

THINKING LIKE A
POLITICAL SCIENTIST



A PRACTICAL GUIDE
TO RESEARCH METHODS

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PREFACE FOR STUDENTS



If you're like most of the students I have taught, then you're not exactly looking forward to reading any book about research methods. You'd rather be reading about politics. I definitely understand your hesitation. In college I never took a general research methods course because, well, none was required. Only later did I realize what I had missed. I worked hard in college, putting in long hours, but I didn't always work smart. While brute trial and error is one way to learn, it's usually not the most efficient. What I really needed was some practical guidance about how to identify a good research question and how to answer it systematically and persuasively. In part to keep other students from repeating my mistakes, I have been teaching a basic methods course for over a decade. This course is where students really learn how to think like political scientists.

Teaching Research Methods has been one of the more rewarding parts of my professional career. (And that's not because the rest of my career has been pitiful.) Students' written evaluations at the end of the semester typically start out by expressing their opinion of the subject matter: "incredibly boring" and "horrid," among others. However, many quickly add that mine was one of the most useful and practical courses they have ever taken. Some say it already helped them write a better paper in another class they were taking that semester. Others can now see possibilities for a future independent study project or honors thesis. Once in a while, students tell me in person how they came to genuinely like the course. In short, after a basic introduction to the nuts and bolts of research, many recognize that their minds now can do things they couldn't do before.

No student has ever said that my methods class convinced them to pursue a PhD and become a professional political scientist, which is fine by me. That's not one of the main ways I measure success. I am more interested in helping students develop skills that will lead to success in college and wherever they go after graduation. After all, it's not just people who've earned a PhD who need to work with abstract concepts, evaluate the adequacy of explanations, and piece together evidence from documents. We all do.

My ultimate goal in writing this book is to help more people reap these kinds of benefits. You might finish this guide and want to deepen your repertoire of skills, perhaps by taking a course about statistics, experiments,

case studies, field research, or mass surveys. That would be great. For now, though, I hope that you will acquire certain skills used by experienced political analysts and enjoy the process of learning those skills. Yes, enjoy. Admittedly, making research methods fun is no small task. No guide or textbook that I have read even tries. Maybe my occasional off-beat example or colorful analogy will trigger a little smile. If nothing else, some humor will make the whole process less . . . horrid. At a deeper level, I hope that you gain real satisfaction from learning how to conduct research like a professional analyst and how to read published work intelligently. That sort of satisfaction lasts a long time. To inject some joy into research methods, I have deliberately written an unusual book. This one combines everyday intuition, formal concepts, a wide variety of examples (some academic, some not), practical exercises, plain English, and a little playfulness. With a nod to Stephen Colbert, perhaps the goal I have in mind is *Research Meth-audacity*.

PREFACE FOR TEACHERS



Every year, thousands of college students sign up for a research methods course taught by someone in their Political Science/Politics/Government Department. Not because they want to—because they have to. A methods course is often required to major in political science, much like immunizations are required to enter kindergarten. Most college students look forward to their methods course about as much as having a needle stuck in their arm. That’s a shame, because Research Methods could be one of the most eye-opening and useful courses that students ever take.

Having taught Research Methods for many years, I can definitely sympathize with students who don’t look forward to this course. In my experience, they have at least three reasons to be wary. Part of the appeal of political science is the opportunity to take courses such as International Security, Ethnic Conflict, Modern Political Campaigns, and Environmental Policy—courses that investigate real-world issues, some of them literally life-and-death. Many students enjoy learning about terrorism, democratization, US presidential elections, and the like, and so do I. But Research Methods is all about the process of thinking systematically, which is not nearly as sexy. I have considered changing the course title to “Harry Potter and the Sinister Methods” or to “Better Thinking = Better Job,” but I’m pretty sure that my department chair and the college’s curriculum committee would object.

