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CHAPTER 5

When to Use Archival Designs

Literature Reviews and Secondary Data Analyses

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We refer to the large number of data sources to be discussed in this chapter by the general term *archival*. Much of what we discuss in this chapter is called *secondary data analysis* by other researchers; we use "archival" only because it is a somewhat more general term. Archival data exist prior to any actions by current researchers, although they may have been assembled by previous scholars. These preexisting data are gathered by current researchers. Archival research data may be collected from numerical records, verbal documents, or visual artifacts such as those on websites. The key distinction in terms of research design activities has to do with whether current researchers *gather* data from available sources or whether they *produce* it through some sort of action such as interviews, surveys, observations, or experiments. In other terms, the difference is between *collecting* secondary data versus *generating* primary data. Archival researchers collect data they have not generated.

The distinction between collecting data generated by others and generating one's own data is not often used as a way to categorize research designs, nor is calling all methods of gathering secondary data "archival." But we think the distinction between the two is an important one that captures real differences in the researcher's craft. All schemes for dividing up research designs (such as experimental and nonexperimental or quantitative and qualitative) are somewhat arbitrary. We are making no ontological claims about our six-part division (survey, interview, experiment, observation, archive, and combined). Rather, in a book like this, what matters is whether the system of categories is useful for readers who are trying to find suggestions and make choices. We hope ours is, but that is for readers to judge.

There are many kinds of research that are archival, broadly speaking. Historical research is the most closely tied to what most people mean by "archives." Reviews of the research literature (including meta-analyses) are another type of fundamentally archival method based on secondary sources. Because literature reviews are fundamental to good research, even when you plan to generate your own data, any study you

conduct will have an archival aspect if you review previous research. Archival research is often combined with other designs. For example, researchers who study organizations by interviewing and observation often also consult archives of organizational records. Probably the most common type of archival research in the social sciences in the United States involves employing huge public-use databases generated by the Bureau of the Census, the National Center for Educational Statistics, the Centers for Disease Control (CDC), survey organizations such as the General Social Survey, and so on. The largest single depository for social science data in a digital format, and one of the easiest sources to which to gain access, is the Inter-university Consortium for Political and Social Research (ICPSR). The number and quality of options for archival researchers are really quite overwhelming.

Archives are not without flaw, of course. In the first place, there is no such thing as a completely neutral collection. Interpretation is built into any collection. What was thought to be valuable and kept, or useless and discarded, or embarrassing and destroyed? Even huge public databases entail the interpretations of their compilers. But the best archives use explicit and public criteria for inclusion, criteria that specify procedures used to handle missing data or records. Perhaps the most striking advantages of archival collections are that they can be huge and, because they are often created by groups of researchers over decades of work, they can be of exceptional quality. They routinely exceed by several orders of magnitude what solo researchers can accomplish on their own. Still, it is essential that you learn all that you can about how the data in an archive you use were collected and by whom.

On a related note, we don't mean to make using archival data sound too easy. Archival data are rarely as simple to use as a novice might think. Often, the data have not been collected with the needs of researchers in mind. Therefore, much searching and sorting must be done before the archival materials are usable. Even when archives are designed for investigators to consult—as with U.S. Census archives or other national and international statistical databases—the data have *not* been collected with your specific research question in mind. Researchers need to spend substantial time (a few weeks is probably the norm) cleaning, recoding, sorting, and otherwise getting the data ready for use. Still, for many research questions, the benefits can outweigh the costs.

It is not surprising, perhaps, that in fields such as sociology, political science, and economics, generating one's own data is rather uncommon. For example, 130 research articles were published in volumes 72, 73, and 74 (2007, 2008, and 2009) of the *American Sociological Review*. Over three-quarters of these (101 of 130) used data the researchers collected from archives rather than generated themselves. The most common sources were survey archives, census data, and other publically available data, usually as generated by government agencies. When authors generated their own data, the most common methods were interviews and observations, often combined at the interview site.[1]

In brief, social scientists and researchers in related applied disciplines, such as education and business, rely very heavily on archival sources for data. But authors of methodology texts seldom discuss this common fact at any length. Instead, methodology texts more often expound on the virtues of experiments. As our quick review of the leading sociology journal (as well as reviews in other fields) makes clear, we authors

[1]These counts are approximate since some articles used data gathered from more than one source.

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of methodology texts often do not "preach what we practice."[2] We mostly talk about experiments but we mostly use archives. Even in psychology, where the archival research is less predominant, archival sources play an important role, and not only in reviews of the research literature and meta-analyses.[3]

WHAT KINDS OF ARCHIVAL DATA ARE AVAILABLE FOR RESEARCHERS?

