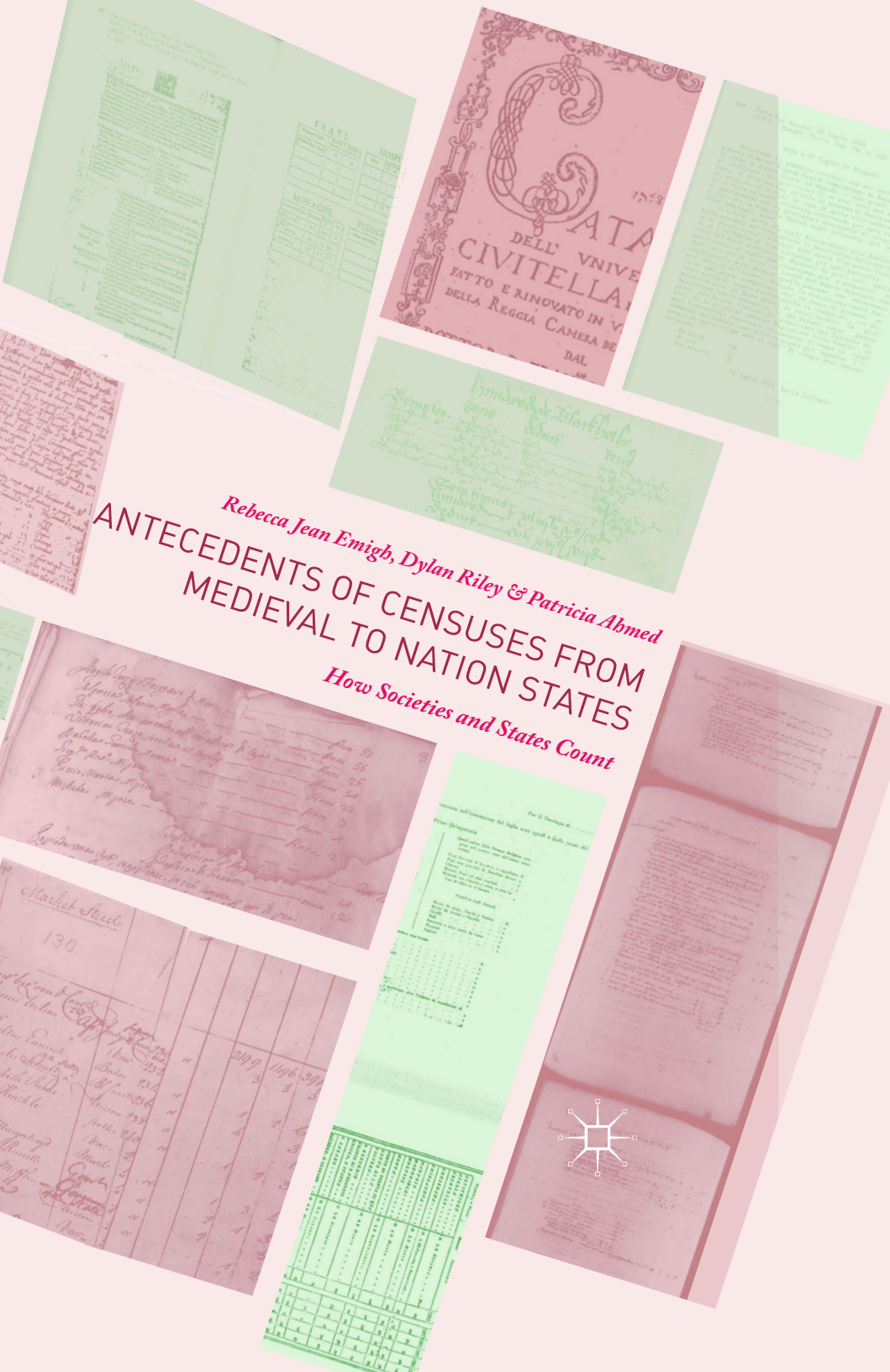

Rebecca Jean Emigh, Dylan Riley & Patricia Ahmed

ANTECEDENTS OF CENSUSES FROM MEDIEVAL TO NATION STATES

How Societies and States Count

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How Societies and States Count

Rebecca Jean Emigh, Dylan Riley, and Patricia Ahmed

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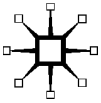

ANTECEDENTS OF CENSUSES FROM MEDIEVAL TO NATION STATES

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To our families

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Volume 1

PART I

How Societies, States, and Their Interaction Affect Information Gathering

In the United States, the decennial census is a vibrant social institution. Even though the American Community Survey, which is conducted on an ongoing basis, has replaced many data collection functions that the census once served, the census is still conducted every ten years, the data are used for numerous purposes, and intense lobbying accompanies its execution. In fact, the census is, in part, an outdated high-modernist invention that could be replaced by registers and surveys (e.g., in the Netherlands). The obvious reason for the survival of the US census is seemingly the constitutional requirement for enumeration that apportions representation in the House of Representatives. This answer, pointing to state influences on the census, however, is much too simple. The US Constitution can be, and has been, amended over much more substantial issues. Instead, we will argue that the survival of the census is tied to its broad social support, thereby pointing to social influences on the census. Thus, we strive to make a broader point: knowledge is created not when information is compiled and maintained by experts (i.e., the frequent call for the census or science to be insulated from politics) but when this information is widely used and contested by many actors in both state and society. We ask then the following question: how do states and societies shape censuses?

Most conventional histories of censuses start with the redaction of the first national census, in a single state (usually coterminous with contemporary political borders). However, this methodology is not particularly helpful in specifying the different influences of the state and society on censuses. First, by starting temporally close to the

redaction of the first census, it is easy to focus on the state actors' explicit intentions and inadvertently overemphasize their influence. The role of social actors is usually considered only as they respond to the already existing census information. The social conditions that precondition how state actors can implement a census cannot be examined by starting with the first census. Second, these general social conditions are essentially held constant if a single national census—that is, by design the same throughout a state's political boundaries—is examined. Thus, these social influences are impossible to specify without a comparative methodology. Here, therefore, we take a different approach. We examine information gathering that took place long before the first censuses and compare this across locations that eventually became the states of the United States, the United Kingdom, and Italy. This methodology allows us to examine the influences of states and societies on information gathering and, eventually, on censuses per se. In this volume, we trace the prehistory of censuses, starting with information gathering around the year 1000 in England and ending with censuses in the political units of the United Kingdom, the United States, and the regional states of Italy just before fully nominative censuses were introduced in the mid-nineteenth centuries. Our second volume traces the modern history of these national censuses to the present.

We postpone a detailed justification of our case selection and methodology to chapter 2, and we begin here by reviewing previous theories of censuses, starting with state-centered perspectives on censuses and continuing with generally less-developed, society-centered ones. We conclude by summarizing the chapters in this volume.

CHAPTER 1

A State-Centered Perspective on Censuses

With the rise of the sociology of statistics, it is perhaps almost commonplace to view censuses as social constructions (Starr 1987:7; Thévenot 1990:1276). A naive—or bottom-up—positivism suggesting that censuses reflect immutable realities of populations is mostly discredited (Alonso and Starr 1987:1; Burke 1987:27; Desrosières 1998:324–325; Espeland and Stevens 1998:338–339; Kertzer and Arel 2002:2; Nobles 2000:1; Petersen 1969:868; Porter 1995:33–34). The census is not merely an objective tool for realizing the Enlightenment ideals of democratic representation (Sussman 2004:98). Instead, the census is shaped by political and cultural forces that surround it, that is, it is "socially constructed."

The most prevalent and sophisticated analyses of censuses are state-centered accounts that deploy "top-down" social constructivism (cf. Calhoun 1994:16–17; Gorski 2003:23) because they suggest that states are the primary social constructors of censuses (Desrosières 1998:324–327; Nobles 2000:3; Woolf 1984:89; review in Ventresca 1995:8). Censuses are subtle, but powerful, tools that states use to control, order, and dominate their subjects through knowledge (Appadurai 1996:117; Burke 2000:119–120; Lam 2011:55; Loveman 2005:1653; Schweber 2006:26; Scott 1998:2; cf. Hacking 1991:181). Censuses provide the social and economic information demanded by modern states (Nobles 2000:15; Starr 1987:15). State actors and bureaucracies shape census categories that embody state interests (Anderson [1983] 1991:168–170; Brubaker and Cooper 2000:15–16; Hirschman 1987:566–569; Loveman 2007b:20; Nobles 2000:xi; Starr 1987:53). Individuals are required to report information according to these state categories (Hacking 1990:2–3; Woolf 1984:89). Reporting forces individuals to adopt the states' categories of thought (Anderson [1983] 1991:164–170; Cohn 1987:230; Hacking 1990:2–3; Patriarca

1996:11; Star and Lampland 2009:8; Starr 1992:264–265). Once the state compiles and distributes the information, it shapes individuals' actions (Anderson [1983] 1991:164–170; Hacking 1990:2–3; Starr 1987:53; 1992:264–265). This reporting and distribution, along with the subsequent use of the census information for a variety of social and governmental purposes, reifies previously fluid social categories (Anderson [1983] 1991:165; Kertzer and Arel 2002:11; Nobles 2000:5). As Kertzer and Arel (2002:11) argued, by "pigeon-holing people into official governmental categories, the census gives a legitimacy to the categories and to this mode of thinking about people." Thus, censuses not only naturalize state-endorsed differences but also help constitute individuals, places, and objects (Hacking 1986:223, 236; Lam 2011:55; Loveman 2005:1655).

In sum, the state-centered perspective suggests that census categories begin with the state administrative structures and bureaucracies. State bureaucrats develop techniques to collect information through these categories, and individuals respond to these requests for information and report it in terms of the state's categories. Furthermore, once the information is collated and distributed widely, it shapes social institutions. Thus, the collection of information starts in the state at the macro level and works through its bureaucracies at the meso level and its bureaucrats at the micro level. Individual social actors (micro level) report information, which is used by social institutions (meso level) and affects society more generally (macro level). In short, states influence censuses, and through them, societies.

This state-centered approach, which views knowledge as power or domination, originally stemmed from Weber's work on bureaucracy, and then from Foucault's work on governmentality and Bourdieu's work on social reproduction. Both Foucault and Bourdieu, though in different ways, combined Weber's view of states with Marxist analyses of power. In their original formulations, all three authors included social influences on information gathering, and in fact, worked toward a dialectical perspective to consider how states and societies interact to produce information. However, these efforts were not entirely successful because these authors are usually interpreted in a way that emphasizes the role of the state. Thus, the state-centered approach draws on the works of Weber, Foucault, and Bourdieu but obfuscates the social influences found in the original texts. The state-centered approach has somewhat different intellectual foundations among these three authors, which we review below.

Weber's theory of bureaucratic information gathering implies an interaction between states and societies, and though we develop this

dialectical position in detail below, we note here that neo-Weberians often ignore the social influences on information gathering to focus on the state influences. For Weber, both capitalism and democracy depend on the use of information to address economic and political matters within bureaucracies. Weber (1978:220–226, 974) argued that there was an elective affinity between capitalism and bureaucracy based on legal rational authority (the right of administrators to lead a defined jurisdiction and hierarchy on the basis of written rules; Weber 1978:218–219). Both capitalism and bureaucracy use rational calculations and rules (Carruthers and Espeland 1991:32; Skocpol and Rueschemeyer 1996:6; Stapleford 2009:5–7; Starr 1987:21–23; Weber 1978:224). The relationship between capitalism and bureaucracy is bidirectional or dialectical (though Weber does not use this term). The development of capitalism required the development of bureaucracy—the organizational form that most successfully implements legal rational authority (Weber 1978:220, 224). The modern firm, based on rational capital accounting, is a typical bureaucracy. Without the calculability that bureaucratic rationality provides, economic action could not be oriented toward profit (Weber [1927] 1981:275). At the same time, capitalism provided the foundation for bureaucratic administration and the fiscal resources necessary for its operation (Weber 1978:224).

Weber (1978:983) identified a similar set of dynamics in the political sphere, because he argued that there was also an elective affinity between democracy and bureaucracy. Democratic states, based on legal rational authority, comprise bureaucratic administrations (Starr 1987:23; Weber 1978:983–985). Bureaucracies, including governments, have the power to collect and process information according to calculations and rules (Loveman 2005:1660; Saiani 2012:226; Schware 1981:46–49; Shaw and Miles 1979:34–35; Stapleford 2009:5–7; Weber 1978:223–224). Classificatory systems, as well as the ubiquitous work of assigning things, people, and their actions to categories within these systems, are crucial for bureaucratic states (Bowker and Star 1999:285).

Bureaucratic power, held in democratic and capitalist institutions in the state and society, respectively, therefore, is a form of domination through information and knowledge (Weber 1978:225). Bureaucrats gain knowledge through experience; therefore, they tend to increase their power at the same time they exercise it (Weber 1978:225). Weber (1978:225–226), however, also noted opposing tendencies that would limit bureaucratic power: first, capitalists held superior factual and technical knowledge; second, bureaucracies tended to

level status and were linked to mass democracy in society; and third, bureaucracies often encouraged the substantive well-being of those under their authority. Thus, for Weber, bureaucratic power had state and social roots that both increased and checked its influence.

These nuances, however, are usually ignored. Weber's argument is often read to suggest that state bureaucracies extend their power over individuals and society through the collection of information (e.g., Dandeker 1990:12–13; Loveman 2005:1657, 1660–1661, 1678; Rule 1973:13–14; Stapleford 2009:7, 384; review in Higgs 2004:16; cf. Bowker and Star 1999:322). The possibility of social influences on information gathering is rarely examined in any detail that might address the complexities in Weber's original argument. Consequently, in much of the neo-Weberian literature, the state is given the primary role as the social constructor of censuses.

Similarly, though Foucault also can be read dialectically, state influences on information gathering are usually highlighted. Foucault (1980:142; Crampton 2003:33; Hannah 2000:7) focused more directly than Weber on the argument that knowledge is power. Weber recognized the power of information and its link to domination, but he saw this as a natural outgrowth of the use of rational calculations and rules. In contrast, Foucault (1978:139–141; 1979:28; 1991:96, 98–99, 102; 2007:274–275; Hannah 2000:8; review in Higgs 2005:3–4) argued that information gathering is not a neutral way of describing what exists but a way to control the population through "biopower." However, because power and resistance are dialectically constituted, the exercise of power through information gathering necessarily creates resistance to it (Foucault 1978:95; Sauder and Espeland 2009:75). Thus, in theory, both states and societies should have some influence on information: states through its collection and societies through the resistance to this collection. Foucault was relatively ambiguous about whether state power was first necessary to establish information gathering or whether information-gathering activities could precede and thus create a strong state. However, his historical analysis suggests that the link between information gathering and governance was an outgrowth of monarchies, implying that some degree of state power preceded information gathering (Foucault 1991:96). Thus, his overall argument suggests that governance itself, as well as forms of governance, was related to state strength, so the argument has a state-centered emphasis in practice, even if not in principle (e.g., Foucault 1981:246; 1991:102–103; Gordon 1991:9). Similarly, though Foucault's (1978:94; Gorski 2003:23–25; Kerr 1999:175) theory suggests a top-down as well as a bottom-up analysis

of power, in practice, the bottom-up side is relatively neglected because he focused on the state. His argument about governmentality should, in fact, be a site of this bottom-up analysis, but he does not concretely explain how this might work (Gorski 2003:24). Most authors take up, and even intensify, his state-driven argument, arguing that states extend their already existing power through the collection of information (e.g., Kertzer and Arel 2002:6; Murdoch and Ward 1997:308; Saiani 2012:227; Scott 1990:69; Sussman 2004:98). Thus, the state is usually considered to be the most important social constructor of censuses, while societies are relegated to a relatively secondary role of protesting the state's actions (Hannah 2000:39–40, 115; Kertzer and Arel 2002:6–7).

Actor-network theory, though not necessarily derived directly from Foucault, has affinities to his work. Latour (1987:234–237) in particular noted that some "actants," such as maps or censuses, have a particular power to act at a distance because they make reality mobile, stable, and combinable. Thus, census bureaucrats are positioned at the center of this process of reducing huge amounts of information from individuals to a few summary tables. Latour (1987:234–235) recognized that the process of collecting, compiling, and processing information could be disputed at any point in the process (like Foucauldian resistance), but the census bureaucrats' central position gave them advantages because they could speak on behalf of the individuals represented by the census. Thus, like Foucault, Latour recognized the dialectic between power and resistance, but his analysis also privileged state, over social, power. Miller and Rose (1990:9; Rose et al. 2006:89) extended Latour's idea of action at a distance to analyze "governing at a distance." Working from a similar theoretical perspective in science studies, Carroll (2006:22–24, 112, 165, 168; 2009:590–591) argued that censuses were part of a larger project of transforming Ireland into a colonized state in the likeness of England. Though Carroll (2006:93) also recognized the slow and uneven march of the colonial state, his analysis too emphasized state, not social, power (cf. Murdoch and Ward 1997:310–313). Curtis (2001:29–33, 36–38), though mostly drawing on Foucault to analyze census taking as a state-centered activity linked to the formation of the Canadian state and its authority (as well as resistance to it), also noted the relevance of action and governance at a distance. Thus, most analyses of censuses following Foucault or science studies emphasize the power of the state.

Bourdieu (1977:83; 1984:170–172; 1991:165), like Foucault, was in many ways striving to create an explicitly dialectical theory that gave equal weight to the power of individuals' practices ("structuring") and

preexisting social formations ("structures"). He in fact criticized the Marxist tradition of "raising consciousness" as a form of social change because of the difficulty of altering a mental state without changing social structure (presumably, and somewhat paradoxically, these Marxists may also be motivated from a strongly, or even exclusively, structural model that ignored practice) (Bourdieu 2000:172). Thus, Bourdieu (2000:172) argued that these Marxists underestimated the "extraordinary inertia [that] results from the inscription of social structures in bodies" without a Bourdieuian theory to show how individuals' practices can—under some circumstances—be transformative. Thus, in principle, both states and societies, aggregates and individuals, should affect information gathering, according to Bourdieu.

Yet, when Bourdieu (1999:61; cf. 2000:175) turned specifically to this topic of "information capital" and, in particular, to surveys and censuses, he focused almost exclusively on the role and power of the state to impose information-collecting schemes on the population, to systematize the information gathered to its advantage, and then to order its subjects according to this systematization. Bourdieu (1999:61; 2012:60–61, 262) argued that the state is the primary producer of the principles of classification and that "through classification systems (especially according to sex and age)... the state molds *mental structures* [original emphasis] and imposes common principles of vision and division, forms of thinking." The state, then, produces the structures of consciousness that are in turn used to construct the social world (Bourdieu 2012:13). Because the state can impose and inculcate these principles, it is the primary site of the concentration and exercise of symbolic power (deployed through symbolic capital that social agents, endowed with categories of perception, recognize and value; Bourdieu 1999:62–63). In Bourdieu's theory of information, then, the state is the most important and powerful classifier, even though this position is in some tension with the rest of his work. In principle, society, and even individuals, could affect censuses, but this does not happen in—or through—practice.

Following Bourdieu, Brubaker and Cooper (2000:15–16) noted that states have the material and symbolic resources to impose classificatory schemes, such as censuses, on their subjects. A huge range of nonstate actors, including bureaucrats, judges, and teachers, must then work with these schemes (Brubaker and Cooper 2000:15–16; cf. Epstein 2007:278). Like Bourdieu, they noted that states do not completely control such classifications, but they limit the role of nonstate actors to the contestation or subversion of existing categories and to the replacement of these categories with new ones (Brubaker

and Cooper 2000:15–16). In one of the few sophisticated attempts to show empirically how a state-centered social construction might actually work in practice, Loveman (2007b:19–20) argued that census enumerators helped "whiten" the Puerto Rican population in the early twentieth century. These social elites responded to US imperialism by shifting individuals into the "white" category that the elites perceived as socially superior. They thus subtly resisted the US binary racial classification system that would have classified these individuals as black but also inadvertently reinforced racist ideas about white superiority (Loveman 2007b:36–38). Thus, the bureaucratic mechanism for conducting the census, even when it subverted the imperial state's intention, remained a powerful state tool. This Bourdieuian perspective again emphasizes the role of states in constructing information because they have the power and resources to impose their categories. While social actors are not powerless to subvert these categories, because they must simultaneously operate through them and resist them, their actions, however subtly, reinforce the state's categories. Societies are relegated to a secondary role.

Thus, though all the original authors, Weber, Foucault, and Bourdieu, consider the dialectical effect of states and societies on censuses, in practice, the traditions stemming from them focus on the effect of the state. Furthermore, all three traditions suggest a similar causal ordering: censuses originate in the state with its bureaucrats, individuals report information according to their specifications, and as a result, the state's categories become widespread throughout social institutions and society.

We agree that social construction occurs this way, but these state-centered perspectives are incomplete. In particular, these state-centered perspectives exaggerate the influence of states in five ways. First, state-centered perspectives exaggerate the correlation between state power and information gathering. Powerful states do not necessarily collect the most information, while weak states may be highly successful information gatherers (cf. Starr 1987:16). Second, they overstate the ability of the state to impose novel categories on the populace and to extract entirely new information, either in form or content. They therefore understate the degree to which information categories must draw on the lay categories that are an inherent part of societies and everyday common-sense knowledge. States are often weak actors that take advantage of societal information. Third, they overstate the role of state bureaucrats in developing and implementing censuses. The interests and inputs of social actors outside of the state, both elite and nonelite, are often central to creating and deploying

information-gathering techniques. Fourth, they ignore how the power of social actors influences information gathering. Powerful social actors outside of the state may prevent or enable information gathering. Finally, state-centered perspectives exaggerate the extent to which any states' intentions or goals drive information gathering. In particular, states are highly constrained not only by social forces that may prevent them from implementing their goals but also by past histories of information gathering. States cannot easily alter these historical information-gathering trajectories for their own purposes because of institutional inertia or power relations. Their information-gathering techniques necessarily draw heavily on those of the past.

As we specify below, these criticisms motivate our five-part empirical examination of information gathering. We illustrate our five points in two ways: comparatively and temporally. First, comparatively, the power of states and their ability to extract and shape information vary across political and geographical formations. Second, temporally, the purpose of collecting census information also varies historically, and with it, the ability of states to shape information. Again, we do not deny that states influence information gathering. Rather than assuming, however, that states inevitably play a decisive role in shaping information, we examine the variability of their influence comparatively and historically. Thus, we expand upon these state-driven perspectives to look specifically for what states do influence, and how and when they can collect information. To do so, we add a "view from below," to consider how societies influence information gathering (cf. Emigh 2002:654).

Some Social Influences on Censuses

Although there is no well-developed society-centered perspective that corresponds to the state-centered ones, we note three general ways that societies influence censuses. First, at a macro level, different social formations differentially support censuses (the "social formations" argument). For example, censuses are often linked to a transition to modernity, with its associated social formations of industrial capitalism and bureaucracy (Giddens 1981:218; Starr 1987:20; Ventresca 1995:14; review in Higgs 2004:11–13). This is not surprising, given Weber's argument that capitalism and legal rational authority have elective affinity. States depended on the development of markets to assess and collect taxes, which often entailed the gathering of some information about the population's assets and demographic characteristics (Ardant 1975:209; Tilly 1990:89; cf. O'Brien and Hunt 1999:79–80). The rise of mass numeracy also supported censuses

(Burke 1987:125; Cohen 1982:219). Individuals' knowledge of their ages was encouraged by the rise of age-graded schooling and pediatric medicine; in turn, widespread age consciousness created interest in detailed analyses of census age data (Chudacoff 1989:29, 65). These examples suggest that social changes preceded states' efforts to implement information gathering (cf. Espeland and Sauder 2007:4). States then simply took advantage of previously existing information when collecting their own. In addition, popular understandings of census categories influenced enumeration because they affected the information that people provided and the response rates (Cohen 1982:164; Iversen et al. 1999:122; UK House of Commons 1983b:81–82). Another variant of the social formations argument suggests that censuses reflect the ideology of the dominant social and political group (Lee 1993:80–81; Petersen 1969:868). States' abilities to collect information were thus conditioned by preexisting social formations.

Another social formations argument builds on Habermas to provide a counterpoint to Foucault's statist view of statistics (Crook and O'Hara 2011:4–6; cf. Porter 2011:45; Zaret 2000:9–10, 39). Habermas's (1989:27, 32, 42) work suggests a relation between statistics and the public sphere, which developed out of discussions between private citizens coming together publicly in coffee houses and salons and reading periodical literature, starting in the seventeenth century. These discussions extended into politics in the eighteenth century, as private property owners strived to influence public power according to their common interests (Habermas 1989:52, 56). This public sphere supported individual freedom and limited state power (Habermas 1989:56). In the nineteenth century, statistics, including ones based on the census, were public information that could be used to criticize the government (Crook and O'Hara 2011:9–11; Higgs 2011:70–75). The available forms of organizations, and in particular the existence of sophisticated bureaucratic structures in society, determined whether a census could be conducted (Porter 1995:35–37). Thus, the social formation of a public sphere created debate and discussion that in turn created knowledge and information through statistics.

Second, at the micro and meso levels, societies influence censuses because individuals and groups may actively resist censuses or use them for their own purposes ("social resistance" argument). Social resistance to censuses has frequently circumvented their planning, prevented their implementation, and influenced their accuracy (Bulmer 1986:474; Starr 1987:12–13). Perceptions of the purpose of information gathering (i.e., taxation and provision of public goods) influenced people's willingness to provide information (Bulmer

1986:474; Cohen 1982:35; Iversen et al. 1999:121; UK House of Commons 1983a:xi). Furthermore, once states establish census categories, social actors may use them for unintended or even subversive purposes (Appadurai 1996:116–117; Cohn 1987:230; Hacking 1982:280; Patriarca 1996:11–12). Organized social movements and popular mobilization may also develop out of resistance to census categories (Kertzer and Arel 2002:27–31; Nobles 2000:19–22). This second point, that social resistance shapes censuses, often stems from Foucault's point about the dialectic between power and resistance.

Third, information gathering can be conceptualized as a fundamentally interactive process between states and societies. In particular, censuses stem from this interactive process: if one party, either the state or society, acquires more knowledge, the other party generally acquires this additional knowledge in response (Emigh 2002:654). This interactive process has been conceptualized in different ways. Quantitative techniques, such as those used in censuses, are practical symbolic devices that document rationality and efficiency for those involved in the transaction as well as third parties and, once in place, alter understandings of the transactions themselves (Carruthers and Espeland 1991:36, 63; Poovey 1998:xii). The act of quantitative measurement itself elicits responses and intervention (Espeland and Sauder 2007:2; Sauder and Espeland 2009:64). For example, Goldscheider (2002:72) noted that there is a reciprocal influence between census categories and individuals' conceptions and uses of ethnicity. Similarly, Headrick (2000:61) noted that the interaction between public demand for information and the expansion of the government led to censuses (cf. Fourcade 2009:29–30, 239).

The form of social and state interaction may also vary over time. In the early modern period, a strong interaction between the state and society was necessary for the establishment of governing bureaucracies (Gorski 2003:164–168; Loveman 2005:1655, 1678). Once states accumulated enough power, however, they were able to maintain governance much more autonomously from society (Gorski 2003:170–172; Loveman 2005:1657–1659). Thus, Loveman (2005:1658) argued that the establishment of a census may require intense state-society interaction; once established, however, a census may operate mostly in the realm of the taken for granted, with protest restricted to the details of questions and methods, but with little debate or interaction over whether the census should be taken or not. There is perhaps a newer, third stage, where the contestation of the state's basic right to conduct previously legitimate activities, such as censuses, has begun to emerge (Loveman 2005:1658). Thus, from the early modern period to the

present, society's influence over the census may have declined (with a possible upturn in the present). However, in the second half of the twentieth century, there may have been a historical shift from a predominantly top-down determination of census categories to a highly politicized process that included bottom-up influences, including popular mobilization that mostly developed out of resistance to census categories (Bowker and Star 1999:223; Kertzer and Arel 2002:27–31; Nobles 2000:19–22). During this shorter period of time, the opposite temporal trend—the increase in society's influence—may have occurred. One possible reconciliation of these two trends suggests that Kertzer and Arel are pointing to protest that Loveman would consider to be directed against the details of categories and methods, not the state's fundamental rights to conduct censuses.

All three of these social influences on censuses are important, but we wish to go beyond these previous treatments. The social formations perspective gives society a generative, fundamental role, but this research is not comparative, so the effect of these social formations and the mechanisms and actors through which they work are underspecified. While social resistance to censuses is certainly important, focusing on resistance to already established censuses limits society's role to a mere response to the state. Understanding how the interaction between state and society shapes information gathering is crucial, but we wish to specify in greater detail the form and temporal trajectory of this interaction. We will argue that relative influence of states and societies is probably not linear but depends on the actual historical configuration of the states and societies, as well as on the type of population information being collected.

Chapter Summaries

In chapter 2, we propose an integrated micro-macro model that can explain both the state-centered and society-centered processes of information gathering. We outline the theoretical motivation and heuristic for this model, drawing on our "dialectical Weberian" view (Emigh 2009:4–5). We also outline our comparative and historical methodology and explain our case selection of the United Kingdom, Italy, and the United States. Census-like information was first collected for the purposes of extracting resources from a population, but gradually over time, information about a population became valued in and of itself and was collected largely independently of resource assessment. This first volume traces this prehistory of censuses, starting in about the year 1000 through the mid-nineteenth century in these three cases.

Because these micro-macro links are historically contingent, we need evidence to show how different temporal patterns of state and social interaction create different information-gathering outcomes. Thus, we derive five specific empirical implications from our general model that we examine with our evidence. First, we show that the state-driven argument is incomplete because strong states do not always produce more information than weak ones ("state strength" argument). We show this by comparing census outcomes in weak and strong states. Second, we show that lay categories and common sense are important bases of information gathering ("lay categories" argument). We usually do this by comparing social and cultural formations. Third, we show the influence of census intellectuals, and in particular how and when they convert lay categories to census ones ("census intellectuals" argument). We show this in several ways, by comparing the social position or influence of these census intellectuals, by showing that censuses based on novel categories proposed by census intellectuals that do not resonate with lay categories fail, or by showing when and where census intellectuals successfully translate lay categories into census ones. Fourth, we consider the political struggles of social actors over these categories, and in particular the power of state, nonstate elites, and nonelites to shape what information the state collects ("power" argument). We also illustrate this argument in several ways, by considering the economic, political, and cultural resources that these social actors can bring to bear on censuses or by showing how these actors facilitated or inhibited information gathering. Finally, we show how information gathering creates historical patterns that both constrain and enable social and state actors ("historical trajectories" argument). We do this by tracing out the temporal sequences of information gathering for our cases, highlighting how previous rounds of information gathering influence subsequent rounds. The remaining chapter summaries below are arranged in the order of these empirical implications (state strength, lay categories, census intellectuals, power, and historical trajectories).

Chapter 3 focuses on fiscal information gathering that produced census-like information in the premodern era, generally as a by-product of assessing taxes in England/Great Britain (the US colonial period is examined in chapter 6). In England/Great Britain, despite a strong state and an early medieval survey, very little census-like information was collected historically. Information gathering had a strong component of oral testimony, drawing on the English cultural tradition of declarations to juries. The state was never fully able to co-opt local, information-gathering elites for its own purposes, and powerful landlords blocked

systematic attempts to gather information. Thus, in Great Britain, the historical trajectory created little familiarity with collecting census-like information, and there were few historical precedents for censuses.

In contrast, on the Italian peninsula, which we examine in chapter 4, despite the endemic political fragmentation and conflict, there was extensive information gathering for fiscal purposes that often contained census-like information, drawing on a strong tradition of written documents. The social actors who collected information were drawn from the uniquely Italian strata of culturally powerful autonomous intellectuals. Landlords disliked taxation, but given the political importance of the city-state on the Italian peninsula, they were often urban inhabitants with rural holdings. They did not form a united rural block that could limit taxation as in England. Thus, historically, there were many precedents to censuses and a widespread familiarity with gathering such information.

Chapter 5 examines the first censuses in the United Kingdom (1801–1831). Even though the British state was the dominant world power at the time, its first census was late and relatively underdeveloped. The first few censuses were only headcounts, not nominal censuses (that give individuals' names). The first censuses emphasized social class, and in particular occupation, which was a widespread system of lay categorization, to address the contemporary debate about the composition of the population. Overseers of the poor, generally local notables who comprised local governments, conducted the first census. An attempt to conduct a census in 1753 had in fact been blocked by landed interests opposed to information gathering. Censuses were established only when the rising commercial and industrial classes became powerful and linked information gathering to their social power. British censuses developed slowly, at least in part, because there were few useful precedents for collecting population information. The census was weakly institutionalized, creating long-term and extensive reliance on local systems.

In the United States (1790–1840), which we examine in chapter 6, despite a very weak frontier state with little infrastructure, one of the first modern population census was conducted. The census was designed to solve the problem of linking taxation to political representation, a major issue for the new state (though it was never actually used to tax individuals; thus the United States is not discussed in chapter 3 that focuses on fiscal information gathering). Thus, the census was primarily concerned with establishing legal status. Nevertheless, given the important social role of race, juridical and racial categories quickly became conflated. The former colonial elites that governed the new nation were the primary force behind the census, but because it apportioned the vote,

it was of interest to a broad range of nonelites as well. In addition, the census was successful because it drew on a long history of fiscal, colonial information gathering by England/Great Britain (which was in fact more successful in the United States than in the home country because it was not resisted by landlords as in England/Great Britain). Thus, widespread familiarity with censuses facilitated their execution and the development of more sophisticated instruments over time.

Chapter 7 covers the Italian peninsula from about 1500 to 1814. From the early modern period until Italian unification in 1861, the Italian peninsula was home to a plethora of small regional or territorial states that were only nominally independent because they were subject to some larger European empire. Despite their inherent weaknesses, these states conducted many censuses, starting in the 1500s. These censuses developed out of business and ecclesiastical records, as well as the populace's familiarity with fiscal information gathering. Because of their social origin as church registries, Italian censuses focused on place (reflected in the precocious categories of place of birth, place of residence, and citizenship). Registries originally developed out of an alliance between parish priests and merchants, who needed to record family ties and parish membership for business purposes. State leaders drew on the ability of parish priests to collect records to develop the first censuses of these regional states. As in earlier periods of time, few social actors opposed information collection per se as it was common in everyday life. Italian censuses were thus well developed, drawing on strong historical precedents in fiscal information gathering and registration.

Chapter 8 concludes the first volume by showing how the first censuses were shaped by historical patterns of information gathering in our three cases. In England/Great Britain, despite a relatively strong and consolidated state, there was little information gathering because it was strongly opposed by powerful landlords. The first UK censuses were late and underdeveloped. In contrast, the relatively weak Italian regional states capitalized on a strong lay tradition of written documentation and fiscal information gathering to collect vast quantities of information, including censuses. In the United States, a new and fragile frontier state capitalized on a robust lay tradition of numeracy and colonial census taking to conduct an early census. Finally, we draw five general conclusions: information gathering depended on the interaction between states and societies, social actors often led information gathering, the degree of this social influence varied, this social influence was especially strong when states initially systematized their information-gathering efforts, and nonelites were crucial to these efforts.

CHAPTER 2

The Interactive Effects of States and Societies on Censuses

This chapter lays out our general model explaining how states and societies influence information gathering. We first develop a society-centered perspective, using micro-Weberian theories to understand how knowledge stems from social interaction at a micro level that is embedded within a macro context, Marxist theories to understand social actors' explicit creation of knowledge within social locations and institutions at the meso level, and macro-Weberian theories of bureaucracy to understand states' uses of information at the macro level. We then develop a fully interactive model that combines our society-centered model developed here with the state-centered one described in the previous chapter.

A Society-Centered Perspective on Censuses

Micro-Weberianism: The Dialectic of Social Interaction and Knowledge

To understand how scientific classification stems from individual-level interaction within particular social contexts, we draw inspiration from research spanning sociology and anthropology, as well as specialties such as phenomenology, ethnomethodology, ethnoscience, cognitive science, and science studies to motivate a social "view from below." We use phenomenology and ethnomethodology in particular to illustrate three points: (1) individual-level interaction is the basis for all lay and scientific knowledge, (2) scientific categorization is a second-order process that builds on lay categorization, and (3) all knowledge, lay or scientific, is embedded within a particular context or setting.

Phenomenologists and ethnomethodologists, drawing on Weber's microsociology, focus on the schema and methods, respectively,

that people use to categorize and order the social world that in turn provides the context that shapes an individual's action (Berger and Luckmann 1966:28–32; Garfinkel 1967:118, 134–137; Schutz 1962:7–26). The phenomenologist Schutz (1962:6–7), drawing on the Weberian conceptualization of social action, argued that the categorization of people and objects is a fundamental process underlying an individual's common-sense thinking at the micro level. All knowledge of the world involves categories or "constructs" in the form of typifications that are based on an individual's stock of knowledge (the accumulation of previous experiences) (Schutz 1962:7). These categories are part of a broader social stock of knowledge and are transmitted through language (Berger and Luckmann 1966:39). Categories guide individuals' interpretations of the world and social interaction. Social scientific concepts are always second-order concepts that draw on common-sense categories (Schutz 1962:6–7).

Ethnomethodologists, like phenomenologists, understand that scientific, or more generally, expert, knowledge depends on lay knowledge. Garfinkel (1967:20), the founder of ethnomethodology, argued that the creation and deployment of standard research categories (social science "coding") require detailed knowledge of the very organizations that the research was supposed to describe. While phenomenologists focus on categorizational schema (typifications), ethnomethodologists focus on the methods that individuals use to make sense of the world. For example, information gathering, like everyday life, draws on methods of "mundane reasoning," the assumption that objective reality is independent of observations or descriptions of it (Pollner 1987:ix–x; cf. phenomenologists' "reality of everyday life," Berger and Luckmann 1966:19–27). For example, individuals give definitive accounts of "what really happened" (Pollner 1987: xii). Such accounts are accessible only through individuals' testimonies, yet the secondary assessment of such testimonies is based on the premise that the world exists independently of them (Pollner 1987:26–27). Thus, experts create second-order knowledge based on lay knowledge (cf. Pollner 1987:26–27).