A second problem is that Research Methods is routinely taught as this weird hybrid between a methods course and a statistics course. Think about it: while your typical Economics, Mathematics, Psychology, and Sociology Departments offer a semester-long introduction to statistics, we in the Political Science Department think it’s possible to teach the basics in, oh, three to six weeks. Which could mean that (1) our students are much smarter than everyone else’s, (2) we’re fooling ourselves, or (3) we’re fooling ourselves. It gets worse. All those weeks that we kinda, sorta teach statistics come at the expense of topics that truly belong in a methods course but are either dropped or treated superficially. Students could finish the course thinking that statistical analysis is the only respectable way to study politics, which is not true. College students are taught how to work with numbers much more than with written documents, even though both provide essen-

tial evidence for political arguments. Technically, then, the standard course should probably be called Research Method, not Methods.

Don't get me wrong, I'm a big fan of numbers. I have used tables and regression models in my own research, and I regularly encourage college students and my own children to take a statistics course. For better or worse, statistics has become the de facto foreign language requirement in the social sciences. Nevertheless, if a basic methods course is supposed to prepare students to read a wide range of scholarly work and to conduct their own research, then it should not lean so heavily on statistical techniques and numbers. Students also need to know how to analyze single cases in depth, carefully compare two or three cases, and work with written documents—and most textbooks do a poor job of teaching those skills.

In my ideal world, undergraduates who major in political science would take at least two methods courses—a general introduction, followed by a more in-depth course devoted to some widely used technique for studying politics such as statistics, experiments, case studies, survey research, or field research. That way, students would be broadly familiar with different research tools and truly skilled at one of them. Their chances for success, in college and beyond, would improve. But I know that the odds of my ideal world becoming reality anytime soon are slim. Departments all over the country would have to modify their requirements; some existing courses might not be taught as often or at all. In the meantime, this book offers a fresh approach to that intro course while serving as a useful companion to a more traditional methods course. For departments that don't offer or require a methods course, this book can provide students with a useful introduction to the process of thinking like a political scientist.

A third reason why students dread taking Research Methods is the textbook. I have assigned different ones over the years, and by the end of the semester students judge the textbook to be somewhere between a necessary evil and soul-crushing. With good reason. Many of these textbooks are too long and literally overflowing with information. The writing can be highly technical, and the joy of studying politics is easily lost. If you have ever read the owner's manual for an automobile, not the skinny "basics" version but the full 475-page monster, then you get the idea. It wouldn't be surprising to find, somewhere in a standard methods textbook, a passage like "This concludes our discussion of sample-population congruence. In the next section we will learn about optimal transmission-gear ratios." By contrast, introductory textbooks in American politics, comparative politics, and international relations—filled with real people and important disputes over power, freedom, and equality—feel like beach reading.

If the main problems with the methods textbook were just flat prose and abstract concepts, a good teacher could overcome them. But the problems go deeper. In the typical textbook, hundreds of important and not-so-important concepts vie for the reader's attention. It's often hard to tell the big ideas from the small ones. Feeling overwhelmed, many students, even the truly dedicated ones, can become frustrated. Some might stop reading altogether. Others will spend the whole semester staring at the proverbial trees without seeing the forest. Moreover, students might spend so much time trying to absorb new information that they don't have enough time to practice their new skills, and practice is essential.* The irony here is that many textbooks preach the virtues of "parsimony" or "analytic leverage"—of identifying a few key factors that might account for a large portion of some pattern in politics—without realizing that parsimony can be a virtue in a textbook as well. A student who learns a dozen general lessons well is probably better off than one who tries to memorize four hundred definitions.

There has to be a better way to teach students how to think systematically about politics. There just has to be a better way. That is the basic premise of this book.

*To become a great chef, you can't just read cookbooks. You have to practice cutting, roasting, sautéing, and baking—over and over. Great athletes don't just watch videotapes; they practice for thousands of hours. Becoming proficient at political research also requires a lot of practice creating good hypotheses, choosing the right research design, picking cases, and other skills.

