PART ONE

Research Basics: What Do We Want to Know and Why?

Overview and Context of the Research Process

To establish a common point of departure for understanding the research process, we begin with an overview of that process and a review of the particular vocabulary associated with it. Learning to be comfortable with this vocabulary is a necessary part of becoming capable consumers and producers of applied research.
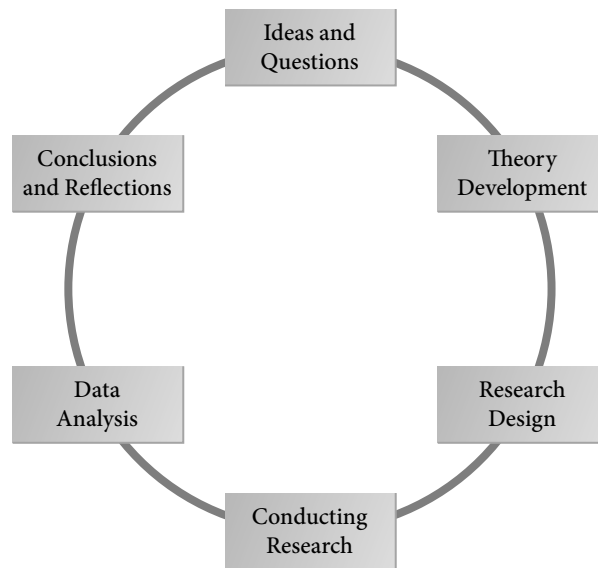
THE RESEARCH PROCESS

The research process is the result of a combination of good ideas and questions about theory and practice, systematic and appropriate data collection and analysis, and communication about results. In short, the research process encompasses the steps shown in Figure 1.1. These steps consist of

1. Forming ideas and research questions
2. Developing theories and hypotheses
3. Constructing a research design as a plan for data collection and analysis
4. Implementing the research design through the collection of data
5. Analyzing those data
6. Drawing conclusions and communicating about research

As Figure 1.2 illustrates, each of these steps encompasses a collection of concepts and approaches and can proceed in different ways.
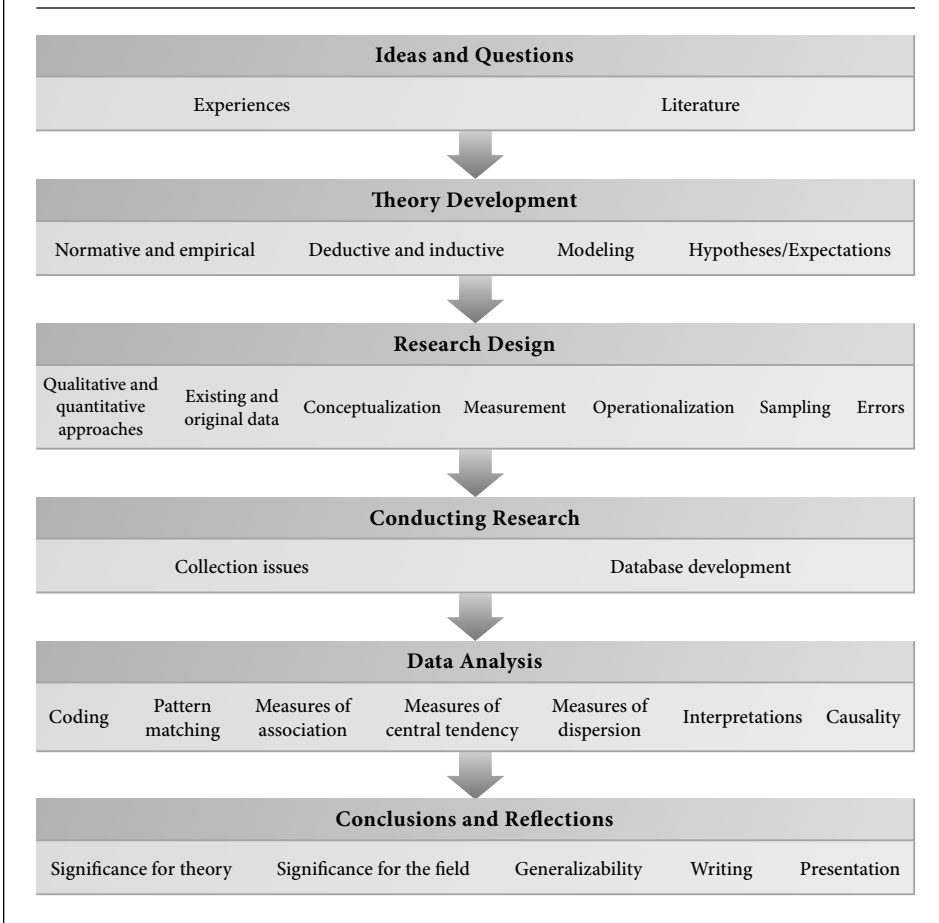
Figure 1.1
The Research Process

Although each of these stages appears to be distinct, the research process is actually an **iterative** one, meaning that we continually review and refine our work while we are involved in each step and across the steps. In some approaches, particularly qualitative research, we are also expected to review prior steps of our work and refine them based on our analysis and findings. Through iteration, we are continually reviewing and refining to make improvements to our work. A significant dimension of the research process involves examining the various components of each stage and making decisions about how to proceed; this examination also results in considerable revision along the way.

The concept of an iterative process may run counter to what some of us think about the research process. We may think of the research process as linear and may believe that these midcourse corrections distort its scientific integrity. However, although there is a logical progression of steps that we follow, in practice the process often folds back on itself, and we continually make revisions as our own learning as researchers expands.

Figure 1.2
Inside the Steps of the Research Process

Ideas and Questions

Experiences	Literature

Theory Development

Normative and empirical	Deductive and inductive	Modeling	Hypotheses/Expectations

Research Design

Qualitative and quantitative approaches	Existing and original data	Conceptualization	Measurement	Operationalization	Sampling	Errors

Conducting Research

Collection issues	Database development

Data Analysis

Coding	Pattern matching	Measures of association	Measures of central tendency	Measures of dispersion	Interpretations	Causality

Conclusions and Reflections

Significance for theory	Significance for the field	Generalizability	Writing	Presentation

Our research ideas and questions come from our own experiences and are also informed by the published work of others. We use the previous work of others on similar questions to help us understand what has been accomplished and what is already understood about the area in which we are interested. In applied research, we focus on the practical world and its problems and conditions. It is common for researchers to draw on and seek out the ideas and experiences of practitioners in order to design this type of research, provide data, and implement solutions. We refer to this published work as the **literature** on a given question or subject.

In terms of the research process, we read and observe and think about the world around us in order to develop a **research question**. Good research questions typically have relevance to real-life problems, issues, or concerns. For example, a nonprofit organization dedicated to promoting rehabilitation for drug addicts as an alternative to prison might ask, "Is a rehabilitation program more effective than prison in preventing return to drug use?" or "Is one form of rehabilitation better than another?" A public commission interested in developing new public service programs for older citizens might ask, "Do the current services provided in our city meet the needs of our older citizens?"

The literature that has been developed by others helps shape an **empirical theory** that will serve as the foundation of our research process. An empirical theory essentially reformulates the research question based on current knowledge from research, observation, and logic about the phenomena under investigation. Our empirical theories are almost always based in the literature. After developing an empirical theory, we develop **hypotheses**. Hypotheses are simply the statements that propose an explanation of how the concepts that we are investigating work together. For some research questions, hypotheses are related to our ideas or understandings about cause—one or more factors are thought to cause a particular result. Hypotheses should flow naturally from the empirical theory.