Archival data are found in many places. Some examples include:

- Published textual materials such as books, scholarly journals, magazines, and newspapers.
- Governmental and other public official records including data archives such as the census, the Current Population Survey (CPS) , the American Community Survey (ACS), vital statistics from sources including the CDC, and educational data from sources such as the National Center for Educational Statistics (NCES).
- Depositories of data intended for the future use of researchers, such as those maintained by the Library of Congress, presidential libraries, universities, the previously mentioned ICPSR, and so on.
- Records such as school, hospital, police, and organizational files and documents.
- Internet sources such as Web pages and blogs.

WHEN SHOULD YOU COLLECT AND USE PREEXISTING DATA RATHER THAN PRODUCE YOUR OWN?

The obvious answer is when you can better answer your research question by doing so. In order to answer your research question, do you need to generate your own data, or can you answer your question more effectively by using records or publicly available data archives? The answer depends on whether archival materials exist; detective work to find archival data must often precede data collection. If there is no way you could possibly generate data as useful for your research question as that which is available in archives, you *select* among data generated by others.[4] While this in itself can be considered a kind of data generation, it is certainly very different from running experiments,

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[2]The phrase comes from Bennett, Barth, and Rutherford (2003). Several other studies of what has been published in journals lead to similar conclusions. For example, on experiments in political science, see Druckman et al. (2006). On the same question for journals in education, see Vogt (2007, p. 116). Reviewing publications based on quantitative data in the major journals in economics, political science, and sociology, Herrera and Kapur (2007) conclude that a large majority of these studies are based on datasets collected not by the researchers but by institutions such as government agencies (census, education ministries, etc.) and international organizations (UN, OECD, etc.).

[3]See Trzeniewski (2010); also Gosling and Johnson (2010).

[4]We discuss searching and sampling archives in depth in Chapter 11.

conducting interviews, or surveying respondents. Another consideration is the cost–benefit ratio: taking advantage of archival sources can be very attractive to researchers whose resources are limited, since many archival materials are freely available.

TYPES OF ARCHIVAL RESEARCH

We review the options for types of archival research, and when you might want to engage in one of them, in five general categories:

- Reviews of the research literature, research synthesis, and meta-analysis
- Database archives
- Organizational records
- Textual studies of documents
- New media, including various Internet sources such as Web pages and blogs

Reviews of the Literature, Research Synthesis, and Meta-Analysis[5]

We begin where you will almost inevitably begin your research, with a review of the research literature on your research question. It is a good place to start our review of archival research because of its ubiquity (every researcher has to do literature reviews) and because much of what is true about reviewing the research literature is true of other forms of archival research as well.

It is routine and wholly correct to say that one should incorporate into any research project a systematic review of previous research on the subject.[6] Such reviews are often iterative, with each iteration being more focused than the previous ones. You might begin with an exploratory review of a general subject area to help you refine your research questions and to identify your variables and the methods you could use to study them. Reviews of the literature often also point to databases and other archival sources you could use. Then you might move to a more focused review that concentrates on studies that investigated the particular variables you have decided to study. Finally, it is not at all uncommon to revisit the research literature on your question toward the end of your project. You do this to help with the interpretation of your findings and to integrate them into the broader discussions of the topic in your field.

How extensive and intensive should your literature review be? A review may be a relatively simple introduction to how your research question has been dealt with in the past; this is particularly appropriate when the research reports on your topic are not very numerous or difficult to summarize. On the other hand, your review may be so extensive and detailed that you decide to conduct a review instead of doing primary, data-generating research on your topic. There are several terms to describe different

[5]There are many good works describing how to conduct literature reviews and meta-analyses. A brief one is Chapter 17 of Vogt (2007). Good general accounts are Cooper (2010) and Lipsey and Wilson (2001). Of course, our focus is less on "how to" and more on "when to."

[6]Some proponents of grounded theory argue that reviews of previous work get in the way of researchers' attempts to build a theory inductively, from the ground up.

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approaches and levels of thoroughness in reviewing the research literature on a topic. Most common, especially in early drafts of dissertations, are what we have elsewhere called *boring lists*, and, among more seasoned researchers, *biased impressionistic summaries*. When should you do one of these? Well, never! But all textbook chiding aside, these are remarkably persistent.[7]

However, it does not follow that every research topic will always require rigorous, time-consuming reviews—but most will. When the research on your topic is limited and the scope of your research is very modest, an *introductory review*, which is a short overview of a sample of the research on your subject, may be appropriate. A *systematic review* is a more methodical and intensive review that plays an important role in elaborating your research question and in shaping the course of your data collection and analysis. A *research synthesis* is an even more rigorous and detailed review; it is often so extensive that you may decide that it can stand on its own; it forms the entirety of your research report. A *meta-analysis* is a type of research synthesis in that it reviews the literature extensively—often attempting to review the total population of studies on the topic. What distinguishes a meta-analysis is that it *quantitatively* summarizes and analyzes its results. Which of these is right for your topic? The answer depends on the nature of the literature on your topic. That answer leads to something of a paradox, but an unavoidable one: to decide what kind of literature review to do, you first have to review the literature.[8]

When to Do an Introductory Review

It is often hard to justify this level of review, even though it is widely practiced. One consequence of the emergence of meta-analysis and other forms of systematic review is that it has generally raised the standards for all reviewing of the literature. Most people would agree, at least in principle, that the research reports in a literature review should be dealt with in as rigorous, reliable, and unbiased a manner as any study of research evidence. If that is the case, an introductory review is appropriate only for a small preliminary study or when your topic is covered in only a small number of studies.