INTRODUCTION



Let's start at the beginning. What, exactly, should happen in an introductory methods course? What are students supposed to learn? One common way of answering this question is to think in terms of producers and consumers. After taking an initial methods course, students will be better able to produce research on their own and to consume what others have written. This metaphor seems half-right to me. Teachers do want students to produce at a higher level: to write better papers in their politics courses; to work effectively on professors' research projects, if they have a chance; and to conduct many different kinds of research after college, whether in jobs, graduate school, or their personal lives. But "consume"? Usually when we consume something, it goes away and no one else can benefit from it; think food or gasoline. Knowledge isn't really consumed in the same way. When you finish reading a particular book or article about politics, other people can still do the same. Knowledge is more of a public good than a private good. A related problem with this metaphor is that ordinarily, whatever we consume but can't use is transformed into some waste product that often pollutes the environment. While political research may be ignored by "consumers," it doesn't fill the skies with sulfur dioxide or litter the highways with trash. (As an occasional "producer," I certainly hope not.)

Here's a better analogy. A good introduction to research methods should enable students to become the equivalent of careful home inspectors when they read political analysis, and competent home builders when they undertake their own research. The ultimate objectives are more about building and inspecting than producing and consuming.

For those of you unfamiliar with home inspectors, I will briefly describe what these remarkable people do. Home inspectors are hired by individuals who are serious about buying a house, but haven't yet signed a contract. While a house may appear to be in good shape, who knows what problems lurk below the surface? The average person can't tell. In the span of a few hours, a good home inspector can check the roof, walls, and foundation for cracks and evidence of moisture or termite damage; make sure that all windows and doors open and close properly; and test the home's plumbing, heating/cooling, and electrical systems, down to the last wall socket. This is really impressive, considering that the inspector had never set foot inside

the house before the day of the inspection. Typically, home inspectors carry around a detailed checklist to make sure they cover every important part of the house. It does not matter much what architectural style the house had been built to reflect, or how large it is, or how old. The main items on the checklist are still the same. Potential home buyers pay good money for this service, because buying a house with hidden defects could be a very costly mistake. They expect an honest and thorough evaluation; they want to hear the good and the bad. Although the home inspector doesn't need to be an experienced builder, she or he must know what goes into a well-built house.

Reading a journal article or academic book is much like conducting a home inspection. Readers should always enter into the process with a critical eye. Just because research has been published doesn't mean that the results should be completely trusted. Even the best work has limitations. When reading political analysis, it helps to have a mental checklist for identifying which parts of an argument are in good shape, which need repair, and which are just plain missing. For example, much as a home inspector might check the foundation of a home, we should note whether a scholarly book or article clearly builds on previous research. Poorly crafted hypotheses, like a leaky roof, might lead to the equivalent of water damage. An outdated furnace might be akin to an outdated list of sources in that neither one is likely to hold up for very long. Such a checklist will be useful whether students are reading about the proliferation of nuclear weapons, party politics in Japan, or the US Supreme Court. It will be useful whether the analysis is performed by academics, policy makers, pundits, or advocates. A good grasp of research methods will help you develop that checklist.¹

What is missing from a home inspector's report is almost as important as what's included. A well-crafted report doesn't dwell on factual minutiae. "Grout in upstairs bathtub appears to have been purchased from Home Depot." Not important. "Found old paper bag in crawl space under house." Unless there's a severed head or poisonous snake in that bag, who cares? Nor does the inspector's report dwell on features that are obvious to all. "In my professional judgment, the carpet in the living room is tan." Unfortunately, too many readers try to remember these kinds of details instead of focusing on the more important structural features of a scholarly article or book. This guide will help break that habit and create more sophisticated readers.²

When teachers tell their students to conduct research and write papers, they are training students to build arguments. A good argument is like a well-built house. Homes don't need an original design to be valuable; many neighborhoods are filled with homes that are based on a few basic floor plans. A good home should be built to last, with certain essentials like in-

door plumbing, electricity, doors, and windows. Similarly, most undergraduate papers don't have to offer a truly original argument.³ In fact, originality may be a bit overrated.