In some instances, new phenomena emerge, and there is no literature that addresses them. In these instances, we engage in **exploratory research**, which investigates these new phenomena and contributes to the development of new theories based on our observations. A theory that emerges from exploratory research is commonly referred to as **grounded theory**, which means generally that it is grounded in interpretations of observations.

The next step in the research process is to plan for data collection, which involves a number of practical concerns, such as where and how we can obtain the data necessary to answer our questions. A key component of this stage is **operationalization**. This simply means that we need to define each of the elements of the research question and the hypotheses. More specifically, we need to describe each element, identify how it will be measured, and specify the data that we will use to measure it. In our example of a public commission interested in providing new services to its older constituents, we could be interested in the concept of "need." We could operationalize "need" as the opinion of the affected group about the desire for particular services such as meals, transportation, or

companionship, and measure that need by collecting data from a survey of older constituents.

There are, of course, myriad ways to operationalize, measure, and collect data. Often the most exciting part of the research process is collecting the relevant data. When we collect our own data, we call these data **primary data**. When we use data that someone else has collected, those data are referred to as **secondary data**. Continuing with our illustration, if we collect data through a survey of older constituents, those are primary data. In contrast, if we gather data about the opinions of older adults from surveys that were conducted by others—the U.S. Census, for example—then we are using secondary data. After data have been collected, we analyze them and compare our results to the hypotheses that we proposed earlier in the process. We relate our results either to the theory that we are testing or to the theory that we are building. The techniques we use to analyze data depend on the types of data we have collected. The final steps in the process involve interpreting the results of our analysis and communicating about them in order to better understand our world, improve policies and programs, and refine our theories.

The Applied Research Context

There are multiple ways to approach the universe of social science research. A key distinction that we make in this book is to focus on applied research as opposed to basic research. The purpose of **applied research** is to understand and help solve practical problems. This typically includes problems associated with whether and how to undertake new programs or modify existing programs, and includes questions about design, resources, planning, development, implementation, and improvement—all of which are aspects of the work conducted by public agencies and nonprofit organizations. It is important to note that applied research focuses on problems as opposed to fields of academic study per se. Applied research may combine literature and/or theory from multiple academic disciplines in order to understand an issue or to identify particular solutions. Applied research also typically involves interaction between researchers and stakeholders, perhaps even entire communities. We will cover that interaction throughout the chapters as we discuss the various aspects of the research process, including design, data collection, analysis, and reporting.

In contrast, the purpose of **basic research** is to advance knowledge and look for relationships between theoretical constructs and their related variables. For example, if we were interested in studying the relationship between weather and

voter turnout, a basic research question might ask, "Is turnout higher on election days in which the weather is sunny?" In comparison, an applied research question would go further, investigating why turnout would be lower in bad weather and attempting to determine what programs could best ameliorate the potentially dampening effect of weather on turnout.

Applied research operates within the common framework of the research process, which is predicated on some basic assumptions. First, applied research is concerned with **empirical analysis**. Empirical analysis refers to analysis of evidence of how things actually are, or evidence of reality. Empirical analysis is distinctly different from **normative analysis**, which is based on how things "ought to be." Second, knowledge is not an absolute, but rather is contingent and subject to disproof. This aspect of science is sometimes referred to as **falsifiability**. Third, support for our educated guesses, or hypotheses, must come from **systematic observation** and data collection, not from anecdotes, suppositions, or beliefs about how things ought to be. Fourth, we have to be able to clearly articulate and communicate all parts of the research process to others so that they can fully examine our findings and conduct further tests of any evidence we find and conclusions we attempt to draw; in other words, quality research is **communicable**. Fifth, although each research study is limited to particular events, groups, or phenomena, we are often interested in extending what we find in one study or analysis of a specific case or cases to other similar instances. Thus we are concerned about **generalizability**. The exception to this is exploratory research about a new phenomenon or event; in exploratory research, our interest is in exploring and describing what is new. Sixth, we prefer explanations that are as simple and straightforward as possible. Such explanations leave the least room for chance or error. Thus we are concerned with **parsimony**.

The universe of empirical research is divided, broadly, into three groups of approaches. **Qualitative research** focuses primarily on observing complex political and social phenomena and then describing and analyzing those phenomena based on the observations we made. Qualitative research is typically conducted through case studies, elite interviews, focus groups, ethnographies, and analysis of text. **Quantitative research** is focused on reducing political and social phenomena to numbers by giving them numerical codes and then analyzing them with statistical techniques. Increasingly, researchers are choosing to use both quantitative and qualitative approaches in their work. Quantitative research provides information about general relationships and trends, and qualitative research helps shed light on

why those relationships and trends exist. This third group of approaches, known as **mixed-methods** research, has evolved to blend techniques from these two general groups. In this book, we will explore all three of these approaches.

Public Administration, Nonprofit Studies, and Other Subfields

The applied research focus of this book is substantively directed to applied questions in the field of public administration broadly, which includes the work of public agencies and nonprofit organizations directed toward public service. This substantive field of study encompasses how government institutions are arranged in intergovernmental relationships; the activities of institutions outside government proper, including nonprofit organizations; how rules are made and implemented by government; and how goods and services are provided by government and nonprofit organizations. Public administration is concerned with the design and delivery of public policy decisions in the public sphere. Broadly, this subfield includes administration and policy at the local, state, national, or transnational levels. Some applied questions arise concerning bureaucratic and self-governing organizational arrangements and operations; questions range across such topics as the deployment of human and financial resources, ethics, civic participation and representation, and political legitimacy.

Throughout this book, we define public service to encompass the work of public agencies and nonprofit organizations, because of the virtually inseparable nature of these two sectors (government and nonprofit) in designing and delivering services to meet public need. It is important to also call attention to the distinct subfield of nonprofit studies, which focuses on the practices and effectiveness of nonprofit organizations and the nonprofit sector. This subfield includes the study of organization governance and administration as well as unique legal, ethical, and policy questions that arise from advocacy activities and extensive reliance on volunteers. With increasing frequency, applied research questions involve some aspect of this subfield.

The questions that arise around questions of policy design, implementation, and evaluation also engage the subfields of public policy and policy analysis. Public policy is concerned with the political and economic factors that shape policy formulation, public decision making, and analysis of the stages of public policymaking. Related, the subfield of policy analysis focuses on the systematic analysis of resource allocation and the evaluation of outputs and outcomes. Both subfields place considerable emphasis on applied problem solving and analysis.

Public administration is considered one of several areas of study within the general academic discipline of political science—the discipline that studies the political world. The following section briefly describes the terminology used to identify the other subfields within political science. Together, these subfields give us guidance about the literature that may be most relevant in identifying relationships between concepts in order to build or test theory.

The American politics subfield is typically divided into behavioral research (how people behave in the political world through voting and other means of expression; factors that influence behaviors, such as age, race, gender, public opinion, ideology, and religious beliefs) and institutional research (how the institutions of government in the executive, legislative, and judicial branches are structured and function). A third dimension of this subfield is the study of American political development, which, as the name indicates, explores the development of American politics through an approach that is largely historical.