When to Do a Systematic Review

This will probably be the choice for most researchers in most cases. You want to do primary research—experiments, interviews, a survey—and you do not want to replace that original work with a secondary analysis of research reports and of data collected by others. However, if you want to do a good job with your primary research, you should not be casual, biased, or haphazard. Doing primary research is not a license to work in ignorance of what other researchers have done. To make a serious contribution to knowledge, researchers need a thorough command of the research literature on their topics, acquired through a systematic review.

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[7]See Boote and Beile (2005) for a discussion of the sorry state of reviews of the research literature in dissertations in education.

[8]This is an example of the classic (dating back to Plato) paradox of inquiry. For a blog post on the subject, see *vogtsresearchmethods.blogspot.com*.

When to Do a Research Synthesis or a Meta-Analysis

The main difference between the research synthesis and the meta-analysis is that the latter is necessarily quantitative. Note that you should not try to duck doing a thorough synthesis because your data are qualitative and inappropriate for meta-analysis. Good examples of qualitative syntheses of the research on a topic are readily available in virtually all fields in the social and behavioral sciences.[9]

One circumstance in which a synthesis may be especially appropriate occurs when the research literature is extensive, but there is confusion about what it says or perhaps the research reports actually contradict one another. Conflicting reports can often be due to differences in the studies, differences that the synthesizer is uniquely positioned to discover. Maybe older studies conclude one thing, newer studies another. Maybe laboratory experiments come to different conclusions than field experiments. Perhaps differences occur among subpopulations or sites or contexts: results might vary according to the age of the individuals being studied, research sites (public or private), or the context in which institutions are located (rural, suburban, urban). One of the big outcomes of syntheses, whether of quantitative or qualitative data, is discovering and explaining differences like these. A synthesis can have more external validity than the studies it summarizes, because it synthesizes data pertaining to different methods, groups, and contexts.

Examples from medical research have frequently shown that syntheses can help reduce previous uncertainty about a treatment or intervention. This is perhaps most frequent when the studies being synthesized have mainly been conducted using small groups (as is common in experiments). Only when the data are pooled does the sample become large enough to have enough statistical power to detect an effect or to clarify apparently contradictory results.

When <u>Not</u> to Do a Research Synthesis or a Meta-Analysis

First, of course, there may be a limited number of studies worth synthesizing on your topic. However, consider that this may indicate that researchers in your field do not consider your topic very important. Second, you could have been "scooped." When someone has just conducted a good synthesis or meta-analysis on your topic, there may be little point in conducting another. However, it is pretty rare, even in archival research, to be so totally scooped that there is no point in continuing. Usually, the way you would conceive the synthesis will have some differences with previous work. You will want to consider some variables that others haven't or to operationalize variables in a different way.

The most likely reason that a meta-analysis would be inappropriate to synthesize research on your topic is that the data aren't amenable to the main techniques of meta-analysis. Despite some recent advances in the field, meta-analysis works best when the outcomes data from the studies are fairly simple. Meta-analysis has been most successful summarizing the results of experiments with one dependent variable, one independent variable, and few if any covariates or control variables. That is because the common tools for meta-analysis (standardized mean differences, correlations, and odds ratios)

[9]For an exemplary study of how the effects of media violence have been studied, see Gunter (2008).

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work best with relatively simple bivariate data. With more complex models it is harder to find appropriate tools for synthesis. Complex statistical models with dozens of variables analyzed with one version or another of regression analysis are especially difficult to summarize across studies because the size of any outcome will depend importantly on the specific variables in the model. Even standardized regression coefficients cannot be properly compared across studies that include different variables in the models.[10] However, what we might call a *mini-meta-analysis* is often a good option. Even if most of the studies are not amenable to quantitative meta-analytic summary, it makes sense to meta-analyze those that can be quantitatively pooled. Then combine the results of the mini-meta-analysis with less quantitative studies before synthesizing the research on your topic.

When to Include Other Sources of Knowledge about Research

There is no need to limit yourself to documents. The idea is to review the *research*, not only the *literature* or documents. As you are learning about a field, it usually doesn't take very long to figure out who the active and respected researchers are. Contact them, especially if you have specific questions about something they have written or you want to ask whether they are planning further investigations that they might be willing to tell you about. Most researchers don't get so much "fan mail" that they will ignore an honest request.

Another source for reviewing the research, not the documents, is scholarly and professional meetings. Unless your topic is very unusual, it is likely to be discussed, at least obliquely, in several sessions of the major scholarly meetings in your field. By attending these sessions you will often hear and perhaps meet the less well-known but highly active members of your research community.