We apply this distinction between common sense and science to information gathering, noting, for example, that census categories are analogous to second-order concepts that draw on common-sense ones. Census officials must assume that reality exists independently of individuals' reports, yet they only have such reports to construct census information. At the same time, census officials are collecting information about the society of which they themselves are members; thus, they conceptualize reality using largely the same (though

not identical) categories as the individuals completing the forms (cf. Boltanski 1987:283; Lynch 1991:85; Martin and Lynch 2009:244–245, 263). Enumeration is reflexive: counting also entails defining membership (Martin and Lynch 2009:263). Censuses consequently become caught up in the political and epistemic conflicts that they are used to address (cf. Martin and Lynch 2009:245). Thus, at the very least, lay categories must be translatable into expert knowledge. Completely alien categories cannot be imposed by states; they would be unintelligible to social actors and census officials using mundane reason to provide, translate, and interpret such information.

From both the phenomenological and the ethnomethodological perspective, information is essentially and fundamentally tied to interpreted sequences of action and interaction (Garfinkel 2008:133; Rawls 2008:13; Schutz 1962:5). Information exists only in social situations that both constitute it and make it cooperatively apprehensible (Rawls 2008:13; cf. Smith 1990:66). From both the phenomenological and ethnomethodological perspective, "rationalized social and economic laws are subjective social phenomena that are *derived from* experience rather than objective natural phenomena that are *revealed through* experience [original emphasis]." (Dobbin 1994:122). Even abstract information systems and technologies—such as censuses—used by people who do not know each other must, in some way, be based on constitutive and mutually constructed practices and interpretations that make the information intelligible (Rawls 2008:30; cf. Lave 1988:20).

Though ethnomethodological and phenomenological perspectives emphasize social context, and sometimes even explicitly call for historical studies to dereify mundane reasoning, they are notably weak at this level of analysis (Pollner 1987:135). They often focus exclusively on the details of scientific work and language and miss the larger institutional and social context (Mukerji 1994:152–153). In contrast, science studies explore more thoroughly how national, institutional, organizational, or local context shapes technical knowledge and information (Bloor 1976:141; Collins 1985:1; Fourcade 2009:xiv–xv, 15; 2011:1724–1725; Lave 1988:20; MacKenzie 2011:1778; reviews in Epstein 2008:167–169 and Shapin 1995:300–302). Individuals, including technical experts, conduct interactions in specific and variable organizational settings, which in turn are embedded within larger social contexts (Heritage 1984:180; Zucker 1977:728). Organizational settings have different features that create differences in how individuals interpret and deploy features of the larger social setting (Heritage 1984:229–231; Zucker 1977:729–730). Experts

pick up and adopt elements of everyday common-sense reasoning (Burke 2000:14–15; Eglash 2004:vii–ix; Mulkay 1979:98; Mukerji 2006:719, 733; 2009:10–14). Even abstract quantitative reasoning can be part of everyday life and mundane communicative practices (Comaroff and Comaroff 2006:239; Lakoff and Nuñez 2000:5; Lave 1988:93; Porter 1995:22–24; Sacks 1988–1989:46; Saxe 2004:241–242; Sudnow 1967:36; review in Emigh 2002:659–661).

In sum, phenomenology and ethnomethodology suggest that knowledge and information are created by individual-level social interaction within some social context or setting. The scientific categories that underlie information and knowledge are always second-order constructs based on common-sense categories. We apply this perspective to information gathering. From the phenomenological and ethnomethodological perspectives, societies and individuals are powerful actors because their common-sense categories must be the basis of official ones. To participate in information gathering, individuals must have the knowledge that is being requested of them, and they must be able to interpret and respond to a request. Furthermore, they must be able to understand official information gathering as a social process of interaction embedded within a larger organizational and social context (e.g., a lawful request by a state agency for information) even if some aspects of the process have been abstracted away from the context (e.g., filling out a form in a household). Thus, even the relatively reified format of census information is based on individual-level social interaction in some social context.

These phenomenological and ethnomethodological perspectives have been both embraced and criticized by the sociology of science and knowledge more generally. The constructionist perspectives have been widely influential by providing an underlying theoretical motivation for the idea that scientific knowledge stems from ordinary human cognition and social interaction (reviews in Lynch 1988:77–79; Shapin 1995:295–296, 305). However, Lynch (1988:82–90) and Knorr-Cetina (1981:21) criticized Schutz and Garfinkel for making a sharp logical distinction between everyday reasoning and scientific reasoning that they argued never exists in practice. From their perspective, science has no privileged logic or methodology that is not found in everyday life. Nevertheless, Lynch (1988:72, 79) noted Schutz's widespread influence in science studies that draw on his idea that scientific activity includes elements of common-sense rationality. This application of Schutz's work fits closely with ours that uses him to motivate the idea that census categories build on common-sense ones. Finally, from the opposite theoretical perspective, Watts (2014:315) recently

reinvigorated the debate by insisting that sociological concepts should be based on their ability to predict outcomes, not common sense, thus suggesting a logical difference between scientific and lay categories.

In fact, our historical position side steps the debate about whether there is a logical difference between common-sense and census categories (either the radical phenomenological version that there is no logical difference between them or the positivist version that there is a sharp distinction between them). To illustrate why this debate is misplaced, we note a third position—the Bourdieuian one—in the debate about the relationship between lay and scientific categories: they are closely related but not identical. The Bourdieuian perspective distinguishes between "categories of practice" and "categories of analysis," mirroring the more general difference between "emic" and "etic" categories (Bourdieu 1991:220–221; Brubaker and Cooper 2000:4; Harris et al. 1993:453). Brubaker and Cooper (2000:4), following Bourdieu, argued that the terms, categories of practice and categories of analysis, are better than the terms, lay categories and scientific categories, because the latter ones mark a sharp distinction between the two. We argue, however, that the terminology is relatively unimportant because the question of whether there is a sharp distinction between the categories is more philosophical than terminological (cf. Knorr-Cetina 1981:21; Lynch 1988:82–90). Thus, we agree with Brubaker and Cooper (2000:4) that in addition to the differences between them, there is close and reciprocal relationship between the two categories. However, they propose another logical solution: academics should carefully distinguish in linguistic terms between practical and analytic categories (Brubaker and Cooper 2000:1, 5). We contend that their solution simply mirrors previous philosophical debates about logical differences between the categories and reiterates the suggestion that the two types of categories can be sharply distinguished (at least linguistically).

Though a logical distinction between lay and scientific categories or between common-sense and scientific knowledge might be important, we argue that it is crucial to understand the historical, empirical conditions under which they can—or cannot—be converted to each other, or where they do—or do not—influence each other. After all, some lay categories are institutionalized as scientific ones and some are not. Thus, whether lay and scientific categories differ substantively is an empirical issue that varies historically, not simply a logical distinction. Thus, more generally, we address the social and institutional historical conditions under which scientific statements come to be seen as true and universal (Poovey 1998:1; Power 2011:38).

Meso-Marxism: The Dialectic of Expert and Lay Knowledge

Though it may seem surprising, Gramsci takes up where these micro-Weberian perspectives end. Marxist political sociology does not give a detailed theoretical account of micro-level interaction as do phenomenology and ethnomethodology, but like these micro schools, it addresses the relationship between scientific and everyday knowledge. In particular, it shows how this relationship depends on social actors embedded within social and economic institutions in concrete historical settings and thus adds the historical dimension that the micro-Weberians generally miss. Thus, we use this Marxist perspective to motivate meso-level social processes of information gathering to show how social actors embedded within institutions create information categories. These social actors translate between lay and expert categories and influence where and when these categories are actually deployed by state actors as informational categories.

The variable relationship between lay and expert knowledge—often called everyday consciousness and social theory—constitutes a core problem of Western Marxism. Lukács (1971:155) drew on Hegel's notions of immediate (cf. lay categories) and mediated consciousness (cf. expert categories) to explain class consciousness as a self-awareness growing out of direct experience and simultaneously as a second-order scientific social construct. Modern capitalist production divorced these two levels of awareness, preventing class consciousness, but this outcome was not a transhistorical feature of social knowledge (Lukács 1971:52, 58, 62–63). Thus, the dialectical relationship between lay and expert knowledge was a matter for historical, not philosophical, analysis, because the historical context (i.e., capitalism) affected knowledge.

Gramsci provided more guidance for analyzing this relationship's historical variability, because he theorized how agents—intellectuals—translate between lay and expert categories. Gramsci mapped two types of intellectuals onto two historically variable configurations of the relationship between lay and expert knowledge. First, traditional intellectuals, who formed a separate caste, helped maintain a society with a sharp split between expert and lay knowledge (i.e., "lay ignorance") (Gramsci 1971:5–8, 418–419, 427–428). Second, organic intellectuals, linked to their respective classes, helped maintain a society in which lay knowledge and expert knowledge were mutually integrated, creating cultural hegemony characterized by a constant interchange and mutual translation of lay and expert categories (Gramsci 1971:5–8, 435–436). Although capitalism, with its

integration of knowledge and production, adumbrated this cultural configuration of interchange and translation, it was fully established only under socialism (Gramsci 1971:332–333). Thus, Gramsci linked intellectuals to precapitalism, capitalism, and socialism.

Intellectuals draw on lay categories or everyday forms of consciousness—that Gramsci (1971:333, 348–351) also called common sense or good sense—to elaborate worldviews and ideologies. Common sense has a dual nature: through activity, it unites individuals with each other in the practical transformation of their current reality; through language, it reflects an inherited tradition (Gramsci 1971:333). By noting this dual foundation of common sense, Gramsci reformulated Marxist theories of ideology and false consciousness with the idea of "contradictory consciousness" that stemmed from a difference between individuals' understanding of their current situation simultaneously through their own experience and some more general widespread social and cultural formulation. Intellectuals can then systematize and clarify this common sense as well as the contradictions that arise between practice and received knowledge (Gramsci 1971:9, 334–335). Thus, where and when lay categories get translated into scientific ones is historically contingent upon the practices of intellectuals within particular social and historical configurations (Gramsci 1971:5, 334–335).

At the same time, the political deployment of these categories and their influence over social structures is historically contingent (Gramsci 1971:12). Intellectuals can either sustain or transform these structures because they are attached to different economic and social bases; consequently, they have different interests, powers, and capacities and different relationships to the state and civil society in different historical settings (Gramsci 1971:5–7, 12; cf. Crehan 2002:136–137). Elite and nonelite social actors struggle politically over categories, as intellectuals' systematizations are, or are not, reincorporated into lay practices through political action (Gramsci 1971:9, 334–335).

We apply Gramsci's ideas in three specific ways. First, we argue that the basic technology for information gathering—like all practical activity—must be based on common sense. Second, we define "information intellectuals" or more specifically "census intellectuals" as the social actors who develop explicit ways of recording information based on common-sense knowledge. Like Gramsci, we intentionally specify information intellectuals as social—not state—actors in civil society. We can then consider how intellectuals and state actors interact to gather information. (We emphasize here to prevent confusion that we are not necessarily using "census intellectuals" in its usual

sense that marks academics who study censuses. And, of course, state actors may contribute substantively to the process of creating census categories and in this sense make intellectual contributions.) Third, the ability of information intellectuals to deploy their ideas depends on their social location and their level of power. They may preserve or transform common sense as well as political and social structures, and they may do so in different roles on behalf of different individuals or groups in the state or society. They may collect or systematize information to assist the state, or they may demand that the state undertakes certain information-gathering activities.

However, if intellectuals are to influence official information gathering, the state must somehow incorporate their activity into its own, because by definition, intellectuals are not state actors. Society-state interaction occurs through three mechanisms (Loveman 2005:1661). First, state actors can co-opt the existing practices of information intellectuals, thereby incorporating their practices into the state. Second, state actors can usurp the roles of intellectuals, by removing the actors and taking over their practices, thereby eliminating their independent influence. Third, state actors can imitate the administrative practices of intellectuals, which may or may not eliminate intellectuals' ability to conduct such practices alongside state actors (cf. Loveman 2005:1661). Finally, a fourth mechanism, innovation, allows state actors to create new information-gathering systems that bypass intellectuals altogether instead of interacting with them (cf. Loveman 2005:1661). From the state-centered perspective, censuses are typically viewed as innovations that are independent of nonstate actors (Loveman 2005:1662). However, as we will show, the most common mechanism of state-society interaction was co-optation, not innovation.

Intellectuals' translation of lay categories to information categories can be supported or resisted by other social actors. Nonstate elites (elites, by definition, are embedded within a distinct organizational apparatus and have the capacity to appropriate resources from nonelites; Lachmann 2000:9) influence where and when lay categories are translated and deployed as information categories (review in Higgs 2004:16, 20–21). Like information intellectuals, elites have different roles. They may prevent state actors from collecting information; they may force state actors to adopt some but not other lay categories; or their interests may simply coincide with those of state actors, adding subtle pressure for the adoption of particular lay categories. Nonelites also have a variety of roles, but by definition, they are not embedded within organizations that allow them to control significant resources,

so in contrast to elites, their direct influence is limited. Nonelites' power stems mostly from their role as repositories of common-sense knowledge. Consequently, one of their common influences is to resist information gathering, thereby undermining the efforts of state actors and intellectuals (e.g., Bulmer 1986:474; Starr 1987:12–13, cf. Loveman 2007a:8–9). Social movements are also powerful influences on censuses (Brubaker and Cooper 2000:16; Kertzer and Arel 2002:27–31; Nobles 2000:19–22). Ordinary people, often organized into networks, develop specific expertise and lobby on their own behalf (Eyal and Buchholz 2010:129). These elite and nonelite influences are well known; our contribution is to show how they fit into a more general state-society interactive model of information gathering and how they are not simply responses to state-centered information gathering but have a more independent and generative influence on censuses.

Macro-Weberianism: The Dialectic of State Bureaucracy and Democracy

So far, we used Gramsci to understand how social actors influence state actors without specifying theoretically how this influence may be possible. Here, we theorize this influence using macro-Weberian theories to explain how state actors implement social actors' requests for information-gathering activities and how the information in turn shapes bureaucracies and state structures. Following the critical theorists Habermas (1989:29) and Marcuse (1968:220–221; 1982:154), we read Weber's macro political sociology dialectically to show how state bureaucratic institutions and structures depend on democratic institutions in society. Thus, bureaucracy is a relation between state and society, not simply an organizational form. Contemporary American political sociologists shun dialectical readings of Weber and instead argue that bureaucratic organizations developed independently from representative institutions (e.g., Ertman 1997:10; Tilly 1990:3; cf. Goldstein 2014:501, 503–504). Instead, we argue that three mechanisms link bureaucracy and democracy: elections, interest groups, and accountability.

For Weber, bureaucrats have two distinguishing features that paradoxically both enable and undermine bureaucratic organizations. First, because bureaucracy depends on legal-rational legitimacy (the belief in the validity of enacted rules), bureaucrats obey their superior's commands because of their form, not their substance (Weber 1978:36, 220, 956, 958–959, 978–979). As a paradoxical consequence, bureaucratic domination is a contradiction in terms: the head

of a bureaucratic organization is never purely bureaucratic (Weber 1978:222). In fact, bureaucracy depends on democracy to infuse it with a purpose and make it function effectively.

Second, bureaucrats receive salaries; therefore, their offices are not sources of rent (Weber 1978:959, 966). Surprisingly, however, bureaucracies as organizations tend to reestablish rents. Bureaucrats strive to increase their economic security by establishing incomes corresponding to specific formalized educational credentials (Weber 1978:963, 966). Thus, where bureaucracies do not face nonbureaucratic forces, their officials tend to develop into a closed status group based on educational credentials (Weber 1978:959, 963, 966, 985). Thus, modern bureaucracies are constantly in danger of capsizing into a neotraditionalist rent-seeking caste. The main countervailing force is again democracy (Weber 1978:985).

Democracy breaks up the formation of status groups and therefore blocks the degeneration inherent in bureaucracy because it encourages the formation of powerful bureaucratically organized political parties (Weber 1978:984–985). When party leaders win elections, they remove existing bureaucratic officials and replace them with their own followers (e.g., as appointments to executive agencies, such as the census). Therefore, elections undermine the solidification of a status group and consequently help maintain legal-rational authority (Weber 1958:108–111; 1978:1398–1399). Thus, democratic elections maintain bureaucracies: first, they provide charismatic leaders for bureaucratic organizations that otherwise have a form but no substance, and second, they prevent bureaucracies from becoming closed status groups (Mommsen 1974:79; 1984:163–172, 241; Weber 1958:79, 113; 1978:1403; cf. Marcuse 1968:217).

Weber (1978:997) also emphasized that alliances among interest groups (usually composed of elites) and bureaucracies increase bureaucratic power. Interest groups provide the specialized knowledge that undergirds state bureaucrats' power (Weber 1978:994). States subject to the pressures of interest groups tend to have democratic structures and to be constituted by conflicting opinions and positions (Furner and Supple 1990:9). These states' ability to reflect upon and respond to contestation, based on the interpenetration of state and civil society, is a powerful stimulus to knowledge production (Furner and Supple 1990:10, 27). The idea of objective social knowledge, which is key to the functioning of legal rational domination and therefore bureaucracy, depends on a vibrant public debate that desubjectifies knowledge claims by holding them to procedural standards of validity. Democracy thus has an affinity with knowledge claims based on

technical expertise and methodological rigor rather than the social status of its producer, even though in the twentieth century, technical expertise has often degenerated into an ideology emphasizing the separation of social science from common sense (Porter 1995:76–78; 2011:38, 43–44). Thus, this division between, but also mutual dependence of, the private and public sphere is a feature of legal-rational domination found in bureaucracies (Weber 1978:998).

The mechanisms of elections and interest groups primarily entail the dialectic of democracy and bureaucracy between the state and society. They explain why state bureaucracies must be open to social pressures; indeed without them, bureaucracies would cease to exist. Thus, our reading of Weber fills out the Gramscian point of how, organizationally, social actors can influence state actors.

Weber (1978:1408, 1418–1419; Furner and Supple 1990:10, 27; Saiani 2012:236), however, also pointed to a dialectic within the state itself—a dialectic between its legislative bodies (parliaments) and bureaucracies because they are connected through the accountability that information gathering requires. For example, in England, a strong Parliament existed alongside a competent and honest bureaucracy with considerable public prestige (Weber 1978:1418–1419). The right of inquiry was a key dimension of parliamentary power. By compelling bureaucrats to testify, strong parliaments generated a public record that could then be reincorporated into public opinion and increase the prestige of the bureaucracy (Weber 1978:1418–1419). This interdependence between civil servants and politicians led to the oversight and education of both groups (Weber 1978:1420). Thus, functioning bureaucracies were linked to active parliaments that constantly requested information from them. In turn, as elected bodies, these parliaments were subject to democratic pressures through public opinion. Thus, public information stems from the openness of the bureaucracy to legislative scrutiny. Parliamentary debate supports legal-rational domination found in bureaucracies because law is an expression of both sovereignty and rationality only in democratic legislatures (Habermas 1970:91; 1975:97–102; 1979:199–200; 1989:81–82).

In contrast, where parliaments were insulated from bureaucracies, their quality deteriorated (Weber 1978:1408). Debates in such parliaments degenerated into political grandstanding uncontrolled by concrete information (Weber 1978:1420). The weakness of parliament in turn negatively affected the bureaucracy by insulating it from public opinion, preventing the public from understanding its role, and undermining its prestige (Weber 1978:1418–1419). In fact,

Gramsci (1971:227–228) argued that Italy illustrated Weber's point: the bureaucracy was separated from Parliament (and from the political parties as well), so political leaders were irresponsible and incompetent. In sum, Weber showed that open and accountable bureaucracies support democratic state structures (i.e., legislative bodies). He viewed bureaucracies and parliaments as mutually dependent.

Therefore, Weber's theory of the modern state is implicitly dialectical (though he was allergic to this term) (cf. Goldstein 2014:501, 503–504). The preservation of bureaucracy's legal-rational domination is linked to democratic institutions within society and the state. For Weber, the concept of bureaucracy indicated a certain configuration of state-society relationships, not simply an organizational object or institutional arrangement. The elimination of the extrabureaucratic sphere would undermine the bureaucracy's formal legal rationality and eliminate the state's bureaucratic structure. From our perspective then, information created by bureaucratic organizations can emerge only in the context of social information-gathering techniques driven by information intellectuals. In their absence, information-gathering bureaucracies cannot remain bureaucratic.

We can summarize our society-centered argument. It is based on inherently dialectical theories at three different levels (micro, meso, and macro): information is produced by interaction (Schutz) and transferred to the state by information intellectuals (Gramsci); furthermore, the very existence of state information gathering and the bureaucracies that support it, as well as their public and official character, depend on the existence of an actively organized nonstate sphere of information gathering by private interests (Weber). Thus, information-gathering bureaucracies are linked to democratic state structures (Weber). In chapter 1, we summarized the state-centered approach to information gathering: information gathering starts with states' administrative structures, its bureaucrats develop techniques to collect information, individuals report information according to their specifications, and as a result, the states' categories become widespread throughout social institutions and structures as the information is used and disseminated. Our society-centered perspective is analogous, but the directionality is reversed: information gathering originates in society and social institutions, social actors press for information activities to be conducted, state actors implement these requests, and the information collected changes the state and its institutions. In short, societies influence states through information gathering.

An Interactive Model of Information Gathering

Here, we present a general, integrated micro-macro model of the state-centered and society-centered perspectives of information gathering, as well as their interaction. (In fact, it can be adapted to other social phenomena.) Our model is a heuristic because it points to key relationships that research should evaluate; it does not specify substantive content about them, which must be provided by the empirical research (Lakatos 1970:132–133).

Our model specifies social domains and levels of aggregation. Domains are aspects of reality, such as society, economy, and nature (Sewell 1999:39). They are dialectically composed of ideal and material elements, as suggested by perspectives as diverse as political Marxism and actor-network theory. Levels denote the scale of reality. The macro level comprises structural, systemic properties; the meso level comprises specific organizations, groups, and institutions; and the micro level comprises individuals and their actions (cf. Ritzer [1983] 1996:493). In figure 2.1, we combine these three levels (from top to bottom of figure 2.1) with two domains of society and state (from left to right on figure 2.1). Thus, we create six combinations of domain levels (i.e., macro society, macro state, meso society, meso state, micro society, and micro state).

Our conceptualization expands established theories of micro-macro relations that are fruitfully used in science studies to analyze the relations between science, society, and the state (Carroll 2009:574;

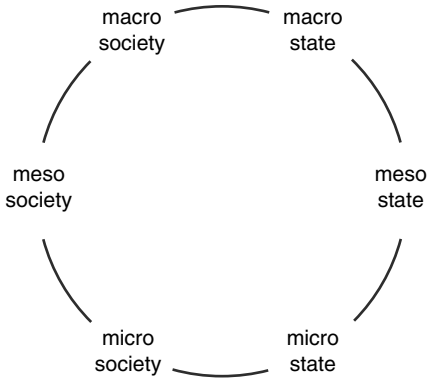

Figure 2.1 Levels of Aggregation and Domains

Derksen 2010:217). Our model collapses into a more conventional one if the meso level is merged into either the micro or macro level and the domains are combined into a single category that does not differentiate between state and social domains (cf. Carroll 2009:574; Coleman 1986:1322; Ritzer [1983] 1996:496). Examples of these collapsed versions include system/lifeworld (Habermas), doxa/practice (Bourdieu), hegemony/praxis (Gramsci; civil society is analogous to meso society), and taken for granted/interaction (Schutz, Berger and Luckmann). We separated the domain levels to understand better the relations among them.

Figure 2.1 shows a possible way to link these domain levels. (Alternatively, a blank space between the domain levels would leave their relationship unspecified.) We use solid lines ("–") to indicate a dialectical relation between the domain levels; that is, they are mutually constituted or provide the context for each other. Thus, for example, we connect the two domain levels at the top and bottom of figure 2.1 with a link between state and society at the macro and micro level (i.e., macro society is linked with a solid line to macro state ["macro society–macro state"] and micro society is linked with a solid line to micro state ["micro society–micro state"]). The links indicate that on a micro level, individuals from state and society interact with each other, taking account of, or in the context of, each other's action. On the macro level, there is again a dialectical connection between the structural properties of society and state. (Alternatively, this could be conceptualized as Weberian elective affinity or simply as depicting two different domains of the same macro, structural system.) The other links between domain levels are analogous: for example, the link between the micro society and meso society indicates that individuals act within social organizations that are simultaneously based on individuals' interactions. Because the entire diagram is linked circularly, the higher levels of aggregation at the top of figure 2.1 provide the context for the lower levels at the bottom and vice versa. Thus, in both domains of state and society, these levels work together to produce reality: individuals act within organizations and institutions that in turn operate within a larger structural context. For example, in society, individuals interact with each other at a micro level in everyday settings, as well as at meso-level organizations of work and leisure. These activities take place within given macro social structures that include established collective practices, received sets of knowledge, and language. These structures establish the parameters of options for organizations' actions and, in turn, for individuals' actions. At the same time, individual actions create and recreate meso and macro levels. Similarly, in the state domain, at the micro

level, individuals act within political organizations (meso level) within established political systems (macro level) that set similar boundaries for implicit and explicit political action of these organizations and individuals. We emphasize the flexibility of this model, which specifies no subdomains of actors or organizations and illustrates no empirical mechanisms through which domain levels interact. Other researchers could use the model without adopting our substantive argument (i.e., by specifying a different, nondialectical relationship between domain levels, by using different paired domains such as economy/culture or work/leisure, or by including more links).

We can further modify the diagram by adding possible actors, organizations, and subdomains within domain levels in figure 2.2. (Again, other researchers could add different possibilities.) Though we have been using the terms society and state as a shorthand, neither is a single, unitary entity or actor, nor are they historically invariant (Carroll 2009:560; Kertzer and Arel 2002:6; Manza and McCarthy 2011:171). To fully specify empirically the actors, organizations, and subdomains in figure 2.2, we would be specifying substantive content about our model, thus departing from a heuristic. Because the

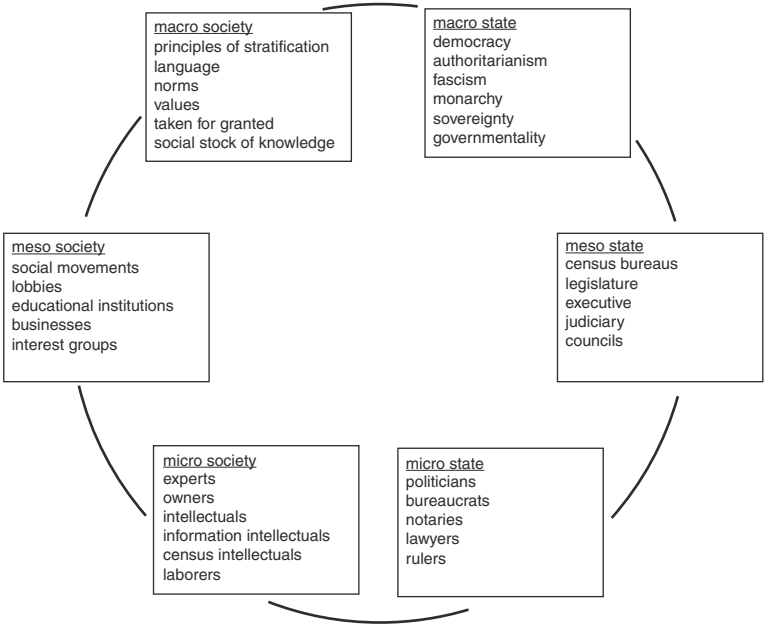

Figure 2.2 Possible Types of Actors, Organizations, and Subdomains

composition of states and societies is variable, we specify the actual actors, organizations and institutions, and subdomains that comprise them in our empirical chapters.

We deploy another alteration in figure 2.3 by adding a directional marker to one end of the solid lines between domain levels to represent clockwise flows (cf. Castells 1996:411–412; Eglash 2004:viii; Wagner-Pacifici 2010:1367). The entire arrow, then, is composed of the link that specifies the dialectical relation between the domain levels as well as the directional marker that indicates the flow. (Figure 2.3 removes the details within the domain levels from figure 2.2 for simplicity, but they still underlie figure 2.3.) Flows represent sequences of exchange and interaction between positions held by actors within institutions and structures (Castells 1996:411–412).

We can attach specific mechanisms to these flows either globally or individually. For example, figure 2.3 attaches two global mechanisms, "state power" (power is the ability to attain goals through the mastery of the social or natural environment [Mann 1986:6]) and "classification" (the processes of state actors' marking and dividing on the basis of social attributes) to all the flows, indicating that state power and classification flow clockwise between domain levels. Adding a mechanism is a common feature of sociological theorizing. For example, Marx (1922:26–28) conceptualized capitalists and proletarians as

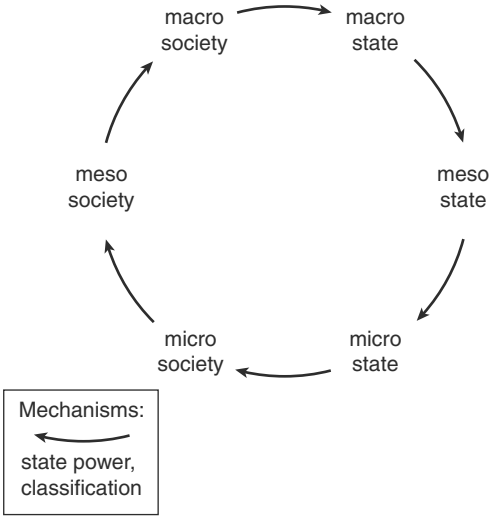

Figure 2.3 State-Centered Perspective on Information Gathering

dialectical opposites; class conflict is the mechanism that drives their relationship. Power is well specified as a circulatory flow instead of a static entity because it is realized only through and in action (Wagner-Pacifici 2010:1367). Similarly, classification is a circulatory process, not a fixed entity (Ahmed et al. 2007:233–234). Because the domain levels are linked by circular flows, in principle, we can read the diagram starting from any domain level, but for convenience, we start with the macro state. Thus, the direction of the arrows in figure 2.3 suggests that state power and classification flow from state structures (macro state), through state bureaucracies (meso state), state bureaucrats (micro state), and then through social actors (micro society) and institutions (meso society) to shape social structures (macro society). Social structures (macro society) reflect state power and classification, and thus, in turn, reinforce state structures (macro state). To prevent confusion, we emphasize that our arrows depict flows, not (Kantian) causal arrows. For example, we are not saying that macro structures or meso institutions cause individual-level behavior. Instead, we note that individuals act—create and recreate reality—through categories that are implied by meso and macro levels.

This particular reading of figure 2.3 seems abstract, but it describes well the state-centered perspective on information gathering. Of course, previous state-centered theories do not use our model, so we cannot use the authors' own direct statements to place them in our model. Nevertheless, taken together, our model captures well the overall thrust of the state-centered perspective on censuses (chapter 1). To understand the clockwise flow of state power and classification, we begin with the domain level "macro state" in figure 2.3. A state system can be conceptualized as a powerful macro influence that controls the means of violence and governance. We then move clockwise to the domain level "meso state." At the meso level, specific bureaucracies implement state policies and procedures, such as censuses that embody the state's classification schemes that flow from the macro level. Continuing to move clockwise, the next domain level, "micro state," denotes how bureaucrats within state offices (such as census agencies) then develop censuses and their forms, while other state bureaucrats collect information through them. Drawing on the overall power of the state, the individuals within these agencies deploy the state's classification schemes through censuses. At the micro social level, individuals report information on these census forms. The act of collecting information through these classification schemes changes individual's action and consciousness at the micro social level. Micro-level actors within social organizations at the meso level pick up and

use these classificatory schemes in their own organizations. At the macro social level, the use of this information by groups alters society, changing overall structural social patterns. These social patterns, informed by the classificatory practices of the state, reinforce state power as they become part of taken-for-granted knowledge. Thus, figure 2.3 depicts how state power and classification flow clockwise from the macro state level, through meso-level state organizations and micro state actors, to social actors and organizations, and then alter the macro social level to reinforce state's power and classification schemes. Thus, figure 2.3 captures well the state-centered perspective on information gathering.

Our model also summarizes well the social formations perspective (chapter 1), which generally suggests that a macro social pattern sets the foundations for states to conduct censuses, though it rarely specifies the mechanisms through which this influence works. Our model outlines this pattern: we can trace the clockwise flows starting with "macro society" (or "meso society") instead of "macro state." Starting in a different location changes nothing fundamental about how state power and classification flow from state to society; the social formations perspective simply suggests that social conditions provide the backdrop for states' deployment of census.

The social resistance perspective (chapter 1) adds mechanisms to the ones already in the model, because it suggests that social organizations develop to protest censuses and that these organizations affect how census bureaus collect information. Figure 2.4 denotes this perspective as a feedback loop, by adding counterclockwise dashed arrows and by indicating a mechanism of "resistance" between the domain levels of meso society and micro society and between micro society and micro state and a mechanism of "altered classification" between micro state and meso state. We chose the term "altered classification" to emphasize that classification is still essentially driven by, and understood in terms of, the state's classification schemes. Social organizations respond to the state's imposition of classification by demanding an altered one.

Many more possibilities could be represented in figure 2.4, by adding flows and mechanisms. For example, from this perspective, the establishment of a census through innovation would add a second counterclockwise feedback mechanism between "micro state" and "meso state," denoting that state actors created a census bureaucracy, based on their position of power within the state. Thus, in sum, the model is a flexible tool to analyze a range of possibilities that underlie the state-centered perspective. Though we argue that the

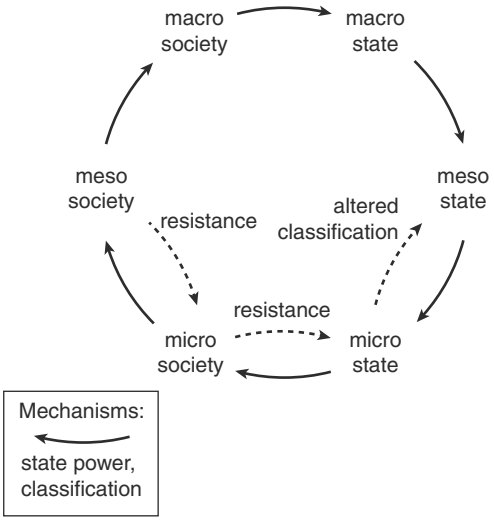

Figure 2.4 State-Centered Perspective on Information Gathering with Social-Feedback Mechanisms

state-centered perspective is incomplete, it explains well many dynamics of information gathering.

There is another way to understand the model—an alternative way to conceptualize information gathering—by switching the direction of the flows and conceptualizing the global mechanisms as social power and categorization. Figure 2.5 illustrates this possibility. Social power and categorization are mechanisms that are analogous to state power and classification, but they are located in social instead of state processes. Social power can be conceptualized as broad but diffuse social practices in comparison to state power that is based on explicit commands, and it can be top-down (driven by elites) or bottom-up (driven by nonelites) (Gorski 2003:23; Loveman 2005:1678; Mann 1986:8; Piven 2008:5; Sewell 1992:22–23; Tilly 1999:331, 334, 344–345). Similarly, categorization is analogous to classification. Categorization is the processes of social actors' marking and dividing on the basis of social attributes. We intentionally use categorization instead of classification to denote insider (in contrast to outsider) processes of marking and dividing (Ahmed et al. 2007:231–233).

We can read figure 2.5 analogously to figure 2.3 if we start at the macro level: power stems from macro structural patterns and flows through meso-level organizations and micro-level actors. However, figure 2.5 locates the source of this power on the left of the model

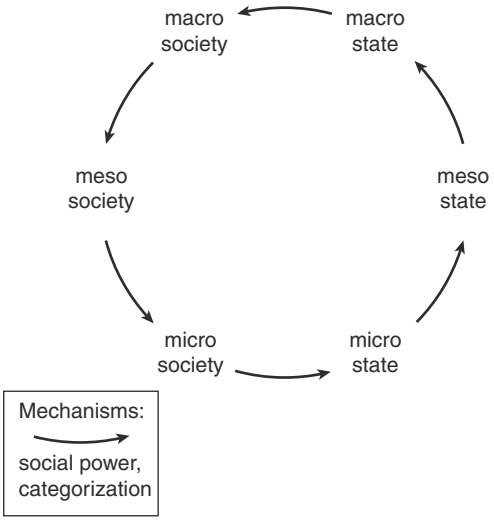

Figure 2.5 Society-Centered Perspective on Information Gathering

instead of the right, because the mechanisms of social power and categorization flow in the counterclockwise direction. Thus, again starting with the macro-social domain level for convenience, figure 2.5 suggests that macro social forces drive information gathering by establishing taken-for-granted categories that are pervasive and omnipresent, and therefore, powerful. These categories are deployed through social organizations at the meso level. They are shaped, altered, recreated, and transformed by individual interaction at the micro level by both social and state actors (including information intellectuals, state bureaucrats, elites, and nonelites). These categories are then taken up and deployed by state bureaucracies (e.g., census agencies) at the meso level. The incorporation of these categories in state agencies shapes macro state patterns, which in turn influences macro social patterns and reinforces social categories. In figure 2.5, social power and categorization drive information gathering in all the domain levels. Thus, just as figure 2.3 summarizes well the state-centered perspective and its underlying motivation in Weber, Foucault, and Bourdieu, figure 2.5 summarizes well the society-centered perspective and its underlying motivation in Schutz, Weber, and Gramsci.