The comparative politics subfield is engaged in drawing comparisons at the country and regional levels that are developed through in-depth case studies. Emerging research in this subfield includes quantitative analyses that compare virtually every country. Related, the subfield of international relations studies the relationship between international actors such as nation-states, international organizations, multinational corporations, or nongovernmental organizations within the context of the international system, laws, and struggles for power. Increasingly this subfield includes research on national security and terrorism.

The subfield of political theory includes the concept of normative theory, in which researchers ask such questions as "How should people be governed?" "Who should govern?" and "What is the purpose of government?" The study of political theory also includes formal theory or rational choice deductive theory, where approaches such as game theory and spatial modeling are applied to the kinds of substantive issues found in the other subfields. In this latter variation, formal theory is actually more of a method of analysis than it is a subfield of political science, though among academics it is frequently discussed as a separate subfield.

Information Literacy

In this book, we are also concerned with the general notion of **information literacy** and its relationship to applied research. In short, information literacy encompasses understanding what kinds of information people need to have in order to

answer questions and solve problems. Under that large umbrella, information literacy includes being able to find information, knowing how to determine whether information is of high quality, being able to read and understand the information, having the skills to use the information, and understanding the context in which the information arises. Not least, information literacy also includes being able to apply the information in an ethical way without violating any laws—in other words, application without plagiarizing information or violating copyright protections.

Information literacy is a critical aspect of our capacity to understand the contemporary world around us. Technological changes have made information prolific and nearly immediately accessible to almost all people. This explosion of information and access to it ought to be a good thing; however, it has significant drawbacks. Central to these drawbacks is the fact that not all people have the training or knowledge to be able to discern the veracity of available information, and thus must rely on others' authority to analyze and interpret information for them. This limitation applies to almost all of us, particularly in regard to information about complex or technical subjects. However, not all of the available information is accurate, appropriately analyzed, balanced, unbiased, or truthful. Moreover, in the face of unlimited information, it is more important than ever that communication about research be grounded in our ability to locate, sift, and organize information. We must also be able to integrate information that is generated in different ways and presented in various forms.

As a consequence, the Association of College and Research Libraries has issued a set of guidelines (*Information Literacy Competency Standards for Higher Education*) for colleges and universities to follow in order to enhance students' information literacy. These guidelines, summarized in Table 1.1, range across five standards that comprise abilities to (1) understand the nature and quantity of information needed for different tasks; (2) effectively and efficiently access information; (3) evaluate information and incorporate it to expand knowledge of particular tasks; (4) use information to accomplish particular tasks; and (5) use information ethically and with comprehensive understanding of the implications of the information gathered. The guidelines also include indicators of these abilities and possible outcomes that align with activities in the research process.

Information Quality and Types of Sources

There are a variety of sources of information to which almost all people have access. One of the first hurdles in developing information literacy is

Table 1.1

Association of College and Research Libraries Information Literacy Standards and Benchmarks

Standard	Indicators	Possible Outcomes
Standard One: The ability to understand what kind and how much information is needed for different activities and tasks	1. Understands when information is needed 2. Understands the type(s) of information needed 3. Understands the costs and benefits of attaining this information 4. Reevaluates what information is needed	1. Communicates need and identifies concepts/terms 2. Understands and can access appropriate sources 3. Weighs what is needed versus what is available 4. Reformulates or clarifies information needs
Standard Two: The ability to effectively and efficiently access information	1. Understands the different ways to collect information 2. Develops an appropriate data collection plan 3. Retrieves online or in-person information 4. Refines search strategy as necessary 5. Reviews, summarizes, records, and manages information	1. Identifies and selects the best way to obtain information 2. Develops the best terms and search strategy to retrieve information 3. Implements plan to obtain most appropriate information 4. Assesses quality of information and repeats modified search as necessary 5. Reviews and uses information for purpose

Standard Three:

The ability to evaluate the information collected and incorporate it in a way to expand knowledge base to accomplish activity or task

1. Summarizes main points of material
2. Evaluates quality of material
3. Synthesizes information and uses it for knowledge production
4. Compares new and old knowledge
5. Understands utility of new information
6. Processes information by sharing with others
7. Applies information to initial task to reevaluate the purpose of the project

1. Reads and restates relevant information
2. Analyzes quality and recognizes context, error, and bias
3. Recognizes and extends concepts
4. Identifies quality of information and compares across sources to draw conclusions and develop theories
5. Weighs and draws conclusions
6. Uses information in class and assignments
7. Reviews purpose in light of new information and makes necessary refinements

Standard Four:

The ability to use information to accomplish activity or task

1. Applies collected information appropriately
2. Revises the project as necessary
3. Effectively communicates final project

1. Organizes, articulates, and integrates information
2. Systematically reflects on process
3. Selects best approach to communicate information clearly

Standard Five:

The ability to ethically use material and to comprehensively understand the implications (economic, legal, and social) of the information gathered

1. Understands ethical issues involved in information use
2. Follows laws, regulations, and policies concerning information use
3. Acknowledges sources

1. Applies concepts of privacy, security, fair use, and copyright
2. Complies with processes and standards for information use
3. Appropriately documents source materials used in products

understanding how to identify what we refer to in this book as quality information. By **quality information**, we mean information that is factually accurate, derived from a credible source through a public and transparent process, and produced using rigorous and standard techniques that adhere to appropriate ethical standards. Related, information consumers need to be able to discern among sources of information and to identify quality sources of information that can be used with confidence, sources that require caution when using, and sources that should be discarded altogether.

One approach to thinking about the quality of various sources of information is to divide them into two groups: scholarly and popular. The *APA Manual of Style*, among other resources, gives us a useful comparison between these two broad groups.

The highest-quality information in **academia**, or university-based work, is found in **double-blind peer-reviewed journals**. **Peer review** means that the work is evaluated by anonymous experts prior to acceptance for publication. The criteria for acceptance generally include subject matter expertise, accuracy, and adding value to our understanding of the topic.

The process for publishing in these sources is very specific. Authors send a manuscript of their work to a journal editor with all identifying information about the authors stripped from the manuscript. The editor in turn identifies several experts who also study and write about the topic of the manuscript, and sends that manuscript to the experts. The experts read the manuscript and make comments and suggestions for ways to improve it. They also provide the journal editor with a frank assessment of whether the quality of the research is sufficiently high to be published. The editor collects this information from the experts and makes a decision about whether to publish the manuscript. Most often the editorial decision is not to publish the piece; many peer-reviewed journals report rejection rates well in excess of 80 percent. However, sometimes the editor will ask the authors to make revisions to the piece and then resubmit it for a second round of consideration by the same experts or additional reviewers. In either case, the editor sends the authors the feedback provided by the experts to help the authors understand how to improve the submission. This feedback is stripped of all identifying information about the experts. The authors do not know who has read their work and made the comments, and the experts do not know who wrote the manuscripts that they review—thus the term double-blind peer review.

Frequently, **university press books** go through a blind review process, and are therefore also considered to contain information that is of high quality. Many for-profit presses also subject manuscripts to a peer-review process before publication. In general terms, the use of blind review by experts in the subject area is expected to enhance the quality of the information that emerges from the publication process. However, reviews conducted by for-profit presses may not be blind, and thus there is some concern that manuscripts will be less critically reviewed. Self-published and fee-for-publication books (put out by what some call "vanity presses") are generally viewed to be of lower quality than peer-reviewed publications.