It is often advisable to treat sources such as e-mail correspondence and observations at scholarly meetings as forms of *data* to be researched, not merely as personal contacts supplementing the document analysis. The full gamut of interview and observational methods can be used to make this part of your review of the research systematic too.[11]

When to Challenge, Not Build Upon, Previous Research

It is important to remember that literature reviews, of whatever kind, have many purposes. They are generally described in a fairly uncontroversial way as a means of building upon prior work and contributing your little brick to a growing edifice of knowledge. In the famous words attributed to Newton (and many others),[12] "if I have seen farther, it is by standing on the shoulders of giants." But research reviews have sometimes played a more dramatic and controversial role in the evolution of research on a topic. For example, your thesis might be that previous work in the field is seriously lacking. You review it, not to build on it directly, but to discredit it. Your review is aimed at demonstrating its weaknesses—or at least showing that it contains important "gaps." You may, as someone once put it, "stand on the shoulders of giants—in order to step on their faces."

[10] Some progress is being made in this area; see Aloe and Becker (2011).

[11] Onwuegbuzie, Leach, and Collins (2011) in Williams and Vogt (2011) review some options.

[12] Anyone writing a review of the literature should ponder Merton's (1985) erudite and humorous history of this oft-repeated phrase.

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A similar approach to reviews of research is taken by scholars conducting theoretical research, scholars who plan to *create* theories, not test them. Where do theories come from? When we use theories to shape our research questions, we probably don't often think of them as arising from research; but they do. They do not fall from the sky into the minds of theorists; they are usually the product of systematic research, typically research reviewing existing research. The theorist's premise is that sometimes we can get new knowledge merely by thinking hard about what we already know. Theoretical physicists are best known for this. They have sometimes discovered relationships among natural phenomena years before laboratory physicists were able to gather evidence about them. Einstein was the famous example; he never collected his own data for any of his published works. But he was an assiduous reader and eager discusser of the research of others. How did that reading and discussing lead to path-breaking theories? The process is more than a little mysterious, but it involves a lot of reflection followed by leaps of insight followed by more reflection. How does one prepare oneself to increase the likelihood of having an insight; on what does one reflect? The answer is, by studying previous research. Ultimately the value of theoretical research depends on whether one's insights are of use to others in the field. Even if you happen not to have a flash of insight that leads to a path-breaking theory, your systematic review of the research literature gives you something useful to show for your efforts.

DATABASE ARCHIVES

The number and scope of public and quasi-public statistical archives are really quite staggering. These data are often collected by governments. When governments survey citizens and institutions, responding is often mandatory—whether the data are crime statistics, higher education enrollments, stocks and commodities trading, or vital (births and deaths) statistics.[13] That means that the response rates are unusually high. International organizations such as the United Nations or the Organization for Economic Cooperation and Development also collect extensive data, usually from governments. It is difficult for governments to carry out their functions without such data, and it would also be hard for citizens to hold governments accountable without it. The expansion of and continued demand for such data is relentless. How good are these data? Collecting data in ways that are perfectly objective may be an ideal, but, like most ideals, it can never be fully realized. On the other hand, the people who work in statistical agencies have a vested interest in being accurate. In fact, even crooks need to keep good records if they are to effectively plan their campaigns to rob us more.

None of this means that such data are without flaws. And the fact that several of the best-known national and international databases have serious weaknesses is a legitimate cause for concern.[14] Hence, researchers, delighted as they may be at the availability of such wonderful datasets, need to be critical in their use of them. Even when a given database is the state-of-the-art source for a particular question, responsible researchers will be informed consumers, not merely downloaders, of the data they use. It has

[13]For the state of official statistics in the United States see Torrieri (2007) and in the United Kingdom see Holt (2007). For a good example of the use of UN data to investigate a research question, see Patel, Roberts, Guy, Lee-Jones, and Conteh (2009).

[14]Herrera and Kapur (2007) provide an important review.

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been the case that serious scholars working for public agencies have labored to improve databases,[15] but the extraordinarily demanding nature of that work makes it the exception rather than the rule for all but the most important public databases. What should you do? If you use a large database archive, be sure to read all the technical literature accompanying it and make sure your literature review focuses on the notes and appendices of the work of other researchers using it.