Original ideas, those hinges on which an era turns, are rare. It is unlikely that you will write *The Origins of Species*. Or that you will be Emerson. But originality and profundity are not identical. Profound ideas bear repeating, or rediscovery, and many original ideas do not.⁴

Students are often asked to analyze familiar but important problems such as the impact of divided government in the United States, or reasons why democracies have been difficult to establish in the Middle East. Nevertheless, teachers expect the argument, even if familiar, to be well constructed. This means more than its having an introduction, a body, and a conclusion. For example, the argument should not be a tautology, and therefore true by definition (e.g., "Democracies have more competitive elections than dictatorships"). Arguments about some factor *A* causing some outcome *B* should have more proof than arguments simply claiming that *A* and *B* regularly occur at the same time. By the same token, we expect a home builder to use quality materials, just as teachers, employers, and judges expect arguments to be supported with substantial evidence from high-quality sources.

While it is possible for a home inspector to become a home builder, the two jobs are different. The standards for obtaining a license are usually more demanding for builders than inspectors, a sign that builders need more expertise. Similarly, students should expect that becoming a skilled researcher and writer will take longer than becoming a skilled reader. Whereas a good home inspection can be completed in an afternoon, a house takes months to build. Students may be able to read an article or chapter in a few hours, but they would be hard-pressed to crank out a decent research paper in the same amount of time. And the work of a home builder is by definition more visible to the rest of the world. Students must be prepared to share the results of their research with the attitude of "Here's what I built, and I stand behind my work."*

Building and inspecting are fundamentally harder tasks than looking. Literally anyone can look at a house or a political argument. Looking requires little time or effort. When college students write, "This paper looks at partisan polarization in Congress" or "In this paper, I will look at foreign

*In case building and inspecting homes don't grab your interest, think in terms of being trained as a chef and a food critic. Either way, the key point here is acquiring certain skills that will help you to create and to appreciate what others have created.

aid,” their teachers can see trouble coming. These students probably have a general topic but lack a specific argument. To be a good inspector or builder requires time, skill, and a critical mind. You must adopt certain standards of quality and judge the work, whether it’s your own or someone else’s, against those standards. Trained political scientists do more than just look.

After you study politics for a while, people may assume that you know a lot of Important Facts. Maybe you can name the current Speaker of the US House of Representatives and the year India became an independent state. You can probably spell out NAFTA and NATO, IMF and WHO. But so can a philosophy major, a chemistry major, your cousin who’s in the fifth grade, and that guy who drives the UPS truck in your neighborhood—so can almost anyone who has access to the Internet and can use a search engine like Google. Sure, a trained political scientist can name these facts two or three minutes sooner than anyone else, but in the grand scheme of things, that’s not much of an advantage. In the age of *Wikipedia* and other virtual warehouses of information, the value of majoring in political science increasingly depends on general skills acquired rather than specific facts memorized. (Actually, this statement holds true for any college major.) While factual knowledge about politics will always be important, you could soon be replaced by a couple of cell phone apps if that’s all you possess.

Of course, writing well and speaking effectively in public are essential skills that all students should develop. Any number of college courses can help cultivate those abilities, and students should take as many of those courses as they can. On the other hand, the special skills a political science major should have are different: knowing, for instance, how to work intelligently with “big” concepts such as democracy, terrorism, political tolerance, and civic engagement; how to distinguish causation from correlation; and how to pick good cases for testing a hypothesis. Ideally, those skills will later be reinforced and refined in upper-level courses. And they’re hard to acquire with just a cell phone.

In effect, this book identifies several of the essential skills needed to become a capable inspector and builder of empirical arguments about politics. My experience teaching research methods indicates that students are better off learning a handful of skills, and learning them well, rather than being overwhelmed by a multitude of concepts and formulas. Consequently, this book is relatively short by design (and less expensive than its rivals). Years of experience also tell me that students need to practice these skills to become proficient. It’s no coincidence that the old Chinese proverb “I hear and I forget; I see and I remember; I do and I understand” is invoked so often on the syllabi of methods courses.