Newspapers and news magazines are also often used as sources of information. Although most journalists adhere to high-quality journalistic standards, there is also a sense of a quality hierarchy among the newspapers and news magazines. This is true for audio and visual media as well. One way to consider quality is through the level of trust ascribed to particular news outlets. Table 1.2 offers a snapshot of highly trusted news sources for mainstream and independent newspapers and other news media, both national and international.

Government publications and information produced by nonprofit organizations, interest groups, and think tanks are more difficult to assess in terms of quality. These sources are commonly used by those working in public service, whether in administration or policy, and whether working inside government or in a nonprofit organization. One way to distinguish among sources is to consider the reason or motivation that guided the creation of the information. This motivation can be gleaned from an examination of the intended audience, the method of dissemination, and the opportunity for challenge or critique of the information by those who may disagree with it in such a way as to shape future information (Hale 2011). No information is ever entirely neutral, so it is important to be able to identify motives and make these types of assessments as we evaluate information.

Many government publications are high-quality sources and can be treated as having the same quality as peer-reviewed journal articles and books. In fact, many government publications go through rigorous internal scrutiny and review prior to publication and are quite transparent in disclosing the processes by which data were gathered and analyzed. In addition, some government publications are peer reviewed. Simultaneously, though, it is also the case that these publications can be highly partisan; information presented as fact may actually

Table 1.2
Top News Sources by Media Type

Blogs	Magazines	Newspapers	Online	Radio	TV	Wire Service
Daily Kos	Mother Jones	Christian Science Monitor	AlterNet	All Things Considered	Aljazeera	Associated Press
Global Voices	National Geographic	Los Angeles Times	FactCheck	NPR	Daily Show	Bloomberg
Informed Comment	New Yorker	New York Times	PolitiFact		Democracy Now	Inter Press Service
Robert Reich's Blog	Rolling Stone	The Guardian	ProPublica		NewsHour	McClatchy
Think Progress	The Nation	Washington Post	Salon			

Source: Adapted from NewsTrust, "Trusted Sources," 2012, www.newstrust.net.

be an interpretation of facts put forth with a particular goal in mind. The task for information consumers is to determine which is which.

Reports issued by the Government Accountability Office (GAO; formerly the General Accounting Office) are seen as highly credible. These reports frequently include a detailed description of the methods used to collect and analyze data, and also include commentary from representatives of the organizations or processes that are studied; this type of commentary offers insight into the findings of each study by providing additional information about points on which interested organizations disagree, and why that is the case. Reports from elected officials and their administrations (for example, White House reports or reports from governors' offices) have less credibility as objective sources of information because the objectives of these offices are aligned with a particular motivation, typically associated with partisan political views or to advance a particular policy agenda. Documents from such sources may, however, be excellent evidence of the views of an office, agency, or official. Here, it is important for the researcher to distinguish the purpose for which the information is intended. Information produced by outside researchers, but funded by government agencies, is most often neutral and of high quality.

In examining questions about public service, it is also important to note that government documents are actually the authoritative source for laws and regulations. The *U.S. Code* contains the laws of the United States; related, the *Code of Federal Regulations* contains all the federal administrative rules and regulations adopted by federal executive branch agencies and departments. Similarly, state codes of law and regulation are the authoritative sources for laws and administrative rules and regulations that have been adopted at the state level.

Information produced by think tanks, interest groups, and other nonprofit organizations is more difficult to gauge. Most of these types of organizations are established to promote a particular perspective that they desire to persuade others is correct, and this motivation should automatically give readers pause (Radin 2006). The use of a particular perspective does not automatically render information inaccurate, but consumers of information from these sources have a responsibility to consider the motivations at play and to seek competing perspectives in order to gain a representative view. Many of these organizations employ well-trained scholars who can and do generate credible and accurate information. In these cases, readers must have access to background information about the sources of evidence provided and types of analyses performed in order

to make an informed judgment about information quality. Much information from these sources is not peer reviewed in the academic sense. However, many of these organizations (typically, national nonprofit groups) interact regularly with one another within an issue area and regularly monitor the information and communication of peer organizations in what are known as information networks; this interaction promotes accuracy and diligent attention to detail in many cases (Hale 2011). As a general rule, readers should further investigate the think tanks, nonprofits, and interest groups in order to learn about their missions, their goals, how they operate, and the sources of their funding. From this information, readers will gain a better understanding of the quality of information generated by these organizations.

A critical issue in determining whether information is of high versus low quality is today's common use of the Internet in obtaining information. It is not usually possible to determine the credibility of the source from the position of the link when it appears on the list of responses that is generated by a typical Internet random word search. An example is an ordinary Google search for the term "homeless women." The top ten results of this search (conducted November 12, 2013) are listed in Figure 1.3.

The first link is to images of homeless women. Interestingly, each image is linked to a nonprofit organization's website; however, there is no immediate information that identifies the subjects or the photographers. The second link is to a Wikipedia page about homeless women in the United States. Three links are to news items; two of these items have to do with homeless women veterans, perhaps because this particular search was conducted the day after Veterans Day. Four of the links direct readers to studies and reports from government agencies or nonprofit organizations; one of these is specific to Alabama, perhaps because we are located in that state. The remaining links direct readers to resources including homeless shelters (in Alabama) and a directory for homeless women veterans. In order to assess the credibility of each of these sources, readers have to investigate further.

Our interpretation of the multiple sources of information about "homeless women" is complicated further by the practice of paying for placement of information in search engines and the ability to manipulate data placement in the list of sources. Our example list also suggests that search results will vary according to the location of the searcher and the time of year (here, Alabama and Veterans Day). In addition, the fact that an information source appears on a list of search

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Figure 1.3
Top Ten Information Sources from Google Search for
"Homeless Women"

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1. Images of homeless women

2. Homeless women in the United States—Wikipedia entry

3. News about homeless women (three entries)

   "In remembrance of the ex-servicemen and women who ended up homeless" (*The Guardian*)

   "Helping homeless veterans win battle" (*New York Daily News*)

   "Shelter offers hope for pregnant homeless women" (Fox News)

4. Up With Women—facts about homelessness (www.upwithwomen.com)

5. Domestic Violence and Homelessness—National Coalition for the Homeless (www.nationalhomeless.org)

6. ACOG—Health Care for Homeless Women (www.acog.org)

7. State Brief—The Institute for Children, Poverty, & Homelessness (www .ICPHusa.org)

8. Shelters, Homeless Housing, Halfway Houses (www.shelterlistings.org)

9. Homeless Women Veterans—National Resource Directory (www.nrd.gov)

10. Homeless Women (www2.webster.edu)

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results does not attest to the credibility of the information. All of the information sources listed in Figure 1.3 place materials on the Internet, but less credible ones do as well. As a rule, any source linked through university libraries is likely to be of high quality. In contrast, although blogs may be quite interesting, they are typically not a good source unless they are used for content analysis or to demonstrate the beliefs of the bloggers (see Chapter Four for more discussion). This is not to suggest that there are no blogs with high-quality data and analysis. Online media and blogs are increasingly mentioned in reports about trusted media sources, as shown in Table 1.2; however, blogs in particular rarely go through a review process, and, in general, it is better to err on the side of caution.

Finding High-Quality Information

Today, a search for high-quality information will most likely begin with the Internet and a list of curated databases that contain scholarly articles. This

section briefly discusses a variety of such sources that can guide researchers to high-quality information. In Chapter Two, we explore different types of information in greater detail.