Finally, one shouldn't assume that computerized data archives contain only quantitative data. Photography and oral history archives are two examples of qualitative data sources that the archival researcher may wish to use. For ethnographic data, the granddaddy of all databases is the Human Relations Area Files (HRAF), founded and housed at Yale since 1949.[16] One of the best archives of qualitative data (mostly interview data) is the marvelous archive called Qualidata. This is maintained by the Economic and Social Data Service in the United Kingdom. Its resources are usually freely available to qualified researchers.[17] Social science researchers (except for historians) are much less likely to use archival qualitative data than quantitative databases, but there is more of it than most social and behavioral scientists realize. While there is sometimes reluctance among qualitatively oriented researchers to use oral history and interview archives, often on ethical grounds, researchers studying qualitative data are increasingly influenced by the general trend toward using ever larger and more systematic archival data sources.[18]

Note that it is possible to make *predictions* to test a theory using archival sources. The researcher predicts what will be found in the archival data. Because this is not a prediction about a future event, it is sometimes called a "retrodiction." And this sort of prediction is widely practiced in economics, political science, and sociology. For example, to test Durkheim's theory of egoistic suicide, data were obtained from the CDC about U.S. suicide rates in the early weeks of the Gulf War of 1991. As the theory predicted, suicide statistics dipped during the war and returned to their baseline levels after it ended.[19] *Causal inference* is also possible using documentary evidence. One potential cause of the rising incidence of autism was a mercury-based preservative called thimerosal, which was once commonly added to vaccines. The additive was rarely used in the United States after 2001; it had earlier been removed from vaccines in Canada, Sweden, and Denmark in the 1990s. But there has been no decline in the incidence of autism since this presumptive cause was removed. The causal inference is strong and clear: if thimerosal caused autism, its removal should have led to a drop in the occurrence of autism. It didn't; ergo, it wasn't the cause.[20]

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[15] Clifford Adelman's work with the National Longitudinal Study is one example (see Lin and Vogt, 1996).

[16] The website is *www.yale.edu/hraf/collections*.

[17] The website is: *www.esds.ac.uk/qualidata*.

[18] See Parry and Mauthner (2004) for claims that using such archives may not be ethically appropriate. For a contrary view, see Fielding (2004).

[19] McKenna and Vogt (1995). In some respects this was a prediction in a stricter sense of the term, because the data were just becoming available as the paper was being written.

[20] See *www.who.int./vaccine_safety* and *www.cdc.gov/vaccinesafety* for summaries.

When Should You Use Such Database Archives?

As always, the first recommendation is to follow the exigencies of your research question. It is almost always a good idea to make inquiries about whether appropriate archival sources exist. If you are a solo researcher and your research question requires a large nationally representative sample, there may be few alternatives. Like most methodologists, we routinely recommend letting your research question be your guide, "the dictatorship of the problem,"[21] in other terms. But we know that this is sometimes naïve. Researchers do not always draw their decision trees starting with the problem, topic, or question. It is actually quite common in the social sciences to shape one's research question so as to take advantage of an especially good dataset. This kind of opportunism, taking advantage of an opportunity, is hardly "wrong," even though it is rarely considered the ideal.

When Should You *Not* Use Database Archives?

Obviously, of course, you shouldn't use them when there aren't any data archives that contain sufficient data for your topic. Or, if data exist, they might be too old to address your research question. The age of data doesn't always stop researchers from making contemporary claims. Even when the most recent case available in the dataset is 10 years old, it is not uncommon to read a phrase in a research report such as "the data clearly indicate that the problem *is* . . ." with unabashed avoidance of the past tense. Old data should be put into historical context. If you don't want to do that and your approach requires very up-to-date and recent data, you'll probably have to collect it yourself. To get recent data, you may have to give up sample size and representativeness. For some research questions, this could be an effective trade—for others, not so much.

ORGANIZATIONAL RECORDS

Although the use of survey archives and government documents predominates in sociology, economics, and political science, there are several other good sources of archival data and therefore ways to do archival research. In pursuit of a research question, perhaps initially just searching for background information, you may find that a great deal of data is already available on your subject in organizational or institutional records. Sometimes these require special permission to gain access, but often the records you need can be obtained from public sources. For example, Leahey studied the determinants of academic salaries—particularly two variables that had gone largely unstudied in previous research.[22] Earlier research examined the influence of faculty members' years of experience, research productivity, and the types of university they worked in, as well as their gender and ethnicity. To this list Leahey added research specialization and research visibility. Neither had been studied before for the two disciplines she examined in depth: sociology and linguistics. Her study is instructive, because nearly all of her data came from publically available documents and records. She took a 20% prob-

[21] Vogt (2008).

[22] Leahey (2007).

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ability sample of faculty at research universities. The sampling frame was lists provided by professional organizations and department websites. Evidence about research productivity was gathered from electronic databases: *Sociological Abstracts* for sociology faculty and *Linguistics and Language Behavior Abstracts* for linguistics faculty. The keyword descriptors listed for each publication indexed in these resources were used to construct the measure of specialization. The measure of visibility was constructed using citation indices. Finally, because salary data for faculty in public universities are public information, Leahey was able to gather this from public records. Thus, the author did not directly use a database generated by others, but her sources were organizational records, publicly available.