Actually, however, we do not wish to replace figure 2.3 with figure 2.5, as classification driven by state power obviously coexists with categorization driven by social power. Thus, figure 2.6 represents a fully

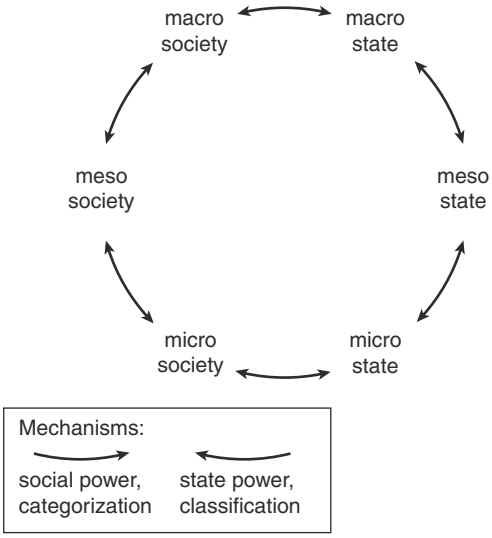

Figure 2.6 Interactive Model of Information Gathering

interactive model that combines state-centered and society-centered processes of information gathering. We denote this combination in the model by rearranging the flows from unidirectional to bidirectional. This model is now fully dialectical; the domain levels, the flows, and the mechanisms are mutually constituted. We can then investigate separately particular flows in either or both directions, or we can investigate the entire circular flow in either or both directions. The combination of both patterns is our complete micro-macro model of how states and societies interact to produce information.

Figure 2.2 still underlies figure 2.6. Information intellectuals, other social actors, and state actors located in the domain levels of micro society and micro state in figure 2.2 are embedded within the clockwise and counterclockwise flows in figure 2.6. The actions, capacities, power, and common-sense knowledge of social and state actors are conditioned by the domain levels of macro society, meso society, macro state, and meso state, as indicated by the bidirectional flows in figure 2.6. Thus, the actual deployment of information gathering depends on the relative balance of power among information intellectuals, other social actors, and state actors.

Figure 2.6 could be easily expanded. For simplicity, we removed the feedback loops depicted in figure 2.4. These feedback mechanisms—or others discovered in future research—could be added to

figure 2.6. We emphasize one crucial difference in how figure 2.4 and figure 2.5 analyze the effects of social movements on information gathering. In figure 2.4, social movements work through resistance to state-centered information gathering as a feedback mechanism, so their role fundamentally depends on the state. In contrast, in figure 2.5, they work through social power that is independent from state power, so their influence is generative.

Finally, figure 2.6 is not a temporal diagram, because it does not specify the historical sequences of flows. For example, figure 2.6 does not specify whether state or social actors develop information categories first. Although the heuristic could be adapted to show these temporal sequences, here we take a different approach below by examining the temporal ordering of the collection of information historically, because it varies among our empirical cases.

More generally, we strive to understand how the influence of states, societies, and their interaction on information gathering varies by historical context. That is, our ambition is not only to explain the specific links among the domain levels in a given context but also to account for temporal shifts in the importance of the domain levels. This historicizing ambition derives from the general stance embodied in our model. We hold that ontologically, reality forms an interconnected whole ("totality" or social context) within which particular relations play out; this reality can (indeed, must) be bracketed for specific investigations, but it must subsequently be reincorporated into the inquiry. Such a perspective demands the recontextualization of strictly causal relations within a social reality, allowing the investigator to historicize the causal argument, that is, to specify the conditions under which these relations operate (Jameson 2010:206–207; Korsch 1970:68–70; Labriola 1903:145–150; Lukács 1971:144–145). Our approach goes beyond previous approaches, even ones that do consider some combination of state and social forces, because it proposes that the connections among the domain levels are dialectical—meaning that each term of the relationship is internally related to the other terms (Ollman 1971:28). In this way we contribute to Loveman's (2005:1678) call for the development of a comparative historical analysis of types of state-society interaction.

We call this approach to information gathering "dialectical Weberianism," as it combines Weberian micro-level theories of individual social action, Marxist theories of power, and Weberian macro-level theories of the state to show how information gathering depends on the mutual constitution of ideal and material factors at three different levels (micro, meso, and macro) (Emigh 2009:4–5; cf. "analytic

Weberianism"; Kiser and Baer 2005:225–226). It uses substantive Weberian theories of social elements (e.g., interests [Emigh 2009:58–59] or here, social action and bureaucracy) but frames these elements dialectically to locate them in the historical conditions that shape them. Though this dialectic strategy is more commonly associated with a Marxist perspective, our use of the dialectic, based in particular social and historical configurations, sets the sometimes static and descriptive Weberian theory based on ideal types in historical motion.

Empirical Implications

We cannot hope to address every possible flow or mechanism depicted or implied by figure 2.6, especially across our three historical cases. Fortunately, this is unnecessary, as we can derive empirical implications from figure 2.6. We can specify how evidence can support or contradict these implications, and then we can provide the evidence to do so. (Alternatively, other researchers, using these or different cases, can provide different evidence that may support or contradict these implications, or they can derive different empirical implications from figure 2.6.) To do so, however, we have to depart from using the model in a purely heuristic way, by specifying which flows we examine and by explaining how we will use evidence to examine them.

We derive five implications that are summarized in table 2.1. The first column of table 2.1 provides a convenient shorthand label for our empirical implications. The second column suggests how the implication is derived from figure 2.6 (or figure 2.2 that underlies figure 2.6). The third column provides the content of the implication, while the fourth column anticipates how our historical evidence supports or discredits this implication. The fifth column indicates what type of evidence—comparative (at relatively fixed points in time) or genealogical (across these points in time)—will be used (we will discuss this in more detail in the methodological sections to follow). Here, we discuss our five implications that are each summarized in a row of table 2.1; our discussion below of the specific implications follows the order of the rows.

The first four implications address relatively specific aspects of the flows, and the mechanisms attached to them, between specific domain levels. These four implications are addressed primarily with comparative evidence at fixed points in time. The first one addresses the state-centered perspective, while the next three address the society-centered perspective. The fifth implication addresses the fully interactive model that considers both the state-centered and the

Table 2.1 The State-Centered, Society-Centered, and Interactive Models of Information Gathering

Empirical implication(s) of:	*How the empirical implication is derived from figures 2.2 and 2.6*	*Content of the empirical implication*	*Summary of the evidence*	*Type of evidence*
State-centered perspective				
1. State strength	clockwise flow, mechanism of state power (figure 2.6)	the state-centered perspective implies that state power drives information gathering; thus, powerful states should collect the most information	strong states did not collect the most information	comparative
Society-centered perspective				
2. Lay categories	counterclockwise flow, mechanism of categorization, from macro to meso to micro society (figure 2.6)	the society-centered perspective implies that categorization, based on structural patterns in macro society, drives information gathering	successful information gathering was based on common sense, lay categories	comparative
3. Information intellectuals	the identification of census or information intellectuals in micro society and their organizations in meso society (figure 2.2)	the society-centered perspective implies that census or information intellectuals are crucial actors who translate lay categories to scientific ones to create information	census or information intellectuals developed techniques and categories to translate lay knowledge to scientific knowledge	comparative
4. Power	counterclockwise flow between micro society and micro state, mechanism of power (figures 2.2, 2.6)	the society-centered perspective implies that the power of social actors shapes where translated categories are deployed as census categories	the power of social actors, elites, census and information intellectuals, and nonelites influenced where information was gathered	comparative
Interactive perspective				
5. Historical trajectory	bidirectional flows between all domain levels (figure 2.6)	the interactive perspective implies that classification based on state power and categorization based on social power interact to shape information gathering	historical trajectories—past rounds of information gathering—constrained and enabled present ones; information was gathered where there was intense interaction between states and societies	genealogical

society-centered perspectives. This fifth implication addresses the overall dynamics of information gathering historically with genealogical evidence and thus explicates the contexts in which those relationships between the domain levels, examined in the first four implications, hold.

These implications then, can evaluate empirically the state-centered perspective, the society-centered perspective, and the fully interactive model. However, as we noted already, we are primarily interested in showing that the state-centered perspective is incomplete (not incorrect); thus, the first empirical implication captures this theory's most important dimension. Providing empirical evidence against this implication will therefore only suggest how the theory is incomplete. Because the society-centered perspective has been less developed than the state-centered one, we provide three more specific empirical implications that outline the social processes of information gathering. (For completeness, we note that these three implications could easily be derived for the state-centered perspective: the labels in column 1 of table 2.1 would be state categories, state bureaucrats, and power [of state actors].) Finally, the fifth implication, derived from the fully interactive model, is like the first implication to the extent that it summarizes the model (and not like the society-centered implications that address specific details). This summary is appropriate, because the state-centered and society-centered perspectives separately suggest how the process of information gathering is driven by states and societies, so this fifth implication only needs to capture the overall effects of the interaction between them.

For shorthand, we call the first empirical implication the "state strength" argument (note: we define state strength in the methodology section below). As indicated by the clockwise arrows of the mechanism "state power" in figure 2.6, the basic premise of the state-centered perspective is that state power is the most important influence on classificatory practices that underlie information gathering. Thus, the state-centered perspective implies that powerful states collect the most information. If the overall state-centered perspective is correct, strong states should collect more information than weak ones; when the strength of different states converges, information gathering should also converge. Thus, empirically, we can compare state strengths and the amount of information gathering. The examination of our empirical cases, however, will show that strong states did not necessarily collect the most information. Furthermore, we show that when state strength converged, important differences in information gathering remained. It is important to note that the

derivation of this empirical implication captures the overall thrust of the state-centered perspective, and the evidence only shows that this perspective is incomplete, not that all aspects of it are invalid. The mechanisms of state power depicted in figure 2.6 may still be important between certain domain levels or in particular historical cases.

Again, for shorthand, we call the second empirical implication the "lay categories" argument. The society-centered perspective suggests that categorization is the central mechanism driving information gathering (counterclockwise flows in figure 2.6). In particular, the society-centered perspective implies that categorization originates from social actors' common sense given by structural social patterns in macro society and instantiated in institutions and organizations in meso society. Empirically, our cases will show that successful information gathering was always based on lay categories that originated in society. We deploy several strategies to show this. We show how lay social categories temporally preceded information gathering, or we compare social and cultural formations that supported different types of information gathering. Finally, evidence for the society-centered perspective shows that states' imposition of categories failed to produce useable information. Thus, empirically, our cases will show that social categorization was crucial for information gathering.

We call our third implication the "information intellectuals" or "census intellectuals" argument. The society-centered perspective designates information or census intellectuals in the domain levels of micro society and implicates them in macro social patterns and meso social institutions (figure 2.2). Thus, the society-centered perspective implies that information or census intellectuals should be prominent social actors who have the capacity to translate lay categories into scientific ones to create information. Thus, empirically, we look at whether information or census intellectuals exist or not, and we try to locate them socially within their meso-level social organizations and institutions and macro-level social structures. We do this in several ways—sometimes by comparing the social position or influence of these intellectuals, sometimes by showing when intellectuals successfully translate lay categories into scientific ones, or sometimes by showing that information gathering based on novel categories, proposed by intellectuals, that do not resonate with lay categories fails. Empirically, our cases will show the crucial role that intellectuals played in information gathering by converting lay categories to scientific ones. Thus, again, we will show the importance of social influences on information gathering.

We call the fourth implication the "power" argument. From the society-centered perspective, categorization flows from micro society

to micro state, through the actions of information or census intellectuals as well as other social elites and nonelites (in the micro-society domain level; figure 2.2). Thus, empirical implication four suggests that these social actors have enough power vis-à-vis state bureaucrats to force the bureaucrats to adopt their translated categories as the basis for information gathering. While the argument about census intellectuals focuses on whether social actors exist who can translate lay categories to information categories, the power argument focuses on whether these social actors have enough power to implement these translated categories in information gathering. Again, we can empirically examine the relative balance of power of these actors to determine whether social actors have this capacity. We also consider how meso-level organizations and institutions and macro-level structures influence the relative balance of power of these actors in both state and society. Thus, we consider the political struggles of social and state actors over these categories, and in particular the relative power of nonstate elites, nonelites, and state bureaucrats and politicians to shape information gathering. We illustrate this argument in several ways—sometimes by considering the economic, political, and cultural resources that actors can bring to bear on the execution of censuses and sometimes by showing how these actors facilitated or inhibited information gathering. Empirically, our cases will show how the power of social actors was highly influential in shaping where and when information was collected. This investigation will illustrate the importance of the society-centered perspective as represented in figure 2.6.

Our empirical investigation of our second, third, and fourth empirical implications will illustrate three important social influences on censuses: the influence of lay categories, the influence of census or information intellectuals, and the power of social actors vis-à-vis state actors. Taken together, they will illustrate the counterclockwise flows of social power and categorization in figure 2.6, as we will show with our empirical cases how information categories derived from lay categories by census intellectuals or information intellectuals were then taken up by state actors and incorporated into the practices of the state. Thus, while the first empirical implication illustrates the clockwise flow in figure 2.6, the second, third, and fourth ones illustrate the counterclockwise flow in figure 2.6.

We call the fifth implication the "historical trajectories" argument. The main point of figure 2.6 is not to replace the state-centered perspective with the society-centered one but to show that the interaction between states and societies determines where and when information is collected. Thus, figure 2.6 suggests that the mechanisms of

classification and categorization and state power and social power work together to create information gathering. Though we cannot illustrate every detail in figure 2.6 in its entirety, we can illustrate empirically how states and societies interact, and in particular, we can show how information gathering creates historical patterns that both constrain and enable states and societies. We examine this argument empirically by tracing out the temporal sequences of information gathering for our cases through our historical narrative, highlighting how information gathering at any particular point in time is influenced by the rounds of information gathering that preceded it. Because most of the previous research on information gathering focuses on the state-centered perspective, we will review this research for our cases in particular time periods to show how, overall, the clockwise flows in figure 2.6 work. In general, this perspective suggests how states may have enough power to create categories and to gather information, how individuals then respond to these categories, and how they become widespread in social practices. This overall pattern corresponds to the clockwise flow in figure 2.6, starting on the upper right micro-state domain level. For the society-centered perspective, as we noted above, the examination of arguments 2, 3, and 4 illustrates the counterclockwise flow in figure 2.6. By examining these two patterns together, we can show empirically that strong and persistent interaction between states and societies spurs information gathering. Thus, we will investigate the dialectical flow in figure 2.6, illustrating how states and societies interact to produce information historically.

A Genealogy of Censuses

We still need to specify our topic, outline our methodology, refine our definition of our outcome (i.e., information gathering), and justify our case selection. These are interrelated issues. We indicated already that our topic is the census, but we further delimit it to the population census. We focus, therefore, on information about people that is gathered periodically and attempts to count all people in a given area (cf. Starr 1987:11).

We use Nietzsche's method of genealogy, made famous by Foucault (1979:23), to examine our historical trajectories argument (the other four points are illustrated with the comparative method, discussed below). This method is a strategy for revealing taken-for-granted practices by underlining their historical novelty. It involves stepping backward in time to find a striking difference between a past and present practice (Poster 1984:89). Then, the practice is traced

forward through history to explain the current one historically. This method is particularly useful for identifying key transitions among different social configurations or regimes of power and knowledge (Dreyfus and Rabinow 1983:104–125). As a convenient example, we begin in the (almost) present with ourselves. In April 2010, the three of us filled out the US census forms for our households, consisting of standardized printed forms that we were legally obliged to return to the US Census Bureau. A huge public awareness campaign surrounded the census, urging us to complete and return our forms in a timely way. The thrust of these ads appealed to interest group politics, suggesting that different ethnic and racial groups could gain better access to resources and representation by filling out their census forms (e.g., Watanabe 2009:A3). In fact, groups explicitly asked their constituents to fill out—or not to fill out—the census to increase their political influence (e.g., Abdulrahim 2009:A6; Ludden 2009).

Finding a striking difference to past practice is always a judgment call, but for hundreds of years at least, censuses looked reasonably similar, at least in the sense that households provided information to states in a relatively standard format. However, in 1086, in England, the Domesday Book looked strikingly different from contemporary censuses. The unit of analysis was not a household, but land, and people were recorded only in relation to their feudal rights to the land as tenants or laborers. Taking this as our striking difference, we then trace information gathering forward in time to explain the form and content of contemporary censuses in terms of the interaction between states and societies. Because our historical methodology traces the emergence of population censuses, we must begin before modern censuses existed. Thus, we begin with periodic attempts to count people that were not strictly censuses, because they may have missed some people, were not conducted at any regular periodic interval, or did not clearly distinguish people from objects. Indeed, these early counting efforts did not conceptualize populations as possible objects of knowledge. This methodology provides a unique window into the historical and temporal processes that produce contemporary censuses that we would miss if we started later in time with the first modern population censuses.

As it turns out, the method of genealogy will allow us to refine our outcome, which we have up to here discussed only in general terms as information gathering or population censuses. We argue that there are roughly three primary purposes for collecting information: these three purposes will be the specific outcomes we examine historically. The first purpose is extraction, which entails collecting fiscal information

to glean resources from the populace. The second is description, which entails collecting information to describe populations. The third is intervention, which entails collecting information to alter these populations. The social science literature uses these categories (e.g., Starr 1987:15–17), but we are the first to define and use them consistently, as well as to explain how they link together historically. Information gathering about populations generally shifted from extraction, to description, to intervention. However, the order, timing, and continuity of these shifts varied historically, so we try to explain both the overall general shift from extraction to description to intervention, as well as the historical contingency of the particular shifts in our cases.

Many of the earliest, relatively comprehensive attempts to count the population, including some of the first censuses, were related to extracting resources, generally for taxation, but sometimes for military service (Starr 1987:15–16; e.g., Buck 1982:32–33; Higgs 2005:3; Wright 1900:12). Tax documents often recorded information about individuals, either because characteristics of individuals qualified them for taxation (e.g., head or poll taxes based on age or sex) or because individuals were linked to property that was subject to taxation. Because we focus on censuses, not taxation or the military, we do not offer a comprehensive history of either of the latter topics. Instead, we focus on the population information that was collected as a byproduct of taxation. Although it is rarely discussed explicitly, extractive information gathering is generally presumed to be driven by the state—in fact, it seems virtually definitional because the state collects information explicitly for the purposes of extracting resources for itself. As we will show, however, society has a strong influence on extractive information gathering.

Though fiscal demands created the earliest sources of information, we add two caveats. First, information gathering for taxation was usually not as comprehensive as later population censuses, in most cases, by design. Details of people, land, wealth, and goods were usually recorded only if they were directly relevant to taxation (cf. Kertzer and Arel 2002:7; Starr 1987:11). Those without resources were often omitted from information-gathering efforts. People were not treated differently from objects: they were viewed as possible revenue sources. Second, the differences in the comprehensiveness of fiscal information and the extent to which it established historical precedents varied temporally and geographically. We discuss these differences with respect to our empirical cases.

The other two forms of information gathering, descriptive and interventionist, apply more directly to modern censuses. We draw on

the Foucauldian perspective to conceptualize the shift from descriptive to interventionist censuses, even though we critique how this perspective emphasizes the state-centered perspective. In particular, the Foucauldian perspective, drawing on the idea that knowledge is power, notes historical changes in states that spurred information gathering, in turn creating possibilities for detailed quantitative analyses of populations. Foucault (1991:96–102) argued that starting in the late sixteenth century and consolidating in the eighteenth century, there was a fundamental shift between states' exercise of rule through "sovereignty," characterized by states' absolute power over subjects through law and rules, and through "governmentality," characterized by states' justifications of actions because they served the governed (Curtis 2002:509, 522; Gordon 1991:8–9; cf. Katznelson 2003:136). Sovereignty was linked to mercantilism (the economic theory that promoted government regulation to increase a state's power vis-à-vis other states, often through monetary policies based on gold and silver), political arithmetic (the use of numbers to increase the power and effectiveness of the state), and the concept of "populousness," the idea that units of government contained smaller or greater numbers of individuals distributed across different classes (Curtis 2002:508; Dillon 2005:40; Gordon 1991:11; Scott 1995:202). Knowing the distribution of subjects was necessary, for example, for waging war, colonization, and providing for such subjects; mercantilist theory furthermore suggested that a large population was intrinsically advantageous as it was a sign of state power (Curtis 2002:507, 508; Dillon 2005:40; Higgs 2005:3–4). Populousness sustained analyses that linked the relative size of these classes to policy initiatives (Curtis 2002:509). However, there was little sense that the governed themselves were changeable, so social intervention was not central to this form of governance or information gathering. We call this type of information gathering descriptive.

In contrast, governmentality was linked to the concept of population, the idea of practical equivalences between units of governance so that they could be combined into aggregate analyses to identify regularities (such as birth, death, and marriage rates) (Curtis 2002:506, 508–509; Foucault 1991:99–101; Murdoch and Ward 1997:308–310; Rose et al. 2006:86–87; Scott 1995:202). Thus, the population was a unit—groups of citizens instead of subjects—that could be altered through human reflection and social intervention (Buck 1982:29; Curtis 2002:506, 509; Foucault 1991:99; 2007:105–106; Higgs 2004:20; Sánchez-Matamoros et al. 2005:184; Singer and Weir 2008:59). The state justified its governance in terms of how it defined

the welfare, needs, wants, and interests of this population, so statistics became important rhetorical sources that supported these definitions (Carroll 2009:561; Foucault 1991:99–100; Rose et al. 2006:87; review in Higgs 2004:20). We call these censuses interventionist.

Neither Foucault nor his followers discuss the specifics of the timing of the shift to governmentality, other than to suggest that it was firmly established by the eighteenth century (or nineteenth century; see Hacking 1991:183; Higgs 2004:20). Therefore, we cannot use this work to identify particular censuses as descriptive or interventionist. Furthermore, Foucault's work does not specify that descriptive and interventionist censuses were state driven (though it implies that this was true). For example, Kertzer and Arel (2002:6; Urla 1993:819), drawing on Foucault, argued that during the nineteenth century, social statistics developed as a central technology to modernize the state, to pinpoint social problems, and to solve them. States imposed counting and categorizing on the population, which extended central control (Kertzer and Arel 2002:6–7). Thus, their argument suggests that interventionist information developed in the nineteenth century and was state driven. They perhaps suggested that the shift to interventionist censuses occurred somewhat later than Foucault did, but again, we cannot use their work to specify which censuses were interventionist. Similarly, another interventionist goal of censuses was the creation of a modern nation, starting in the late eighteenth or early nineteenth century (Patriarca 1996:1; review in Higgs 2004:20). Censuses could suppress local and ethnic identities, create unitary national identities, and level differences (Anderson [1983] 1991:163–164; review in Higgs 2004:20). Statistics established common administrative units, standard measures, and a common language to eliminate differences among recently unified territories and to stabilize state systems (review in Higgs 2004:20). This perspective also suggests that interventionist censuses, again starting around the nineteenth century, were state driven, because states intentionally collected information to create national unity (Patriarca 1996:1). Giddens (1985:179–180), though not explicitly following Foucault, argued that states began to collect official information starting in the mid-eighteenth century to maintain order and to reduce rebellion, vagabondage, and crime. Thus, Giddens also argued that interventionist information gathering was state driven but perhaps dates the shift to interventionist censuses between Foucault and these other authors. Because previous authors do not specify the timing of the shift to interventionist censuses, our analytic task, with respect to our cases, will be to specify which censuses are descriptive and which

are interventionist. Furthermore, we make the novel argument that highly interventionist censuses are not state driven but emerge only when there is a strong interaction between the society and the state.

In staking out our position that both draws upon but also criticizes Foucault, we clarify one definitional issue. The term surveillance is now commonly used to denote any act of information gathering, but we do not wish to use it this broadly. Instead, following Higgs (2004:11), we define information gathering as "bringing together of sets of meanings that refer to people," and surveillance as "watching identifiable individuals to ensure that they do something, or more frequently, that they do not do something."

A Comparison of Censuses

To this method of genealogy, we add a comparative method. In addition to tracing the historical trajectory of contemporary censuses, we examine our other empirical implications comparatively: state strength, lay categories, census intellectuals, and power. Thus, we require some differences in states, societies, and the outcome, forms of information gathering about the population (i.e., censuses as they appear historically). Of course, over time, the characteristics of our three cases change, so we cannot always use an identical comparison. Furthermore, we do not strictly follow Mill's ([1881] 1950:214–216) method of difference; we make no claim that we identify a single difference among the cases that then causes the different outcomes. Nevertheless, we take advantage of the power of differences among the cases to analyze the role of states and societies (cf. Emigh 2009:15–16; Riley and Emigh 2002:170–171).

Roughly, during the crucial time period when censuses arose and were institutionalized, and thus, when state strength should have mattered the most, we compare a strong state with relatively little information gathering to two weak states with extensive information gathering. We define state strength in terms of the development of centralized authority. Strong states do not face alternative power centers such as arms-bearing aristocracies, transregional (or later, transnational) churches or empires, or highly autonomous regional political institutions (Lachmann 2010:2; Mann 1986:26–27; Tilly 1990:1). Though the conventional way to define state strength is using autonomy and capacity (Evans 1995:41; Migdal 2001:60; Skocpol 1985:9), this definition does not allow us to understand the relationship between state strength and censuses, as the existence of a census would be part of the definition of the state's capacity and thus

would automatically indicate a strong state (e.g., Centeno 2002:110). Though this approach works well in a variety of contexts, it does not help us to evaluate the state-centered perspective vis-à-vis censuses.

Throughout much of history, England and then Great Britain (the political unit between 1707 and 1801) were relatively strong, consolidated states (Brenner 2002:255; Brewer 1989:xvii–xx; Ertman 1997:30–31; Lachmann 2000:99; Ormrod 1999:19), but they collected relatively little population information. Feudal social formations were strong in medieval England and left imprints on its society for centuries, even after the development of capitalism. This feudal legacy inhibited information gathering and the growth of social institutions to support it. The first census of the United Kingdom (the political unit since 1801) was relatively late (taken in 1801) and collected relatively little information.

In contrast, the United States, at least until the second half of the twentieth century, was a relatively weak state but gathered extensive information, including an early (1790) and relatively well-developed census. The US state grew out of a federal system, and individual states had strong powers of governance. Furthermore, the United States was a shifting territorial unit until the mid-1950s. Though US society grew out of European immigration, feudal traditions were virtually eliminated in this settler colony, and radically more participatory and egalitarian forms of politics and society developed. The way that the census was institutionalized encouraged widespread interest and participation in it.

Italy was also a relatively weak state: it was unified as a nation-state only in 1871, and strong regional differences remained well into the twentieth century. However, a well-developed Italian national census was conducted in 1861, before the official founding of the Italian state. The temporal precursors to the nation-state on the Italian peninsula, city-states and regional states, also collected extensive written information. Though they developed into relatively consolidated regional and territorial states, they were always subject to transregional and transnational threats from imperial and clerical power and thus were weaker than England/Great Britain. Feudalism was never strong in most of Italy (especially in northern Italy where information gathering was well developed), but regionalism was, and Italy did not develop the more egalitarian structures of the United States. In Italy, the census developed mostly as a symbolic representation of national unity.

These historical trajectories led to different outcomes in the twentieth century when all three states clearly had sufficient strength to conduct a strongly interventionist census: in the United States, the

census was highly politicized with many state and social influences and was used practically for many interventionist purposes. In Italy, on the other hand, the census was institutionalized as a partially autonomous agency, insulated from broad political and social pressure. Thus, though a highly developed and autonomous scientific census emerged there, it was not politicized nor used socially in nonsymbolic ways. It remained weakly interventionist. The United Kingdom had an intermediate outcome: the census became politicized later than in the United States but was more controversial than in Italy. In Great Britain/the United Kingdom, however, the census was never as widely accepted as in the United States, nor as autonomously institutionalized as in Italy. It was more interventionist than in Italy but less so than in the United States.

Thus, the cases are the ideal ones to show our argument. The differences in state strength did not explain the different census outcomes in the premodern and modern period, nor did the convergence of state strengths in the postmodern period explain those different census outcomes. Extensive information gathering was highly developed not in the strong state of England/Great Britain but in the weak ones of the United States and Italy. However, the most socially relevant census developed in the United States, where the census was institutionalized in a way that ensured social influence over it. Thus, our cases not only vary along the dimensions of state strength, social formations, and information gathering, thereby providing useful empirical variation, they also suggest that the prevailing state-centered theories are insufficient to explain these trajectories of information gathering. These cases are anomalies from the perspective of state-centered theories, and thus, they may be fruitfully used to develop an expanded, alternative theory (cf. Emigh 1997:658). Obviously, the characteristics of these states and censuses varied historically in ways we cannot easily summarize here, so we specify them in more detail in the empirical chapters.

These cases have other advantages. The Italian and the British cases have extremely long histories of information gathering, starting with the hallmark surveys, Domesday Book in 1086 in England and the *Catasto* of 1427 in the Italian region of Tuscany. Both were the most advanced in Europe at their time. After the Domesday Book, however, relatively little information was collected in England for centuries; in contrast, a long Italian tradition of information gathering followed the *Catasto.* Furthermore, extensive colonial information gathering in the United States had roots in England but developed in a different direction after independence. These long historical trajectories make

these cases ideal for combining the method of genealogy with the method of comparison.

However, here we add several caveats, starting with the obvious one that we focus only on European cases or their outgrowths in the United States (and our discussion of Great Britain/the United Kingdom are "England-centric"). We also could be accused of choosing the wrong European cases. Perhaps the most surprising case-not-selected is France, prototypically taken as a strong absolutist state, in comparison to liberal Great Britain (Woolf 1989:603). However, it lacks the other advantages of Great Britain, and more importantly, it would lead to a similar substantive conclusion that strong states do not necessarily collect the most information. For example, though statistical information was important in Napoleonic France, Napoleon was unable to collect the information he desired and closed the Statistical Bureau in 1811 (Porter 1995:36). His strong state was unable to conduct a census, and in fact, Napoleonic information gathering was most successful not in France but on the Italian peninsula (chapter 7). Thus, we leave this undoubtedly interesting, but substantively similar, case of France to other scholars.

We thus delimited our topic, our methods, and our cases, but we still have an unmanageable swath of history. We cannot hope to discover and examine new archival evidence to support our points (though we advocated for it elsewhere) (Emigh 2009:10). In addition, it is notoriously difficult to provide archival evidence about nonelite, nonstate social actors—a "view from below"—in the past. Our combined method of genealogy and comparison, however, allows us to go beyond the influence of the state and social elites on information gathering, which will always be better documented, to discover the other social influences on information gathering, which will be more poorly documented. Thus, we create historical narratives from published, primary and secondary sources to trace the historical trajectories and the similarities and differences among the cases.

This combination of genealogy and comparison has another methodological advantage. The temporal ordering of information gathering in real time, as sometimes revealed by primary evidence, often reinforces the state-driven perspective. That is, in real time, state actors develop plans to gather information, they then request this information from social actors, who comply or do not comply, with such requests. State actors then use this information. It is precisely this sequence that is most frequently captured in written documents. It then appears—and not unjustly so—that the state drives information gathering. However, focusing on this real time sequence as

documented in writing misses the social conditions that first allowed state actors to create such plans and the actions of nonstate actors that allowed them to be implemented. As these social influences may not be documented directly or explicitly in writing, they can only be surmised by comparing cases with different social formations over time, as we will do.

We hope that our overall argument is convincing. However, even so, with such a broad expanse of history, we inevitably will make some mistakes about the historical trajectories or about the details of the interaction between states and societies. In fact, we hope that such mistakes lead others toward further research. Furthermore, we understand that we have not explained all the ways in which societies and states interact to influence information gathering; other scholars will certainly find different pieces of the micro to macro process that we have ignored. Again, we hope, in fact, that we are wrong in this way.

In sum, we argue that the process of information gathering is dialectical, and we propose an interactive integrated micro-macro model of states and societies' influence over information. We outlined five empirical implications based on our model (figure 2.6 and table 2.1), to examine this interactive process of information gathering comparatively and historically. We turn now to the evaluation of the evidence for our three cases.

PART II

Fiscal Information Gathering

Resource estimation and extraction were the goals of the earliest systematic, detailed, and comprehensive information gathering about people, their wealth and goods, and land. We start with two examples of this fiscal information gathering: the English Domesday Book of 1086 and the Tuscan *Catasto* of 1427. We trace the outgrowths of these instances forward in time until the 1800s, about when national censuses were first conducted. On the Italian peninsula, we focus on Tuscany and Lombardy (and in particular the famous eighteenth-century Lombard *Censimento*), which were leaders in fiscal information gathering. As we will show, information about people was collected along with other types of information in the Domesday Book and the *Catasto*, but population information was gradually separated out and presented in different documents in later centuries. Although both the Domesday Book and the *Catasto* of 1427 were precocious and extensive one-time efforts at fiscal information gathering, the *Catasto* of 1427 led to subsequent information gathering, but the Domesday Book did not. Thus, this part explains this divergent outcome: extensive and repeated fiscal information gathering on the Italian peninsula that created precedents for censuses, in contrast to little fiscal information gathering in England/Great Britain.

The Influence of States and Societies on Fiscal Information Gathering

Fiscal information gathering can easily be interpreted from the state-centered perspective. A major impetus for it was geopolitical: war and its associated goals of territorial defense or expansion were expensive, and taxation was necessary to finance them (Braddick 1994:5; Braun 1975:268–269, 310–313; Brewer 1989:xx–xxi; Carruthers 1996:8–9; Higgs 2004:44–46; Lachmann 2010:68–69; Ormrod 1999:19–20, 32–33; Schumpeter 1991:105–108; Starr 1987:15–16; Tilly

1990:84–87). Until the nineteenth century, most taxes were spent on war and foreign affairs (Cipolla 1991:98; Higgs 2004:44). States' administrative needs outside of warfare were also linked to taxation, and where taxation was already allocated to such administrative needs, warfare exacerbated revenue needs (Goody 1986:63–64; Lachmann 2010:68–69; MacGregor 2010:93). To increase tax revenues, states developed new information-gathering techniques and administrative apparatuses to assess and collect taxes more efficiently (Braddick 1994:5; Kiser and Linton 2001:432–433; Starr 1987:15–16; Tilly 1990:20). In turn, information gathering encouraged the populace to learn new knowledge, to think using the states' categories, and to create records, thereby shaping thoughts and actions (e.g., Herlihy and Klapisch-Zuber 1985:164, 181). Sometimes raising revenues was more a political, rather than an administrative, problem (Lachmann 2010:69). The Domesday Book and the Italian *Catasto* of 1427 illustrate the long history of the technical capacity to assess property and collect the resultant information (Lachmann 2010:69). These fiscal information-gathering efforts, as well as the Lombard *Censimento*, are often taken as state-building exercises, frequently triggered specifically by war expenses (e.g., Capra 1999:435; Herlihy and Klapisch-Zuber 1985:4–6; Klang 1977:5–6; Roffe 2000:234). Where rulers failed to get such information, it was often because their subjects resisted its collection or because rulers had neither the personnel nor the political leverage to demand it (Lachmann 2010:69).

To the extent that war was a major impetus for information gathering, it was state driven. But this "bellicist" position has limitations because it ignores other social and cultural forces (Gorski 2003:39–41, 164–168; Wilson 2011:1439–1443). In particular, because we emphasize the interactive process between states and societies in shaping information, we counterbalance this state-driven position by showing how state strength did not necessarily correlate with the extent of information gathering and by making three arguments (lay categories, information intellectuals, power; chapter 2) about how societies shaped the information that states could collect. Finally, we show how these state and social influences interacted to create long historical trajectories of information gathering.

Strong states did not necessarily collect the most information. Although England/Great Britain was the strongest, most consolidated European state during the preindustrial period, state-driven information gathering was relatively underdeveloped. In contrast, on the politically decentralized Italian peninsula, information gathering was highly developed.

Social influences were important in three ways. First, states drew on on systems of lay categorization that made information gathering possible and that shaped its format. In England, a strong Anglo-Saxon tradition of oral testimony and a feudal system based on rights developed into a tax system based on assessment by local notables. This system created a tax bureaucracy with well-developed records about payment and debts but little demographic information. In contrast, on the Italian peninsula, a strong, early tradition of literacy, numeracy, and private property and ownership created a system based on written declarations submitted by the populace that later developed into assessment by technical experts. The Italians created much more written information about the populace than the English/British. Second, English/British, Tuscan, and Lombard states drew on the knowledge of different information intellectuals—jurists and local notables, notaries, and surveyors, respectively. In England/Great Britain, most information intellectuals were local residents—not central authorities—with extensive local knowledge and power. On the Italian peninsula, information intellectuals were the heirs and carriers of the unique Italian tradition of "autonomous intellectuals," a stratum of learned men who were relatively independent from other social groups. Third, the distribution of political power shaped what information could be collected. In England/Great Britain, powerful landowners strenuously opposed the collection of written information for taxation that might undermine their authority and control. They held power in the English Parliament, which had to approve the Crown's tax requests. Thus, even the strong, consolidated state could not systematize the large stock of privately held information over the landlords' objections. On the Italian peninsula, landlords were also powerful political players, but they did not form a united opposition to the collection of written information for taxation. In fact, some landlords supported reforms that increased the amount of written information to redistribute the tax burden more equitably. Thus, the interests of some landlords either coincided, or at least did not conflict, with interests of states, and these states, despite their weaknesses, collected extensive information.

Finally, different fiscal information-gathering patterns created different long-term historical trajectories in England and on the Italian peninsula. There was little interaction between state and social actors over information gathering in England. Thus, English fiscal information gathering created far fewer precedents for censuses than Italian fiscal information gathering. During the medieval period, in both locations, information about people, their wealth and goods, and land tended to be gathered together; toward the end of the early

modern period, this information tended to be collected separately. In England, this separation created a paucity of fiscal information about land and people but a wealth of information about goods. In contrast, in Italy, this separation spurred fiscal information gathering that produced extensive information about land and people in different types of documents. State and social actors frequently interacted through the use of written information. Thus, overall, much more fiscal information about people was collected on the Italian peninsula than in England. Table P2.1 summarizes these arguments.