Google Scholar is a free, comprehensive search engine that covers scholarly materials in a wide variety of disciplines, such as those discussed earlier, and others. The tool facilitates full-text search of scholarly books, scholarly articles published in many leading peer-reviewed journals, and some other materials. Other similar services are available through subscription. Many institutions subscribe to JSTOR, or Journal Storage, which offers full-text search of thousands of current-issue and back-issue journals. The Social Science Citation Index is available through the ISI Web of Science subscription service. The Social Science Research Network provides access to academic articles in the social sciences and humanities; articles are posted by authors and can be downloaded for a fee through institutional subscribers. Searches for laws and regulations are likely to focus on a legal database. LexisNexis and Westlaw are two such subscription services. These and other services provide access to federal and state case law, law review articles, treatises, and other legal scholarship, as well as news articles. Encyclopedias published by academic or other similar presses can also provide useful summaries of the general state of the field on a given topic (for example, program evaluation or voter identification). The *Encyclopedia of Public Administration and Public Policy* (Berman 2007) is one example of a general purpose, peer-reviewed encyclopedia that provides article-length introductions on a wide range of themes and subfields.

It is important to note that no single source of information will meet all of our research needs for theoretical development, methodological approaches, or data. We have to gather multiple sources of information and synthesize theory, methods, data sources, and findings. What matters is that we gather and use accurate information that collectively reflects a complete picture of relevant issues and data, and that we acknowledge the various biases and perspectives contained therein.

VALUES, BELIEFS, AND CERTAINTY IN APPLIED DISCIPLINES

As we have noted previously, applied research focuses on problems that exist in the real world. It may seem unusual, but the concept of "reality" and, by extension, the nature of the "real world" are actually subjects of considerable

controversy and study. For the study of public problems, public services, and all of the various "public" questions that surround applied research, a key dimension of the real world has to do with values and beliefs. Because people are always a part of the world that we study through applied research, values and beliefs are always incorporated into our analysis in some way.

The fields of public administration, nonprofit studies, public policy, and policy analysis in particular are concerned with values and beliefs from two distinct perspectives that are linked to American institutions. One perspective is reflected in the decision processes and results of the political process. American politics is characterized by majority rule and winner-take-all election practices. As a consequence, most policy debates are reflected by two broad sets of competing values; these values are also typically reflected in the positions of the two major political parties (although that is not always the case). The political majority is continuously reconfigured through a constant process of elections; today's majority view may be the political minority view in the future. Another perspective comes through in the institutional arrangements of the public sector, including nonprofit organizations and networks of public and nonprofit organizations and individuals. These institutional arrangements comprise various stakeholders—some close to the action on a particular issue and some more distant. Some are currently engaged in looking at issues and problems, and some will be engaged in the future. These champions, challengers, bystanders, and supporters reflect different values and beliefs about how public problems are defined and about the ways to address particular conditions; the interaction of these values and beliefs is a critical aspect of public policy innovation (Hale 2011). Stakeholder views are an essential element of the analysis of a public environment; stakeholders are constantly reconfiguring in new arrangements, and they present researchers and communities with an ever-evolving set of values and beliefs that must be taken into consideration.

Riccucci (2010) argues that the values and beliefs inherent in the study of matters of public concern are evidence of an environment that is inherently different from the physical world. This means that the nature of what we study is always infused with our values, including our particular views about what is important, about who is deserving, about who should benefit from government, and about who should be assisted by charity or nonprofit organizations. For the purposes of applied research, this means that the field of study is always changing and always includes the values (and the values debates) that pertain

to the problem or situation under study, the ways that these values take shape in public policy decisions (in legislation and administration), and the values of the researcher. This also means that the tools that are used to conduct applied research must be able to explicitly access and accommodate values at various levels of understanding.

Another dimension of the conversation has to do with certainty about the external world. Certainty is linked to the existence of **paradigms**, or particular ways of thinking about problems and the tools used to investigate them that accumulate over time and become the commonly accepted way of thinking; these paradigms are the underpinning of what has come to be known as normal science (Kuhn 1970), which is based on our very specific assumptions that are commonly understood to be true. Paradigm shifts occur when the tools of an existing paradigm are exhausted; Kuhn argues that this process is quiet and occurs only after sufficient research is published that acknowledges the new paradigm.

In contrast, the positivist school of thought holds that the world in which we exist comprises realities and truths, and though we may never arrive at complete understanding and knowledge because our ability to collect full data is necessarily incomplete, our job as researchers is to pursue the accumulation of evidence in such a way as to best model reality. For example, King, Keohane, and Verba (1994, 6) write "that it is possible to have some knowledge of the external world but that such knowledge is always uncertain." Scholars in this tradition tend to favor quantitative approaches to data collection and analysis, and when they do utilize qualitative data collection approaches, tend to do so using structured protocols (see Chapter Four for detailed discussion). Contrast this to interpretivists, who hold that knowledge is socially constructed and situated and that thus truth is impossible to obtain. Scholars who hold this conception tend to engage in data collection techniques that are largely qualitative, using more fluid and less structured protocols.

Grand Theory and Theories of the Middle Range

Regardless of the approach we take to the idea of certainty and values, we are also guided by long-standing traditions about how to classify our research questions. **Grand theory** includes the big ideas that guide the types of research questions we ask. Within American politics generally, scholars tend to work in one of two "schools," traditions, or grand theories, referred to as behavioralism and institutionalism. Behavioralists ask questions about political

behavior within the American context—for example, "Does voting matter?" Institutionalists ask questions about how the major institutions of American politics operate and ask such questions as "What role do committees play in congressional lawmaking?" The study of public service involves both schools of thought, and applied research about public service looks at both behavior and institutional arrangements. In public service, one central tension lies between the normative desire to separate public administrative practice from values of any kind, including political influence, and the constitutional imperative to reconcile administrative (bureaucratic) discretion with changeable public values. Related, scholars of nonprofit organizations are concerned with theories of charity, community, and civic space.

But, as social scientists, we tend to spend most of our time developing **middle-range theories**. Middle-range theories are concerned with developing explanations for specific phenomena. Across the public space in general, scholars and practitioners are concerned with cooperation, collaboration, and reciprocal relationships as well as performance and accountability. We develop theories that explain these and other concepts in order to produce useful, testable hypotheses, or our best guesses about how and why the phenomena we investigate operate. These hypotheses then help us develop the best possible research designs in order to gather data to test our research questions.

Case Comparisons

The cases that we discuss in this book take a variety of approaches to research questions, theory, reasoning, and tools used to accomplish the projects. A summary of these are illustrated in Table 1.3. This summary table is an introduction to the framework of these particular cases and presents the range of questions and approaches to applied research and the basic concepts that we have discussed in this chapter thus far. Each element is also explored in more detail in the chapters that follow.

Each case is a typical example of applied research. Three of the studies were directed at resolving particular applied questions, and the two studies that began as basic research studies produced findings useful to, and used by, practitioners. Although the subject matter varies widely across the cases, the cases lean strongly on mixed methods and a combination of inductive and deductive thought processes. We think that this combined approach is ideally suited for applied research questions.