When collecting data from organizational records that are not openly available, it becomes especially important to be very specific about your data collection methods.[23] Unlike when you use publicly available databases, which other researchers can access at will, organizational records will rarely be available to other researchers. Sharing one's data and the methods used to collect them is one of a professional researcher's highest responsibilities. As the old adage goes, "In God we trust; all others must show their data." It is quite common for researchers to agree that it is a good idea to describe their methods and the rationale for them, but it is less often believed that the data themselves should be easily accessible to other researchers. Jeremy Freese[24] makes the strongest case we know of for doing so.[25] It is not exactly a new idea. For example, several important economics journals make data availability a condition of publication. And *Demography*, a sociological journal, has a similar requirement. Freese argues that publishing one's data makes social research a *social* activity and not something at the discretion of the individual researchers. And, it requires little effort to make one's data accessible to others, since several online data archives have been created for the purpose. Of course, we are not arguing for making organizational records available. That would likely violate confidentiality and the trust organizations placed in the researchers. But the databases constructed from those records could be routinely made available.[26] To be trustworthy, the data and the criteria used to collect and analyze them have to be accessible to other researchers. As Freese points out, the less your data are available, the less persuasive your findings will be to readers skeptical of your conclusions.

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TEXTUAL STUDIES OF DOCUMENTS

The world is awash in documents, and this is hardly a recent phenomenon: books, newspapers, magazines, diaries, contracts, and treaties are a few examples. Although much archival data is quantitative and comes in computerized forms such as spreadsheets, when the media are more traditional and the reading is more conventional, the documents are usually referred to as texts and the research as textual analysis. After your

[23] See Moss (2009).

[24] Freese (2007).

[25] Not all would agree; see Denzin (2009).

[26] An exemplary case of this is the work of Bowen, Chingos, and McPherson (2009). They pooled institutional records from 68 universities to construct two new databases; these are available online along with technical appendices that describe how they used them to reach their conclusions.

research question has led you to a particular type of document, then you need to choose your orientation to the documents. This is also mainly determined by your research question.

When Should You Study Phenomena, When Texts, and When Contexts?

Three broad subjects can be studied through textual analysis:

1. The *phenomena* that the texts refer to, as when texts describing a political movement are analyzed to learn about the movement;
2. The *texts* themselves, as when memoirs are read as examples of a literary genre; and
3. The *context*, as when the main issue the researcher is interested in is how context might influence a text, such as how a law (the text) might be influenced by social prejudice.

Actually, these three objects of study overlap, but their differences illustrate important distinctions in research strategy. Contexts may influence texts; texts may describe nontextual phenomena; and contexts can influence phenomena, as depicted in Figure 5.1.

Do you study texts because you are interested in what they are about, or because you are interested in the texts themselves, or because you are interested in how contexts shape texts? For example, do you study political documents because you are interested in politics, because you are interested in the rhetorical devices used in political documents, or because you are interested in how political forces shape the ideas expressed in the documents? All three are legitimate kinds of questions, but it is advisable to pick a strategy or an emphasis to add clarity to a research project. Meta-analysis is a good example. It works mainly with documents, but it is highly focused on the phenomena being studied in those documents. In the distinction among contexts, texts, and phenomena, meta-analysis is mostly concentrated on the phenomena, in this case, the research findings.

Of course, one could also conduct a review of the literature because one is interested in the character of analysis that is used in the documents or because one is interested in the history of the discipline as represented by those documents. For example, in recent years, one theme in the writing about the development of the social sciences, especially sociology, has been the importance of the "ethnographic turn." According to many accounts, sociology has been transformed in recent decades by a greater emphasis

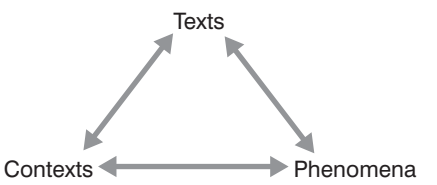

FIGURE 5.1. Subjects for textual analysis.

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on qualitative research, particularly ethnographic methods of data collection and analysis.[27] To investigate this ethnographic turn, one group of authors did a review of publications in major sociology journals.[28] Their goal was not that of a meta-analysis, in which one wants to sum up the substantive findings on a specifically defined topic. Rather, the authors wanted to examine the recent history of their discipline. Their conclusions were quite interesting. First, phenomena: despite the lack of agreement about what "ethnography" actually is, there is considerable consensus in the major journals that many more ethnographic studies are being conducted now than in the past. Second, texts: some of the change from past years has involved the embrace of the *term* ethnography, which is now often used broadly to mean nearly any method of qualitative data collection and analysis. Third, contexts: ethnographic methods have expanded in U.S. sociology journals more by adding new journals than by being incorporated into older journals.