Table P2.1 Fiscal Information Gathering

	England/Great Britain	*The Italian peninsula*
Summary of the evidence for the empirical implication(s) of:		
State-centered perspective		
1. State strength	strong, consolidated	weak, fragmented
Society-centered perspective		
2. Lay categories	rights, mostly orally recorded	possession/ownership, mostly recorded in writing
3. Information intellectuals	juries, local notables	notaries, surveyors and engineers, autonomous intellectuals
4. Power	landlords block information gathering	landlords do not object to written information gathering in principle, and they sometimes support it as a way to reform taxation
Interactive perspective		
5. Historical trajectory	little interaction between states and societies; few precedents for the census	strong interaction between states and societies; many precedents for census
Outcome:		
	little information recorded; information gathering is extractive and descriptive	much information recorded; information gathering is extractive and descriptive

CHAPTER 3

Fiscal Information Gathering in England/Great Britain

England was one of the strongest, most consolidated states in medieval Europe (Anderson 1974:113–115; Brenner 1985:254–257; Brewer 1989:3–7; Ormrod 1999:19). It undertook some of the earliest and most comprehensive European information-gathering efforts. Nevertheless, this strong state's activities did not create permanent, systematic information gathering. Furthermore, these efforts were highly dependent on local institutions, not central authorities, and landowners' powers strongly constrained the state. Information gathering in premodern England was linked to raising revenues to wage war, but its form varied. In the medieval period, information gathering was tied to establishing rights to property or persons that would determine revenue flows. As feudalism and its attendant rights dissolved, information gathering shifted to people and their land, and then to commodities, largely because of landlords' resistance to sharing written information.

The Early Medieval Period: The Domain State

By the eleventh century, England was one of the most cohesive political units in feudal Europe (Anderson 1974:113; Ormrod 1999:19). In the preceding centuries, the Saxon kings had consolidated regional power over their Celtic and Scandinavian subjects, and they became kings of the English and rulers of Great Britain (Blair 1956:81, 104; Yorke 1995:92, 94–96). After the invasion of William the Conqueror in 1066, the Normans retained much of the Anglo-Saxon government but merged it with the military, political, and fiscal powers associated with continental feudalism to centralize the government (Hallam

1986:16; Ormrod 1999:19). For example, Henry I (1100–1135) and Henry II (1154–1189) established administrative controls over local government: the Exchequer, an office that audited the accounts of local officials and collected tax payments, and the eyres, local itinerant courts (Cam 1921:9–10; Harding 1973:52–57; Ormrod 1999:19). During the reigns of Henry I and Henry II, the Pipe Rolls, containing statements of the Crown's revenues and expenses, were established (Cipolla 1991:118). These documents were maintained until 1830, creating one of the most comprehensive records of the receipts and expenditures of the executive branch of government in medieval and early modern Europe (Cipolla 1991:118).

Until the late thirteenth century, the English monarchy was a domain state that taxed the elite (Ormrod 1999:21). The king lived from his own domain, and his nobles were responsible for providing additional support (though they may have passed taxes along to their tenants) (Harriss 1975:5, 6; Maddicott 1975:2). Kings had to meet their expenses through their own income from domain land and from profits and privileges that were obtained through feudal, royal, and jurisdictional rights (Barzel and Kiser 2002:483–485; 489; Carruthers 1996:55; Dowell 1884:15, 39, 42, 60; Jurkowski et al. 1998:xvi–xxvi; Ormrod 1999:21, 24, 25, 27–28; Roffe 1996:203). The political community, generally the king and the major landowners, agreed that the kings were not supposed to impose new arbitrary taxes (Barzel and Kiser 2002:483; Dowell 1884:15; Ormrod 1999:21). None of these income sources were derived from an established right to collect revenue on a continuous basis to maintain public services. All were assessed intermittently, depending on the Crown's fiscal requirements. Furthermore, they were based on customary rights and obligations: payments for specific purposes, linked to specific obligations of particular groups (Ormrod 1999:27–31). These "ordinary" revenues, however, were not expected to sustain a prolonged military campaign, so wars created the need for increased and sustained taxation (Carruthers 1996:55; O'Brien and Hunt 1999:53, 61; Ormrod 1999:19, 27). For much of medieval and early modern history, expenses generally continued to be divided between ordinary or recurring ones that the king was supposed to meet with his own funds and extraordinary ones for particular expenses, generally war, that Parliament had to approve (Ashworth 2003:15–16; Braddick 1994:1–2; 1996:14–15; Carruthers 1996:55).

This strong state depended on a politically powerful and cohesive landed aristocracy that was important throughout the royal administration—from the entourage of the king, to the perambulating

courts, to the county sheriff. It provided military and financial support for the monarchy (Brenner 1985:256). This aristocracy possessed two organizational bases of authority: the manor at the local level and Parliament at the national level. In theory, the Crown owned all land, but it granted extensive rights over land and people to the nobility through the institution of the manor (Allen 1992:60). Manors included land directly controlled by the lord (the demesne), land held by free peasants, and land worked by unfree peasants (Allen 1992:60). Unfree peasants were vastly inferior, but they had some rights to use land, including open fields, commons, and wastes (Allen 1992:26–27, 61; Mingay 1997:7–11). Free peasants had more extensive rights over their own land (Allen 1992:60–61). The aristocracy and free peasants could resolve their disputes in royal courts; unfree peasants had access only to their lord's courts, not to royal ones (Allen 1992:60–61; Brenner 1985:257–258).

Parliament, composed of members of the aristocracy (knights, burghers, clergy, and barons, who were appointed or, in later centuries, elected through limited suffrage), directly limited royal power because it had to approve taxation and indirectly because it provided an institutional focus for opposition to the Crown (Anderson 1974:115; Brewer 1989:4; Ormrod 1999:20). However, it also aided the monarchy in striking bargains with local potentates, especially over taxes; monarchs wanted parliamentary members who could make agreements that bound their constituents to uphold them (Brewer 1989:4; Ormrod 1999:20). Taxation created tension between the king, who tried to raise revenues, and the landed aristocracy, who tried to limit this activity through Parliament (Mitchell 1951:2, 6, 109, 156). Though medieval parliaments had limited power over the Crown or over other executive or financial officials, by the mid-fourteenth century, they generally had the power to approve royal legislative acts as well as extraordinary taxation (Ormrod 1999:20). These acts were often designed to redress grievances raised by members of Parliament, who implicitly or explicitly exchanged their approval of taxation for solutions to their other issues (Ormrod 1999:20). Because there was only one representative assembly (not numerous regional ones as in France), political struggle was highly centralized (Anderson 1974:113–116; Brewer 1989:5; Mann 1986:460).

The politics, economy, and culture of early medieval England revolved around rights. In Anglo-Saxon and feudal society, few individuals, powerful or lowly, owned property outright (Lennard 1959:22–23). Instead, they had usufruct rights to different dimensions of property, such as rights to work land, to collect taxes, and

to labor services. Such rights were defined relationally to other people; in particular, they depended on a chain of hierarchical rights to various goods, services, and payments from different individuals (e.g., king to lay lord to serf) (e.g., Blair 1956:261–267; Carpenter 2000:32–33; Holt 1997:4–5, 131–148, 205–213; Linklater 2002:2). The king's power to tax also stemmed from his rights. Thus, feudalism was a system of reciprocal rights and duties that revolved around land (Douglas 1999:1).

To claim payments such as taxes, tithes, or rents, the rights of individuals and groups to them had to be established, either orally or through writing. Thus, fiscal information gathering in early medieval England was oriented toward establishing feudal rights and obligations through legal proceedings and documenting them either orally or in writing. In Anglo-Saxon and early medieval England, most rights were customary and given orally, not in writing (Finn 1963:4–5). As writing spread dramatically in the thirteenth century rights were increasingly established and maintained in writing, though oral tradition remained strong (Clanchy [1979] 1993:60); cf. Wickham 1985:65).

The Domesday Book, along with the inquest of 1086 that preceded it, was the earliest large-scale attempt at official information gathering in Europe (Loyn 1987:13; Roffe 2000:2). However, its purpose is unclear and not explicitly stated (Finn 1963:4). First, it may have been symbolically important, as the name referred to the last judgment (Clanchy [1979] 1993:32; cf. Loyn 2003:2–3) (although the name Domesday appeared in writing only in 1179 and in an official document in 1221 and thus may have been attached to the survey after the event [Hallam 1986:35]). It also may have represented the new Norman order with its centralized administration (Hallam 1986:16). Second, it may have been important for resource assessment and collection (Holt 1987:49; Loyn 2003:3). William the Conqueror ordered the survey after his attempt in 1084 to collect the land tax, which was a particularly burdensome request following a year of famine (Dowell 1884:29). Efforts to counteract a recent threat of Danish invasion had revealed how little authorities knew about their economic resources (Finn 1963:4). The information from the inquest would have allowed the king to maximize his income from a range of sources to meet the challenge of invasion (Roffe 2000:234). More generally, it could have been used to assess taxes (although it probably was unhelpful in collecting them [Finn 1963:5–6]), to ascribe military service obligations, and to establish the domain's extent and value (Hallam 1986:47; Loyn 2003:3; Roffe

2000:230–242; see Roffe [2007:27, 307–308] for debate about the inquest's and Domesday Book's uses). Third, the information may have been used to establish property rights, which had been redistributed extensively following the Norman invasion and subsequent Saxon revolt (Finn 1963:23–37; Fleming 1998:3–5; Loyn 2003:3). The Norman conception of administration was based on knowing who was legally liable for properties, through the medium of writing (Finn 1963:37). Eleventh-century Norman surveys of Sicily, based on Arabic records used to resolve land disputes, may have provided precedents for the Domesday Book (Clementi 1961:55–58).

The organization of the Domesday Book represented local Anglo-Saxon government, along with the new Norman landholders installed by the king (Darby 1977:2–3; Harvey 1971:753). During the inquest, a jury for each hundred (a subdivision of a county [Darby 1977:2]), probably composed of a local official, a priest, and six local inhabitants, provided information to the king's commissioners about the landholdings in its hundred (Darby 1977:5; Roffe 2000:114–123). The juries were probably supposed to answer a set of predefined questions about landholdings that had been established at the beginning of the inquest (Clanchy [1979] 1993:35; Darby 1977:3–9; Roffe 2000:114). For each hundred, the records of the Domesday Book list local estates; their past and present owners; the size of the holdings; the number of plows, slaves, and men; the number of villages, meadows, fishponds, mills, and woods; and their net values (Finn 1963:9–11; Roffe 2000:114).

It is not exactly clear how the juries assembled the information that was provided during the inquest, but there were probably a variety of methods, including the jurors' own knowledge, local landlords' and tenants' oral testimony to these jurors, and the compilation of information from already existing documents and administrative records and from written or oral declarations given previously to local juries (Darby 1977:5; Davis 1987:26; Fleming 1998:2, 11–13; Holt 1987:45; Roffe 2007:64–74). Preexisting written documents included tax, manorial, and ecclesiastical records (Holt 1987:46; Loyn 1987:10; 2003:7–8). The order and content of the Domesday records may have been based on preexisting Anglo-Saxon county fiscal documents (Harvey 1971:763, 767; Loyn 1987:2–3).

Juries were not new to the Domesday Book; they were common in Anglo-Saxon and Anglo-Norman England where oral tradition was strong (Blair 1956:232–236; Fleming 1998:13–17; Roffe 2007:65–76). Juries, composed of inhabitants from roughly the same area where the dispute occurred, were commonly used to adjudicate

evidence and oral testimony in English common law courts, while written evidence evaluated by judges was more common in courts based on Roman law (Brooks 2008:12; Stock 1983:55–59). The Norman state's translation of oral testimony and private documents into a written, government format to create the Domesday Book may have been influenced by the Italian tradition of written documents produced by lawyers and notaries for the state's use (Loyn 1987:8; cf. Stock 1983:3).

Information about land, people, and animals was not distinguished in the Domesday Book:

> Ralph fitzTurold holds ECCLES of the bishop. It is assessed at 3 yokes. There is land [. . .] In desmene is 1 plough; and 7 villans with 14 bordars have 1 plough. There is 1 slave, and 11 acres of meadow, [and] woodland for 10 pigs. TRE, and afterwards it was worth £3; now 4£; what Richard holds in his lowry, 15d. The King [has] as a recent gift from the bishop 8s5d, and in Rochester the bishop has 3 houses rendering 31d, which he took from this manor into his own hand. Æthelnoth Cild held this manor. (Williams and Martin [1992] 2002:17)

This description does not conceptually distinguish the land from the laborers (villans, bordars, and slaves) who work it. Both constitute the domain and its total value. Thus, the Domesday Book is not a census because it does not count all members of the population, and it is not a land survey because it does not comprehensively describe all land in a geographical region, though it contains information about people and land.

Even if the Domesday Book did not have the original purpose of recording rights to property, it nevertheless reflected a society that was based on rights and described them in detail. It recorded the resources of William the Conqueror and his tenants, and thereby strengthened the exercise of their rights (Holt 1987:56). The information contained in the Domesday Book was strongly shaped by the feudal customs based on the oral transmission of rights that allowed individuals to provide information easily about their holdings and obligations. Perhaps even without strong or transparent reasons, in the Domesday Book, the state captured what individuals knew about their rights. The preexisting, widely familiar jury system was used to collect the information.

The information contained in the Domesday Book was not widely used in the following two centuries (Clanchy [1979] 1993:33; Hallam 1986:38–41; Roffe 2000:4). Until the reign of Edward I (1272 to 1307), memory and oral tradition probably continued to be more

important in establishing rights than documents, despite the Normans' interests in creating written records (Clanchy [1979] 1993:34; Finn 1963:37). However, the use of Domesday to establish rights became more important over time; the details of the landholder's identity became outdated relatively quickly, but the holdings of large baronial families remained virtually unchanged (Hallam 1986:48). In the thirteenth century, references to the Domesday Book became a common way to establish rights and resolve disputes (Hallam 1986:37, 48, 50–51, 52–113; Raban 2004:3, 43; Roffe 2000:6). This trend may have been linked to increasing literacy; the number of letters exploded between the reigns of William I in the eleventh century and Henry II in the twelfth century (Clanchy [1979] 1993:60).

Only a relatively strong, consolidated, and well-financed state could have undertaken such a massive effort as the Domesday Book. The state prompted landholders to provide information about their estates (Loyn 1987:10). However, the survey was only possible because of the landholders' cooperation (Davis 1987:27; Holt 1987:46). Powerful landholders could have refused to provide information or obstructed legal proceedings (Davis 1987:27). Landholders' interests coincided with the survey because the Norman Conquest was so recent, and titles to land, tentative (Davis 1987:27; Finn 1963:23–37; Fleming 1998:3–5). Landowners may have hoped to establish and clarify their rights by cooperating with the survey.

A second major effort to gather information was explicitly linked to the English Crown's attempts to establish an adequate domain. Edward I (1272 to 1302), concerned that his royal rights had been usurped during the chaotic reigns of his predecessors, began inquests in 1274–1275, followed by similar but more detailed ones in 1279–1280 (Cam 1930:xiv, 36, 39; Clanchy [1979] 1993:6; English 1996:1, 3; Raban 1997:124; 2004:13; Sutherland 1963:17–18). Collectively, these documents are known as the hundred rolls, after the administrative unit of the hundred (Cam 1930:xiv). Edward sent commissioners to every county with questions for juries, convened for this particular inquiry (Cam 1930:xiv; English 1996:1, 3; Raban 2004:59–69; Scales 1998:559).

In 1274–1275, jurors answered 50 questions that covered three sets of issues (English 1996:4, 23–26). The first set focused on the rights of the king and included how many manors the king held, what manors had been alienated, who held franchises (royal rights exercised privately by the king's subjects), and whether any franchises had been appropriated without warrant (English 1996:4; Sutherland 1963:18). The second set asked about administrative abuses by royal

officials or franchise holders (English 1996:4; Sutherland 1963:18). The third asked about miscellaneous items concerning taxation and the right to make appointments to church offices (English 1996:4). The resultant documents record the major landholders and the size of their holdings, but they generally do not include detailed information about the numbers of free and unfree tenants (e.g., English 1996:29–32).

The 1279–1280 inquiries addressed royal franchises but focused on the minute details of tenantry, perhaps explicitly following the Domesday Book (Prestwich [1988] 1997:235–236; Raban 1997:130–131; 2004:37–43). At least some of the documents stemming from the inquiries gave the numbers of free and unfree tenants, the size of their holdings, and their rights and obligations (Clanchy [1979] 1993:6; Raban 2004:94–95). Like the 1274–1275 survey, it was intended to cover the entire country, although it was never completed (Prestwich [1988] 1997:235–236; Raban 2004:51). Lay literacy may have facilitated this survey. The surviving returns come from the region between Oxford and Cambridge. The commissioners may have been more successful in collecting and recording the extensive information demanded by the survey there, where overall literacy was probably high and where there were many clerks and scribes to write down the information (Clanchy [1979] 1993:6).

Edward I's inquiries were not unique; they were both preceded and followed by similar, though less ambitious, ones (Cam 1921:10–16; 1930:28–29; 1944:175; Prestwich [1988] 1997:237; Raban 2004:15–20; Roffe 1996:201, 208). They used the jury system that had produced the Domesday Book and that had been used extensively in the intervening centuries to hear all sorts of pleas (Poole 1955:400; Scales 1998:553). Juries remained important social institutions for centuries (Sacks 1994:9–10). Jurors of the hundred rolls were men of standing in the community, sometimes knights, but more often freemen with modest holdings (Raban 2004:69). Much evidence was collected orally by jurors, who asked villagers questions (Raban 2004:75). Jurors also may have relied on preexisting texts, such as title deeds, royal grants, or estate records, especially for large estates (Raban 1997:134; 2004:75).

Once the 1274–1275 inquest was completed, Edward undertook a second, different type of inquiry known as the quo warranto proceedings (literally "by what warrant," that is, by what authority) from 1278 to 1294 to investigate franchises, which bestowed various rights to resources on their holders (Cam 1930:234; English 1996:5; Raban 2004:25–26; Sutherland 1963:2–4). Commissioners started from

copies of the hundred rolls that listed who held franchises, and they then asked the franchise holders to explain the authority that allowed them to exercise their rights to the franchises (Cam 1930:233–234; 1944:173; Clanchy [1979] 1993:6; Holdsworth 1922:88). Although a jury was not present at the beginning of the process, it was often called in to decide the facts (English 1996:8). The Crown hoped that the hundred rolls inquests and the quo warranto proceedings would recover royal franchises and property, prevent future usurpations, increase the value of the king's estate, and prevent abuses by his royal officials (Cam 1944:181; Raban 2004:36; Sutherland 1963:167–168; cf. Roffe 1996:207). Thus, these inquests were supposed to strengthen the king's economic and political position. However, both the king and the franchise holders benefitted by having written records that could be consulted in future (Sutherland 1963:168–169, 169–170). While the hundred roll inquiries and the quo warranto cases may have prevented further usurpations of the king's rights, little was recovered for the king, as many cases were decided against him (English 1996:10).

The surveys associated with the quo warranto proceedings, and in particular the detailed surveys of 1279–1280, comprised the most impressive round of information gathering since the Domesday Book in medieval Europe (Clanchy [1979] 1993:6; English 1996:3). The amount of information that individuals possessed may have outrun the officials' abilities to record it and their ambitions for its use. Few of these inquiries were carried out in their entirety, and no final solutions were found to the huge workloads created by gathering, writing, and copying the information that these surveys entailed (Raban 2004:36; Sutherland 1963:187–188). The 1279–1280 surveys, for example, were never put in a final finished form or put to observable use in the Middle Ages, which suggests a grand, but uncompleted, project (Raban 1997:129–130; 2004:118; Sutherland 1963:186). Similarly, the Domesday Book was not widely used for several centuries, and the quo warranto surveys recovered few rights for the king.

These information-gathering attempts depended on oral testimony about rights. The Domesday Book, the hundred rolls, and quo warranto surveys relied on juries comprised of local notables and villagers offering sworn testimony. In feudal society, individuals needed to be able to recount orally their customary rights (though written documents were also important; cf. Stock 1983:3). The Crown wanted information about rights because they determined the flow of resources. Information about land and people was incidental to the main purpose of collecting information about rights. In the

postfeudal period, information gathering shifted from a concern with rights to a focus on discrete categories of objects such as land, persons, and commerce, but these early medieval information-gathering efforts were the most systematic ones until the modern era.

The Late Medieval and Early Modern Period: Toward a Tax State

Around the same time that the hundred rolls and quo warranto surveys were conducted, taxation began to change as England shifted from a domain state, based on profits from land and jurisdiction, to a tax state, based on revenues collected from the entire realm (Braddick 1996:12–13; Daunton 2001:2–5; Ormrod 1999:27). Thus, in some sense, the hundred rolls and quo warranto surveys capture the rights-based financial system of the medieval domain state in decline, just before it was replaced. In the late thirteenth and fourteenth centuries, recurrent warfare with the French, price inflation, economic recession, and Parliament's restrictions on the Crown's fiscal rights increased fiscal demands and decreased revenues so that domain income was inadequate (Maddicott 1975:1; Ormrod 1999:27). A new system of taxation shifted the burden of taxation from the elite to the entire populace (Harriss 1975:8; Maddicott 1975:2; Mitchell 1951:6). More individuals were assessed; additionally, the form of the tax coupled with changes in landholding shifted taxation toward the peasantry (Maddicott 1975:2; Ormrod 1999:45–46). Concomitantly, the Crown and Parliament attempted to make taxes proportional to wealth and income and to exempt the poorest from taxation. Thus, some rudimentary assessments of income and wealth were undertaken (Mitchell 1951:1–2). Although domain taxation grew increasingly insufficient, even in early modern England, the king was still exhorted to rely on his domain (Ashworth 2003:16; Beckett 1985:285; Douglas 1999:1). The Crown was constantly asking Parliament to approve additional taxes, especially to cover the costs of war (Beckett 1985:287–291; Douglas 1999:1–3, 14–15, 19; O'Brien and Hunt 1999:77, 81–83). Eventually, parliamentary taxation became more important than domain taxation, and by about the mid-seventeenth century, domain revenue was marginal, and the tax state was firmly established (Ashworth 2003:15–16; Braddick 1996:16; Carruthers 1996:55; Ormrod 1999:32–33, 38).

As we will show below, during this transformation from domain to tax state, the overall method of taxation changed many times. Concomitantly, official information gathering gradually shifted

from collecting information on rights through the legal system to an accounting of resources, such as houses, people, land, movable property, workshops, and trade. Furthermore, the bureaucratic machinery to collect taxes and to track revenues, expenditures, payments, and debts grew larger and more efficient. Nevertheless, the techniques to assess taxes and to collect information about individuals remained virtually unchanged. Relatively little information about the population was collected, and it was scattered throughout different documents that were not always retained. Many taxes were based on community-level assessments that did not necessarily entail detailed written assessments of individuals' characteristics and property. Local notables were responsible for individuals' tax assessment; they usually assessed taxes on the basis of oral testimony and summary reports given by individuals or neighbors. Thus, in England, the creation of a tax state did not lead to an increase in written information about the populace.

Taxes on movable goods (e.g., cows, oxen, grain, household goods and other possessions, that is, property that could be transferred from place to place) were assessed intermittently, depending on the Crown's needs, between 1207 and 1332 (Harriss 1975:8–9, 10, 15–26; Jurkowski et al. 1998:xxvi–xxxi, 7–8; Willard 1934:3). Parliament appointed commissioners and gave them specific instructions for each assessment (Jurkowski et al. 1998:xxx; Mitchell 1951:64). Within communities, assessments could be made by individuals' oral declarations, by local notables or subtaxers, or by juries' assessments (Cromarty and Cromarty 1993:20; Jurkowski et al. 1998:xxvii, xxx–xxxi, 8, 14; Mitchell 1951:90–96; Willard 1934:4). Juries also resolved disputes over declarations and assessments (Jurkowski et al. 1998:12). A summary of individuals' movable goods (often organized by the name of the head of the household), their estimated value, and their corresponding amount of tax could be recorded in a written document (Cromarty and Cromarty 1993:83–125; Jurkowski et al. 1998:xxvii; Mitchell 1951:140–142). However, these documents were usually discarded, as they were considered to be useless after the amount of the tax had been determined (Jurkowski et al. 1998:xxvi–xxix, xxxi). The total amounts owed, and sometimes the total value of the individuals' taxable property, were then copied to community rolls and sent to the Exchequer (Jurkowski et al. 1998:xxxi; Willard 1934:3–4). In 1323, a designated Exchequer official was placed in charge of record keeping, and the number of surviving documents increased (Jurkowski et al. 1998:xxix). Thus, written information was collected about the amount and payments of taxes, but little was

collected and retained about individuals' characteristics (Mitchell 1951:4, 23, 40, 41, 102, 103).

Between 1334 and 1624, the monarchy used a quota system, called the tenth and fifteenth, for taxation (Braddick 1994:23; Ormrod 1999:38; Willard 1934:5). Commissioners asked communities for an amount not less than the amount they had paid in 1332 for the previous tax on land and movables assessed on individuals (Jurkowski et al. 1998:xxxi, 38). The amount was fixed by bargaining among the commissioners and local elites (Braddick 1994:24; Dowell 1884:96–97; Fenwick 1998:xiii; Jurkowski et al. 1998:38; Willard 1934:5). If assessment was deemed necessary, the local community undertook it without the involvement of the Crown's officials (Dowell 1884:126; Jurkowski et al. 1998:xxxi). Local assessment varied widely (Jurkowski et al. 1998:xxxiii). Because the 1334 quota was closely connected to local elites' power, it proved difficult for the monarchy to control (Jurkowski et al. 1998:xxxvii; Ormrod 1999:38). Quota systems tended to reduce the amount of information collected, as written assessments of individuals' characteristics were not necessary if the amount of tax satisfied the Crown's officials (Jurkowski et al. 1998:38).

In addition to regularly assessing the tenth and the fifteenth, in the 1370s, the Crown began to experiment with different taxes to raise war revenues (Fenwick 1998:xiii; Ormrod 1988:58). None of them dramatically increased the amount of information collected. In 1371, a tax on parishes was assessed; it collected no direct information about the population or its wealth (Ormrod 1988:71). Similarly, poll (head) taxes were assessed in 1377, 1379, and 1381 (Dowell 1884:113; Hinde 2003:68–70; Jurkowski et al. 1998:xxxiv–xxxvii; Ormrod 1988:70). Tax commissioners appointed subtaxers in each location for assessment and collection (Fenwick 1998:xix; Hinde 2003:69; Jurkowski et al. 1998:56–57, 58). In 1377, all individuals over the age of 14 were assessed the same amount; in 1379 and 1381, variable assessments were rough proxies for wealth (Brown 1989:74–75; Fenwick 1998:xiii–xxvii; Hinde 2003:70; Jurkowski et al. 1998:xxxv–xxxvi, 56–58, 61; Saul 1999:112–113). The 1377 returns generally list the name of those individuals liable for the tax, and at least in some cases, the occupations and the names of those who had died or migrated since Parliament had granted the tax (Fenwick 1998:xxxiii; Saul 1999:112–113). The 1379 returns often list the occupations and the amount that the individuals had to pay, in addition to their names (Fenwick 1998:xxxv; Jurkowski et al. 1998:xxxv–xxxvi). Some of the 1377 returns may have been reused

in 1379 (Fenwick 1998:xxxiv). Though the 1381 assessments did not require individuals' occupations to be declared (they were not the basis of the variable rate), they were often recorded, perhaps even more accurately than in 1379 because individuals had no incentive to conceal occupations that might increase their tax rate (Fenwick 1998:xxxv, xxxvi). The 1381 assessment was highly problematic; the instructions for adjusting the rates by ability to pay were unclear, and different amounts were assessed in different locations, apparently without any attempt to gather accurate information, leading to complaints and widespread evasion and eventually the massive peasant revolt of 1381 (Brown 1989:75; Dowell 1884:113; Hinde 2003:70; Jurkowski et al. 1998:xxxvi–xxxvii, 61–62; Ormrod 1999:46). Thus, the poll taxes did not collect extensive information, nor did they lead to any permanent system of collecting population information.

Tax experiments continued in the first half of the fifteenth century in various formats (Dietz 1964a:14–15; Jurkowski et al. 1998:xxxvii–xxxix; 76–115). None were particularly successful; none were repeated in the same format (Dietz 1964a:15). Some were approved only on the condition that they were not precedential (Dietz 1964a:15). They were assessed and conducted in various ways, but most made use of the usual system of commissioners, local subtaxers, inquests, and juries (Dowell 1884:119–121; Jurkowski et al. 1998:75–111). And as usual, they produced little information beyond individuals' names, amounts of income or goods, and the tax assessment (Jurkowski et al. 1998:79, 92; Pugh and Ross 1953:2–3).

The populace feared that written records could set a precedent for future taxation. In 1404, Parliament approved a tax but only on the condition that no record be kept of it so that it could not be precedential (Jurkowski et al. 1998:74). In 1431, despite careful provisions that no one could be harmed by a land-tax assessment, there was great fear that it could be used in the future, so the king was forced to annul the tax, and all its records were destroyed (Dowell 1884:119–121; Jurkowski et al. 1998:88–89). In 1472 and 1489, Parliament approved a tax assessment but only on the condition that its details were never revealed to the Crown (Jurkowski et al. 1998:112, 123; Schofield 2004:74). Neither the Exchequer nor any Court of Record could access the transcripts from the inquisitions of the assessment (Jurkowski et al. 1998:112, 123; Schofield 2004:74). Only Parliament could certify the amount of tax from any particular area (Jurkowski et al. 1998:123; Schofield 2004:74).

These experimental taxes of the 1400s turned into direct taxes based on the income and wealth of individuals that the Tudor

and Stuart kings frequently collected until 1641 (Jurkowski et al. 1998:xli–xlv; Schofield 2004:73–74). New taxation was part of the Tudor project of centralizing the English state: the consolidation of its hold over Ireland, Wales, and Scotland and a series of unsuccessful, but costly, military forays onto the continent in the mid-sixteenth century (Anderson 1974:122; Brewer 1989:13; Mann 1986:452). The format of the assessment, fixed in 1513, was typical; commissioners appointed local officials to undertake written assessments, consisting of the taxpayers' names and values of their estates (Braddick 1994:65, 71; Jurkowski et al. 1998:xlii; Schofield 2004:85, 117). The Exchequer improved its internal record keeping of the amounts of assessed and collected taxes, and the Crown developed new bureaucracies to facilitate taxation (Dietz 1964a:67–77; Jurkowski et al. 1998:xlii; Richardson 1974:xvii–xxiii). Nevertheless, little new information about individuals was created.

During the sixteenth century, print technology spread rapidly throughout Europe, including England, and could be put to administrative uses (Martin 1994:233, 274–275, 287). Tellingly, the first printed tax forms in 1542 were receipts (Slavin 1982:15–16), showing that the technical apparatus for recording payments of taxes developed before the methods for assessing the taxes. State record keeping was designed to monitor locally administered and dispersed taxation, not to facilitate the direct extraction of resources from individuals (Higgs 2004:47). Thus, even Henry VIII, the most powerful of the Tudor monarchs, left no royal bureaucracy capable of assessing and collecting direct taxes of income and wealth (O'Brien and Hunt 1999:79, 84).

The Stuarts succeeded the Tudors in 1603, followed by the Commonwealth from 1642–1660 (the English Civil War occurred between 1642 and 1649) and the Restoration of the Stuart monarchy in 1660. At the beginning of this period, revenue shortfalls were addressed by direct taxes that depended on local assessment, forced loans, and a variety of tax experiments (Braddick 1996:97; Dietz 1964b:388–393; Jurkowski et al. 1998:xlviii–lvi; North and Weingast 1989:808–812). One new experiment, starting in 1628 under Charles I, was the ship levy to help fund the navy (Dietz 1964b:278–281; Jurkowski et al. 1998:xlix–li; O'Brien and Hunt 1999:84). The tax was based on a quota, a fixed amount levied to geographical units that was in turn distributed to individuals within those units according to local assessments (Jurkowski et al. 1998:185–186). To collect this money, the monarchy pressured local sheriffs to reform tax assessment and sent commissioners into the countryside,

though ultimately these efforts were abandoned because they met with so much resistance (Dietz 1964b:396–397; Jurkowski et al. 1998:185–186, 187–190; O'Brien and Hunt 1999:84–85). Because this tax was based on quotas and local assessment, it produced little information about individuals (Jurkowski et al. 1998:185–186, 187–190; O'Brien and Hunt 1999:84–85). During the Civil War, quotas, probably based on the ship levy, were assigned to local communities and distributed to individuals by local notables (Braddick 1994:128, 132; 1996:95–96; Douglas 1999:5; Jurkowski et al. 1998:lii; O'Brien and Hunt 1999:85). Relatively little information was collected about the populace: the names of landlords and tenants, the annual income from their land, taxes payable, and the values of personal estates and allowable deductions (Jurkowski et al. 1998:liv). Quotas were the most important taxes after the Restoration of the monarchy starting with Charles II (1660–1685), though taxes based on a rate applied directly to individuals' wealth, income, or property were also levied (Braddick 1994:158–159; 1996:97–98; Chandaman 1975:143–148, 158–160, 168–170, 183–189; O'Brien and Hunt 1999:86–87). Local notables made these direct assessments; they gave documents giving the total amounts paid in each location to the Exchequer but were not required to return any information about individuals (Jurkowski et al. 1998:lxi). The last vestiges of the domain state collapsed in 1660 when Charles II was the last English king told to make do with the income from ordinary revenues (Carruthers 1996:55). During the Restoration, major fiscal reforms improved the bureaucracy for collecting taxes and accounting for spending and revenue (Ashworth 2003:20; Braddick 1996:98; Brewer 1989:92; Chandaman 1975:194).

Strong resistance to direct taxation based on the actual valuation of property continued. It was noted in a parliamentary debate in 1657 (Chandaman 1975:141; Slack 2004:50):

> As to this plan of surveying, and searching into men's estates, it is that which your ancestors would never endure. That the Chief Magistrates should know men's estates, was always avoided. If you appoint strangers to survey, and I should be sorry to be put upon that employment, I have known counties ready to rise in arms, when surveyors were coming into the country. (Burton [1657] 1828:233–234)

Not surprisingly, then, local assessors' estimates of wealth and income and geographical quotas continued to be the primary basis of direct taxation.

Other major tax experiments included the highly unpopular hearth and poll taxes (Braddick 1994:231–270; O'Brien and Hunt 1999:86). Poll taxes were assessed sporadically between 1641 and 1699 (Arkell 1992b:142–163; Braddick 1996:103). The assessments were gradated by rank and occupation to represent ability to pay (Arkell 1992b:142–163; Braddick 1996:103–104; Chandaman 1975:160–161, 163–165; Jurkowski et al. 1998:lix–lx, 192–194, 255–257). Local officials, as usual, conducted assessments, which were supposed to be lists of taxpayers and the amounts they owed, but their comprehensiveness varied considerably (Braddick 1994:234; Jurkowski et al. 1998:lx). Closely related to the poll taxes was the marriage duty act, a tax raised in the 1690s on the registration of births, deaths, and marriages and an associated poll tax on bachelors over 25 and childless widowers (Arkell 1992b:166; Braddick 1996:104; Cohen 1982:34). To collect this tax, local assessors were to submit lists of all inhabitants' names so that they could track them over time and their social positions because the tax was graduated (Arkell 1992b:167–170; Braddick 1996:105; Cohen 1982:34; Glass 1966:ix–x). Had this act been fully implemented, it would have produced a remarkably early and comprehensive annual census, but it was never fully implemented and was discontinued in 1706 because of administrative difficulties and popular resistance (Cohen 1982:34–35; Glass 1966:xiii–xv).

Between 1662 and 1689, taxes were assessed on the number of hearths in houses or on the number of chimneys in commercial buildings (Arkell 1992a:38; Braddick 1996:102; Chandaman 1975:81). This hearth tax was perhaps the first tax based on households' submissions of their own written declarations, which were given to local constables or parish officers (Chandaman 1975:81; Jurkowski et al. 1998:262). Though this assessment may have been relatively thorough, its yield was disappointing, and it was modified in 1663 so that the constable and two other local inhabitants inspected the house to verify the written declaration (Chandaman 1975:83, 84; Jurkowski et al. 1998:262). In principle, this assessment would have produced a careful record of a single household item (though in practice, it may have been subject to widespread evasion and exemption), but it would have provided little comprehensive information about the population. Self-assessment was abandoned in 1664; appointed officials or tax farmers subsequently inspected houses and made assessments (Chandaman 1975:84–107; Jurkowski et al. 1998:262–264). The hearth tax was particularly disliked because of these searches, which was consistent with the English dislike of direct valuation of their resources (Chandaman 1975:89; Douglas 1999:8). As in the

Tudor period, printing facilitated accurate tax collection (not assessment). Standard printed exemption certificates increased efficiency and perhaps limited the proliferation of exemption itself (Jurkowski et al. 1998:264). Collectors received printed instructions giving the form and content of the records and a pro forma sample of an account (Arkell 1992a:44–48; 56–64; Jurkowski et al. 1998:263). The window tax that levied a fixed amount based on the number of windows in a house succeeded the hearth tax in 1696. This tax obviously collected little information about individuals: tax assessors did not have to enter the house or speak to its inhabitants (Braddick 1996:102–103). These taxes were based on the premise that household characteristics, such as chimneys or windows, were indicators of economic status and thus of ability to pay (Braddick 1996:101–102). The poll, hearth taxes, and window taxes were mostly failures; they were highly unpopular, viewed as unfair, difficult to collect, or failed to raise large amounts of money (Braddick 1996:102–106; Jurkowski et al. 1998:lx, lxii–lxiii). As usual, however, the largest problem was assessment not tax collection (Braddick 1994:236).