Table 1.3
Case Comparison of Research Question, Theory, Reasoning, and Tools

	Community Garden	Statewide Aging Assessment	Election Administration and Technology	National Program Evaluation	Criminal Justice Policy Reform
Type of Research	Applied	Applied	Basic/Applied	Applied	Basic/Applied
Gist of the Research Question	How can a local government best develop a Community Supported Agriculture and sustainability initiative?	What are the current resources and needs in the state for this population?	What factors influence state compliance with suggested federal guidelines about voting equipment?	What is the organizational capacity of faith-based and community groups providing violence prevention services?	How do organizational networks influence public policy innovation?
Middle-Range Theory	Public participation in hunger and health	Role of government and nonprofits in delivering human services as a result of changing demographics	Intergovernmental arrangements and state responses to federal pressures	Capacity of nongovernmental organizations in an era of increasing devolution	Unique role of information generated by nonprofit networks
Reasoning	Inductive	Deductive and inductive	Inductive	Inductive	Deductive and inductive
Tools	Qualitative	Qualitative and quantitative	Qualitative and quantitative	Qualitative and quantitative	Qualitative and quantitative

ETHICS AND INSTITUTIONAL REVIEW BOARDS

Often when we are conducting research, we involve human subjects in one way or another. When dealing with human subjects, there are two concerns researchers need to think about simultaneously. The first is whether what we are planning is ethical at a basic level. The second involves institutional rules governed by our **Institutional Review Board (IRB)** about whether and how to get permission to conduct our research.

In short, our focus on ethics in research is a response to horrific research conducted by scientists at various points in recent history, most notably Nazi experimentation during World War II and projects like the Tuskegee syphilis experiment in America. A consequence of reflecting on these instances is the understanding, at least in Western countries, that research subjects must be able to provide what is referred to as informed consent. **Informed consent** includes participant knowledge about the purpose and expectations of research projects in which they have been asked to participate, and free and willing participation with the opportunity to stop participating at any point for any reason.

The U.S. government has clear guidelines that govern human subject research, based on three principles:

1. **Beneficence**—maximizing positive outcomes for humanity while minimizing harm

2. **Respect for subjects**—including protection of their autonomy and, in some cases, anonymity

3. **Justice**—ensuring that research does not exploit others

IRBs are composed of scholars who review research proposals to determine that all of these principles are upheld. In their most basic form, these principles mean that the subjects of our research need to provide voluntary consent to the intervention of our research into their lives only after having full information, to the extent possible, about the research. This means that subjects are aware of any risks, as well as any benefits, of the research; that they can withdraw from a study at any point; that they are not deceived; and that their privacy and **confidentiality** are maintained, up to and including remaining **anonymous**. The IRB process also considers and provides procedures for risk mitigation for subjects under circumstances where researchers feel that they cannot fully explain their research to subjects—that they ought to deceive subjects.

Practically, this means that once a project has been designed, researchers need (usually) to obtain IRB approval, develop consent procedures and maintain records of consent, and develop and maintain procedures for ensuring anonymity or confidentiality of data. IRB procedures vary from institution to institution, and reflect the nature of the research that is typically conducted there and that is supported by significant federal funding. For example, an institution with a medical school or pharmacy program might impose a more rigorous set of requirements than a small liberal arts college. Note also that the IRB requirements typically cover any person who has a significant role in the study, including graduate students. IRB procedures apply typically to individuals based on the role(s) that they serve in the project. Figure 1.4 illustrates several key roles that are common to applied research projects. Each of these individuals, whether faculty members or student assistants (and others as designated by the institution), must complete online training for certification. The training is widely available through the Comprehensive Institutional Training Initiative (CITI; University of Miami) for member institutions.

Each institution also interprets its obligations regarding federal requirements in different ways and may cover additional activities; the time to obtain approval varies from a few weeks to many months. The main point here for researchers is to become very familiar with the IRB requirements that will apply to their specific projects.

After approval to begin research is received, scholars must then develop secure processes and places to maintain consent documents and data files. Usually this involves private computers, password-protected files, locked offices,

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Figure 1.4
Typical Research Roles Covered by IRB Requirements

Principal investigator

Coprincipal investigators

Individual(s) receiving grant awards or contracts

Individual(s) listed as contacts on consent forms

Individual(s) listed as contacts on documents used to recruit study participants

Individual(s) who plan to obtain informed consent from participants in a study

and locked filing cabinets. IRBs retain the privilege of reviewing these files and all documentation of informed consent at any point in order to ensure that researchers have complied with the aforementioned standards. IRBs also require that regular reporting be made throughout the process of data collection and at the end of the research project.

Specific Concerns for Public Administration and Nonprofit Studies

Two of the case studies presented particular ethical considerations that are common to applied research.

Statewide Needs Assessment   One aspect of the statewide needs assessment involved conducting interviews with women age sixty-five and older. This population is a classic example of a vulnerable population by virtue of age. These women were also vulnerable because of the setting in which we chose to identify them and speak to them. Some women were receiving public services in the day care setting (most typically a meal and companionship); in this setting, meals and activities are provided according to a specific schedule. We made efforts to schedule our interviews at times that did not conflict with scheduled events; however, it is important to note the possibility that our presence might be interpreted as somehow threatening or disruptive to their scheduled daily events. This was less of a concern for the interviews conducted in assisted living facilities because the women typically had more latitude in arranging their time.

We took a number of steps to mitigate any concerns that the women might have had. Most obviously, we provided each woman with a consent form that included information explaining the project and her rights, including her ability to withdraw at any time without penalty. We asked each woman to read and sign the form before we could begin the interview; the interview did not begin unless the consent form was signed.

This approach exposed several interesting dimensions of the consent process that should be considered when working with any group, and with vulnerable groups in particular. One dimension involves general literacy. Not all prospective interview subjects could read, and it was clear that some could not read well enough to understand the language of the consent form. One option for addressing this situation is to read the form to an interview subject. Even so, it is also necessary to be well prepared to paraphrase some language or to confirm

understanding after each paragraph or complex phrase. Some women we interviewed were unable to write their names, but indicated consent with their mark instead (for example, an X). The written consent form itself may have caused some women to choose not to participate.

Another issue involves human understanding on a broader level. In a few instances, women volunteered to be interviewed and signed the consent form, but were clearly unable to understand the questions once the interviews began. In these instances, we politely terminated the interviews as quickly as possible; we recorded these experiences as interviews that were initiated but not concluded, and we did not use any data from these experiences.

Finally, the physical surroundings should be considered in terms of confidentiality. In every facility, we first asked to conduct interviews in the office of the facility administrator, which was typically a private office with a door that closed. In some cases, however, that space was not available to us. In some instances, we conducted interviews at a table in the common area of the facility. The interviews conducted in the common area were held at a distance away from the other center participants so as to ensure that the conversations were not heard by the others. Even so, the interviews conducted in the common areas attracted considerable attention. Our interviews were interrupted by other center attendees who asked to be interviewed. Interviews were also interrupted by curious men who wondered why our interviews were limited to women, and by "nosy" neighbors who simply wanted to listen in on the interviews. We consistently redirected these onlookers; interestingly, the interview subjects were also typically quite strident in directing these onlookers to leave the area. In other cases, we conducted interviews in private rooms within the facility; in those instances, we did not experience any interruptions.

Many of these circumstances also pertain to matters that we should consider when we design interview procedures. We discuss them in this chapter to highlight the significance of the ethical considerations, which arise in rather routine ways.

National Program Evaluation Because the purpose of the national program evaluation was to assess organizational capacity as opposed to the experiences and outcomes of victims of interpersonal violence, the ethical concerns were minimal. We wanted to ensure that the organizations would be protected if negative information came out about their organizational structure, resources, and

capacity, so in public reporting we agreed to describe general characteristics of the organizations and give them alternative names.