The organization of this guide is unusual, maybe even unique. It begins with the premise that students should learn how to ask good questions about politics and how to generate good answers. Teaching these two skills makes up the two main parts of this book. Political scientists ask many different questions, but at the end of the day they usually boil down to some variation of “What happened?” “Why?” and “Who cares?” This is true whether the subject is social movements, the impact of money on elections, conflict in Sudan, you name it.* Most published work in political science tries to answer two of these questions, and often all three. Each question raises a particular set of issues and requires a distinct set of skills. That terrain will be covered in part I of this guide.

The Who Cares/So What question concerns the larger significance of a research project. Typically, authors raise this question at the very beginning of their paper, journal article, or book, which is one reason I discuss it first (in chapter 1). If the initial answers are not compelling, or at least intriguing, then readers might find something else to do. When answering this question, authors must think about the intended audience for their work. It could be a small group of specialists, a larger number of social scientists, policy makers, or some segment of the general public. The broader the audience, the bigger the inferences authors will make about their research. “This isn’t just a story about the Chewa and Tumbuka peoples of Africa,” an author might claim. “In fact, it might provide valuable insights into how cultural differences can lead to political conflict all over the world.”⁵ That type of appeal will grab my attention, even though I’m not a specialist in African politics. Chapter 1 describes a few common strategies that authors use to persuade their audience to care about their arguments. Of course, anyone can make bold claims about the implications of their work. As careful readers, we should examine such claims closely, even skeptically.

It’s one thing to state that you’re tackling an important problem and quite

* Political theorists, on the other hand, tend to ask more normative questions. What makes a government legitimate? How should values of liberty and equality be balanced? Under what circumstances are countries morally justified in going to war? The political scientists I have in mind are interested more in empirical questions—in studying what is rather than what should be. They are the ones teaching courses in comparative politics, American politics, international relations, and public policy. Nevertheless, empirical political science is often animated by normative concerns, as we shall see in the next chapter.

another to show that you have something new or important to contribute. Both are essential in answering the Who Cares/So What question. In academic writing, a literature review helps readers to understand how previous scholars have studied a given problem and what they have found. A good literature review serves as a kind of springboard for the rest of the article or book. It usually identifies the descriptive or causal hypotheses worth investigating. It indicates how the author plans to contribute to our collective understanding of democratization, retirement policy, human rights, or whatever topic is being studied. Even authors writing for a more general audience point out, early on, whom they are agreeing with or arguing against. Most undergraduates, however, have little to no experience in conducting a literature review, and they don't fully appreciate its importance when reading the work of published authors. Chapter 1 will help to develop those skills.

Chapter 2 is titled "What Happened?" and that turns out to be a deceptively simple question. True, some events or trends are fairly easy to describe. Social insurance programs first appeared in Europe in the late nineteenth and early twentieth centuries. Iraqi troops invaded Kuwait in 1990. In cases like these, the more interesting and complicated question is, why? Suppose we want to know why some Asian countries are more democratic than others. Before we can consider the possible causes, however, we need to define *democracy* and figure out how to measure it in different countries. Problem: there is no universally accepted definition of *democracy*, and some of the data we might need to measure democracy are not available for every Asian country. We would therefore need to choose a general definition and specific measures, and then defend our choices. Similar difficulties would arise if the topic was terrorism, and we were trying to explain why the number of terrorist attacks has varied over time. Terrorism means different things to different governments. Chances are good that not all countries count terrorist attacks the same way, making it harder for us to observe general trends. Even seemingly simple concepts like voter turnout can be hard to describe accurately. In short, figuring out what happened in politics requires us to think carefully about concepts and measures.

Determining what happened could require describing a possible relationship between variables, which is also discussed in chapter 2. Initially, we might want to determine whether the values of two variables change in any regular pattern. We are testing descriptive hypotheses, with no claims (yet) about any causal relationship. Perhaps we want to find out whether affluence and democracy are related across countries. Or whether gender and attitudes toward the death penalty are related among adults.

