing more, nothing less. Importantly, this umpire believes that his observations are accurate and objective. The teams, players, managers, and fans have no bearing, he believes, on his judgments.[3]

An empiricist, in other words, uses impartial observation to judge the tenability of arguments. A political science "umpire" demands that data and measurements support whatever point is being made. Statements can be believed and accepted to the extent that they are derived from empirical or observational evidence. If, on the other hand, their "truthfulness" depends on belief, authority, or faith instead of "hard data," they are set aside for philosophers and others to evaluate.

CHAPTER OBJECTIVES

- 2.1 Identify eight characteristics of empiricism.
- 2.2 Discuss the importance of theory in empiricism.
- 2.3 Explain the five steps in the empirical research process.
- 2.4 Describe practical obstacles that challenge the empirical approach.
- 2.5 Summarize competing perspectives.

Empiricism is an ideal. Most who adopt this methodology would admit that personal judgment plays a part in their research—they are perhaps closer to the first umpire, who calls the game as he "sees it." But so important is empiricism that we need to take a detour to clarify why many political scientists prefer this methodology to other ways of obtaining knowledge. Although not everyone agrees, it does seem to have a "privileged" place in the discipline, and we need to explore its philosophical basis. This leads us to a discussion of the scientific method.[4]

Although empiricism does have a dominant place in contemporary political science, we stress that it has its share of critics, and we certainly don't maintain that it is the only or even the best way to study politics. There is plenty of room, we believe, for different research stances. Proponents of alternatives work under many different labels, so we simply classify them as *nonempiricists*.[5] Furthermore, there are substantial debates among empiricists over appropriate methods and approaches, particularly over the advantages of quantitative versus qualitative analysis.[6] We'll have more to say about this in chapters 7 and 9.

ELEMENTS OF EMPIRICISM

What, then, distinguishes the empirical or scientific approach? In our daily lives, we "know" things in many different ways. We know, for example, that water boils at 212 degrees Fahrenheit and that a virus causes Ebola. We also may know that democracy is "better" than dictatorship. In some cases, we know something because we believe what we read in the newspaper or heard on the radio or what a trusted authority told us. In other cases, we know things based on personal experience or because they appear to be consistent with common sense.

Modern political science, though, relies heavily on one kind of knowledge: knowledge obtained through objective observation, experimentation, and logical reasoning.[7] This way of knowing differs greatly from information derived from myth, intuition, faith, common sense, sacred texts, and the like. It has certain characteristics that these other types of knowledge do not completely share. The ultimate goal of scientific research, which is not always attained, is to use its results to construct theories that explain political phenomena.[8]

Scientific knowledge exhibits several characteristics. Most important, scientific knowledge depends on **verification**. That is, our acceptance or rejection of a statement regarding something "known" must be influenced by observation.[9] Thus, if we say that people in the upper classes have more political power than members of the lower strata, we must be able to provide tangible evidence to support this statement.

A contention cannot be accepted simply because someone said so or our instinct tells us so. It must be supported by evidence. The empirical nature of scientific knowledge distinguishes it from mystical knowledge. In the latter case, only "true believers" are able to observe the phenomena that support their beliefs, and observations that would disprove their beliefs are impossible to specify. Knowledge derived from superstition and prejudice is usually not subjected to accepted methods of empirical verification, either. Superstitious or prejudiced persons are likely to note only phenomena that reinforce their beliefs, while