Unconnected to the capacity study, another portion of the evaluation identified a potentially unethical practice on the part of one of the grantees during the course of data collection, and the evaluation team agreed to immediately turn this information over to the Department of Justice, which then took the appropriate steps to rectify the situation. Here we encountered an ethical question: If harm could come to a study participant from an organizational practice, what was the correct step for us as outside observers conducting presumably neutral and value-free research? Do we adhere to our promise of confidentiality for organizations in the study, or do we report findings to the funder, identifying the organization? If we report the findings to the funder, do we do so immediately or after the study period? Our decision was that the safety of study participants was more important than our "integrity" as researchers, and thus we immediately informed the funder of our findings.
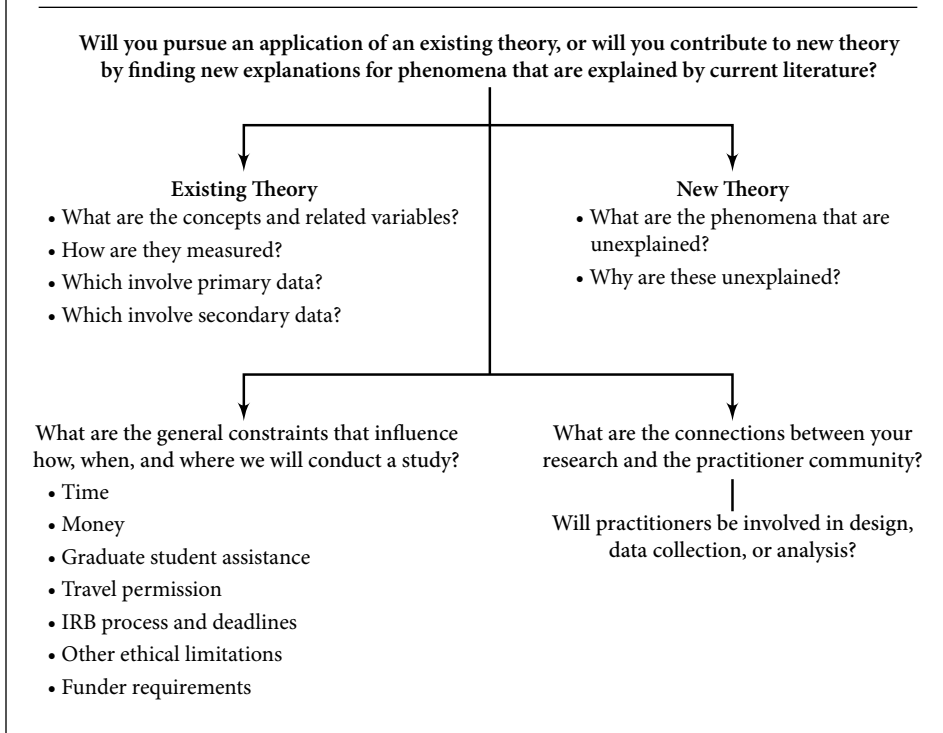
DECISION TREES

Planning an applied research project involves multiple considerations, as we have begun to discuss in this chapter. Decisions abound at every turn within the design, implementation, and analysis of even the simplest of projects. As researchers, we have essentially complete control over how the research is designed, executed, and analyzed. This infinite variety can be overwhelming, yet the choices we make are at the heart of discovery. We have found that posing a few straightforward questions can help organize our thoughts and efforts throughout the research enterprise; we present these questions in the form of decision trees throughout the book.

Applied Research Project Planning

To guide the initial planning of a project, we propose a series of decisions formed around the set of questions shown in Figure 1.5.

The answers posed in the decision tree help sketch an early framework for applied research design. We should expect that our first responses to these questions will be revised, because our responses to each of these questions often generate further questions, alternatives, and choices. Often, our initial conceptualization has to be refined in one area or another based on the answers to these initial questions. These questions give us a place to begin, although our initial answers may not be reflected in the final project plan.

Figure 1.5
Decision Tree for Planning a Research Process

Will you pursue an application of an existing theory, or will you contribute to new theory by finding new explanations for phenomena that are explained by current literature?

Existing Theory
- What are the concepts and related variables?
- How are they measured?
- Which involve primary data?
- Which involve secondary data?

New Theory
- What are the phenomena that are unexplained?
- Why are these unexplained?

What are the general constraints that influence how, when, and where we will conduct a study?
- Time
- Money
- Graduate student assistance
- Travel permission
- IRB process and deadlines
- Other ethical limitations
- Funder requirements

What are the connections between your research and the practitioner community?

Will practitioners be involved in design, data collection, or analysis?
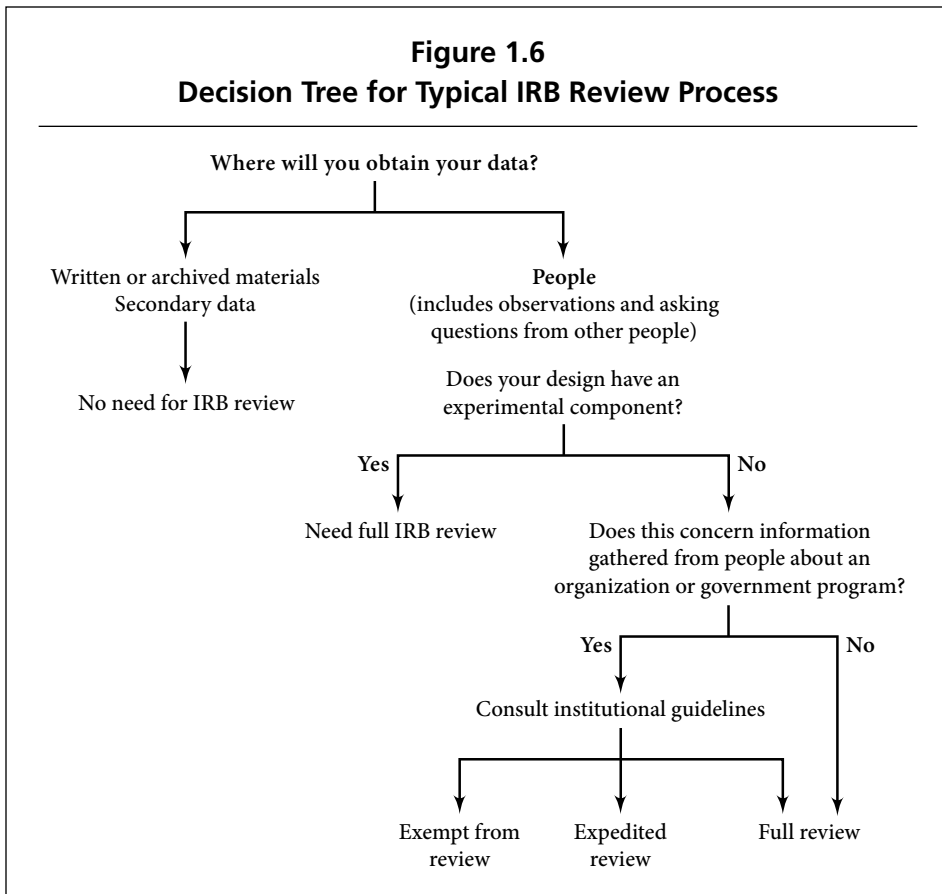

Throughout the chapters that follow, we use decision trees to illustrate some of the common decisions that we have faced in our work. These choices reveal in some measure why projects followed particular paths and also illustrate some of the paths not taken.