More often than we care to admit, scholars have tried to explain some pat-

tern in politics without establishing that such a pattern truly exists. When that pattern turns out to be wrong, a lot of time and effort go down the scholarly drain. Sometimes the problems with the pattern are conceptual, sometimes they are rooted in measurement error, and sometimes they reflect a failure to consider alternatives. To illustrate the latter, suppose we found that women are more likely than men to oppose the death penalty. Before declaring that gender and the death penalty are correlated, we would be smart to check if both were connected to some third factor, such as political ideology or party identification (and probably other factors as well). Put more generally, we ask, “Are *A* and *B* related, controlling for *C*?” Asking questions in this manner will enable us to generate more accurate descriptions of what happened.

Causal knowledge is highly prized by political scientists, and the Why question probably receives more attention than any other. For many, the ultimate goal of political science is to explain general patterns of behavior. Why do democracies rarely go to war with other democracies? Why do some people participate in politics more than others? Why has polarization increased in the US Congress? These are big, important questions, and not surprisingly, people will routinely disagree about the answers. After being exposed to these different debates, we could conclude that “hey, there appear to be many different explanations, and they all seem pretty plausible to me.” While this sort of attitude could indicate open-mindedness, too often it reveals a lack of critical judgment. Chapter 3 will introduce readers to the design of causal questions—featuring independent, dependent, and intervening variables—as well as the process of answering these questions.

In some respects, scholars answer Why questions much as they answer What Happened questions: by determining whether two variables are correlated, and whether that relationship holds even after controlling for other relevant variables. Both steps are important. In addition, those who wish to demonstrate a causal connection need to establish the right sequence of events. If they think that *A* led to *B*, they need to show that *A* happened before *B*.⁶ Moreover, scholars need to show how *A* led to *B*, which means identifying one or more causal mechanisms. This is one of the big differences between correlation and causation—locating a path between cause and effect. Take the well-known example of democracy and war. Maybe democracies rarely go to war with each other because of their shared commitments to diplomacy and human rights. Alternatively, this pattern could occur because democracies have regular elections, which give ordinary citizens a way to punish their leaders if and when wars go badly. The first path is rooted in values, the second more in institutions. We can imagine other

causal mechanisms as well. The main point I want to stress for now is that good answers to why in politics usually require good answers to how. Chapter 3 takes up these issues in more depth.

Choosing a good question and knowing what constitutes a good answer are essential parts of the research process. “Well begun is half done,” in the words of Aristotle. The other half, however, is also crucial. The other half requires some strategy for answering the question, which is the subject of part II of this guide.

The first step in generating good answers is choosing an appropriate research design (discussed in chapter 4). Such a design functions like the blueprints used by home builders. Typically, there’s a big gap between the types of research design that undergraduates can execute on their own and the types they will encounter in the professional literature. Trained political scientists increasingly use experimental designs, for instance, to test their hypotheses. Although experiments have been more prominent in the study of American politics, specialists in comparative politics and international relations are catching up. Many of those designs are frankly too complicated, expensive, or time-consuming for undergraduates to use in their own research. Nevertheless, as inspectors-in-training, students should know the main elements of experimental designs, along with their classic advantages and disadvantages.

Likewise, many undergraduates lack the statistical know-how to compare many cases using SPSS, Stata, or some other software package (at least, not beyond calculating simple percentages and generating bar charts). Creating contingency tables and multiple regression models requires at least a semester of statistics, and the more sophisticated work that appears in print is often based on several semesters’ worth of statistical training. Still, we need to start somewhere. Statistical designs are ubiquitous in political science, and students need to learn some of the main variants along with their characteristic strengths and weaknesses. Experimental and statistical research designs will both be discussed in chapter 4.

The one design that students probably have the most experience using is ironically the one that traditional textbooks devote the least attention to—case studies. Rarely if ever will undergraduates be expected to conduct an experiment, and few are the times when statistical prowess will be required of them. Instead, teachers assign case studies. In their introduction to American politics course, for example, students might have written a paper analyzing how Barack Obama won the presidential election in 2008, or explaining why a specific interest group is widely considered to be influential. Students in a basic comparative politics course might have been told to investigate party politics in a particular country and write up their findings.

Many scholars employ this design in their own work. Although case studies are in some respects easier to conduct than experiments or statistical analyses, they're also easy to screw up. I have seen plenty of college students use case studies to accomplish what they are ill-suited to do. It's a bit like watching someone try to install a roof with a paintbrush. Case studies will be the third research design covered in chapter 4.