When to Use Textual Archival Research

It is actually virtually impossible to avoid textual archival research altogether. Even the most quantitatively oriented social science research typically contains as many words as numbers, so when you summarize this for your review of the literature, you will need to do some kind of textual summary as well as a quantitative summary. And, when your main research design is aimed at *generating* verbal data, these data often take on an archival character. It is quite common for researchers first to *generate* the data that they *subsequently* treat more or less archivally. For example, it is routine in interview research to make audio recordings and then transcribe the tapes. At some point these transcribed texts become fixed. They become "objective" in the sense that, while they remain open to interpretation, altering them would be dishonest. Similar processes are often at work in regard to observational researchers' field notes. Many researchers believe that the notes are better than, and take priority over, memory. It is also increasingly common for the coding and analysis of the interview transcripts and field notes to be done by members of the research team other than those who collected the raw data.[29]

When *Not* to Use Textual Archival Research

Again, of course, when textual archives are insufficient for treating your topic, you need to consider other approaches. Or, your topic may be so recent that the sometimes slow process of assembling textual archives lags far behind what you need to discuss a pressing current issue. If you are interviewing or observing lived experiences or your research question requires that you interact with persons, texts are not going to be your primary source. Still, eventually your data will probably become textual—as interview transcripts or field notes, for example. Thus, data you generated at the design and sampling stages of your research will probably become textual at the coding and analysis stages. You will be coding and analyzing your own "archives."

[27] See Gans (1999).

[28] Culyba, Heimer, and Petty (2004).

[29] For examples, see Kurasaki (2000), Weston et al. (2001), and Sigaud (2008).

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NEW MEDIA, INCLUDING INTERNET SOURCES

Internet sources provide researchers with a vast new arena of archival research. An excellent example is the Web log or *blog*. Blogs are online essays or diaries. They have proliferated at an astonishing rate since they first emerged in the 1990s. While they resemble documents that social researchers have long used in their work, they are distinct in several ways. Historians and biographers have long used diaries, journals, and other private papers in their research. One huge difference between those resources and blogs is that blogs are public as well as being personal papers. They seem to straddle the border between public and private. Sociologists and psychologists have also sometimes used diaries in their research. But these have usually been solicited from participants by researchers, not something that research subjects generated on their own. Another difference is that the conventional diaries used in the past have been rare and precious. But we have a glut of blogs. Rather than painstaking searches or anxious solicitation of diaries, researchers now have to resort to sorting and winnowing using technologies as new as the materials being hunted. The problem is finding, among hundreds of thousands of possibilities, a set of blogs on the topic in which you are interested. As we will see in the chapter on sampling archival sources, high-tech solutions, such as Web crawlers, are often necessary.[30]

Websites are another obvious source. There are literally billions of them. Just about any social movement or group will have websites devoted to it. Consequently, scholars who conduct research on political action groups, social movements, game enthusiasts, and so on will find websites a potentially useful source.

A form of website conducive to analysis is the Web forum or discussion board. Such sites are topical and attract users or members eager to share their stories, feelings, information, and advice with each other. For example, one such forum deals with borderline personality disorder, and is specifically designed for people who regularly deal with sufferers of this disorder.[31] Separate message boards on this site are set up for new members, family members, friends, spouses and significant others, those divorcing or separating, and those rebuilding their lives after separating from the individual with the disorder. Users post profiles with basic demographic data, and the site includes a world map showing where users currently online are located. Users start discussion topics or "threads," and other users reply. The site provides quantitative data regarding the forum traffic: which sections get the most postings, which members post most often, top topics by number of replies, top topics by number of views, average time online per day, and other statistics.

A researcher might be interested in the personality disorder itself (the phenomenon). In that case, textual data from specific informational postings might be useful to study. The researcher might instead be interested in the type of discourse in which the users engage (the text). In that scenario, the data regarding forum traffic might be of great interest and the researcher may want to follow specific discussion threads in depth. Or, the researcher might be interested in the forum environment and how it influences communication (the context). In that case, forum postings could be compared with other forms of communication regarding the personality disorder phenomenon.

[30]Hookway (2008) provides a good introduction.

[31]*www.bpdcentral.com/index.php*.

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A final example is online economic activity. Many economic transactions take place online. Studying these requires online data that the researcher samples and analyzes, but does not generate. The fact that these transactions occur rapidly, and that the buyers and sellers can view one another's actions in real time, has changed the nature of markets, which can be studied with online data archives. Studying them can require elaborate statistical and graphical techniques, but the data are readily available.[32]

As the online world grows, so does the scope of potential research topics dealing with it. Access to this world is rarely available other than by going online yourself. Researchers in the social and behavioral sciences are probably most likely to use online sources to do archival research on populations that would be otherwise difficult or impossible to contact, such as newly emerging social and political groups or movements. Among the main attractions of new media archival research is the fact that the data are available not only to researchers but to everyone. This kind of transparency and openness has implications for democratizing knowledge production and consumption, which as Deweyians, we can only applaud.