Typical IRB Review Considerations

The IRB process focuses on ethical decisions about data collection and protection of the rights of human subjects. The decision tree in Figure 1.6 illustrates the typical questions that have to be resolved in determining whether IRB review is required.

Of course, each institution has internal requirements and timelines for review and also a process for considering research that may be exempt from review, and we do not address those here. Instead, we focus on the major decisions that guide

Figure 1.6
Decision Tree for Typical IRB Review Process

Where will you obtain your data?

Written or archived materials
Secondary data

People
(includes observations and asking
questions from other people)

No need for IRB review

Does your design have an
experimental component?

Yes

No

Need full IRB review

Does this concern information
gathered from people about an
organization or government program?

Yes

No

Consult institutional guidelines

Exempt from
review

Expedited
review

Full review

whether IRB review is required and whether that review will most likely be a full board review or some form of expedited review. For example, experimental designs typically require a full IRB review. In contrast, when data are collected from written or archived materials, an IRB review is typically not required. An intermediate form of review, known as expedited review, is available if the institution's IRB rules permit. Expedited review may be an option if the data pertain to organizational activities and government programs.

CONCLUSION

In this chapter, we provided an overview of the research process and several key concepts that underlie all research efforts. These include the general concept of quality research; the stages of the research process; and the iterative, reflexive

nature of the process, which always involves feedback and revision. We also considered the ethical concerns present in research that involves human beings, and the Institutional Review Boards designed to protect us in those efforts. Also, we introduced the concepts of information literacy and quality information, both of which are crucial to conducting research and to disseminating and understanding results.

We also introduced the basic context of applied research as a problem-based inquiry that bridges many disciplines and fields of study that focus either directly or indirectly on public service problems. Related, we emphasized the importance of values, beliefs, and perceptions in studying the human condition and developing public service prescriptions to address social issues. These values exist within the larger realm of the philosophy of science, which guides scientific inquiry across all fields of study.

OVERVIEW OF THE BOOK

The remainder of this book explores each of the elements of the research process in detail. The book is organized into three parts. Part One focuses on planning and design. In Chapter Two, we take up applied research questions specifically and describe steps and techniques for asking applied questions that are answerable, and discuss how to use literature and theory to refine these questions and build high-quality research designs. In Chapter Three, we lay out these research designs and provide discussion and tools to help readers determine which designs and data collection methods are best for different applied research questions and given various resource constraints. We also describe approaches to sampling, sampling techniques, and the strengths and weaknesses of different sampling strategies.

In Part Two of the book, we shift from planning and design to actual data collection. In Chapter Four, we discuss and provide tips and techniques for field research, with a focus on site visits, interviews, direct observation, and focus groups. In Chapter Five, we take up survey research and describe survey basics as well as modifications for specific audiences.

In Part Three, we discuss what we do with data once we have them. In Chapter Six, we detail various qualitative and quantitative techniques for analyzing different types of data. In Chapter Seven, we outline the different forms of writing that evolve from applied research, including needs assessments,

stakeholder documents, funder reports, grant applications, academic journal articles, and doctoral dissertations. We also discuss presenting information to various stakeholders and using information for program planning and development.

CHAPTER SUPPORT MATERIALS

Chapter One Relevant Articles

Boser, Susan. 2007. "Power, Ethics, and the IRB: Dissonance over Human Participant Review of Participatory Research." *Qualitative Inquiry* 13:1060–1074.

Brians, Craig. 2010. "Review of the 'Information Literacy Instruction Handbook.'" *Journal of Political Science Education* 6:87–88.

Lee, Carole J. 2012. "A Kuhnian Critique of Psychometric Research on Peer Review." *Philosophy of Science* 27:859–870.

Lieberman, Robert C., and Greg M. Shaw. 2000. "Looking Inward, Looking Outward: The Politics of State Welfare Innovation Under Devolution." *Political Research Quarterly* 53:215–240.

Chapter One Discussion Questions

1. Which stage of the research process is most important? Why?

2. Kuhn states that when paradigm shifts occur, they are controversial and demand debate, each side presenting its evidence, sure of the accuracy of its findings, and rejecting as incomplete that of the other. This is possible because "no paradigm ever solves all the problems it defines and since no two paradigms leave all the same problems unsolved, paradigm debates always involve the question: Which problem is it more significant to have solved?" (Kuhn 1970, 110).

Thinking about Kuhn's proposition, identify an area of public service or public policy (domestic violence, drug use, elections, economic development, education, housing, criminal justice, or another area) and discuss the paradigm that you believe defines the way that knowledge is understood in this area. What are the problems that this paradigm defines, and what are some of the problems that it does not? Are any of the unexamined problems more important than

those that are incorporated into the paradigm? Are there other ways that we "should" look at this area of public service?

3. Why are double-blind peer-reviewed resources preferable to other types of information? Do you think it is possible for the double-blind process to be corrupted? How could this happen?

4. What ethical concerns might we encounter in conducting research focused on public administration or nonprofit management? What steps could we take to minimize risks associated with these types of projects?

Chapter One Practice Assignments

1. Look at sources published in the last three months. Using the *Chicago Manual of Style* author-date reference format (see http://www.chicagomanualofstyle.org), give bibliographic citations for each of the following categories:

   Peer-reviewed academic journals

   News magazines

   Newspapers

   Government reports

   Think tanks or interest groups

   Blogs

2. Using library resources, investigate and answer the following questions: When have there been paradigm shifts/scientific revolutions in public administration or nonprofit studies? How and why did they come about?

3. Read more about the Tuskegee experiment. Discuss how the principles of beneficence, respect for subjects, and justice were violated.

4. If your institution is a member, register for and complete CITI training for human subjects research for social and behavioral sciences (see https://www.citiprogram.org).

Chapter One Linked Assignments

Throughout the text, we include a series of "linked assignments." These have been developed to walk the research methods student through the entirety of

the research process by developing a research project that includes each phase of both applied and basic research.

For Chapter One, make a list of three topics that you might be most interested in studying. For each, identify the subfield into which it best fits. Then, using your library, identify a few academic (peer-reviewed) articles or academic press books on the topic and read them. On the basis of your readings, refine your topics, thinking about what we know, what we do not know, and other possible ways the topic could be studied.

Chapter One Link to Online Assignments

Read the final report for the Alabama needs assessment study of women age sixty-five and older:

> Brown, Mitchell, and Kathleen Hale. 2011. *State-Wide Assessment of Alabama Women 65+: Organizations, Practices, and Participant Perspectives. Final Report to the Alabama Women's Commission*. Auburn, AL: Auburn University.

Following the research process outlined in Chapter One, lay out the components in the worksheet in Figure 1.7.

1. For "Ideas and Questions," what is the research question or problem that motivated the study?

2. For "Theory Development," identify the focus and types of literature used early in the report to describe the problems.

3. For "Research Design," summarize the design decisions made by the authors.

4. For "Conducting Research," lay out where the primary data came from and how they were collected.

5. For "Data Analysis," describe how the data were analyzed.

6. For "Conclusions and Reflections," summarize the overarching findings and implications of the study.

Figure 1.7
Research Process Outline Worksheet

Ideas and Questions	Theory Development	Research Design	Conducting Research	Data Analysis	Conclusions and Reflections