Quota taxes eventually turned into the "land tax," a major revenue source between 1692 and 1712, based on valuations of wealth and income of localities (Ashworth 2003:16, 64; Beckett 1985:285; Braddick 1996:98; Brewer 1989:95; Carruthers 1996:70; Daunton 2001:33; Ginter 1992:3–4; O'Brien and Hunt 1999:87). The quotas remained virtually fixed until the tax was abolished in 1963 (Ginter 1992:4, 19–20). Though it was originally a tax on personal property, income from government offices, and land, it soon became a tax only on land (Ginter 1992:4, 21–22). Records were compiled locally and gave the name of the owner or tenant and the amount of the assessment (Ginter 1992:4). Parliamentary members tolerated the land tax because it represented the most limited exercise of executive power and because they controlled its imposition and rate (Brewer 1989:99–100; Kain and Baigent 1992:258). The landed gentry tolerated it even though it was monetarily disadvantageous (it gave them the largest burden of direct taxation), because it allowed them to maintain local, administrative, and judicial authority and to control tax collection and because it produced little information (Braun 1975:302; Brewer 1989:100; Kain and Baigent 1992:258–259). Local assessors favored the gentry and large landowners (Braun 1975:302). As usual, tax collection was unproblematic, the Exchequer's procedures assured this; tax assessment that relied on local administration determined the variable success of taxation (Braddick 1996:98; Higgs 2004:47). Assessment practices and amounts widely varied by region (Beckett 1985:295–296; Higgs 2004:49).

In 1799, during the Napoleonic Wars, an income tax was introduced and used intermittently, though successfully, until its repeal in 1816 and permanent reestablishment in 1842 (Ashworth 2003:11; Daunton 2001:43–47, 53, 77; Douglas 1999:x, 43–44; Higgs 2004:128; O'Brien 1988:16, 20–21; 2002:33; O'Brien and Hunt 1999:67). In 1799, virtually no information was collected. Individuals simply declared an amount that was a tenth of their total income, without specifying any of their sources or amounts of income, payable directly to the Bank of England (Jackson 1999:260; Sabine 1966:28). To preserve confidentiality, the name of the taxpayer was associated with an identification number that could then be used in subsequent records without giving the payee's name (Jackson 1999:260). Details about the sources of income were required only if the commissioners were dissatisfied with this summary declaration (Sabine 1966:28–29).

Thus, for centuries, the aristocracy and locally appointed officials controlled the assessment and collection of direct taxes, irrespective of the form of the tax (Braddick 1994:24–26, 65–66; Chandaman 1975:170–173; Daunton 2001:37; Kiser and Kane 2001:199–202; O'Brien and Hunt 1999:79, 82). Although the propertied classes recognized the Crown's right to tax them with parliamentary approval, they never conceded the right to manage the assessment and collection of taxes to a royal bureaucracy (O'Brien and Hunt 1999:82). Parliament had some control over high-level tax officials, but these officials' authority to levy and collect taxes was limited (Chandaman 1975:171–172, 174; O'Brien and Hunt 1999:82). The Crown and Parliament relied on a largely local voluntary, amateur, and unstaffed administration to implement taxation (Braddick 1994:24–26, 65–66; O'Brien and Hunt 1999:79).

Not surprisingly, then, direct taxation was rarely based on any systematic information gathering and produced few documents with details about individuals. There was minimal valuation of resources; instead, there was a strong reliance on what individuals paid or claimed to have paid at the previous assessment (Chandaman 1975:173–174). This system developed out of the early medieval system based on oral testimony to local notables. It was sustained by the strong resistance of English landowners to any form of taxation that gave the state knowledge about their resources or that threatened their control over tax assessment (O'Brien 2002:35–36; O'Brien and Hunt 1999:88). Furthermore, the state could not capitalize on lay knowledge to facilitate information gathering. For the majority of the population, no documents recorded transactions of labor services, rents, commodities, and real property. Such documents, and the transactions that

underlay them, would ordinarily form the basis of taxation where markets existed (O'Brien and Hunt 1999:79–80).

The Early Modern Period: The Tax State and the Shift to Records of Goods

The English/British economy changed dramatically between 1688 and 1815, undergoing the world's first transition to industrial capitalism. Agricultural employment declined while its productivity exploded (Mann 1993:93–94). Commerce and manufacturing expanded rapidly. In contrast, the political structure remained relatively stable. Although England/Great Britain became a constitutional regime jointly ruled by the king (who chose the ministers) and Parliament, and Scotland and England were unified as Great Britain in 1707, most of the population remained disenfranchised until 1928, and voting rights were archaic and unrepresentative (Black 2001:207–209; Brewer 1989:22; Cash 2006:xii; Jupp 2006:7–9; Mann 1993:110; Therborn 1977:16). This political and social system remained paradoxically stable despite dramatic economic changes. Rather than transforming the elite, industrial capitalism arose in alliance with preexisting agrarian capitalism, creating three dominant groups: the gentry (whose power was slowly declining); a commercial urban oligarchy; and the rising, but somewhat subordinate, industrialists (Anderson 1992:20; Mann 1993:96–97; Moore 1993:22–23).

The position of England/Great Britain in the international political economy also changed dramatically. England became a world power through two rounds of military conflict: a seventeenth-century war with Holland and an eighteenth-century war with France (Daunton 2001:32; Mann 1986:457; 1993:115; O'Brien 2002:30; Tilly 1990:93). The struggle against France was closely linked to the domestic struggle against democracy. The terror of the French Revolution and Napoleon's geopolitical threat weakened domestic English democracy and strengthened the aristocratic rule of the capitalist economy (Anderson 1992:20–21; Mann 1993:119–120; Moore 1993:29). Thus, the alliance among the gentry, urban oligarchy, and industrialists was facilitated by England's changing international position, as well as by their common commercial interests.

By 1815, the United Kingdom was not only the world's dominant industrial and military power but also the most developed European fiscal state (Bonney 1999:13–14; Brewer 1989:xiii; Daunton 2001:5; Ertman 1997:218–221; O'Brien 2002:31–32). Starting in the late 1600s, direct taxation remained relatively unchanged but indirect

taxation—excises (taxes on the sale or production of goods and commodities) and customs (taxes on the exportation of goods and commodities)—increased dramatically. From the early eighteenth century, excise taxes produced the largest share of Crown revenue of any major category of tax (Brewer 1989:98). Indirect taxation was consistent with the industrial economy and the strong resistance to direct taxation. Together with huge increases in the public debt, indirect taxation financed the large increases in military expenditures to support ongoing warfare (Beckett 1985:305–306; Brewer 1989:92, 99; O'Brien 1988:2; O'Brien and Hunt 1999:60–61). After the Union of Great Britain was formed in 1707, the format of taxation was largely the same in England and Scotland, though the scope and rates of taxation varied somewhat (Mackinnon 1896:227–231). Thus, at the height of British military, economic, and fiscal power, information gathering focused not on people or land but on commodities.

The custom tax had medieval origins, and like domain income, it was usually granted automatically by Parliament (Braddick 1996:50–51; Cipolla 1991:101–103; Douglas 1999:1, 4). The excise tax was introduced in 1643 (Ashworth 2003:94; Douglas 1999:4). In seventeenth-century England, most direct tax assessment and collection relied on local notables, not professional bureaucrats; similarly, tax farmers collected customs and excise taxes (Braddick 1994:192–193, 203–206; 1996:62–64; Brewer 1989:101, 127; O'Brien 2002:34). Tax farmers, who were sometimes local notables but more often merchants or financiers, paid a fixed amount to collect the tax and then turned a profit on whatever they collected above this amount (Braddick 1994:192–197; O'Brien 2002:34).

However, in the late seventeenth century, both excise and customs collections were turned over to departments of the state, and they began to form professional bureaucracies (Ashworth 2003:117–119; Braddick 1996:64–65; Brewer 1989:67, 101–102; Cipolla 1991:103; Daunton 2001:36; O'Brien 2002:35). These departments, the Excise Office in particular, were perhaps the most professional, effective, and efficient bureaucracies available to any European government (Kiser and Linton 2001:422–423; O'Brien 1988:28). The Excise Office provided a steady stream of information to and from its field officers that was used internally and by other government offices and Parliament (Ashworth 2003:118–119; Brewer 1989:112, 223). Over the eighteenth century, written record keeping gradually overshadowed oral testimony and oath taking (Ashworth 2003:359–362). Accountability came to be associated with a governmental decision-making body that was answerable to the people through public records (Ashworth 2003:362–363). The

Excise Office, at the forefront of measuring, surveying, and reporting, was linked to this development (Ashworth 2003:363).

Excise taxes remained controversial until they were abolished (Ashworth 2003:8–9, 11, 23–24). They sometimes provoked rioting and violence, especially when they were administered by tax farmers unknown to local inhabitants (unlike local elites who administered direct taxation) (Ashworth 2003:6, 96–99; Beckett 1985:298–305; Braddick 1994:178–192). There were debates about whether the excise tax, a tax on consumers, ultimately fell on landowners because labor costs were passed along to them; nevertheless, it was also viewed as a tax that distributed financial responsibility across the population (Ashworth 2003:56–58; Beckett 1985:305; Braun 1975:287; O'Brien 1988:12). Completely sheltering the poor from taxation fell out of favor in the mid-seventeenth century, though it was generally conceded that they should be taxed lightly or not at all on necessities and that the burden of taxation should fall on the wealthy (Ashworth 2003:53, 56–57; Beckett 1985:305; O'Brien 1988:12, 17). Thus, there was pressure to focus the excise tax on luxuries (Braun 1975:287). Landowners tolerated this tax because it required little information and distributed some of the tax burden away from them (though it also shifted power away from them because they did not control it as they did direct taxation) (Ashworth 2003:57, 89). Excise taxes also fell lightly on the new and growing sectors of the industrial revolution and international trade (O'Brien 1988:16–17, 27). As the state increasingly protected manufacturers against foreign competition through duties and trade restrictions, organized pressure from manufacturers against taxation decreased, and manufacturers then competed against each other to reduce their excise tax rate or informed on evaders trying to steal advantages (Ashworth 2003:44, 102; Daunton 2001:36). Furthermore, customs and excises affected manufacturers and shopkeepers who had much less institutionalized political power than landlords and who did not form a single unified opposition. They perhaps turned to evasion, fraud, smuggling, and pilfering instead of trying to block information gathering politically (Ashworth 2003:165–166, 211; cf. "weapons of the weak," Scott 1985:29–30). The process of parliamentary debate and consent produced, at least to some extent, relatively compliant taxpayers (Ashworth 2003:358; Braddick 1996:188; Daunton 2001:5–7, 16). Direct taxation generated considerable compliance because it relied on local notables for assessment (Daunton 2001:37). The excise, in contrast, relied on trained staff, but consent was assured because large economic interests, such as the East India Co., were included

in parliamentary processes and negotiations (Daunton 2001:37–38). Nevertheless, in England/Great Britain, in the late seventeenth to early nineteenth centuries, there was probably more resistance to information gathering that gave the state knowledge of individuals' land, wealth, and income than to taxation per se (cf. O'Brien 1988:7–8, 17). While both forms of taxation created resistance, for several centuries, indirect taxation created vastly more information than direct taxation.

Conclusions

In sum, English/British fiscal information gathering produced little census-like information. We link this outcome to our five central arguments. First, the English/British state was powerful and consolidated but collected little population information. The transition from a domain state to a tax state, spurred by warfare, created numerous experiments in direct taxation that could have yielded extensive information about people; nevertheless, they did not have this effect. Thus, the state-driven argument about the effect of warfare on information gathering explains the push for information gathering, but it cannot explain why relatively little information gathering about the population occurred.

Second, this dearth of population information was linked to lay categories and practices. The early medieval surveys were based on the jury system and feudal customs of oral testimony by local notables. The amount of the tax assessment was generally determined orally, not through detailed written declarations. Thus, most written documents list only the final amount of the tax assessed, not information about how the tax had been determined. Though the Exchequer developed systems for recording the summaries of the assessments, the payment of taxes, and the state's expenses, documents about individuals' tax assessments were not collected or retained systematically. Thus, the assessment methods created few written records.

Furthermore, relatively little population information was collected because of the way in which taxation of people and their land, wealth, and income became separated. In the early medieval surveys, information about people and their assets was presented together. Across the Middle Ages and early modern period, as feudal rights dissolved and as individuals acquired specific rights to own land and goods outright that were not tied to relationships with other people, the information about assets could be separated from the information about people. Thus, social changes made it possible to conceptualize

the information as separate units. During the same time period, the type of taxation, and consequently, the type of information collected, varied. Taxation, and therefore information gathering, eventually came to focus on goods, not people.

Third, the state depended on information intellectuals—jurists and local notables—to collect information. The early medieval surveys were based on oral testimony given by juries composed of local notables and inhabitants. During the medieval and early modern period, local notables also assessed taxes, summarized the accounts, and then gave these summaries to the Exchequer. These information intellectuals usually had stronger ties to other local officials and powerful landlords than to the central authorities. During this time period, the state never created a permanent bureaucracy for assessing or collecting direct taxes. The English state's co-optation of these intellectuals made information gathering possible, but this same practice limited the extent of written information.

Fourth, the distribution of political power shaped information gathering. Landlords may have supported the Domesday Book because it helped confirm their new titles to land conferred after the Norman Conquest. However, for most of English history, landlords, as well as the populace more generally, strongly resisted the state's efforts to collect written information. Taxation took various forms, and each assessment was subject to parliamentary approval. Parliament often specified that records were to be destroyed to prevent their precedential use. Politically powerful landlords, well represented in Parliament, could block forms of taxation that required them to divulge information. The shift from direct to indirect taxes and the creation of an extensive bureaucracy to collect them was linked to the resistance of landowners to information gathering and to the emergence of industrial capitalism.

Fifth, the historical trajectory was important. Social actors provided relatively little demographic information to state actors. Few precedents developed for public, shared information. Thus, there was little interaction between state and social actors over demographic information.

The combination of these social factors and the historical trajectory determined the outcome: relatively little fiscal information gathering about the population. The state was pressured to increase taxation because of its location in the European geopolitical system. Increased taxation did create higher levels of bureaucracy and spurred some information gathering. However, the state was prevented from collecting extensive written information about the population because

of the feudal legacy of orality, the use of local notables and jurists as information intellectuals, and the power that they held vis-à-vis other state actors who tried to implement extensive written methods of information gathering. This overall pattern is illustrated in a different way in the Domesday Book and the hundreds rolls, the earliest and most comprehensive attempts to collect information. In these documents, the state successfully collected extensive information, probably because landlords supported its efforts to systematize oral rights in a written format that would have reinforced their newly established claims to land. However, later in history, landlords blocked similar efforts.

The combination of state and social influences also set long-term precedents on information gathering. The separation of the information about people and their assets occurred because of strong social resistance to taxation that forced the state to experiment to find the least disliked forms of taxation and then to restrict information gathering to the particular object or individual being taxed. Thus, information gathering followed fiscal requirements closely and many individuals fell outside of the scope of the records. Assessment procedures also fragmented information; for example, the format of the income tax made it impossible to know an individuals' entire income. As a consequence of the strong resistance to retaining written records, there were few written historical precedents for them, making future rounds of collecting information difficult, as each would have to begin anew. Thus, over a long period of time, taxation rarely focused on people; consequently, the first UK population census in 1801 had few fiscal precedents.

CHAPTER 4

Fiscal Information Gathering on the Italian Peninsula before National Unification

Italian information gathering developed in two intense waves in the post-Roman period. First, the late medieval and early Renaissance period produced a flowering of censuses, cadastral surveying, and scientific cartography (Jones 1997:452; Wolfe 1932:363–365; Zangheri 1980:39–51). The primary method was a declaration written by the taxpayer or government official in which land, people, and goods were simultaneously assessed (e.g., Comba 1977:1–23; Pini 1996:22–26). The second period coincided with the eighteenth-century reforms that swept the peninsula between 1713 and 1796 (Zangheri 1973:763; 1980:51–60). The primary method relied on expert-administered surveys and maps that focused on land, though they included some demographic information (Zangheri 1973:797–799). We examine the best examples of these methods: the Tuscan *Catasto* of 1427, the most comprehensive fiscal survey in late medieval or Renaissance Europe and the Lombard *Censimento*, the most sophisticated and technically advanced land survey in eighteenth-century Europe (Burke 1987:28; Capra 1999:435; Herlihy and Klapisch-Zuber 1985:xxiii). Both methods emerged, as in England, in response to political and economic crises that generated needs for increased revenues and were therefore tied to state formation. However, on the Italian peninsula, historical legacies of literacy, numeracy, and public documents facilitated information gathering (Jones 1997:220). Of course, Italy's initial advantage in lay literacy disappeared after the Renaissance. However, once established, the use of documents persisted and formed an important resource for information gathering.

Our specific cases of Tuscany and Lombardy within the Italian peninsula were relatively powerful and consolidated territorial or regional

states with city-state origins, but neither were unified national states, where multiple contiguous regions and cities were governed by centralized, differentiated, and autonomous structures, as was England (Tilly 1990:2, 48, 65). The precocious surveys undertaken there are surprising, then, from the state-centered perspective on information gathering, because they could not have been the product of strong, consolidated, or centralized states. Of course, information gathering was facilitated by the rise of regional or territorial states, but in comparison to England, these states remained weak. Before considering the state and social influences on information gathering in Tuscany and Lombardy, we consider the influences on the Italian peninsula more broadly, as the context for our specific cases.

The Political Economy and Written Culture of the Italian Peninsula

After the collapse of the Roman Empire, the Italian peninsula was divided politically. During the early Middle Ages, the Lombards nearly united the entire peninsula from the north; similarly, during the high Middle Ages from 1000–1380 (the communal period), the Normans almost accomplished the same feat from the south. Both rulers had highly advanced administrations (perhaps only rivaled by the English), and the Normans apparently attempted a survey like the Domesday Book in the 1220s (Clanchy [1979] 1993:6; Procacci 1971:15–21, 63; Wickham 1985:54). The subsequently long history of political fragmentation left the Italian peninsula open to series of imperial invaders who variously allied with the papacy or lay forces (Jones 1997:342–347; Wickham 1981:28). During the communal period, numerous self-ruling city-states emerged in the north. But their authority was weak because it was rooted neither in divine nor imperial justification. One response to this predicament was the political theory explaining sovereignty as stemming from bonds of association and organized human communities (Procacci 1971:24).

This seemingly weak justification, however, did not preclude the formation of powerful regional or territorial states, which accelerated from the late fourteenth century and into the mid-sixteenth centuries when signorias (rule by a lord, often hereditary [Jones 1997:152]) replaced the communes (Procacci 1971:48). By 1454, four regional states controlled the north: Venice, Genoa, Florence, and Milan (Emigh 2009:23–25; Procacci 1971:48, 51, 58, 60). The Papal State emerged as an effective political unit in the early fifteenth century (Procacci 1971:70). In the south, the kingdoms of Naples and Sicily

were united in the mid-fifteenth century (Procacci 1971:66). This was probably the period of the most intense state formation on the Italian peninsula before the eighteenth century (Hay and Law 1989:150–168). Indeed, the Italian peninsula probably had stronger and more cohesive states than most of Europe (excluding England).

After 1530, and until about 1713, Spain became the dominant power in Italy and the northern signorias lost their autonomy. These years of Spanish dominance were also a period of relative economic, political, and cultural decline (Procacci 1971:111–113, 126). This was partly reversed during the "age of reform" (1713–1796), when the Habsburgs initiated administrative and legal reform, particularly in Lombardy and Tuscany (Procacci 1971:171–172). The French invasion of the Italian peninsula in 1796 set off a new period of political reform lasting until 1815, when much of the peninsula again fell under Austrian control (Meriggi 2002:111–112). Thus, from the end of the Roman Empire to unification in the nineteenth century, Italy was fragmented into relatively small political units. Though relatively strong regional or territorial states developed, they all still faced serious challenges from transregional and transnational institutions such as empires and the church. Thus, they were weak states in comparison to England/Great Britain.

On the Italian peninsula, the basic prerequisites of information gathering (such as familiarity with documents, the existence of information intellectuals, marketization, and literacy) preceded, not followed, the emergence of strong, stable, and consolidated political units. States were therefore not the creators of these prerequisites. Consequently, information gathering was never fully captured by any individual political unit because it existed within a broader context that transcended the boundaries of the regional, preunification states. The reasons for this coincide with our three arguments about the social influences on information gathering, as well as illustrate our historical trajectories argument about how the interaction of state and social influences produced information gathering.

First, lay categories supported private and public information gathering. In contrast to England, on the Italian peninsula, there was little feudal tradition, especially in the north. Thus, at least to a large degree, the division between urban and rural inhabitants (*cittadini* and *contadini*) replaced the feudal categories of lord and serf (Jones 1997:314; Procacci 1971:11–12). The Italian peninsula was a marketized and monetized center for commerce and manufacturing (e.g., Jones 1997:76, 77). During the high Middle Ages, northern city-states were the most important European centers for finance, cloth

production, and trade (Jones 1997:179–196; Weissman 1982:3). Urban economies commercialized their surrounding rural regions (Jones 1997:159–173). In fifteenth-century Tuscany, for example, rural inhabitants, across a relatively wide spectrum of economic statuses and even in remote villages, engaged in local markets for land, labor, and commodities (Emigh 2009:72–73). This type of economy was tied to the widespread use of documents, even outside of the church and state, because they recorded obligations and transactions (Emigh 2002:664; Graff 1987:54–57; Jones 1997:156, 168–169). While England had a strong oral culture, the Italian peninsula had a strong written one (Burke 1987:113–114; Wickham 1985:65–67).

Information-gathering techniques such as the *Catasto* of 1427 and the *Censimento* drew upon long historical legacies (Emigh 2009:86–90; Zangheri 1973:765–766). The Romans deployed head taxes, and they assessed land taxes through declarations and surveys (Davis 1987:16; Kain and Baigent 1992:1–3; Zangheri 1973:761, 788). Government officials kept public records of taxes (Davis 1987:16). Many landholders kept their own estate records after censuses disappeared (Hallam 1986:30).

Throughout history, Italian notaries kept alive the Roman practice of the confidential registration of important private deeds (*insinuatio*) (Hyde 1993:116; Jones 1997:87; Stock 1983:39–42). Common persons, sometimes employing a notary, relied on written documents for "acts of every conceivable kind, public, private, and intimately domestic, from wills, dowries, and emancipations to confidential contracts, hiring a concubine, restraining a man from beating his wife or a merchant from exceeding a stated quota of love-affairs during absence abroad" (Jones 1997:157). Giovanni da Bologna, the Italian notary to the English Archbishop, noted in the late thirteenth century (Cheney 1972:135; Clanchy [1979] 1993:52; Green 1999:377–378):

> Italians, like cautious men, want to have a public instrument for practically every contract they enter into; but the English are just the opposite, and an instrument is very rarely asked for unless it is essential. Giovanni da Bologna [ND] 1863:604)

Notarial documents, omnipresent throughout northern Italy, including Tuscany and Lombardy, gave legal effect to transactions and interactions (Burke 1987:113; Emigh 2009:71; Giorgetti 1973:725; Jones 1997:157; Liva 1979:184). Even in relatively remote Tuscan rural regions in the fifteenth century, notarial documents were used extensively for many purposes, including property devolution and

participation in local markets, which helped coordinate household provisioning and agricultural production (Emigh 2002:665–677; 2009:71, cf. Jones 1997:168–171).

This extensive use of documents was predicated on widespread lay literacy. The literacy rate between 1000 and 1600 in northern Italy may have been the highest in all of Europe (Burke 1987:112; Cipolla 1969:48; Procacci 1971:55; cf. Clanchy [1979] 1993:12). Estimates of the literacy rate are very imprecise, but they might have been somewhere between 25 percent and 60 percent before the early modern period (Graff 1987:76–90; Grendler 1989:78; Jones 1997:157; Petrucci 1995:68; Wickham 1981:125). In England, in contrast, in 1500, the male literacy rate was only about 10 percent, rising to about 30 percent only by 1600 (Cressy 1980:177). Schools were widespread in Italy, especially in Milan and Florence, and they existed even in rural regions (Balestracci 1984:22; Cipolla 1969:45–46; Conti 1966:85; Emigh 2002:664–665; Grendler 1989:13–33, 74–78, 308–309; Jones 1997:447–452; Petrucci 1995:74). From the fourteenth century, all of the principal Italian towns had schools that taught writing and mathematics (Jones 1997:220; Roggero 1994:1041–1042; Swetz 1987:11–24). Even the formally illiterate or marginally literate would have been familiar with written format and understood the knowledge and power that it held (Conti 1966:85; Emigh 2008:202; Stock 1983:522; Wickham 1981:125–126; cf. Burns 2010:3–10, 122, 134; Eiss 2008:60). Written documents were widely used for a variety of purposes in the government, family life, business, and the church (Burke 1987:113). In sum, the lay categories already deployed in written documents would form the basis of states' fiscal information gathering.

Second, there was a longstanding culture of record keeping attached to specific social strata like land surveyors, estimators, lawyers, and notaries, who as "autonomous intellectuals," came to play key roles as information intellectuals (cf. Hyde 1993:112). State officials drew on the knowledge of these intellectuals, by either incorporating them or their expertise into the government. Lawyers and notaries became part of the permanent staff of government; they were literate, knew the rules, and helped to rationalize administrative procedures (Litchfield 1986:77–83; Martines 1968:3–7; Wickham 1985:67–68). Notaries were crucial to the *Catasto* of 1427. Starting with the Lombard rulers in the early Middle Ages, written law and written evidence were the basis of jurisprudence (Anderson 1974:24–25; Hazeltine 1926:739; Wickham 1981:124). In England, courts relied on oral testimony; in Italy, though oral testimony was fully admissible in courts, it was rarely used after 900 because there

were so many documents (Wickham 1985:53, 66–67). The Italian peninsula had a long tradition of information gathering carried out by civic authorities that was not found elsewhere in Europe (Zangheri 1973:804). Local, city-based traditions of information gathering long preceded the emergence of a peninsula-wide political unit.

The universal institution of the church also played an important, but paradoxical, role. Church intellectuals, in their struggles against imperial pretenders, formulated a distinction between political and ecclesiastical sovereignty meant to provide a legal justification for the independence of the northern city-states (Jones 1997:353–354). But this opened a space for a new form of secular intellectual life focused on Roman law. In the eleventh century, the novel institution of the university emerged at Bologna and then spread in the twelfth and thirteenth centuries to other Italian cities (Procacci 1971:36). Italian universities trained students in law and medicine by drawing on the intellectual heritage of classical antiquity, and they were not controlled by church authorities as elsewhere in Europe (Procacci 1971:36–37). Among this narrow stratum of highly educated men, a consciousness of a specifically Italian identity—defined as the heir to the Roman tradition—emerged (Hyde 1993:112; Procacci 1971:39). This stratum of cosmopolitan intellectuals who moved physically and intellectually between the city-states of the north maintained its importance in later centuries (Hyde 1993:113). In Tuscany, notaries and lawyers were central to the Florentine government in late Middle Ages and Renaissance (Litchfield 1986:77–83; Martines 1968:171). Cultivated men who normally came from outside the administration were a major force for reform in the mid-eighteenth century (Venturi 1976:220–221). These autonomous intellectuals became crucially important for Lombard reforms that depended on technical experts—surveyors, engineers, and politicians—coming to Lombardy from across the Italian peninsula and participating in the *Censimento*. For example, the heads of the two main administrative bodies governing the census, Vincenzo De Miro and Pompeo Neri, were Neapolitan and Tuscan, respectively. In the later eighteenth century, non-Lombard Italians continued to dominate the bodies that led administrative reform in Lombardy (Capra 1987:67, 160–162, 224–225). Throughout the Italian peninsula, information intellectuals came from this broader stratum of educated autonomous intellectuals (Hyde 1993:113; Zamagni 1993:9–10). They produced detailed written information that the state could easily adopt.

Third, the absence of feudalism and the marketized economy meant that many landowners in rural regions were powerful urban,

not rural, residents (Aymard 1982:137–138, 141–142). Because the urban economy was the basis of economic and political strength, these urban owners of land in rural regions were powerful and influenced taxation, and they had different interests than rural landowners had. Because there was generally a mix of urban and rural landowners in rural regions, who had different interests, landlords did not form a single unified political block. Consequently, there was no unified opposition to (or support for) information gathering by landed interests. In contrast, the feudal legacy in England/Great Britain created a powerful group of rural landlords who pushed their unitary interests in preventing information gathering.

Finally, in contrast to England, where there was little information gathering, on the Italian peninsula, the interaction between states and societies created a historical trajectory of frequent and plentiful information gathering. Early literacy in northern Italy, combined with the Roman tradition of public documentation, created a strong tradition of governmental record keeping across many centuries. Of course, Italian literacy declined later in history. By 1860, only about a quarter of the Italian population could read compared with almost 70 percent of the population of Great Britain (Tortella 1994:1; cf. Cipolla 1969:19). This was partly because the Counter-Reformation church was hostile to lay literacy, especially among women (Roggero 2001:911–912). It also may have stemmed from the disappearance of smallholders, whose use of documents to record their property meant that a large percentage of the population had to be familiar with written formats (Emigh 2009:214–215). Land consolidation created fewer landowners, and consequently, a smaller percentage of the population had to keep ownership records, especially when leases were oral (Emigh 2009:164–165). Nevertheless, despite this decline in literacy, there remained a strong tradition of written, public documents and a long historical trajectory of government collection of information, as we will show in more detail for Tuscany and Lombardy. The shift from fiscal surveys, like the Tuscan *catasti*, to land surveys, like the Lombard *Censimento,* narrowed the focus of information gathering to land. Nevertheless, population information was still collected for head taxes, creating long-term precedents for the first Italian census.

Fifteenth-Century Tuscany: Descriptive Tax Declarations

Like many northern Italian regions, Tuscany was originally a city-state, centered in Florence, and it was a major center for international

trade, finance, and manufacturing (Emigh 2009:23, 94; Jones 1997:193–196; Tilly 1990:16–19). During the fifteenth century, it was becoming a territorial or regional state; though, of course, it was not a modern, nation-state or national state (Emigh 2009:23–25; Jones 1997:370). The government was composed of multiple judicial and executive bodies, whose members were generally Florentines who held office for short terms of several months (Weissman 1982:4–10). Notaries, along with lawyers, formed the basis of the Florentine government bureaucracy and staffed permanent offices, such as the office of the *Catasto* (Martines 1968:171). The government was not sovereign; many individuals fell outside its jurisdiction and authority. Nevertheless, this city-state was among the most consolidated European states, except for England, at that time. Throughout the late medieval period, Florentines dismantled local governments and administrative units throughout Tuscany and subjected them to Florentine law, administration, and taxation (Emigh 2009:23–25). During the fifteenth century, though sharecropping (a form of leasing in which the rent was a portion of the harvest, generally one-half in Tuscany) was spreading, rural Tuscany was still a mix of smallholding and sharecropping, and to a lesser extent, fixed-term leasing (Emigh 2009:65, 97). Smallholders generally owned their land outright; they could sell, buy, lease, or deed land and other assets (Emigh 2009:72). Florentines, often merchants, were large landowners in rural regions, and they generally leased their land to rural inhabitants in share terms, or sometimes fixed terms (Emigh 2009:95, 97).

Across the fourteenth and early fifteenth centuries, the amount of information increased along with the fiscal needs of the government and the level of bureaucracy (Conti 1966:3–19). Florentine taxation was shaped by the military's revenue demands. Between 1385 and 1421, Florence militarily conquered the nearby cities and territories and incorporated them into its own region (Emigh 2009:24). A costly war with Milan in 1423 was a major trigger for the 1427 tax reform (Herlihy and Klapisch-Zuber 1985:4–6).

The *Catasto* of 1427 changed tax assessment but drew on a long information-gathering tradition. Previous taxation—as in England—had been based primarily on quotas. Within Florence, government officials assigned amounts to districts, and then assessors assigned amounts of forced loans to households (Herlihy and Klapisch-Zuber 1985:4). In the *contado* (the rural region surrounding Florence and tied most closely to its jurisdiction), officials assigned amounts to local communities and then men elected from that community distributed amounts to local families (Conti 1966:4; Herlihy and Klapisch-Zuber

1985:6–7). Over time, more information was collected to distribute taxes in rural regions, including descriptions and values of properties owned by local inhabitants and their ages (Herlihy and Klapisch-Zuber 1985:6–7, 164). Lists of household members were used to calculate the number of adult males subject to the head tax (Herlihy and Klapisch-Zuber 1985:7). In the Florentine district (the parts of Tuscany outside of the *contado*), taxes were also assessed, though less systematically. Some cities in this region had assessed taxes before the *Catasto* of 1427, sometimes using methods that were similar to the ones used in the *contado* (Herlihy and Klapisch-Zuber 1985:8; Molho 1995:S116). Fiscal accounting also improved. From 1383 to 1384, account books began to track the state's income and expenditures (Molho 1995:S110–S112). The Florentines copied the Venetians, who assessed taxes through *catasti* (Herlihy and Klapisch-Zuber 1985:9–10).

In contrast to these previous systems of taxation, the *Catasto* of 1427 was based on households' written declarations (Conti 1966:21). Household members wrote their own declarations, or they were assisted by the literate (Emigh 2002:666–667). Declarations contained lists of households' real property (houses and land), moveable assets, credits, and debts (Emigh 2009:168–169; Herlihy and Klapisch-Zuber 1985:11–17). The descriptions of property included the location, boundaries, value, size, and three-year averages of any rent or agricultural yield. Other major assets or liabilities, such as livestock, credits, and debts, were for the most part listed separately along with their values. Declarations also listed household members and their names, their relationships to the household head (generally the oldest male), and their ages. While all this information was provided on the same document like the Domesday Book, unlike the English document, the information was conceptualized as separate pieces and split into three separate sections (assets, debts, and household members). Furthermore, in contrast to English documentation, information was provided for all individuals, assets, and debts, regardless of whether they affected taxation. For example, rural women, the poor, and families' houses were tax exempt but still recorded (e.g., Emigh 2000:124–130; Herlihy and Klapisch-Zuber 1985:19). Thus, assessment provided more information than in England.

The state influenced information through repeated requests for systematic reporting and the tax incentives associated with it (Herlihy and Klapisch-Zuber 1985:164, 181, 258). Age and sex distributions in the *Catasto* in particular were affected by tax incentives (Herlihy and Klapisch-Zuber 1985:138–142). Tuscans learned to report their

ages more accurately over time, in response to tax officials' demands for information (Herlihy and Klapisch-Zuber 1985:164, 181).

Lay knowledge inherent in literacy and numeracy, the political economy, and cultural practices also strongly influenced the *Catasto* of 1427 (Emigh 2002:655; 2008:203). Numeracy and literacy were widespread, and they combined with a political economy in which individuals from multiple social classes owned property and other assets outright to produce extensive written documentation. The long tradition of recording transactions in notarial documents supported the *Catasto* of 1427. Property descriptions in notarial documents and *Catasto* declarations were often similar (Conti 1966:30–34; Emigh 2002:674–676). Many individuals could have used information from their notarial documents in their *Catasto* declarations (Conti 1966:30–34; Emigh 2002:674–676).

Tuscans knew and recorded in writing their credits and assets because of patrimonial partible property devolution (partible inheritance for men at their father's death and dowry payments for women at their marriage) and local markets for land, labor, and commodities. These social practices assured that Tuscans frequently exchanged assets and debts through sale, gift, or deed and that they recorded their values to preserve their or their offsprings' interests, to limit their liabilities, and to show that they were reliable parties in transactions (Emigh 2002:687–688; 2008:221–222; Molho 1994:13, 17). Although Tuscans responded to tax incentives in the *Catasto* of 1427, the incentives embedded in individuals' interests in the transactions were the more powerful influences on assets and debts in the *Catasto* of 1427 (Emigh 2002:688; 2008:219–220; cf. Conti 1966:59). The social influences on fiscal information about debts and assets were more important than the state ones.

Patrimonialism influenced recording practices in the *Catasto* in several other ways. *Catasto* officials deployed the cultural category of household head as a methodological device to organize the declarations; it in turn affected the information (Emigh 1999b:197). Because of cultural expectations about women's appropriate marriage age, fathers systematically lowered their unmarried daughters' ages in their *Catasto* declarations to improve their marriage chances (Herlihy and Klapisch-Zuber 1985:141; Molho 1988:201–204, 217). Men raised their age to be eligible for political office at age 30 (Herlihy and Klapisch-Zuber 1985:168). Thus, while both the state and society influenced information about age and sex, society had more influence than the state on information about assets and debts because this financial information had more extensive implications for individuals'

own incentives with respect to reporting in the *Catasto* than the demographic information. Overall, social influences on fiscal information were stronger than state ones.

The level and detail of this information also illustrates that the Florentine government was capitalizing on what Tuscans already knew (Emigh 2002:688–689). The *Catasto* would have been impossible without Tuscans' specific knowledge of their assets and debts (Emigh 2002:666). In fact, Tuscans had more knowledge than tax officials wanted, and it overwhelmed them (Emigh 2002:679, 686–687). The redaction of the *Catasto* of 1427 took much longer than officials expected. Procedures were simplified as collection progressed because they were too labor intensive, and the Florentines never again attempted such a detailed survey (Herlihy and Klapisch-Zuber 1985:11, 26). Like early English information gathering, the state was not able to capture fully what the populace already knew. While the *Catasto* of 1427 was certainly linked to state-building processes, the Florentine government was largely dependent upon information that its populace already knew by engaging in its own financial transactions.