CONCLUSION

This chapter has reviewed archival designs using five broad categories: summarizing the research literature, using database archives, investigating organizational records, undertaking textual studies of documents, and exploring new media as a source of data. While the design problems and prospects can be quite distinct among these five types, there are also several overriding themes that apply to designs taking any of these approaches. First, in these designs you select secondary data; the study is not "primary" in the sense that the data are initially collected by you. Second, researchers frequently resort to these designs because there is no reasonable alternative; they couldn't possibly collect better (or equally good) data on their own. As compared to what a solo researcher or even a well-funded team could collect in perhaps one year, archives vastly extend the range of data available, including large, nationally representative samples containing thousands and even millions of cases. Third, archival research can have three distinct foci, depending on the use to which the data are put; these may be addressed singly or in various combinations: the data as representation of external phenomena; the social forces and contexts that create and shape the data; and the data as a topic of study in its own right. For example, one might study organizational records because one is interested in organizations, one wishes to learn how social and organizational variables influence data records, or one wishes to undertake an analysis of the nature and evolution of organizational records. Finally, as vast as archival resources are, all archives are limited, incomplete, and biased. The absence of data in archives is not proof (though it is an indicator) of the absence of phenomena in the world. The table on page 102 summarizes these and related points concerning when to use archival designs.

[32]For example, Hyde, Jank, and Shmueli (2006) studied *eBay.com* auctions this way.

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SUGGESTIONS FOR FURTHER READING

While some archival research requires travel to collections of data or documents, much of it can be done without ever leaving the library and often, given Internet resources, without ever leaving your desk at home. That does not mean gathering data produced by others is somehow inferior to generating your own or that it is an easier kind of research, as a review of the following suggested readings makes clear.

Reviewing the research literature on your subject is a well-established tradition in the social sciences, but systematic reviews and meta-analyses date mostly from the 1970s, specifically to the work of Gene Glass and Robert Rosenthal (foreshadowed in some earlier articles by Karl Pearson). Good books on the methods of meta-analysis and other ways of synthesizing research came quickly. In 1984 Light and Pillemer published what is still a very important discussion, *Summing Up: The Science of Reviewing Research.* It is a font of wisdom that we continue to consult and recommend to our students. A good textbook is Cooper's *Research Synthesis and Meta-Analysis* (4th edition, 2010). A somewhat more advanced textbook, but still accessible to the non-specialist, is Lipsey and Wilson's *Practical Meta-Analysis* (2001).

There are more published guidelines for researchers conducting research reviews than for other types of archival research. Very often researchers seeking advice will have to search in examples of actual research rather than use textbooks and handbooks, which, although it can be more work, can also be more rewarding. In any case, a few good recent works on using database archives to conduct your research are available. Vartarian's *Secondary Data Analysis* (2010), although focused on examples from social work research, is a good general overview, and the edited collection by Trzeniewski, *Secondary Data Analysis: An Introduction for Psychologists* (2010), is also quite helpful.

Textual analysis of documents is as old as documents. Diplomats perusing treaties and lawyers looking for legal precedents are familiar examples. Advances that began with Renaissance scholarship were ratcheted up when Mosteller and Wallace published their analysis of the Federalist Papers, *Influence and Disputed Authorship: The Federalist*, in 1964. Not just any analysis of textual content will count as *content analysis* in the strict sense of the term insisted upon by those who advocate doing content analyses with computer software. Neuendorf's *The Content Analysis Guidebook* (2002) is a good example of work using this approach, the influence of which is very rapidly increasing.

Not surprisingly the fewest traditional resources (textbooks, handbooks, reference works) are available for the most recent type of archival research, that which uses new Internet-based media and documents. A good place to begin is the collection edited by Gosling and Johnson, *Advanced Methods for Conducting Online Behavioral Research* (2010). Published by the American Psychological Association, it naturally focuses on research in that field, but its suggestions are broadly applicable to other disciplines.

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CHAPTER 5 SUMMARY TABLE

Reviews of the literature, research synthesis, and meta-analysis	
When to do an introductory review	• For a very small or preliminary study. • When your topic is covered by only a small number of studies.
When to do a systematic review	• Necessary for most studies.
When to do a research synthesis or meta-analysis	• When the research literature is extensive but contradictory or confusing. • When you want to pool data across studies with relatively simple outcomes data, creating more statistical power to detect effects.
When to include other research knowledge	• When you have specific questions to ask researchers. • When information from scholarly meetings is relevant to your study.
DATABASE ARCHIVES	
When to use database archives	• When your research requires a large, nationally representative sample.
ORGANIZATIONAL RECORDS	
When to use organizational records	• When records are available (either publicly or with permission) that match your research subject.
TEXTUAL STUDIES OF DOCUMENTS	
When to use textual archival data	• To study phenomena of interest. • To learn about aspects of the texts themselves. • To learn about the environment (context) and its influence. • When you have collected field notes, transcribed interviews, or collected artifacts during a field study.
NEW MEDIA, INCLUDING INTERNET SOURCES	
When to use new media	• To research phenomena in populations that would be hard to contact or observe through other means. • When you need current rather than historical data.

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