Regardless of which general design is selected, scholars must then choose specific cases to analyze. A case could be an individual, an election, a nation, a bill, a war; there are many other possibilities as well. The number of cases in a given study could range from one to many thousands. Individual cases could be selected at random or quite deliberately by the investigator. With so many decisions, the odds of making a mistake increase, which is one reason why case selection must be performed carefully (explained in chapter 5). Perhaps the main insight to pass along at this point is that cases are usually selected in such a way as to make useful inferences possible. Suppose we plan to survey 1000 people in order to learn something about racial attitudes in the United States, whose total population exceeds 300 million. How can we pick the right people? Or suppose we want to understand the prospects for democratization among developing countries. What general lessons, if any, can we draw from comparing countries like Mexico and Tunisia? One of the more common criticisms leveled at published work is that the cases chosen don't enable anyone to generalize very far, or with much confidence.

Once we have settled on a research design and chosen our cases, we need to collect and analyze evidence—empirical evidence, the kind that can be observed in the real world. Without such evidence, we quickly enter the realm of personal belief, parable, collective myth, or conspiracy theory.⁷ To continue with the housing metaphor, evidence constitutes the building materials—the bricks, wood, vinyl, nails—of an argument. Without enough evidence in the right places, an argument will sag or fall apart.

By and large, political scientists work with two kinds of evidence, words and numbers. (Those who study political communication might also use visual images as evidence.) The two are by no means mutually exclusive: most scholars use words and numbers as evidence in their research, and many find ways to convert words into numbers or numbers into words. Not surprisingly, those who use statistical analysis to make comparisons across many cases rely heavily on numbers such as voter turnout rates, per capita income, and years of education. Those who perform in-depth case studies are more likely to cite government documents, newspaper articles, biographies, speeches, and personal interviews as evidence.

Standard textbooks spend lots of time teaching students how to analyze

numbers and relatively little on how to work with documents. This guide gives equal time to each type of evidence, because both are important, and equal time here means one chapter each (chapters 6 and 7). These chapters will offer some suggestions for finding good sources of written and numerical information. The primary emphasis, however, will be on how to analyze that information. With documents, we need to be sensitive to problems such as bias and selectivity. The remarkable increase in websites, blogs, think tanks, and self-publishing has made it possible for many, many individuals and organizations to share their thoughts with the rest of the world. In their haste to publish, some of these sources could be inaccurate. The authors could be writing more as advocates than analysts, and we would be smart to double-check their claims. Even more authoritative sources can be biased in ways that raise concern. When working with numbers, we must learn which statistical tests are appropriate for which kinds of data. We need to appreciate the difference between the statistical significance of a relationship and its substantive importance. And we need to understand that statistical techniques are usually better suited to test some elements of a causal relationship than others. In short, the “facts” rarely speak for themselves, whether they are based on words or on numbers.

Each chapter in this book has two main sections. The first and longest section introduces key terms such as *literature review*, *hypothesis*, *internal validity*, *external validity*, *research design*, *triangulation*, *statistical significance*, and many others. This material is similar to what you would find in a traditional textbook, although the presentation of that material is often quite different. The real emphasis, though, is on general strategies and practical advice—what to do and what not to do, and why. Throughout the book, I illustrate these lessons with examples drawn from comparative politics, American politics, international relations, and public policy.

The second section of each chapter gives readers a chance to apply these concepts and skills. My suggestion is to start practicing the role of “inspector” by reading good examples of published research. The specific topics may be unfamiliar, which is a good test of what you are learning. Despite knowing little about Italian regional governments or international disputes over fishing rights, can you determine whether the author’s argument is structurally sound? If you or your teacher has different examples in mind, fine; the main point is to move from memorizing facts to evaluating the general structure of the argument. To help readers become better “builders,” I conclude each chapter with a few exercises. Just as inspecting and building homes require a mixture of book learning and hands-on practice to master them, so do inspecting and building arguments about politics.