In contrast to widespread English resistance to information gathering, although urban and rural Tuscans complained about taxation and tried to escape it, there was apparently only one large-scale attempt to resist the *Catasto* of 1427 (Emigh 2009:125; Herlihy and Klapisch-Zuber 1985:8, 23–24; Petralia 2000:68). The Volterran commune refused to submit declarations, and the Florentines sent an armed garrison to suppress the revolt and gather the declarations (Herlihy and Klapisch-Zuber 1985:24). Volterra had recently come under Florentine jurisdiction, so it probably resented the attempts to collect taxes. However, the final declarations from Volterra and its countryside are as detailed as in other regions (e.g., Emigh 2009:71–72). Thus, Florentines were not imposing demands for information on the Volterrans that they could not provide; they simply did not wish to provide it. More generally, Florentines were major landowners in rural regions, and rural smallholders were much less powerful politically and economically than Florentines, so urban dwellers were not attempting to impose taxes on wealthy, powerful rural landlords (though urban and rural dwellers were taxed differently, Emigh 2009:125–126). Opposition to the *Catasto* came instead from commercial and mercantile leaders who feared the open itemization of assets, but they could not prevent its enactment in 1427, perhaps because of widespread discontent with the existing form of taxation among Florentines (Martines 1988:303). Nevertheless, these

merchants were themselves often landowners, so landlords and merchants were not two distinct groups of elites or classes that systematically, over time, attempted to push taxation on each other (Emigh 2009:95).

After 1427, *catasti* were conducted in 1431, 1433, 1442, 1446, 1451, 1458, 1469, and 1480 (Conti 1966:24; Emigh 2009:176). The *Catasto* of 1427 provided the most information; the level of detail generally declined over time (Herlihy and Klapisch-Zuber 1985:26). After 1434, there was some reversion to the quota system (Conti 1984:91; Molho 1995:S118–S119). Only the documents from 1427, 1430, and 1433 were collected in two stages, in which the government officials recopied the tax-payers' own original declarations and added the tax calculations to create an official set of declarations (Conti 1966:43; Emigh 2009:176). In 1458 and 1469, households were required to submit declarations of all their assets, liabilities, and household members; in the remaining years, they were required to submit partial lists of assets (Conti 1966:23; 1984:252, 273, 282; Molho 1994:361). Conflicts between the interest of landowners on the one hand, and the commercial and mercantile interests on the other, continued to shape the specific details of taxation, such as rates and deductions on various types of assets, but neither set of interests consistently won (Martines 1988:303–305). Nevertheless, despite the varying regulations and practices, the information in these later *catasti* was often as extensive as in 1427 (e.g., Emigh 1999a:351–380; 2009:175–178). The amount of information surpassed anything collected in England for hundreds of years.

Furthermore, Tuscans, unlike the English, used this information precedentially (cf. Goody and Watt 1977:470). First, officials cross referenced different years of *catasto* declarations. Rural residents who had been subject to assessment in 1424 were required to give the value of that assessment in 1427 (Emigh 2009:186; Herlihy and Klapisch-Zuber 1985:7). Officials used the 1424 lists of household heads to compile the 1427 returns. In 1433, officials calculated taxes using the list of crops from 1427 (Emigh 2009:177–178). In the 1457 and 1469 declarations, households had to give the names of the individuals who had owned their property in 1427 if it had been bought or sold subsequently (Conti 1966:79; 1984:252, 268, 273; Emigh 2009:176). Second, individuals understood that government documents were also precedential for private transactions. Failure to declare property in the *catasti* could call into question its legal title, and individuals' incentives to preserve their rights to property strongly shaped recording practices (Emigh 2002:692n22; 2008:218–219;

Herlihy and Klapisch-Zuber 1985:18). Fathers' deliberate lowering of their daughters' ages in their *Catasto* declarations to make them more easily marriageable and to give them an advantage in private dowry negotiations shows their understanding of the value of public information (Molho 1988:216–217).

In 1495, the *decima*—the tax was a tenth of the land's annual rent—was introduced and used until the first decades of the nineteenth century (Capra 1999:425–426; Conti 1966:23, 131–132; 1984:297–298; Herlihy and Klapisch-Zuber 1985:26; Molho 1995:S124–S125). The land tax was assessed on Florentine citizens and inhabitants of the *contado* (inhabitants of the district were exempt, but they were subject to whatever tax system was already in place) (Contini and Martelli 2001:104–105). Share tenants paid the *decimino*, 5 percent of the *decima* corresponding to the land that they worked (Capra 1999:426). These taxes were assessed according to a land register drawn up in 1495 and revised in 1532 (Capra 1999:426, 427). The 1532 *decima* register was the last descriptive land survey in Tuscany until 1834 (Capra 1999:427; Conti 1966:173–174; Contini and Martelli 2001:105). The *decime*, in contrast to the *catasti*, were based largely, but not solely, on households' declarations. The *decime* combined information from private inventories with that compiled by the officials, who went into the countryside to assess land values (Conti 1966:136, 149–150; Contini and Martelli 2001:104). The *decime* generally contained less information than the *catasti* (Conti 1966:141). After the last *decima*, the descriptions remained unchanged and did not necessarily reflect the real configuration of the land (Conti 1966:178; Pagnini 1765:47–48). The head tax continued to be imposed but at a reduced rate (Conti 1966:163–164). Inhabitants of the *contado* who did not own land (agricultural workers, artisans, and merchants) were also subject to various head taxes that varied according to fiscal needs (Contini and Martelli 2001:105).

Many other Italian states adopted similar land taxes in the fifteenth and sixteenth centuries, though indirect taxation and public debt were also important revenue sources (Capra 1999:418). In Tuscany, in the sixteenth century, there was an increase in indirect taxation, and by the 1700s, indirect taxation comprised as much as 70 to 80 percent of revenue (Capra 1999:426–427; Contini and Martelli 2001:107). Head taxes and poll taxes based on presumed consumption were also used (Contini and Martelli 2001:107; Dal Pane 1965:102). For example, in 1678, the indirect tax on flour (*macinato*) was transformed into a head tax (Capra 1999:427; McArdle 1978:35). The head tax (*personale*) on agricultural workers and artisans in the *contado* was

maintained when the *decimino* was abolished during tax reforms of the 1770s (Contini and Martelli 2001:115; Mirri 1959:496). The head tax was replaced by the family tax in 1815 (Parenti 1956:3). This family tax recorded the name of the household head, his occupation, residence, and amount of tax (Breschi et al. 2004:125). This tax was a quota tax, set by the Tuscan government, and distributed by local residents to households according to some broad economic categories that were intended to account for households' income, property, and goods (Breschi et al. 2004:125; Dal Pane 1965:281; Manfredini and Breschi 2005:159; Parenti 1956:3–4).

In sum, official data collection flourished in fifteenth-century Tuscany, as evidenced by the famous *catasti*. Their implementation was certainly linked to the exigencies of state building and the expenses of war. Nevertheless, as in the English Domesday Book, the Tuscan state's contribution was most apparent in the systematizing of the information, and in particular the creation of comprehensive, repeated cross-sectional data and the improved accuracy of the demographic information. The ultimate success of the *catasti* was contingent upon lay categories inherent in social institutions such as widespread lay numeracy and literacy, property ownership, and cultural practices of patrimonial headship (Emigh 2002:687–690; 2008:220–222). To a large extent, the state compiled information that families already knew through their participation in these social institutions. Thus, the categories and content of the information were strongly shaped by society's economic and cultural practices. Notaries were important information intellectuals who recorded information for private parties and for the state. While Tuscans certainly wished to avoid taxation, they rarely objected to the collection of written information for assessment.

The success of information gathering then depended upon this particular interaction between the state and society: the ability of the state to systematize, through notaries' practices, widely known social knowledge. And, of course, information-gathering practices in turn affected the tax officials and lay society and created long-term historical trajectories. Officials altered their policies in response to society's overwhelming amount of information. Furthermore, age reporting in the *catasti* shows that Tuscans became more precise about their biological age as information gathering proceeded across the fifteenth century (Herlihy and Klapisch-Zuber 1985:164, 181).

While official record keeping in Tuscany began very early, the region had lost its advantage by the early sixteenth century. For over three centuries after 1532, no complete survey was undertaken, probably

because of the region's general economic decline and the changing nature of political power. In addition, the very earliness of the *Catasto* may have made it difficult to institute a reform in the eighteenth century, when geometric surveys, such as the *Censimento*, were becoming common throughout the Italian peninsula. In contrast, because the Lombards were largely developing new information-gathering technologies, not replacing existing ones, they probably could implement the geometric survey more easily. Descriptive cadastral surveys, however, like the Tuscan *catasti*, were common on the Italian peninsula, especially in Sicily, where they were institutionalized and conducted regularly between the sixteenth and eighteenth centuries (Italy MAIC 1862:116–117, 259–260; Longhitano 1988:27–39; Wolfe 1932:363–365; Zangheri 1980:39–51).

Eighteenth-Century Lombardy: Land Surveys for Taxation

The Lombard *Censimento* reflected a European-wide shift toward cadastral surveys following the wars at the beginning of the 1700s. Efforts to establish cadastres to reform taxes occurred where conflict had been most intense, particularly on the Italian peninsula (Alimento 2001:5; Capra 1999:431, 433–436; Kain and Baigent 1992:180–182, 187). Through a land tax, the Austrian Habsburgs hoped to increase their revenues in Lombardy, one of their principal provinces. Agriculture was the largest sector of the Lombard economy (employing nearly 85% of the population), though it was a highly urbanized and well-developed European region (Grab 1989:51, 55; Tilly 1990:48).

The *Censimento* was famous for its accuracy and importance in reforming Italian political and economic institutions (Klang 1977:1–2; Zangheri 1973:789–790). It was the most sophisticated and technically advanced survey in eighteenth-century Europe (Capra 1999:435; Capra and Galli 2001:55). Although it was anticipated elsewhere (e.g., France), it reached technical perfection in Lombardy (Zangheri 1973:770). Other Italian states modeled it and drew on Lombard expertise (Biagioli 1975:5; Capra 1999:436, 437; Contini and Martelli 2001:118; Einaudi 1974:5–6; Kain and Baigent 1992:187–190; Klang 1977:12; Venturi 1972:20; Zangheri 1973:768–788).

The *Censimento* depended on interaction between the state and society. In part, it was successful because the Austrians and the Italian legal and technical experts from outside Lombardy overcame Lombard elite resistance (Capra and Galli 2001:55). Without Austrian pressure,

the Lombards would not have conducted the land survey, but local Lombard conditions were crucial for its success (Klang 1977:12).

The *Censimento* was carried out amid fierce controversy, but it was ultimately successful because at least some landlords supported it and adapted it to their own interests. In contrast to England/Great Britain, landowners in Lombardy were not opposed in principle to taxation based on written information (though they undoubtedly disliked taxation), and cadastral surveys were common Italian institutions. However, landowners and cultivators had different interests in tax reform in the three Lombard agricultural regions (Capra and Galli 2001:56): the undeveloped high mountains cultivated by poor peasants; the high plains where wheat, corn, and mulberry trees were cultivated by sharecroppers and fixed-term lessees on small- and medium-sized farms; and the highly fertile low plains where protocapitalist rural entrepreneurs, landowners, and tenants managed large irrigated and capitalized farms cultivated by wage laborers (Grab 1989:51–52). The interests of these protocapitalists in particular aligned with the new eighteenth-century geometric surveys, even though many landed elite, especially the Milanese, opposed the *Censimento* (Klang 1977:11–12). These surveys could create more equitable, rationalized taxation that reduced the feudal privileges of rentier landlords by increasing their taxes vis-à-vis protocapitalist landlords (Biagioli 1975:6–7; Capra and Galli 2001:56–57). In fact, in most other Italian regions, rentier landlords remained strong enough to defeat tax reform until French rule introduced new information-gathering techniques in the late eighteenth century (Biagioli 1975:6–7, 14–15). Though sympathetic local residents were unorganized and timid, the Lombard commissioners noted their assistance (Klang 1977:12). The gap between the survey's completion in 1733 and the imposition of the land tax in 1760 powerfully attests to the strength of local resistance and the lengthy and intense negotiations to appease landowners and tenants (Capra and Galli 2001:55, 62; Klang 1977:12, 15–19).

Furthermore, the *Censimento* depended on the Lombards because the Austrians lacked the institutional capacity to conduct it; these institutions developed only after the survey's introduction (Neri [1750] 1985:76). Austrian Lombardy was a model of indirect rule, with exceedingly complex and overlapping webs of imperial, noble, and ecclesiastical authority (Capra 1987:37–48; Tilly 1990:24–25). Three asymmetrical power relationships were crucial: the Habsburgs's imperial domination over the Lombards, the Milanese patriciate's domination over the non-Milanese patriciate, and citizens' (residents of

Milan and the provincial capitals) domination over rural inhabitants (Capra 1987:37–39).

Austrian rule was remarkably superficial and fragile. The governor was usually a military figure with little knowledge of Lombard political institutions (Capra 1987:37). Milanese patricians had few administrative links to the provincial cities that were mostly self-governing bodies, and these links were mostly juridical, not legislative or executive. In particular, the only institutions for centrally enforcing taxation acted mainly as courts, so they applied existing law to cases brought before them rather than creating new laws. The Austrians lacked bureaucratic institutions—either their own or Lombard—to transmit and enforce centrally made decisions to subordinate officials (Mozzarelli 1982:30, 35–36).

Before Austrian rule, the Spanish assigned tax quotas to Lombard provinces, as in England and fourteenth-century Tuscany, leaving the subdivision to local communes (Neri [1750] 1985:72–73). Quotas were based on a descriptive survey from the mid-1550s in Lombardy (though it was not completed in remote regions or where powerful landlords opposed it) and on arbitrary amounts representing business activities added to land values in 1599 (Kain and Baigent 1992:182).

The Austrians wanted to reform this taxation system that was based on few regulations, outdated assessments, and a head tax (Capra and Galli 2001:55–57; Kain and Baigent 1992:182; Neri [1750] 1985:41). Although taxation was relatively light overall (though the populace complained that it was burdensome), it fell predominantly on peasants and artisans, not on wealthy landlords, in contrast to England/Great Britain (Capra and Galli 2001:56–57; Kain and Baigent 1992:182; Klang 1977:5–6, 9–10, 20, 33–34; Neri [1750] 1985:26–37, 50–65, 188–189; Saba 1985:19). The Austrians also hoped to eliminate the power of the local administrators who set the taxes and lent money for them at usurious rates (Neri [1750] 1985:74–75). The Austrians' increased fiscal demands exacerbated the old system's problems and set off demands for reform (Zangheri 1973:791).

The *Censimento* was undertaken by the protobureaucratic De Miro Council (*giunta;* Capra and Galli 2001:59), which was composed of five non-Milanese officials and led by the Neapolitan Vincenzo De Miro (Capra 1987:64–67; Klang 1977:8–10; Zangheri 1973:792). Councils were key to Lombard reforms because they allowed the Austrians to circumvent local power, but their position was insecure. They played a complex political game, balancing the interests of the Austrians, the Lombard governor, and the local elites (Capra and Galli

2001:59). They were usually staffed by non-Lombard Italians, often southerners and Tuscans.

The De Miro Council was given only a vague mandate: to determine what government office should be entrusted with the work, how to fund it, and whether census declarations of goods were needed (Zangheri 1973:792). The mandate never specified a massive land survey with maps (Zangheri 1973:792). The work was extremely controversial and involved struggles among three main institutions: the De Miro Council, the Urban Council (*Giunta Urbana*) established by the Milanese in 1719 to watch over the De Miro Council, and the Congregation of State (*Congregazione dello Stato*) that represented a mix of Milanese and provincial interests with different lines to the Viennese court (Capra 1987:70–71; Klang 1977:13–14). The *Censimento* was the outcome of a struggle by the Milanese authorities against the nobility, the church, and certain territories (Kain and Baigent 1992:182).

The opening decree of the *Censimento* on April 22, 1719, required all persons to declare on a form their name, age, residence, the extent of their land according to standardized descriptions (e.g., irrigated fields, with or without trees; vineyards), and their rent from other assets (e.g., mills, olive presses) (Zaninelli 1963:33–34, 121–122). Standardization was not new, as the Tuscan *catasti* had anticipated it, but the use of forms was novel. Another important innovation was that these declarations were made in the place where the land was located, signaling the intent to create a register of land, not a register of taxpaying proprietors (Zaninelli 1963:34). Though this decree generated considerable resistance, especially from the Milanese, the Congregation of State, and the church, declarations were nevertheless completed by December 1720 (Capra 1987:54, 68–69; Zaninelli 1963:38). The De Miro Council encouraged accurate declarations by providing substantial tax incentives for landlords who complied, by publishing the declarations, and by denouncing fraud (Capra and Galli 2001:55; Klang 1977:5; Zaninelli 1963:34–35).

The De Miro Council also required land measurement. It employed a new method, developed by one of its member, the Udinese mathematician Giovanni Giacomo Marinoni (who was also a cartographer for private patrons), using a plane-table (or plain-table; *tavoletta pretoriana*) (Capra and Galli 2001:60; Kain and Baigent 1992:178, 183; Zaninelli 1963:42–43). This new technique created a huge controversy because it undermined the power of local officials, as a single surveyor assumed their multiple roles in land measurement and thus their ability to control the measurement process (Capra 1987:70; Neri

[1750] 1985:107–108; Zaninelli 1963:45). In the early 1720s, teams composed of a delegate commissioner, a chancellor, a scribe, and three geometers aided by three assistants measured the land and produced maps (Zaninelli 1963:50). Local residents helped the teams carry and set up their equipment and understand the land's quality, extent, and suitability for different crops (Zaninelli 1963:49). In collecting information, the De Miro Council also drew on acts of sale, purchase, and transfer; expense books; local *catasti* conducted at the communal level; and oral testimony (Capra 1987:71; Zaninelli 1963:47, 65).

Finally, the De Miro Council estimated the value of the land in 1725 and 1726 (Zaninelli 1963:70). Assessors appointed by the De Miro Council visited local regions to specify the land's quality (good, average, or poor), use, and cost of production (Kain and Baigent 1992:183). Assessment was even more controversial than the declarations or measurement. The De Miro Council resolved technical problems about estimating the costs of irrigation, the quality of land, and deducting agricultural expenses (Capra 1987:71; Klang 1977:15–17; Zaninelli 1963:62). Throughout this process, the De Miro Council relied on the knowledge of local experts, landowners, and cultivators (Klang 1977:16; Neri [1750] 1985:127; Zaninelli 1963:68). Assessment was nearly complete when war interrupted it in 1733 (Kain and Baigent 1992:183–184).

Because of the large number of legal actions (*ricorsi*) filed in 1726, the Milanese successfully lobbied Vienna to establish a College of Engineers (*Collegio dei Periti*) made up of six members of the De Miro Council and six members from outside the De Miro Council appointed with the consultation of the Congregation of State (Klang 1977:16; (Neri [1750] 1985:128). This body settled countless appeals and reassessed most of the land in a way that was acceptable to the notables and the Crown; it was a major accomplishment of the De Miro Council (Klang 1977:16). Lombard landowners won major concessions during assessment (Klang 1977:17). Thus, information gathering involved collaboration with the landowners, reliance on local knowledge, and intense interaction between the various government councils (Klang 1977:16–19). The specifics of assessment were strongly shaped by Lombards' lay knowledge and resistance, not by the original Austrian proposal.

Though the *Censimento* focused on land and contained little population information, the De Miro Council undertook at least two separate population counts to reform the head (personal) tax (cf. Sala 1980:152–153). In 1726, local authorities had to provide a complete population count, the number of men, the number of women 7 years

of age or older, and the number of men between 14 and 70 years of age (Zaninelli 1963:69). A second head count of the male population between 14 and 70 years of age was carried out in 1730 (Capra 1987:80–81; Neri [1750] 1985:49; Zaninelli 1963:93–94). The De Miro Council collected this information to undermine the power of the local administration to determine the division of the head tax (which would have undermined the equality that a uniform land tax was supposed to create), and it was therefore widely resisted (Capra 1987:74; Capra and Galli 2001:56–57; Klang 1977:19–21, 89–90n55; Zaninelli 1963:94). Though the head tax was controversial, it was eventually approved at a uniform rate on all rural Lombard males between the ages of 14 and 60 years (Klang 1977:22). Its approval was perhaps facilitated by the support of landlords, who generally paid the head tax for their workers and used it to control these workers by indebting them (Klang 1977:19–22; Romani 1957:14–15).

In 1749, the Neri Council, led by the Tuscan Pompeo Neri, and composed of several other Italians from outside of Lombardy, undertook the second burst of reform following interruptions caused by several wars (Capra 1987:160–162; Capri and Galli 2001:63–64; Kain and Baigent 1992:184). The Neri Council completed the information-gathering activities of the De Miro Council (Capra 1987:167; Capra and Galli 2001:66). In late 1750, Neri called the communal registrars (*cancellieri comunali*), the local government officials charged with administering the reform at the communal level, to Milan (Capra 1987:167; Capra and Galli 2001:65). They received instructions for correcting errors and making changes to the maps (Capra and Galli 2001:65). Neri also distributed a survey of 45 questions asking about the legal status of the land, the tax loads, capital revenues, and administrative structures (Capra and Galli 2001:65).

In 1754, the Neri Council conducted a population census to assess the head tax (Capra and Galli 2001:66). The survey asked about the previous round of taxation: the total number of persons, the number of persons subject to the head tax, and the amount of tax assessed. It also asked for current information: the total number of persons and the number of persons subject to the head tax (Mazzucchelli 1973:391–392). The Neri Council undertook this headcount to guarantee a uniform tax burden and to undermine the ability of the local administration to change it (Capra 1987:168).

The Neri Council also reformed political institutions so that the *Censimento* could be applied in practice to collect revenue. It created census delegations that were headed by a census registrar nominated by the Neri Council, who had to be a university graduate, a notary,

an engineer, or a public land surveyor and who could not own land in the region within his jurisdiction (Capra 1987:170; Capra and Galli 2001:67). Registrars had to keep the archives containing the maps and land registers, issue proofs of ownership, preside over local assemblies, control their balance sheets, and enforce the tax regulations (Capra and Galli 2001:67). These registrars could limit the actions of the communal officials, elected by landowners, who administered local affairs (Capra 1999:436). Thus, as in the English Excise Office and the Tuscan Office of the *Catasto*, a professional staff was created. The tax based on the *Censimento* was put into effect on January 1, 1760, despite the dissolution of the Neri Council in 1758 (Capra and Galli 2001:68, 69).

The new land survey had two important innovations. First, the *Censimento* assessed tax liability not for each landowner but for each piece of land used for a single productive purpose and not broken up by ditches, paths, or trees (Capra 1987:70–71; 1999:435; Capra and Galli 2001:60; Klang 1977:5; Zangheri 1973:764, 798). Thus, taxes no longer depended on the owner's characteristics. This constituted a frontal attack on the previous system because it undermined political control over tax repartition based on personal status.

Second, the Neri Council based the *Censimento* on "natural" rent, subtracting the value of investments (Neri ([1750] 1985:3, 21, 26; Saba 1985:13). The impetus for natural rent came from the Urban Council that represented Milanese landholders with highly improved farms who demanded exemptions for the current and historical value of their investments, as well as from other landowners who would benefit from these deductions (Klang 1977:15–19). Although reform did not change the overall tax burden and thus did not alter Austrian income, it may have encouraged agricultural productivity because it favored entrepreneurial landlords and tenants (Grab 1989:55; Kain and Baigent 1992:186; Zamagni 1993:17). Taxes based on natural rent did not rise with productivity: when cultivators increased production, landlords paid a proportionally smaller tax (Grab 1989:55; Kain and Baigent 1992:186).

As in Tuscany, Lombard fiscal information gathering intensified in response to political exigencies, including the Austrian Habsburgs's political consolidation and wars that strained their imperial finances. However, the solution—the *Censimento*—was unique to the political, economic, and cultural conditions of Lombardy. The Austrians lacked the institutional capacity to conduct the survey; it developed only after the survey's completion and administrative reforms. In fact, the *Censimento* was the earliest, and for over a century, the only fully

mapped cadastral survey in the Austrian Habsburgs's territory (Kain and Baigent 1992:182). The De Miro Council, not the Austrians, developed the idea of a comprehensive land survey. The *Censimento* drew extensively on the knowledge of Lombard landowners and cultivators to obtain declarations, map the land, and determine its value. Furthermore, natural rent was a strategy of resistance by landowners to lower tax burdens, not an Austrian project. The *Censimento* was also strongly shaped by a unique stratum of Italian autonomous intellectuals, technical experts such as surveyors, engineers, and non-Lombard politicians such as De Miro and Neri, who were not tied to any particular Lombard social class. The Lombard state drew on the expertise of surveyors and engineers, without fully incorporating them into the government. Taxation was strongly shaped by compromises that reflected the Lombard political economy and the differing interests of landowners.

The *Censimento*, stemming from the interaction between the state's push for revenues and the Lombard political and economic setting, established long-term precedents for information gathering. The land tax and the head tax, as well as a tax on independent professionals, artisans, and merchants, were the main forms of direct taxation in Lombardy during Napoleon's rule (Grab 1998:131). Napoleon's administrative reforms throughout his empire included the establishment of geometric land surveys to standardize taxation (Kain and Baigent 1992:228–229; Monti and Vitelli 1981:503–505). These surveys were started in many Italian regions and were gradually finished in the nineteenth century (Biagioli 1975:14–15; 1981:370–376; Contini and Martelli 2001:119; Grab 1998:133; Massabó Ricci and Carassi 1987:99–102, 109; Monti and Vitelli 1981:504–505; Pro Ruiz 1992:35, 38–41; Zamagni 1993:52). The opposition of elites and landowners to geometric surveys declined, as they became viewed as a way to modernize and consolidate state power (Biagioli 1975:35). The French also reintroduced and extended the head tax, based on the Austrian Lombard one (Grab 1998:133–134). After French rule, the Austrians left the Napoleonic tax structure virtually intact, including the head tax (abolished in Lombardy in 1848) (Candeloro 1958:22–24; Grab 1998:141; Uggè 1956:4). Indeed, even in 1886, the *Censimento* was still used in Milan (Einaudi 1974:7; Uggè 1956:3). The land tax, often assessed through surveys based on written declarations or geometric mapping, and the head tax were widespread throughout the Italian peninsula on the eve of national unification (Canonica 1866:7; Carpi 1862:76–81, 99–101; Federico 2010:192–193; Felisini 1990:25; Felloni 1956:4–8; Ostuni 1992:26–27; Parenti 1956:3–4;

Petitti 1850:7–18; Romani 1982:404–415; Uggè 1956:3–4; Zamagni 1993:51–53). Both were legacies of the *Censimento*.

Conclusions

In sum, on the Italian peninsula, fiscal information gathering was extensive. Although it came to focus on land during the early modern period, considerable population information was also collected. Information collection was certainly tied to expensive state-building exercises such as war. However, from the state-centered perspective, there remains a striking paradox: fifteenth-century Tuscany and eighteenth-century Lombardy were not strong states, yet extensive fiscal information gathering was conducted there. State actors capitalized on preexisting social information to assess taxes.

To explain this outcome, then, we turned to our other four arguments to show how social forces and the interaction between these states and their societies created extensive fiscal information gathering. First, information gathering drew on secular Roman and Italian legacies of lay numeracy and literacy and public documentation. The state capitalized on extensive written documentation that inhabitants viewed, at least in part, as useful information because they could use it publicly for their own purposes. This was especially important in fifteenth-century Tuscany, where landholding was less consolidated than eighteenth-century Lombardy, because information gathering about land required the cooperation of numerous smallholders and protocapitalist landlords. By the time literacy and numeracy declined in later centuries, the tradition of written documents was already firmly established.

Second, the Italian states incorporated information intellectuals—notaries in Tuscany and surveyors and engineers in Lombardy—into their fiscal information gathering. They were crucial to the monetized and marketized political economies of these regions, where land was bought and sold, and thus, its value and extent had to be assessed and recorded. These information intellectuals, part of the unique Italian stratum of autonomous intellectuals, drew on lay knowledge and categories to produce written documents for the government. These intellectuals were differentially co-opted into the state, sometimes forming a protobureaucracy and sometimes remaining separate.

Third, Italian landlords, though powerful, never uniformly opposed fiscal information gathering, though they undoubtedly disliked taxation and lobbied for specific practices. In Tuscany and Lombardy, urban merchants and residents were frequently landlords

in rural regions. Because of the different interests of rural and urban landlords, they never formed a single block with unified interests against taxation or information gathering. In Tuscany, mercantile and commercial interests opposed more detailed information gathering, not landlords. In Lombardy, the interests of protocapitalist landlords aligned with tax reform.

The Italian historical trajectory uniquely drew social and state actors into repeated rounds of information gathering. States capitalized upon social actors' knowledge. The state systematized this knowledge, and it became, at least to a large extent, public. State and social actors then responded to it. Thus, there was a strong pattern of interaction between societies and states over information gathering.

These social forces combined with the historical trajectory to produce the outcome of extensive fiscal information gathering. The Tuscan and Lombard states, pressured by fiscal needs, could easily systematize the vast quantities of socially available, written information to facilitate taxation. They were assisted by a well-developed set of autonomous intellectuals, who moved with relative ease between the regional states. States faced little opposition to the collection of written information from social actors because these actors found that such documentation supported their interests.

Finally, the interaction between the state's pressures to collect more information for taxation and the social influences on this information created historical precedents for censuses because it regularized the collection of written, standardized information in general and because it collected some population information through the head tax in particular. Information gathering on the Italian peninsula became routinized and institutionalized. States actively drew on previous rounds of information gathering to make data collection easier, and where this information was public, social actors referenced it. Information gathering about people and their assets became the object of separate efforts in the early modern period of time. Taxation came to focus on land, but some information was collected about the population as well because some form of a head or family tax was usually retained. Population information, as we will show, eventually became valuable in its own right, and its separate collection was systematized with relative ease because of these fiscal precedents.

Part II: Conclusions

We traced a transition from official information gathering in which people and their land, wealth, income, and goods were described

together, to new techniques in which they were counted separately. The English Domesday Book, quo warranto surveys, and the hundred rolls were the most ambitious and successful attempts at official information gathering in medieval Europe. In these documents, information about resources—people and their land, wealth, income, and goods—was combined into general descriptions of the rights that local elites possessed over them. The centrality of rights was linked to the feudal economy, political structure, and cultural practices. Individuals did not, in general, own land outright but held it according to complicated social rights and obligations. Information-gathering methods were closely connected to the specification of these rights: English written surveys relied on oral testimony to juries.

Early modern taxation in England/Great Britain was shaped by outgrowths of these practices. For centuries, taxation was based primarily on oral declarations compiled by local notables. Taxation focused separately on people or their land, wealth, income, and goods, but little information was collected. It was not until the 1801 population census that information gathering was perhaps as comprehensive as it had been during the early Middle Ages (Higgs 2004:3). Fiscal information gathering created few direct precedents for population censuses.

On the Italian peninsula, the fifteenth-century Tuscan *Catasto* and the eighteenth-century Lombard *Censimento* were both precocious, sophisticated fiscal information-gathering efforts when they were conducted (Burke 1987:28; Capra 1999:435; Herlihy and Klapisch-Zuber 1985:xxiii). As the state-centered perspective suggests, both were shaped by processes of political consolidation and increases in states' fiscal demands (Emigh 2009:24; Herlihy and Klapisch-Zuber 1985:4–6; Procacci 1971:171–172; Zangheri 1973:791). *Catasto* declarations contained written information about individuals and their land, wealth, income, and goods. By the late fifteenth century, the focus of Tuscan direct taxation shifted to land. The *Censimento* was an account of land by expert surveyors, though censuses for head counts were also taken separately. Thus, as in England/Great Britain, in these Italian regions, information about land and people started to be collected in separate efforts. However, on the Italian peninsula, much information was collected. Information gathering was facilitated by extensive, written lay knowledge of private property, as well as about people, which was considered to be publicly useful. Private property without feudal restrictions was firmly established at an early date on the Italian peninsula. Fiscal information gathering set precedents for nonfiscal information gathering.

Fiscal information gathering in medieval through early modern Europe was linked to war and state consolidation, as the state-driven perspective suggests (Braddick 1994:5; Braun 1975:268–269, 310–313; Brewer 1989:xx–xxi; Carruthers 1996:8–9; Higgs 2004:44–46; Lachmann 2010:68–69; Ormrod 1999:19–20, 32–33; Schumpeter 1991:105–108; Starr 1987:15–16; Tilly 1990:84–87). In turn, information collection shaped the thoughts and actions of the populace (e.g., Herlihy and Klapisch-Zuber 1985:164, 181). Nevertheless, societies also had a strong influence on information gathering, as our comparison shows. From the state-driven perspective, strong states should have produced more extensive information than weak ones. Yet, we show the reverse. England was a consolidated state, and starting in the late seventeenth century, the most powerful economic and military force in Europe; nevertheless, it gathered little information. Moreover, the height of information gathering was in the early Middle Ages, just after the Norman Conquest, when the state was in flux. In contrast, Tuscany and Lombardy, though relatively strong regional states, were weak and small in comparison to England. Information gathering was linked to the consolidation of these regional states, but it preceded the development of a consolidated Italian state. These regional states were enmeshed in the fractured politics of the Italian peninsula, so they were members of a larger and ever-changing imperial system. However, they were home to two of the most comprehensive information-gathering efforts. Thus, state power did not necessarily translate into information gathering.

We traced three social influences. First, lay categories and knowledge strongly affected the content and format of the information. English taxation was based on oral assessment by local notables that grew out of the feudal jury system. This system produced little written information. In contrast, in fifteenth-century Tuscany, a populace familiar with written documents submitted its own declarations, creating huge amounts of information. While some of this information—age, for example—was clearly shaped by the states' demands, other information—land values and rents, for example—was already known by individuals because they used it for their own purposes in some other written format. Furthermore, though the state's influence on age reporting was apparent, the state's demand for this information was still filtered through and shaped by social and cultural practices. In eighteenth-century Lombardy, literacy and numeracy were low, but the tradition of using written documents had already been firmly established in previous centuries when literacy and numeracy were higher, and landlords had no objection to written documentation

per se. Both Italian systems, therefore, unlike the English one, collected extensive information. States took advantage of existing information and institutions, such as juries and oral testimony, lay literacy and numeracy, and land surveyors' technical expertise. With respect to the *Catasto* of 1427 and the hundred rolls surveys, individuals had much more information than states could use or process; states capitalized on social information.

These lay categories and practices also influenced how, over time, information about people and their land, wealth, income, and goods came to be presented as separate, conceptually unrelated pieces of information in different documents. This separation was a consequence of the real separation of resources and people inherent in the development of private property in land and agrarian capitalism in vastly different political contexts. England was one of the most centralized political units in the late medieval and early modern periods, while the Italian peninsula suffered from endemic political fragmentation. Italian cadastral surveys were concentrated in the north-central region of the peninsula (Tuscany, Lombardy) where agrarian capitalism was the most developed and where political structures were weakest. In contrast, the south was relatively more unified but failed to establish a cadastral survey. Furthermore, the differences between the English, Tuscan, and Lombard documents are suggestive. English feudal society produced documents that combined information about people and their land, wealth, income, and goods. In fifteenth-century Tuscany, there were secure private property rights and a partially marketized agrarian economy. Though land consolidation was occurring, smallholding was still widespread. This intermediate situation is reflected in the *Catasto* of 1427 that lists information about people, land, wealth, income, and goods in distinct sections. As landholdings became further concentrated at the end of the fifteenth century, taxation shifted to land, which required information primarily from landlords. Eighteenth-century Lombardy had highly concentrated landholding, and agrarian capitalism was firmly established. Concomitantly, land surveys were detailed and primarily entailed the cooperation of capitalist landlords. Thus, the formats of the information fit closely to the conditions of the agrarian political economies. They were not projects imposed by a powerful central state.

Second, in all three cases (England, Tuscany, and Lombardy), information intellectuals molded lay knowledge into government documents. In England, preexisting juries collected information for the Domesday Book, the hundred rolls, and the quo warranto surveys. In most of the later forms of taxation, local notables undertook

assessment for direct taxation. The state created its own bureaucracy only for customs and excise taxes. In Tuscany, the state created a new fiscal office, staffed by notaries, who had recorded similar information in notarial documents. In eighteenth-century Lombardy, the state capitalized on the knowledge of technical experts, surveyors and engineers, drawn from the stratum of autonomous intellectuals, who remained separate from the state. Thus, these states co-opted existing intellectuals but did not create them anew (cf. Loveman 2005:1661).

However, in England, these intellectuals were not primarily involved with the creation of public, written documents. In contrast, notaries in Tuscany and technical experts in Lombardy were central actors in a long tradition of creating exactly this type of information. Furthermore, the relationship between the state and information intellectuals was different (though they were all co-opted by the state). In England/Great Britain, local notables were appointed by the Crown to collect taxes, but they were under the influence of landlords, who opposed the Crown's efforts to gather fiscal information from their powerful social positions both inside and outside of Parliament. In contrast, information intellectuals in Tuscany were notaries who became part of the state bureaucracy. In Lombardy, information intellectuals were not part of the state, but they were technical experts who cooperated with the state's efforts. Thus, Italian information intellectuals were in social positions that supported fiscal information gathering. In contrast, in England/Great Britain, information intellectuals were structurally located in social positions where they were influenced by both the executive and legislative branches of the government, as well as by the local politics in the regions where they lived and collected taxes. They were usually beholden to social pressures opposed to fiscal information gathering.

Third, the distribution of political power shaped what information could be collected. In England, powerful rural landlords with extensive holdings formed a united block. They used their parliamentary power to prevent extensive fiscal information gathering. Tuscan and Lombard landowners did not form such a block. In Tuscany, large landowners were primarily Florentines who comprised the city-state government that collected information and assessed taxes. Rural landowners had comparatively little power. All landowners disliked taxation, but they were resigned to it, and they never objected to written documentation. Lombards disliked Austrian taxation, but large urban and rural landowners had different interests. Some opposed Austrian reforms, but others supported them or shaped them to their own

purposes. The long history of written records on the Italian peninsula meant that there was relatively little opposition to them in principle, even if there was considerable controversy over what they should contain. In fifteenth-century Tuscany, smallholding was still widespread, so officials drew on the vast stores of rural residents' knowledge of their assets to collect written information. Obtaining written declarations from the entire populace was unnecessary or impractical in England/Great Britain or eighteenth-century Lombardy where land consolidation meant that large landowners held the most complete written records. Thus, states—powerful or not—were shaped by political forces in society that shaped information gathering.

Finally, in England/Great Britain and in the Italian peninsula, the historical trajectory of the pattern of the interaction between states and societies was crucial. In all these locations, fiscal pressures arising from warfare pushed states to collect information. In England/Great Britain, however, the social bases that made information gathering possible—oral assessment by local notables—in combination with social opposition to written documentation prevented states from collecting extensive information. In contrast, on the Italian peninsula, states capitalized on traditions of written documentation created by lay and expert knowledge and little opposition to the practice of public documentation. Thus, fiscal information gathering was extensive. In both locations, then, we explain the outcome with respect to fiscal information gathering about people by considering how the social factors combined with the historical trajectory.

The interaction between the states' efforts to systematize information and the social bases that made information gathering possible also set long-term parameters on information gathering. In England, the earliest surveys focused on land but also included people, their wealth, income, and goods. In the following centuries, taxation shifted away from people, and poll taxes were used sporadically. As a result, England/Great Britain had little tradition of counting people for taxation, and population censuses were relatively slow to develop. In Tuscany and Lombardy, direct taxation came to focus on land, but counting people for head taxes continued as separate enterprises, even if sometimes sporadic. Furthermore, the combination of extensive written records and relatively little resistance to record keeping meant that people and land in Tuscany and Lombardy were taxed in a much more continuous and precedential way than in England, creating large sets of Italian documentation that spanned centuries. As we will show in the next chapters, fiscal information gathering on the Italian peninsula led much more directly to population censuses than in England/Great Britain.

This separation of information also illustrates our argument about the interactive nature of information gathering. The earliest, most comprehensive information-gathering efforts, the *Catasto* of 1427 and the hundred rolls of 1279–1280, were never completed as designed or repeated in as much detail. Reductions in the scope of information gathering occurred because the state could not successfully systematize the vast store of information that societies already knew, not because societies did not know the information that states demanded. To a large extent, states responded to their administrative failures by reducing the amount of information collected, and in particular by narrowing their focus to create more specific taxes; therefore, they separated the different types of information. In this process, the states' novel role was collating the information. Societies, not states, mostly controlled the form and content because states capitalized on what societies knew. States were not imposing novel categories that in turn shaped individuals' thought. Thus, information gathering was an interactive process, with both state and social input. Of course, once information gathering became established, the directionality of the influence of states and societies becomes difficult to disentangle, as the parties respond to each others' requests. But we have shown that these early fiscal information-gathering efforts were produced by a strong interaction between state and society, not solely by state actions.

PART III

Toward Population Censuses

Comprehensive counts of the population at a single point in time—censuses—first emerged to extract resources from the counted or to check on their spirituality, either directly or indirectly. However, slowly, the focus of these first censuses slowly shifted toward the collection of information, for its own sake, about the size and characteristics of the population. We examine these first censuses starting in the United Kingdom in 1801, in the United States in 1790, and in the Italian regional states in the early modern period.

The Influence of States and Societies on Early Population Censuses

From the state-centered perspective, often inspired by Weber and Foucault, states have concrete administrative and bureaucratic needs that population censuses fulfil and thus lead to their deployment (e.g., Curtis 2002:509–511; Giddens 1985:179–180; Kertzer and Arel 2002:5–6; Lam 2011:52–57). For example, Giddens (1985:179–180) argued that states began to collect official, comprehensive information starting in the mid-eighteenth century to maintain order and to reduce rebellion, vagabondage, and crime, suggesting that these censuses were interventionist ones oriented toward social change. In turn, these censuses shaped individuals' social actions (Patriarca 1996:11).

These arguments have been applied to Great Britain/the United Kingdom, the United States, and the Italian peninsula. For example, Eastwood (1989:289) argued that the 1801 British census was a direct outcome of state-sponsored social inquiry and political arithmetic. In an age of virtually constant warfare, population statistics allowed states to estimate their military resources, as well as the required food supplies and poor relief (Higgs 2005:3; Shaw and Miles 1979:32).

The British census of 1801, which specified broad occupational categories, may have assessed military strength and food supplies, by highlighting how agricultural workers were away from the land, serving in the military (Higgs 2004:70). Scott (1990:68–69) argued that information gathering used for policy making and surveillance increased the state's power, starting with English parish registration that was an important administrative precondition for the first census (Desrosières 1998:167; Eastwood 1989:283; Higgs 2004:72). As Eastwood argued for the British census, Schor (2009:10–16) strongly emphasized the state's role in shaping the US census and the census's role in shaping the nation. Anderson (1988:8–9) suggested that the framers of the US Constitution created the census to deal with thorny problems of the apportionment of power and representation among states, citizens, and the national government; the incorporation of new people and states into the United States; and the shifts of power and resources in the future. Prewitt (2010:241) argued that American leaders generally subscribed to the idea of populousness—that a nation's strength was proportional to the population size. He concluded that Revolutionary-era Americans believed that the government could manipulate the population's size and composition through, for example, migration, and hinted that censuses could be used to do so (Prewitt 2010:241).

Strong states, in particular, should be at an advantage in collecting information to implement their goals. For example, Cipolla (1991:126–127) argued that Napoleonic rule of the Italian regional states revolutionized their data collection by introducing new and uniform methods (Woolf 1984:168–169). He claimed that these states had become cultural and economic backwaters during the crises of the seventeenth century, leaving them without information-collecting institutions, even though they once had been at the forefront of European development (Cipolla 1991:126).

Though the state-centered argument has been emphasized in our empirical cases, three general social influences have also been considered. First, broad social formations influence censuses. For example, numeracy was a crucial precondition for the US census, and detailed occupational census categories followed the rise of the social perception of their importance (Cohen 1982:163–165). Social thinking about race shaped the first US censuses (Nobles 2000:26). The merchant Italian city-states of Florence and Venice led information gathering, at least in part, because their citizens were already aware of its value (Burke 2000:136). Accountability and publically available information were crucially important to sustain protodemocratic

governments on the Italian peninsula (Italy MAIC 1862:11). More generally, statistical knowledge became widespread only with the rise of industrial capitalism (Shaw and Miles 1979:31). Second, nongovernmental actors were crucial for the censuses. Starting in the second half of the 1750s, private citizens, including bankers, doctors, and industrialists, pressed for a census; at least some of them hoped that statistics would limit state power (Buck 1982:28–29, 43, 45; Levitan 2011:5). Finally, social pressures, including popular resistance, inhibited states' ability to collect information (Hoppit 1996:526). For example, fear of central domination helped defeat the 1753 British census bill (Starr 1987:12–13; Sussman 2004:118).

Though all of these arguments have merits, the state-centered perspective vastly over emphasizes the state's role, while the society-centered one remains underdeveloped. To redress this imbalance, we apply our own interactive model, by applying our five empirical implications (chapter 2). First, state strength did not automatically assure the implementation of censuses. By 1815, the United Kingdom was the dominant world power with a long history of political centralization, but the first population census in 1801 was a rudimentary head count collecting little information (Brewer 1989:3–4; Higgs 2004:72; Thane 1990:2–3; Tilly 2005:6). In contrast, in 1790, the United States, a relatively weak state, established an early population census (Anderson 1988:8–9). Similarly, by the 1700s, most of the Italian regional states, relatively weak European political actors dominated by foreign powers, had conducted censuses, including some nominal ones.

Second, censuses depended on lay categories. In the United Kingdom, the most developed categories were occupational ones, reflecting the concern with counting the poor and social class (Higgs 2004:72). In the United States, the census revolved around race, through racialized legal categories, despite their limited relevance for political apportionment. The Italian censuses were preoccupied with place because they were strongly shaped by parish records and by their use to establish the political rights and duties of urban dwellers.

Third, social actors, not only state actors, pressed for censuses, and states took up these requests. In Great Britain/the United Kingdom, in contrast to fiscal information gathering, which was usually initiated by the state and strongly opposed by social actors, lay actors (gentlemen scholars) pushed hard for the census that was conducted mostly by local notables. The Italian censuses built on strong traditions of political arithmetic (as in Great Britain) and autonomous intellectuals, and it drew directly from parish priests' records (even more so

than in Great Britain and the United States). The United States is seemingly the exception, as state actors, mostly planter aristocrats, were directly responsible for the introduction of the census. However, the line between state and social actors was particularly porous, and social patterns such as widespread numeracy, interest in demographic information, and colonial traditions of information gathering influenced the census.

Fourth, the distribution of social power was important. In Great Britain/the United Kingdom, landlords' declining power to block information gathering removed opposition to censuses, while the rising capitalists' interests in limiting states' influence through information supported censuses. In the United States, the colonial elite, composed of planters and aristocrats, became politically prominent statesmen who supported the census as a political compromise. Finally, in the Italian regional states, censuses were often implemented where capitalists and political reformers gained power.

Fifth, the historical trajectories show how the interaction of states and societies facilitated information gathering. In the United States and the Italian regional states, in contrast to Great Britain/the United Kingdom, strong interactions between state and social actors through information shaped the census. In Italy, this interaction was based on states' long-standing traditions of collecting information, while in the United States, it developed in conjunction with the first censuses. Furthermore, the patterns of the institutionalization of the censuses shaped future historical trajectories. The Constitution mandated the US census for political apportionment. Specialized organizations developed in the Italian regional states for conducting censuses. In contrast, in the United Kingdom, censuses were loosely institutionalized and drew mostly on organizations created for other purposes.

During this period of time, though state actors had goals for censuses, they were descriptive, not interventionist. Like fiscal information gathering, descriptive information gathering was not intended to alter the population in response to the information collected. In fact, the goals of these descriptive censuses were underdeveloped in comparison to fiscal information gathering. Table P3.1 summarizes these arguments.

Table P3.1 The First Censuses

	The United Kingdom (1801–1831)	*The United States (1790–1840)*	*The Italian peninsula (1500–1814)*
Summary of the evidence for the empirical implication(s) of:			
State-centered perspective			
1. State strength	strong, consolidated	weak	weak, fragmented
Society-centered perspective			
2. Lay categories	class	race	place
3. Information intellectuals	local notables, gentlemen scholars	planter aristocrats turned statesmen	autonomous intellectuals, priests
4. Power	landlords initially block information gathering, but they lose their ability to do so as power shifts to merchants and industrialists	revolution leaves planter aristocrats in power; they agree on the census as a compromise	landlords never object to written information gathering in principle, and capitalist landlords sometimes support it to reform taxation
Interactive perspective			
5. Historical trajectory	limited interactions between states and societies, weak institutionalization of the census	Constitution creates political importance and relevance of census to both states and societies creating intense interaction, despite weak institutionalization	strong interaction between states and societies based on centuries' old patterns of information gathering; specialized offices for censuses start to develop
Outcome:			
	little extractive or descriptive information is gathered; census is delayed and is a headcount	some descriptive information is gathered; census is early and well developed	much extractive and descriptive information is gathered; censuses are early and some are nominative

CHAPTER 5

Reluctant First Counts in the United Kingdom

Great Britain/the United Kingdom was a relatively consolidated state during the early modern period, with a strong Parliament and a hereditary, constitutional monarchy. It became the world's most powerful empire with the first capitalist economy (chapter 3), but no national census was conducted until 1801 (Hoppit 1996:525; Slack 2004:47). However, the quantity of official, semi-official, local, and private information increased in the mid-sixteenth century and exploded during the mid-to-late eighteenth century, supported by increased numeracy and literacy in the sixteenth and seventeenth centuries and the widespread dissemination of printed books (Cohen 1982:16; Slack 2004:33–35; Thomas 1987:103, 128). Numeracy may have first expanded among people with lower middle to middle-class social positions like surveyors, cartographers, seamen, carpenters, traders, and merchants, who were among the first to see the economic and social uses of numerical information (Endres 1985:247; Innes 2009:117; Thomas 1987:108–110). A 1714 textbook suggested that many "gentlemen" saw counting as a lowly activity suitable only for underlings (Thomas 1987:111). By the eighteenth century, this attitude changed: some familiarity with numbers was considered essential for the gentry to protect its interests, and wealthy men often had statistical collections (Brewer 1989:228; Thomas 1987:112). Late seventeenth-century commentators suggested that women should learn arithmetic and accounting so that they could run their husbands' businesses when they were absent or dead (Thomas 1987:113).

Starting in the late seventeenth century, the proponents of mercantilism and political arithmetic argued that the size of the population was an indicator of a country's wealth and power (Cohen 1982:52–53, 77; Endres 1985:253, 256; Innes 2009:111). Social facts were

verifiable through observation: indicators of a nation's wealth and power—including geographical area, agricultural productivity, annual consumption, and population size—could be categorized and quantified (Schware 1981:32). Thus, the ability to count the nation's population, as well as the size of the population counted, symbolized the nation's strength and power. This perceived link between quantification, state power, and population provided a new rationale for population censuses. Counting the population became important in its own right, whereas counts for fiscal information gathering had been solely to extract resources for taxation.

This culture of numeracy along with the growth of the tax state (chapter 3) created the context for the development of political arithmetic as a focused intellectual movement in the late seventeenth century, which included William Petty, John Graunt, Charles Davenant, and Gregory King (Cohen 1982:30, 32; Cullen 1975:3–8; Desrosières 1998:23; Hoppit 1996:516–517; Innes 2009:116; Laslett 1992:7–24; Rusnock 2002:193–198; Slack 2004:34). These individuals produced studies to encourage the state to collect more information to make government more effective and the state more powerful (Brewer 1989:223–224; Buck 1982:29; Endres 1985:258–259; Higgs 2004:57; Slack 2004:34–35; Sussman 2004:104). Political arithmeticians, however, published their books not only for statesmen and bureaucrats but also for the public (Slack 2004:59). By the mid-seventeenth century, many were persuaded that information could be collected and mobilized for political as well as other purposes (Slack 2004:45).

Political arithmeticians had diverse practical knowledge and experience in private professions and government service (Desrosières 1998:24). Petty may have helped establish the hearth tax, and he advocated for the excise tax that created a vast amount of information (Slack 2004:37). Petty had been a doctor, a mathematician, an inventor, a scholar, a businessman, and a member of Parliament and of the military (Cullen 1975:3–4; Desrosières 1998:24). Davenant was an excise tax commissioner in the 1680s and had been a member of Parliament (Brewer 1989:225; Desrosières 1998:24; Slack 2004:37). King was an enumerator, engraver, herald, surveyor, and government official (Cohen 1982:34; Taylor 2005:1). He compiled estimates of the wealth and population of England (Cullen 1975:7; Taylor 2005:1).

Graunt's book, published in 1662, was a study of the records of the causes of death based on the bills of mortality (Bayatrizi 2008:125; Cassedy 1969:8–9; Slack 2004:42). The bills were collected, starting in the late sixteenth century, using ecclesiastical population registration techniques to contain the plague, to keep track of its local and historical

trends, and to take preventive measures (Bayatrizi 2008:125). Graunt was a haberdasher, with considerable standing in his trade and its organizations, and claimed to be using shop arithmetic—familiar accounting techniques—to construct his tables (Bayatrizi 2008:127; Glass 1963:2–3; Headrick 2000:61; Slack 2004:42; Thomas 1987:108). His information also came from other nonstate public and scientific sources (Slack 2004:42). Despite his background as a merchant, he was elected to the Royal Society and was active in it until his financial ruin just before his death (Glass 1963:4–6; Laslett 1992:8–9). Graunt's book, the first work of political arithmetic, thus depended on church not state records, and he used business techniques not bureaucratic knowledge to analyze his evidence. In sum, political arithmeticians came from a diverse set of social backgrounds, but once established in their own right, they seem to have been predominantly members of the middle class. Their new social roles as experts gave them influence over the state, though they mostly were outside of it (Desrosières 1998:24). Though their work did not lead directly to censuses, it was an important intellectual precursor.

After its early flowering in the late seventeenth century, political arithmetic as an intellectual movement per se declined, though it did not completely disappear, and the use of numbers for practical purposes increased (Buck 1982:28; Endres 1985:246; Hoppit 1996:516; Innes 2009:109, 127). For example, Smith ([1776] 1976:42) dismissed political arithmetic, and his work did not rely heavily on numbers (Hoppit 1996:516). By the late seventeenth century, the English state stored substantial information, particularly in the excise bureaucracy (chapter 3). Much of this information was collected and published under pressure from other government departments (Brewer 1989:112, 223). In the late seventeenth and early eighteenth centuries, the papers of government officials gradually became departmental or official documents instead of the officials' private property (Brewer 1989:222). Beginning in the early eighteenth century, there were numerous, mostly quantitative, parliamentary inquiries into finance, the workings of government, the economy, and the armed forces (Brewer 1989:226; Hoppit 1996:522). By the eighteenth century, political struggles entailed the collection and dissemination of information (Brewer 1989:223). Lobbies and interest groups, many of which developed out of old corporate institutions or guilds after 1688, also collected and mobilized information (Brewer 1989:231). Their purposes varied: some represented trades, colonies, or religious groups; some provided information to the state or tried to influence the state (Brewer 1989:231–232). In the eighteenth century, the attitude

of populousness combined with Enlightenment philosophy and pointed to a new form of government by social contract that required governing officials to have extensive knowledge of the population that could be attained through scientific study (Commager 1975:27, 45–46; Foucault 1991:101; Landsman 1997:62; May 1976:89; Meyer 1976:97, 101–105; Porter 2000:207–209). In the nineteenth century, quantitative approaches were revived and transformed into "statistics" (Buck 1982:28; Endres 1985:246; Innes 2009:109, 127).

Thus, during this period of time, inside and outside the state, there was a strong interest in numerical representations that provided knowledge about everyday life (Brewer 1989:227–228). Numeracy seems to have been established first among the middle class and technical experts and then spread to the elite. This rise in numeracy and collection of information preceded the establishment of the census in 1801 and provided an important backdrop for it.

Parish Records and Poor Rates

Against this backdrop, English population censuses drew on the administrative apparatus that had developed out of techniques for ecclesiastical registers and poor relief, not fiscal information gathering. Parishes, along with their records, became important units of local administration that coordinated many local activities (Kent 1995:363; Scott 1990:67–68). In 1538, the English Crown required that the parish priests of the newly established Church of England record baptisms, burials, and marriages (Cassedy 1969:16; Cohen 1982:38; Higgs 2004:39–40; Krause 1965:381; Rusnock 2002:183; Scott 1990:68–69). The registers were introduced "for the avoiding of sundry strifes, processes and contentions rising upon age, lineal descents, title of inheritance, legitimation of bastardy, and for knowledge whether any person is our subject or no" (Cromwell, quoted in Elton 1972:259–260; cf. Higgs 2004:39). Parish priests took over the task of recording vital events from monks (Cassedy 1969:16). Though Elizabeth I (1558–1603) failed to establish a central registration office for parish registers between 1562 and 1590, by 1611, these registers were widely accepted as official legal records and facilitated the distribution of poor relief (Cassedy 1969:16–17; Higgs 2004:39–40). Ecclesiastical censuses of communicants were conducted in 1547, 1563, 1603, 1676, and 1688; two of them enumerated Anglicans and Nonconformist supporters (Cohen 1982:36; Slack 2004:46–47; Whiteman 1992:79–84). Counting by the church may have been a somewhat contradictory activity: widespread superstition suggested

that disasters followed censuses, given the biblical example of plague after King David's census (Cohen 1982:35; Slack 1985:26; 2004:47). Graunt ([1676] 1899:383–384) tried to dispel such beliefs by indicating that he had once feared censuses but came to realize their lawfulness.

Starting in the Elizabethan period, poor rates were taxes administered at the parish level based on the number of "deserving" poor (Higgs 2004:41). Poor relief was administered by justices of the peace, unpaid appointees of the Crown usually selected from the local gentry, who executed administrative duties and enforced laws, and by overseers of the poor, who were also local unpaid officials supervised by the justices (Higgs 2004:37; Kent 1995:376–377). Starting in 1572, the justices surveyed the local population, determined who was poor, and then assessed and taxed the local inhabitants to provide for these poor (Higgs 2004:41). Overseers conducted monthly inspections to assure that strangers did not receive funds (Higgs 2004:37, 41).

An Act of 1601 (made permanent in 1640) appointed parish officials, such as churchwardens and landlords, as overseers of the poor to collect taxes for poor relief (Lees 1998:22–23; Scott 1990:68). The work of poor relief was onerous, so major landlords and tenants often shifted it onto smaller property owners (Lees 1998:25; Mandler 1987:133). Justices continued to supervise the work of the overseers, who executed the details of poor relief, such as keeping records of payments made and received, distributing payments and goods, creating work for the able bodied, handing out alms for those unable to work, and placing poor children into apprenticeships (Kent 1995:367–368, 379, 381; Lees 1998:22–25; Scott 1990:68). Because poor relief was based on residence, overseers frequently kept registers of their residents (Lees 1998:32–33; Scott 1990:68). In 1695, the Board of Trade surveyed the poor rates, using the ecclesiastical organization that had facilitated the 1676 census of communicants (Slack 2004:56). In the second half of the 1700s, fears of social chaos and the cost of welfare provision spurred numerous counts of poverty and instances of poor relief (Hoppit 1996:526). By the early 1800s, overseers collected extensive and detailed financial and residential information (King 2011:56–57). Thus, although parliamentary law dictated poor relief, information gathering continued to depend on local notables.

The Defeated Population Bill of 1753

The first British population censuses were concerned primarily with tracing population growth: whether the overall population was growing or declining and whether particular segments within the overall

population, especially the unemployed or impoverished, were growing or declining. Demographic information was still strongly tied to mercantilist ideas about populousness, so the possibility of population decline in particular was viewed with fear for its detrimental effects on national wealth and military strength (Scott 1990:70).

The available data to address these trends were questionable and produced variable estimates (Glass 1973:12; Lawton 1978:11; Young [1771] 1973:5). The abolition of the hearth tax in 1689 eliminated the information collected about the population at one point in time (Hoppit 1996:525). In the eighteenth and early nineteenth centuries, a growing number of dissenters from the Church of England were not recorded in the parish registers, thus undermining the usefulness of these records for population estimates (Glass and Taylor 1976:9; Krause 1965:384–385; UK House of Commons 1830b:2).

A census bill was first proposed in Parliament in 1753. The text of the bill argued that a census would serve the public utility by providing the total number of people, the increase or decrease in the population, and the number of poor receiving aid (GB Parliament [1753] 1973:1). The bill's supporters also argued that a census could be used to determine the collective strength of the nation and to make more informed decisions about naturalization of foreigners, emigration, and military manpower (Anonymous [1753] 1973:8; Harris 2002:249). It proposed to use overseers of the poor to count the population (Glass 1973:19; GB Parliament [1753] 1973:2–3).

There was considerable resistance to this bill (Chapman 1990:39; Glass 1973:18–21). For example, an anonymous letter to Parliament criticized the bill claiming that the government would never use the census for naturalization, emigration, or military service; instead, it could easily misuse the information about the poor to their detriment (Anonymous [1753] 1973:8–10, 12). The letter also argued that the urban population was too transient to be accurately counted, that the census would allow public officials to invade wealthy people's privacy, and that it would be used to impose a land tax (Anonymous [1753] 1973:6, 11–13). Others argued against it by using the biblical example of David, the contention that it would simply catalog Great Britain's weaknesses to its military enemies, the accusation that it would ruin freedoms of the English people, or the criticism that it would increase the national debt (Bailey 1952:187–188; Buck 1982:32–33; Chapman 1990:39; Desrosières 1998:24; Glass 1973:19; Halacy 1980:26; Slack 2004:47–48).

Parliamentary party politics, however, apparently do not explain the census controversies. In the mid-1700s, though party alliances

were somewhat fluid and shifting, there were roughly three groups: the established Whig party, smaller sets of opposition Whigs, and Tories (Harris 2002:10, 25, 31, 45; Jupp 2006:62–69; Thomas 2002:24). The latter two sometimes allied together against the established Whigs, even though the opposition Whigs were generally the most liberal and the Tories the most conservative (Harris 2002:10; Jupp 2006:62–69; Thomas 2002:24). However, Whigs, and opposition Whigs in particular, both supported and opposed the bill.

Corbyn Morris, a Whig customs officer with close links to the ministry, was the main force behind the 1753 bill, along with supporters within the ministry (Clifford 1947:3; Harris 2002:249; Innes 2009:138; Lawson 1984:69). As a customs officer, he would have worked in a highly developed information-collecting state bureaucracy (chapter 3). Morris wrote a treatise suggesting that the population of London was decreasing and hoped that the census would provide information to Parliament to decrease mortality (Harris 2002:249). Thomas Potter introduced the census bill to Parliament (Glass 1973:18–19; Harris 2002:249; Innes 2009:138). Potter, the late Archbishop of Canterbury's son, was wealthy and well-connected politically, though perhaps not well suited for a politically sensitive task: he was arrogant and involved in political and personal scandals (Brown 1978:188; Cash 2006:29–33, 44–46; Glass 1973:18). Prominent opposition Whigs also supported the census (Bailey 1952:188; Christie 1987:64; Colley 1977:91; Glass 1973:19; Lawson 1984:16–17, 69; Rees 1976:10, 20–21; Thomas 2002:24).

The primary opponent to the House bill, however, was also a prominent opposition Whig—William Thornton (Bailey 1952:187–188; Desrosières 1998:24; Glass 1973:19–20; Gould 1991:337, 340; Harris 2002:250). He argued that the census was "totally subversive of the last remains of English liberty" and that it would provide no useful information (Bailey 1952:187–188; Glass 1973:19–20; *Parliamentary History* 1813:1320). He complained:

> We are to entrust petty tyrants with the power of oppression,…to subject every house to a search; to register every name, age, sex, and state, upon oath; record the pox as a national distemper, and spend annually 50,000£ of the public money…Against this Bill therefore I do, as a faithful servant of the people, in whose behalf I stand up this day, most heartily protest. (*Parliamentary History* 1813:1326)

There was also Tory, Whig, and additional opposition Whig resistance to the census (Bailey 1952:188; Brett 1988:105; Brown 1978:33, 40,

45; Glass 1973:19; Innes 2009:138; *Parliamentary History* 1813:1343–1350; cf. Lawson 1984:69).

Despite this debate, the 1753 census bill was passed in the House of Commons but was defeated in the House of Lords (Glass 1973:20; Innes 2009:139; Lawson 1984:69; Lawton 1978:12; see *Parliamentary History* 1813:1317–1365). Although most members of both houses were large landowners, landed interests were stronger in the House of Lords, where property ownership was usually the most important criteria for membership (Beckett and Jones 1989:6; Jupp 2006:59). More importantly, however, a more general fear of the power of the Crown vis-à-vis the landed elite that crossed party affiliation seems to have defeated the bill. Though Tories were often associated with conservative landed interests, the support of landed elites crossed party lines (Harris 2002:10, 24, 45, 65). The bill also may have been opposed more specifically by parliamentary opponents of its supporters in the administration (Buck 1982:32; Fothergill [1784] 1973:295; Innes 2009:138; Lawson 1984:69).

The census bill was viewed as too tightly connected to the Crown's power, its ability to obtain information, and taxation, and it was highly threatening to the landed interests (Bailey 1952:188; Buck 1982:32–33; Levitan 2011:16; Scott 1990:70; Shaw and Miles 1979:32; Sussman 2004:118–119). Several opponents of the bill noted that even if the census information was not originally intended to be used for taxation, it could be easily converted to such purposes. Proponents of the bill suggested that the census could usefully link vital statistics, such as mortality rates, to property relations; its opponents, however, thought that this linking was dangerous because it would increase the state's power (Buck 1982:32). At the time, political arithmetic and its historical outgrowths, including the census, were still closely associated to the power of the state and its interests in taxation, the elimination of local power and privilege, and military conscription making it suspect to most property owners (Buck 1982:29; Higgs 2005:6; Levitan 2011:16). Thornton argued that the census would count all the English as similarly powerless "vassals" (*Gentleman's Magazine* 1753:550). Thus, in the mid-1750s, landed interests blocked both fiscal and demographic information gathering with similar objections (chapter 3).

Growing Support for Collecting Population Information

Though the bill was defeated, debates over the census continued among intellectuals and educated public and in the scientific and

popular literature (Glass 1973:12, 17, 55; Innes 2009:138). A prominent magazine summarized the census debate and printed Thornton's oppositions to the bill, providing the event with considerable publicity (*Gentleman's Magazine* 1753:549–552; Glass 1973:17, 19).

The debate continued to be motivated by the purported relationship between the size of the population and national power, and in particular whether the population was increasing or decreasing (Glass 1973:11–12, 21, 24–26, 47–65; Higgs 2004:70–71; Young [1771] 1973:5). In particular, conservative Tory defenders of the agricultural interests along with opposition Whigs believed that the population had decreased during the consolidation of Whig party power and the rise of the commercial classes (Higgs 2005:4). Others defended the rise of commerce and argued that the population had increased (Higgs 2005:4). For example, after the 1753 census bill failed to pass, a contemporary popular magazine commented on the missed opportunity to provide information that would have informed decisions about population density, naturalization, military strength, and colonization (Glass 1973:19; Hoppit 1996:526). Yet, the census was unlikely to have provided the information to address these issues. Thus, even after the bill had been debated and failed, it was unclear to contemporaries exactly what practical goals it could have fulfilled. Parliament was indeed relatively unfamiliar with using population information to address social issues: nearly 90 percent of reports, usually quantitative, submitted to the House of Commons in the eighteenth century were about the government, finance, the armed forces, and the economy (Hoppit 1996:522). Such topics were closely related to fiscal, but not demographic, information gathering.

After the 1750s, however, the population debates shifted in two fundamental ways. First, they became detached from government and state power and linked to the interests of private individuals, who were increasingly members or supporters of the growing capitalist class (Buck 1982:28, 35, 36, 37). Crucially, the perceived link between the state and information changed during this period of time. The state came to be viewed as an assemblage of citizens instead of subjects (Buck 1982:28–29). At least for some, statistics became a way to assure liberty for individuals and to curtail the power of the state (Buck 1982:29; Levitan 2011:17). The earlier tradition of political arithmetic was thus transformed into a concern for private affairs and delinked from the state (Buck 1982:35). As a private undertaking, the collection of demographic information became attractive to the opponents of the 1753 census (Buck 1982:36). Thus, when the census was proposed again in 1801, it was tied more strongly to social interests than in 1753.

Information collection was supported by the dissenting clergy outside of the Church of England, physicians, natural philosophers, and commercial interests in trade and manufacturing (Buck 1982:36, 37). This powerful alliance, combining individuals with statistical interests, nonconformist religious beliefs, and republican politics, shaped early British industrial development (Buck 1982:37). These individuals were increasingly prosperous, but because of their occupations and religion, they lacked the social status and political influence of the traditionally powerful landlords (Buck 1982:37). They hoped to address three issues with demographic information: curtailing state power, showing that land was no longer the sole basis for securing autonomous political participation, and demonstrating that other forms of property could be alternative bases for such political participation (Buck 1982:38). Clergy of the Church of England, such as Thomas Malthus, were also prominent players in population debates, probably because the clergy were generally responsible for poor relief in their parishes and for the record keeping that it entailed.

For example, Richard Price, one of the period's central figures in demography and actuarial science, was a dissenting clergyman, an author who wrote about self-governance and civil liberty, and a strong supporter of the American Revolution (Buck 1982:36; Glass 1973:53, 65; Innes 2009:151; Levitan 2011:17; May 1976:171; Porter 2000:402). Price wrote extensively on insurance and annuities, trying to establish a sound financial basis for them (Buck 1982:40–43; Glass 1973:53–54). If annuities worked properly, they could provide the same basis for financial stability and political power for tradesmen and merchants as property provided to the landed elite (Buck 1982:40; Rusnock 2002:185).

Price was engaged in a heated debate about British population (Glass 1973:57–65). He argued that it was declining (especially in comparison to the American population that was increasing), and he supported a census to provide definitive information (Buck 1982:39; Cassedy 1969:196–197; Glass 1973:55; Innes 2009:151; Headrick 2000:68). In contrast, William Wales, a mathematician and astronomer, and John Howlett, a clergyman, argued that the population was increasing (Glass 1973:57, 60–61; Glass and Taylor 1976:10; Headrick 2000:68; Rusnock 2002:200). As a cleric, Howlett had access to local parish registers and was concerned with the poor (Glass 1973:73–74).

Thus, during this period of time, those involved in capitalist commerce and manufacturing were gaining economic power and searching for ways of gaining commensurate political power and social

status (Rusnock 2002:185). Numeracy was central to their livelihoods, and they thought that a census would support their growing power. Unlike the traditionally powerful landlords, who generally opposed information gathering as threats to their power, commercial and manufacturing interests generally supported information gathering as a way to assure their influence and independence.

The second fundamental shift during this period of time moved the debate away from the increase or decrease of the population, which had strong mercantilist overtones. Instead, there was a growing concern about the composition and nature of the population, and in particular the number of poor and the size of different occupational groups. This emphasis on social class was tied to social changes that occurred about the same time as the first censuses.

The English working class first emerged as an important political and social actor between 1790 and 1830 (Thompson 1963:194; Tilly 2005:116). After 1832, direct producers coalesced in the popular political movement, Chartism, often considered the world's first working-class movement, which demanded universal suffrage (Mann 1993:524–525; Rosenberg 1962:50). Because British suffrage was restricted along property lines, this movement was class oriented (Tilly 2005:14–15). The rise of the working class was tied to three trends: a huge increase in population, the industrial revolution, and the political counterrevolution (Thompson 1963:197).

Population grew very rapidly in the late seventeenth and eighteenth centuries (Goldstone 1986:5; Thompson 1963:197). Age of marriage fell, probably because of increased opportunities for wage labor employment in industry and agriculture; consequently, fertility increased (Goldstone 1986:30). Urban centers, generally based on manufacturing, began to expand in the second half of the eighteenth century, and they began to concentrate the working-class population in small areas (Thompson 1990:25–26, 29–33). As industrial towns emerged and increased in size, problems of water supply, sanitation, overcrowding, disease, and social control multiplied, leading to the rise of a public policy health discourse in the 1830s and 1840s (Scott 1990:70–71; Thompson 1963:318–331; Thompson 1990:34). During the late eighteenth and early nineteenth centuries, poverty became a pressing social issue, especially in the rural regions (Lees 1998:83–88; Polanyi 1957:91, 94). The 1790s were especially bleak from the combined effects of war, famine, taxes, and inflation (Sherman 2001:21).

Wage labor became more common during this period even though industrialization was surprisingly slow and uneven (Mann

1993:93–94; Tilly 2005:111–112; Vernon 1993:4). Many wage laborers experienced these years of the industrial revolution as ones of heightened exploitation and increased insecurity, despite some small improvement in the real standard of living (Thompson 1963:212). Among agricultural workers driven from the land by enclosure, a sense of lost rights spurred urban radicalism (Thompson 1963:229). Urban artisans as well as rural and urban weavers felt that their status and economic situation was deteriorating at the beginning of the 1800s because of competition from technical innovation, cheap labor, and larger operators; consequently, many became radicalized and involved in politics (Thompson 1963:261–262, 273, 295).

The formation of the working class also had important political roots. Prior to 1832, English representative institutions were extremely corrupt and controlled by a narrow elite composed of agrarian magnates, privileged merchant capitalists, and their supporters (Mann 1993:110). At the end of the eighteenth century, this political order became more repressive, reversing some piecemeal liberalizations of the 1790s (Thompson 1963:197). Between 1799 and 1813, partly as a result of the fear generated by the French Revolution, the British state aggressively attacked the associational power of workers by outlawing minimum wage rules, guild restrictions on trade, and labor unions (Mann 1993:519; Thompson 1963:197–198, 503, 593). Thus, most working-class Britons experienced economic hardship and political repression during this period. These hardships, along with the spread of wage labor, created a series of popular movements, as well as languages and categories related to class in the early nineteenth century (Calhoun 1982:204–205, 233–235; Stedman Jones 1983:105–107; Thompson 1963:11, 191).

The mercantilist argument about the benefits of population growth was thus undercut by the increasing burden of poor relief, and attention shifted to fears of rapid population growth, feeding the poor, urban concentration, and social and political control (Glass and Taylor 1976:10; Scott 1990:70). At the same time, there was widespread discussion of working class conditions, types of work, and poverty and a growing awareness and expression among the working class of their own position. Not surprisingly, then, these issues shaped the census, which arose about the same time.

Several authors' writings about the census directly illustrate these concerns with poverty and class. Young ([1771] 1973:7, 39), the son of a clergyman and another one of Price's disputants, was skeptical about depopulation but also advocated for a census (with tax officials collecting the information) (Gazley 1973:2, 65, 87–88, 306;

Glass 1973:56; Innes 2009:151). Young ([1771] 1973:13–14) argued against the standard mercantilist position that overall population decline undermined Great Britain's position as a great power because its population was considerably smaller than the combined population of its enemies, France and Spain. Echoing Davenant and following the tradition of the political arithmeticians (Endres 1985:256; Hoppit 1996:520), Young ([1771] 1973:10, 12, 17, 26) argued that the distribution of the population between "industrious" and "idle" (i.e., criminals and the indigent) classes (i.e., occupations) mattered, not overall population growth or decline. Population decline among the idle classes would in fact benefit Great Britain (Gazley 1973:65, 87; Sherman 2001:107–112; Young [1771] 1973:24–26). National strength depended on national wealth, not on the overall size of the population (Gazley 1973:87).

The 1798 publication of Malthus's first "Essay on Population" set off further debate about the population composition. Although connected to the mid-eighteenth century debates about the relationship between the size of the population and national power of Great Britain vis-à-vis other countries and empires, Malthus's work and the debates it sparked were much more concerned with internal British poverty, industrialization, and economic growth (Glass 1973:90; Higgs 2005:4). Malthus argued that mass poverty demonstrated an iron law of wages: wages declined as the working population increased (Polanyi 1957:122–123). In addition, Malthus ([1798] 1976:21–26) argued that population increased geometrically while the food supply increased arithmetically. Only mortality controlled this growth. He argued that the prevailing form of poor relief exacerbated the population problem by encouraging the poor to multiply beyond the available food supply (Bendix 1956:79; Charbit 2009:17). In contrast, authors such as William Cobbett (a farmer and writer, who became a radical politician), echoing Price's argument, insisted that the English population had declined (Buck 1982:55; Headrick 2000:68; Higgs 2004:71; Innes 2009:151; Wrigley 1983:127). The question of whether the population, especially the poor, was growing or not was crucial to resolving this intellectual and political debate. Malthus's ideas, essentially based on populousness, were descriptive. However, he was moving toward the idea of population and its associated birth, death, and marriage rates, which individuals could change through social intervention (Curtis 2002:508; Poovey 1998:286–287; Taylor 1951:715). Thus, he hinted at interventionist information gathering.

In sum, these social changes set the stage for the census of 1801. The rise of capitalism and religious changes created social groups of

clergy, scholars, and capitalists that favored the collection of information because it supported their power. It also crystallized and made more noticeable two social groups: the working class, with its highly differentiated occupations, and the poor. Both groups came to be important foci of the 1801 census. The economic hardships of the time period, along with capitalism, dramatically increased social stratification creating a highly visible form of poverty.

The Successful Population Bill for the 1801 Census

John Rickman, the son of a clergyman who executed the first census in 1801, wrote an influential essay in 1796, republished in 1800, arguing that a census would show a population increase, thereby demonstrating Great Britain's growing prosperity and allaying discontent (Cullen 1975:12; Higgs 2005:7). It would also inform effective policies, especially about military recruitment (Cullen 1975:12). Charles Abbot, a member of Parliament, read Rickman's paper and introduced a census bill to Parliament in 1800, arguing that the census would provide information about military strength, food shortages, the export trade, and the economic crisis stemming from the poor harvest of 1800 by providing an accurate figure of the population size and its increase or decrease (Abbot 1861:209–210; Bailey 1952:189; Cullen 1975:12–13; Glass 1973:91; Pugh 1966:69). Rickman was then appointed to supervise the first census (Cullen 1975:13; Glass 1973:91; Higgs 2005:7). Abbot, also the son of a clergyman, became the Speaker of the House of Commons in 1802 and had a long-standing interest in public documentation and record keeping (Pugh 1966:70; Wilkinson 2004:11–12).

The census generated much less debate in 1801 than in 1753, and it passed Parliament in 1800 without major controversy (Abbot 1861:212–219; Bailey 1952:189; Headrick 2000:77; Lawton 1978:12; *Parliamentary History* 1819:601). The clergy (particularly the Scottish) objected to conducting the census, and their direct responsibility for enumeration was eventually eliminated, though they continued to provide parish record summaries and general assistance (Abbot 1861:212–219; GB Parliament [1800] 1973:126; UK Parliament 1802:4). Abbot (1861:211, 212; Glass 1973:90–91) worked with Prime Minister Pitt on the census schedules; Pitt seemed to have some minor objections that were eventually resolved.

Because the nature of the 1753 and 1801 census bills was similar, social changes in the intervening years must have facilitated the bill's

passage in 1801. Broad social changes not only created support for the census and an awareness of new groups to be counted but also changed the composition of Parliament, amassing additional support for a census. Although Parliament remained populated primarily by landed gentry, more members had backgrounds in politics, professions, and business between 1790 and 1820 than between 1754 and 1790 (Jupp 2006:185–191). Because large landowners were generally the most resistant to information collecting, while those involved in industry and commerce were the least resistant to it, this compositional shift may have eased passage of the 1801 census bill. In addition, the major political fault lines shifted between 1760 and 1830. The division between the Whigs and Tories was no longer the major division in Parliament after 1760 (Black 2001:250; Jupp 2006:191–192, 228). Instead, it was between ministers (members of Parliament appointed by the Crown to governmental positions) and the opposition Whig party (Jupp 2006:8, 9, 13, 18, 191–192, 228). Support for the census may have crossed the groups: ministers may have viewed it as a way for the state to gather information, while other members of Parliament may have seen it as a way to curtail state power to increase individual liberties. Important supporters of the 1801 census were conservative Tories hoping to bolster the power of the state against radical opposition (Levitan 2011:17). Furthermore, between 1753 and 1801, other national and imperial censuses had been completed, illustrating their plausibility (Glass 1973:90; Glass and Taylor 1976:10; Scott 1990:72).

The 1801 census appeared publically in print in 1802 (Glass 1973:65). Its publication broke historical precedents; earlier publications had been kept secret because of mercantilist fears of the information being used for military purposes against British interests or because there was no central organization capable of collecting and collating local results (Glass 1973:13). These published debates and results may have been crucial in creating public pressure and involvement with respect to the census in particular, as well as public interest and opinions about demographic issues more generally (cf. Zaret 2000:9–13). There was an explosion of printed material around 1800, at least in part because of a collaboration between Abbot and Luke Hansard, the official printer of the House of Commons (Frankel 2006:45).

The First Four Population Censuses

Although population debates concerned national power and social development, early censuses depended entirely on local government.

They were organized on an ad hoc basis: there was no permanent census organization, and each one was authorized by a separate act of Parliament (Glass and Taylor 1976:12). John Rickman coordinated the first four censuses (1801, 1811, 1821 and 1831) (Higgs 2004:70, 72). They were all designed essentially in the same way, and changes between them did not represent redesigns so much as attempts to fix previous problems (Levitan 2011:20). The census was linked administratively to existing systems of poor relief and may have drawn on other local forms of information gathering (Desrosières 1998:167; Eastwood 1989:283; Glass and Taylor 1976:13; Higgs 2004:72). The overseers were paid to conduct the census from money collected from poor rates (Levitan 2011:19). Many poor were applying to the overseers for assistance in 1800 and 1801 because of the especially high food prices, so the overseers most likely knew the number of people in their parishes (Higgs 2005:7).

The first four censuses in 1801, 1811, 1821, and 1831 were headcounts, not nominative censuses (Higgs 2004:70, 72; Leech 1989:2). Though there was probably some variation, in general, local officials, not the people actually counted, filled out the census forms (Glass 1973:93; Higgs 2004:72).The census questions and instructions were first passed out to the justices of the peace, who then distributed copies to the local church officials and the overseers of the poor (Glass and Taylor 1976:12; GB Parliament [1800] 1973:126). The overseers (or in their place, a local notable if necessary, or in Scotland, schoolmasters [Cullen 1975:13; UK House of Commons 1811:9; 1830c:5]) recorded the number of people or families in the categories on the printed schedules (Glass 1973:91; Higgs 2004:72; GB Parliament [1800] 1973:126). The census returns were to be made in a prescribed format that summarized the information collected by the enumerators for each household in a given area (Glass and Taylor 1976:13; Higgs 2005:9). The census enumerator was thus usually an interviewer, who recorded information given to him by households (Glass and Taylor 1976:13). In some locations, householders filled out printed forms to give to the overseers; in others, overseers may have recorded more detailed information on paper or on printed forms (Glass and Taylor 1976:13, 14; Higgs 2005:9; Lawton 1978:13). In small communities, the enumerators may have known all the inhabitants personally and may have been able to fill out the forms directly, without any participation by the population (Levitan 2011:19). Only in 1831 were there centrally printed forms, and enumerators were provided with tally sheets to help them make more reliable counts and summaries (Glass and Taylor 1976:14). The overseers had to swear to the veracity of the returns to the justices of the peace before they were returned

to the central government (Glass and Taylor 1976:14; Higgs 2005:9; Taylor 1951:716). The census act further authorized the local officials to employ other local government and church officials to help collect the information (GB Parliament [1800] 1973:126). Failing to comply or giving false information carried a penalty of no less than 40 shillings and no greater than 5 pounds (GB Parliament [1800] 1973:127, 129).

All these early censuses asked about the number of people; the number of houses; occupation; and the number of births, baptism, and marriages, but the format changed somewhat over time. The 1801 census asked about the number of inhabited houses and how many families lived in them and about the number of uninhabited houses (Chapman 1990:6; Higgs 2005:8; GB Parliament [1800] 1973:132; UK Parliament 1802:3). Starting in 1811, the census asked these questions and also asked how many houses were under construction (Chapman 1990:6; UK House of Commons 1811:7). Rickman gave evidence before the committee on the population bill of 1830 to explain these changes. The first census confused not-yet-occupied houses with vacant houses; not-yet-occupied houses indicated economic growth, while vacant houses indicated economic decline (Higgs 2005:10; UK House of Commons 1830a:1–2).

In addition, the 1801 census asked an "officiating minister" from every British church to provide the number of births, baptisms, and marriages starting in 1700 and ending in 1800 (UK Parliament 1802:4). The 1811, 1821, and 1831 censuses asked a similar question for intercensal years (Chapman 1990:6; Higgs 2004:70; UK House of Commons 1811:8). In 1831, information on mortality and illegitimacy was also collected (Chapman 1990:6). This information in particular drew heavily from parish records.

The 1801 census gave three occupational categories—"persons chiefly employed in agriculture," "persons chiefly employed in trade, manufacturing or handicrafts," and "all other persons not comprised in the two preceding classes,"—and counted the men and women in each category (Chapman 1990:5; e.g., UK Parliament 1801:1). This created confusion, as many women, children, and servants were put into the "all other persons" category, regardless of occupation (Chapman 1990:5; UK House of Commons 1830a:1). Thus, in 1811 and 1821, the enumerators were asked to give the number of "families" in each category (Chapman 1990:5; Higgs 2005:10; UK House of Commons 1811:7, 9).

The 1831 form retained these occupational questions for families but also asked about the occupations of individual males over 20 years old, in six separate questions (Chapman 1990:5–6; Higgs

2005:10; UK House of Commons 1830a:7; 1830c:10–12). The first occupational question asked about males employed in agriculture in the following subcategories: as occupiers of land employing labor, as occupiers of land not employing labor, or as agricultural laborers (UK House of Commons 1830c:11, 14). The second occupational question asked for the number of males employed in "retail trade, manufacturers, or handicrafts" (UK House of Commons 1830c:11, 14). The third question asked for the number of men of "independent income, of the learned professions and other educated men; and wholesale merchants and capitalists" (UK House of Commons 1830c:12, 14). The fourth question asked about the number of men employed as laborers, the fifth about retired or disabled males, and the sixth about servants (male and female servants were enumerated separately) (UK House of Commons 1830c:12, 14). Notably, these categories provided much more information about the industrious than the idle, as they did not explicitly reference the unemployed.

To aid in the classification of occupations of retail trade, manufacturers, and handicrafts, lists of skilled occupations were sent out with the censuses (Chapman 1990:6; UK House of Commons 1830a:8; 1830c:11–12). Rickman developed this list from two sources of information. First, he instructed employees of the General Register Office (GRO) to "obtain and specify the actual occupations of males who were upwards of twenty years old" in two parishes that included a variety of urban and rural occupations (UK House of Commons 1830a:2). Second, Rickman consulted the London Directory that contained 450 distinct trades (UK House of Commons 1830a:8).

Rickman was strikingly aware of the interpretive difficulties imposed by the occupation question. As he testified in 1830, "A *Merchant* in London, is a very different description of person in the North of England, and in the Western Counties; and a definition of the trade of an *Apothecary*, as understood in the South of England and in Scotland, would produce a mutual smile. All Nomenclatures, whether scientific or popular, are difficult of formation" (UK House of Commons 1830a:8). Initially, Rickman tried to organize all those occupied in industry, but not employed by someone else, into shopkeepers, manufacturers, and handicraft artisans. But the division of labor undermined this scheme because "A Miller manufactures and also sells Flour; a Baker Bread; a Butcher transforms Cattle into Meat; a Shoemaker who makes also sells shoes; and every Watchmaker sells, as well as professes to make Watches and Clocks" (UK House of Commons 1830a:3). Occupation was thus a difficult question; open-ended, ambiguous, and subject to interpretation (Conk 1983:85).

Thus, from 1830, British censuses distinguished among broad branches of economic activity and collected information about the nature of work within those branches of activity. Although British information gathering was relatively undeveloped, it was precocious in collecting occupational information, reflecting the widespread concern with the poor and the numbers of industrious vis-à-vis the idle. The British census collected more occupational information than any other census for decades (Edwards 1911:618). The detailed occupational information was also collected to provide data to refute the labor theory of value, that all wealth was created by members of the laboring classes, which was considered to be a potentially subversive economic theory (Higgs 2005:10).

Although we uncovered no evidence questioning the utility of questions about houses and occupations, there was considerable doubt about collecting information about age. In 1830, Rickman noted that respondents' age information in the 1821 census had been voluntary because it was not particularly important and very difficult to collect (UK House of Commons 1830a:2). Rickman advised the committee to choose between reasking the 1821 age question even on a voluntary basis and collecting more detailed information about occupation (UK House of Commons 1830a:3–4). He argued that it was not worth the expense and noted the administrative capacity of the census was simply not adequate for the collection of both (UK House of Commons 1830a:3–4). Rickman wished to eliminate the age question to simplify the forms (Levitan 2011:20).

This issue of collecting information about ages was related to a desire to establish values for life insurance, one of Price's original motivations for a census (Buck 1982:40–43; Glass 1973:53–54; Levitan 2011:20). In addition to arguing against the overseers' abilities to collect such information, Rickman also asserted that enough information already existed to create such values without asking the age question in the census (UK House of Commons 1830a:4). Several experts sent letters to the committee responsible for the census about data requirements for computing mortality rates that would underlie insurance values, including Josiah Milne, a distinguished actuary (Glass 1973:94; UK House of Commons 1830a:5–11; 1830b:11–15). Milne argued that Rickman was incorrect to assert that existing information was sufficient and argued that it was necessary to enumerate the ages of men and women in intervals such as five or ten years, along with the number of deaths in those same intervals (Glass and Taylor 1976:20; UK House of Commons 1830b:12). Rickman eventually won this argument, and age was not asked in the 1831 census.

Rickman rejected Milne's well-reasoned arguments as incorrect and impractical (UK House of Commons 1830b:14–15). He may have misunderstood Milne's instructions for correctly creating a life table (Glass 1973:95; Glass and Taylor 1976:20). Furthermore, in 1801, one of the major goals had been to assess military power, yet without the ages of men, this was impossible (Levitan 2011:19). Nevertheless, Rickman also doubted that the information could be collected in the census (UK House of Commons 1830b:15). Many census officials thought that local government officials had a relatively limited ability to collect information, and Rickman in particular had a low opinion of the overseers of the poor, whom he deemed mostly uneducated landowners (Glass and Taylor 1976:20; Lawton 1978:13; UK House of Commons 1830a:1). Rickman, in the light of the census' reliance on the overseers, was wary about creating an overly complicated form in 1831.

Enumerators' abilities were probably highly variable. Many enumerators made detailed listings of the local population, including names, family relationships, ages, dates of birth, and movements between parishes that were not necessary according to the census instructions (Chapman 1990:6). These detailed records, like many tax records (chapter 3), were retained locally, not centrally (Chapman 1990:6–7). As was the case with the Tuscan *Catasto* of 1427 (chapter 4), some officials and individuals obviously had a huge range of information at their disposal, not just the specific information requested by the state. Thus, the state was not requesting information that individuals did not know. Instead, it was recording a small portion of the large amount of information that they already knew for some other reason.

Similarly, these censuses relied on local knowledge of place names, administrative distinctions, and boundaries that had often been in place for centuries (Fletcher 2008:104–105). Information was collected and reported for counties and hundreds that were then subdivided into parishes, tithe districts, and other locales, but these subdivisions were not standardized, and they varied because they relied on common usage (e.g., UK Parliament 1801:1, 6, 11, 12). The census often collected information in registration units that were poor law districts (Desrosières 1998:167; Higgs 1996:421; 2004:74; UK Census Office 1883:2). Thus, the census employed and reinforced existing local geographical categories (Fletcher 2008:104–105).

Conclusions

These British censuses illustrate our five arguments. First, the state-centered argument suggests that strong states should collect extensive

information. The British state was one of the strongest, most consolidated states of this time period. Yet, it instituted a census only in 1801, and the censuses between 1801 and 1831 were only summaries compiled by officials, not nominative enumerations. Furthermore, the British state was not without strong information-collecting organizations: the excise and customs offices were among the strongest bureaucracies in Europe.

The state-centered argument also suggests that states have administrative needs that they meet by establishing information-gathering bureaucracies. Like fiscal information gathering, the first British census was partially driven by the need to assess resources during wartime. The colonial and European wars of the second half of the eighteenth century and the height of the Napoleonic wars and poor harvests of the early nineteenth century strained British human and material resources, creating a pressing need for a census (Headrick 2000:77; Higgs 2004:70; 2005:6–7; Scott 1990:70–71; Shaw and Miles 1979:32; Taylor 1951:715). One of the main purposes of the first census was to determine whether the population was increasing or decreasing, in accordance with mercantilist ideas of the relation between population size and state power, populousness, and descriptive uses of information (UK Parliament 1802:4). Additionally, however, the adoption of a census was influenced by a rising interest in the use of information not only for mercantilist purposes but also for demographic knowledge, and not only by the government but also by private individuals (cf. Buck 1982:43; Eastwood 1989:288). The decennial censuses drew on ideas that had grown out of political arithmetic that advocated for the collection of information to serve the state but combined them with newer interests, both public and private, in the use of information for its own sake. These social influences fit with our theoretical arguments about lay categories, census intellectuals, and power.

Our second argument suggests that population censuses were strongly tied to lay, social categories. Numeracy was the social foundation for conducting censuses. It arose from commercial activities, concentrated in middle-class occupations, and spread to the upper classes. Occupational categories, which were based on existing trades, were highly developed in the British census, even though population information was relatively underdeveloped. Capitalism increased the visibility of the poor and the working class during this time period. The years around the 1801 census were crucial to working-class formation. Lay categories of class developed among the working and the commercial classes during this time through their political struggles

for recognition. The commercial classes pressed directly for a census to suit their interests and rights. These languages of class combined with elites' interests in poverty, poor relief, and the ratio of the idle to the industrious population to form occupational categories. Finally, geographical categories were taken from widely used common-sense lay categories that had existed for centuries.

Third, the push for a census arose primarily from census intellectuals, particularly from the writings of independent experts and scholars, mostly middle or upper class, starting with the political arithmeticians and continuing to Young, Malthus, Price, and Rickman. They often saw statistics as a way to curtail the state's power. Clergy were prominent, probably because they had direct experience with parish registration or poor relief. These writers favored a census, but they had to find supporters in Parliament to move a census bill forward. Not surprisingly, then, Rickman was a private citizen when he proposed the census, and he was later recruited to conduct the census. These population debates were, therefore, rooted in social forces that originated outside of the state and in turn influenced state actors to collect information. The overseers of the poor were primarily responsible for collecting census data, and clergy had to provide summary information about vital statistics. Of course, all of these individuals were in some sense government officials, because they were responsible for administering parliamentary legislation. Nevertheless, as with taxation, there was strong local, not central, control over this information. There was no permanent census bureaucracy, and there were no census bureaucrats during this time period.

Fourth, the distribution of social power strongly affected the census. In 1753, opponents of the census, with different party affiliations, aligned behind a general dislike of information gathering as contrary to landowners' interests. In 1801, however, the rising commercial and industrial classes, with increasing representation in Parliament, supported information gathering because it was well suited to their business, political, and ideological interests. Though landlords who in general opposed information collecting were still powerful, their influence began to decline during this time period. Thus, the increasing power of the commercial vis-à-vis the landowning class facilitated the census.

Our fifth argument is about historical trajectories, and in particular how past rounds of information gathering constrained future ones. Information gathering stemmed from parish administrative structures of registration and poor relief, not from fiscal information gathering that had few precedents for collecting population

information. Local administrations and private individuals conducted many of the functions of information gathering, so there was only a weak, centralized institutionalization of information gathering. UK censuses were largely spurred by social elites for informational purposes. This support created a historical trajectory in which these elites had substantial direct influence over information gathering. Because nonelites were not central to the push for a census, it remained a social enterprise relatively isolated from the direct interests of most of the population for a long period of time (though it of course reflected widespread lay categories).

These three social explanations, combined with the historical trajectory, explain the outcome: the British censuses were surprisingly underdeveloped. The categories were strongly shaped by lay categories and the interests of the census intellectuals who developed them; the shifts in social power made it possible to pass a population bill in 1801. Nevertheless, the lack of precedents for census-like population information meant that there was little to build upon and was undoubtedly one reason why these early censuses were relatively underdeveloped.

These censuses were descriptive, not interventionist. They described the population to determine the changes in the overall population and in the distribution of subgroups. They provided this information to enable effective rule and to estimate the state's strength. They did not have interventionist goals of changing the populace. In fact, to the extent that these censuses were concerned with interventionist governmentality, that is, collecting information for the population's benefit, it stemmed from social actors' interests in demographic information (e.g., Price). Furthermore, these censuses were not highly instrumental. In fact, even when social and state actors had instrumental goals, they did not necessarily know exactly what information should be collected to accomplish these goals or how to analyze such information once collected (cf. Hoppit 1996:533). Fiscal information gathering, in fact, was often more instrumental than demographic information gathering because it focused more narrowly on the information that facilitated the collection of resources (chapters 3, 4). Of course, not all information collected for fiscal purposes was directly relevant to taxation, nor did officials always know how to collect or analyze it. Nevertheless, in comparison, these early UK censuses were more loosely associated with any particular goal than fiscal information gathering.

CHAPTER 6

Population Censuses for Legislative Representation in the United States

The United States was a weak frontier state that nevertheless conducted an early census. State actors essentially argued for the adoption of the census as a practical compromise to link taxation to political representation. However, while the census grew out of fiscal information gathering, it was rarely used for these purposes. Instead, it was the first census used for legislative apportionment. Social forces, however, strongly shaped the census, as state actors drew on lay categories.

Colonial Information Gathering

US colonial censuses grew out of English/British information gathering. The English/British were not deterred from conducting a census in their colonies because they lacked one in their home country (Slack 2004:47; Wells 1975:7). Although political arithmetic and mercantilism had a general influence on information gathering in England/Great Britain, they actually had an earlier and more direct influence on colonial US censuses (cf. Sussman 2004:104). English/British political arithmeticians and mercantilists stressed the importance of quantitative information about the colonies (Cassedy 1969:51, 59; Hoppit 1996:527; Wells 1975:15). Both the ability to collect colonial information as well as its content was viewed as an indicator of the home country's strength. Data were used for commercial purposes, to inform the military struggle between the English/British and their rivals for North American control, and to form local militias (Cassedy 1969:59–61; Hoppit 1996:527).

Colonization was initially undertaken by companies and was strongly influenced by their commercial purposes (Diamond 1958:457, 459). The companies collected information to aid these purposes. Captain John Smith, one of the earliest leaders of the colonies

founded by the Virginia Company, returned to England and became a prolific writer (Cassedy 1969:11; Horn 2005:35–38, 97). Smith's colonial compendium was a forerunner of almanacs, directories, and statistical registers that were always popular among Americans before and after the Revolutionary War (Cassedy 1969:12; Davis 1972:158; Larkin 1988:18). The first few Virginia colonies failed or floundered, and the leaders of the Virginia Company took censuses of the surviving colonists in 1619, 1620, 1622, and 1624 (Cohen 1982:56–64; Wells 1975:7). Royal officials assumed control of the colony after disbanding the Virginia Company, and in 1625, a military census was taken, although it also contained names of most men, women, and children (Cohen 1982:63). The governor conducted censuses in 1634 and 1635 (Cassedy 1969:19; Cohen 1982:64–65; Dexter 1887:22; Greene and Harrington [1932] 1966:136, 145; Wells 1975:7, 11).

The first New England settlers were also originally under the auspices of the Virginia Company, but they landed outside of its jurisdiction and formed their own, virtually self-governing unit (Morgan 1988:123). Similarly, other colonists to that region formed small, compact communities, and they collected numerical data mostly to satisfy their own internal needs as self-conscious communities rather than to satisfy the English Crown (Cassedy 1969:23; Hawke 1988:16–20; Morgan 1988:123). In 1643, the Articles of Confederation of New England was organized to coordinate the military defenses of the colonies of Massachusetts Bay, Plymouth, Connecticut, and New Haven (Benton 1905:3–4; Cassedy 1969:38). This organization enumerated males between 16 and 60 years of age to determine the colonies' respective shares of expenses and the number of troops to be furnished (Benton 1905:4–6; Cassedy 1969:38; Clemence 1985:357). The Massachusetts and Connecticut authorities, however, were notably secretive about population information, especially with respect to the English/British (Cassedy 1969:37; Rossiter 1909:4). Complete population censuses were not conducted until 1756 in Connecticut and 1764 in Massachusetts (Alterman 1969:174; Cassedy 1969:37; Rossiter 1909:4).

Information was also gathered for the British Privy Council and then subsequently for the Lords of Trade, advisory committees to the Crown that supervised the colonies (Cassedy 1969:60). Initially, officials gleaned data from correspondence with current colonial residents or from individuals returning from the colonies (Cassedy 1969:60). For example, in 1626, the Privy Council requested that Virginia Governor George Yeardley "send by the first ship a particular account of the colony, the number of plantations, inhabitants,

etc." (quoted in Cassedy 1969:60). Colonial governors were a major source of information throughout the entire colonial period (Cassedy 1969:66). Through the governors, English officials sought data on boundaries; rivers and harbors; manufacturers' defense arrangements; population size, composition, and change; numbers of births, marriages, and burials; and the size of the neighboring French or Spanish populations (Cassedy 1969:66). As the colonies multiplied in number and complexity and mercantilist ambitions surged, the committees dispatched their own agents to the colonies to gather needed data (Cassedy 1969:60–61). During the 1660s, the Lords of Trade, for example, sent four commissioners to New England to conduct a broad fact-finding mission, in light of the war against the Dutch (Cassedy 1969:60–61). In keeping with the political significance attached to numbers, officials in England analyzed the information, compiled it into reports, and used it to develop colonial policy (Cassedy 1969:66).

The English Civil War and Interregnum of the 1640s and 1650s disrupted information gathering and census taking in particular, as well as the government's ability to assert authority over the colonies. However, after the restoration of the monarchy in the 1660s, it tried to reassert control. Information gathering was spurred by the mercantilist Navigation Acts, passed by Parliament between 1651 and 1696, that aimed to control colonial trade in commodities (Cassedy 1969:59; Cohen 1982:65–66, 77). Naval officers were stationed in every port in 1673 to collect and record duties (Cohen 1982:77). The Crown also enlisted customs officials to gather information (Cassedy 1969:65). They kept registers with detailed information about vessels, their owners, cargoes, homeports, and ages (Cassedy 1969:66).

The Privy Council's administration, and that of the Lords of Trades that followed, however, proved uneven and disorganized (Cassedy 1969:60). Thus, the Crown organized the Board of Trade in 1696 to coordinate and oversee the administration of its colonies (Cassedy 1969:60; Cohen 1982:33). The Board of Trade established the office of Inspector General of Imports and Exports that maintained annual colonial trade statistics (Cohen 1982:78). The Board of Trade began to collect census information regularly from the colonies—though their frequency varied considerably by colony—starting in the late seventeenth century; therefore, most (over 88 percent) of the colonial censuses stem from this source (Alterman 1969:166; Cassedy 1969:71; Cohen 1982:78; Rossiter 1909:3; Wells 1975:16).

After the early Virginia censuses, the next censuses were fielded in 1698 in New York and again in Virginia in 1699 (Wells 1975:10–11).

Censuses were conducted in Connecticut in 1756, 1762, and 1774; Georgia in 1738, 1740, 1750, 1753, and 1756; Maryland in 1701, 1704, 1708, 1710, 1712, 1755, and 1762; Massachusetts in 1754 and 1764; New Hampshire in 1767, 1773, 1774, and 1775; New Jersey in 1726, 1737–1738, 1745, and 1772; New York in 1698, 1703, 1712–1714, 1723, 1731, 1737, 1746, 1749, 1756, and 1771; Rhode Island in 1708, 1730, 1748–1749, 1755, and 1774; and Virginia in 1623–1624, 1624–1625, 1634, 1699, 1701, and 1703 (Wells 1975:8–11; cf. Dexter 1887:3–29; Halacy 1980:30; Rossiter 1909:5–7, 149–185). Delaware, Pennsylvania, and North Carolina were apparently first enumerated in the 1790 US census (Dexter 1887:17, 24). South Carolina may have been enumerated in 1708 (Dexter 1887:27; Wells 1975:167). A few newly independent states enumerated censuses before the first national census in 1790 (e.g., Rhode Island in 1782, New York in 1786, Virginia enumerated a partial census in 1782 [Dexter 1887:10, 15, 24]; see dates of other information-gathering efforts in Greene and Harrington [1932] 1966).

Age and sex were generally collected in these colonial censuses, though age was recorded only in rough groupings (Wells 1975:40). A division between children and adults at 16 years of age often served the purpose of distinguishing taxpayers and potential military recruits (Walsh 1981:250; Wells 1975:40). Some censuses enumerated persons in other categories such as convicts, servants, and clergy (Cassedy 1969:71). Virtually all censuses enumerated the racial composition of the population, by separating whites from individuals called, with relatively little differentiation, blacks, Negros, and slaves (Wells 1975:38–39). The major distinction, however, was a legal one between the free and slaves (Wells 1975:39). Initially, the few free blacks in the colonies were occasionally recorded as white; starting about 1750, censuses began to record free blacks or those of mixed race separately (Wells 1975:39). Colonial censuses, not surprisingly, given their mercantilist emphasis on the power of the metropole, focused on white settlers, not Native Americans (though the latter were sometimes included) (Halacy 1980:30; Wells 1975:39). The British generally considered Native Americans to be outside their legal jurisdiction (Wells 1975:39).

In most colonies, local officials, such as governors, sheriffs, justices of the peace, tax assessors, or other county or town officers, conducted the census (Alterman 1969:173; Rossiter 1909:3; Wells 1975:18, 21). Previous rounds of taxation facilitated some censuses because tax lists served as population lists, because tax officials conducted the censuses, or because familiarity with collecting information for taxation

more generally set precedents for censuses (Dexter 1887:23; Walsh 1981:250–251; Wells 1975:18, 21). Land records, militia lists, polling lists, lists of titheables, or other local records also facilitated censuses (Cassedy 1969:73–74). In a few instances, governors provided printed census forms (Wells 1975:19). Governors were supposed to send reports based on the censuses to the Board of Trade in London (Wells 1975:19). For the first few decades after the establishment of the Board of Trade, its members complained that the reports contained too much or too little information, but after 1715, reporting became more routinized (Wells 1975:19–20).

In addition to censuses, local officials also gathered vital information on colonial settlers and settlements in statistical registers, as prescribed by the Crown (Cassedy 1969:17). The Colonial Assembly passed a registration bill in Virginia in 1619, requiring local clergy to record all christenings, marriages, and burials and to submit annual reports of these events (Cassedy 1969:18). Another act of 1631–1632 made churchwardens jointly responsible with the ministers for submitting annual returns (Cassedy 1969:18–19). The 1657–1658 law required each parish vestry to provide adequate registration books (Cassedy 1969:19). The colony of Virginia established the office of Register of the Colony in 1637 (Cassedy 1969:21). In 1640, the secretary of state also acquired a variety of record-keeping obligations (Cassedy 1969:21). An act passed in 1640 stipulated that the secretary receive and maintain records of court orders, land patents, wills, births, marriages, burials, and people who left the colony (Cassedy 1969:21–22).

In Massachusetts, the clergy kept detailed records of religious events, but its mostly Protestant population considered births, deaths, and marriages to be civil events that should be registered by the state for legal purposes (Cassedy 1969:27–29, 31). Thus, the data shifted from the recording of religious ceremonies (baptisms, weddings, and burials) to demographic events (births, marriages, and deaths) (Cassedy 1969:31). Massachusetts also tried to regularize all its record-keeping mechanisms in response to a 1639 order of the General Court of Massachusetts Bay (Cassedy 1969:29). Massachusetts continued to revise its registration legislation throughout the seventeenth century, and other New England colonies similarly passed such legislation (Cassedy 1969:30–31). Registration was adopted in some of the other colonies, starting in the late seventeenth century (Cassedy 1969:53–58).

Given the harsh conditions of the colonial settlements and dispersed frontier populations, where survival was by no means guaranteed,

and the underdeveloped colonial administration, information gathering was difficult (Alterman 1969:173–175; Cassedy 1969:17, 68; Hoppit 1996:527; Rossiter 1909:3). The process was relatively easy in the early settlements, when most of the settlers remained close to each other and the population was relatively small (Cassedy 1969:19; Cohen 1982:63). For example, the population of Virginia surpassed 5000 only in 1635 but reached about 15,000 in 1648 and about 58,000 in 1699 (Dexter 1887:22; Greene and Harrington [1932] 1966:136–137, 145; Wells 1975:161). However, information gathering became more difficult as the population dispersed geographically (Cassedy 1969:20). Some colonists opposed any information gathering that might provide the British with information that might be used for taxation or military conscription (Alterman 1969:174; Clemence 1985:356; Wells 1975:20). As in Great Britain, some individuals may have feared the supposed Biblical prohibition of census taking (Alterman 1969:174; Cassedy 1969:69–70; Clemence 1985:356; Rossiter 1909:3; Wells 1975:21). The shortage of ministers and the illiteracy of some churchwardens, who were responsible for vital statistics, hindered record keeping (Cassedy 1969:17). Information was estimated or sometimes even fabricated (Alterman 1969:174; Cassedy 1969:20, 67; Cohen 1982:53–54). For example, colonial officials and companies wanted to attract more settlers to ensure the viability of early American business enterprises, so they inflated population statistics and pared down mortality statistics (Cohen 1982:50–56). As a compromise between the demands of the British administrators and the reluctance of the colonists, some colonial governors estimated the population from tax lists and sent them to England as censuses (Alterman 1969:174; Rossiter 1909:3; Wells 1975:18–19). Even when information was accurate, it was not always used (Hoppit 1996:528).

These information-gathering activities were partly facilitated by popular numeracy and a cultural orientation toward the political significance of numbers, shared by the colonists and British authorities. Before and after the Revolutionary War, Americans, religious and secular, wrote and published on demographic topics of fertility, mortality, and population increase, often engaging in debates with the British about the respective conditions on both sides of the Atlantic (Cassedy 1969:91–205; Davis 1972:166–168). The literacy rate in New England was also astonishingly high: in 1660, about 61 percent of men and 31 percent of women were literate; by 1760, the figures were 84 percent and 46 percent (Cressy 1980:183; cf. Soltow and Stevens 1981:36). In Virginia, the figures for men were about 50 percent in the mid-seventeenth century and about 67 percent in the

eighteenth century (Cressy 1980:183). Figures for the late eighteenth century for Maryland, New York, and North Carolina suggest a literacy rate between 80 and 90 percent, presumably for men (Soltow and Stevens 1981:38–39). Thus, literacy rates surpassed those of England (in 1700 about 43 percent for men and about 27 percent for women) (Cressy 1980:177). By the beginning of the eighteenth century, the United States may have had the highest literacy rate in the world (Engerman et al. 2009:94; Wood 1992:313).

Social Differences in the Early United States

Though the colonies eventually united against the British, they had few similarities beyond the experience of the same colonial ruler (cf. Murrin 1987:334–340). They had their own religions, governments, constitutions, laws, languages, histories, and ethnic characters, reflecting their different settlement patterns (Anderson 1991:499; Commager 1975:160–164; Greene 1982:17–20, 24; Hawke 1988:16–30; Larkin 1988:3–4; Petersen 1987:191–192). Colonists identified with their region, for example, as Virginians or Pennsylvanians, or with the home country as English or British, rather than as Americans (Greene 1982:22–25; Rozbicki 2000:69). Until the 1770s, the colonies had few formal ties with each other (Anderson 1991:499; Dull 1985:9; Greene 1982:22, 24). The colonies eventually became a nation unified by civil rights and personal liberties (instead of, for example, territorial belonging, cultural identity, or subordination to a dynasty), but this was a novel way to define a nation at that time, and bringing the different colonies together was difficult (Greene 1982:17–20; Murrin 1987:341–344; Petersen 1987:192; Robinson 1971:173).

During the colonial and early years of the new nation, most inhabitants were farmers, and there was little industry (Alterman 1969:178; Larkin 1988:16; Main 1965:66; Nugent 1981:63; Wood 1992:312). In 1820, nearly 80 percent of the US labor force was engaged in agriculture, compared to 36 percent in England in 1801 (Wood 1992:312). The southern colonies were organized around slavery and plantation economies (tobacco was the main commercial crop) (Anderson 1991:499; Greene 1982:26; Main 1965:44, 54). The north consisted mostly of small, owner-operated farms, though New England was relatively inhospitable to agriculture and had diversified somewhat into trade and small manufacture (Anderson 1991:499; Main 1965:42).

The elite were large landowners and merchants, while most of the population consisted of smallholders, laborers, artisans, and small

tradesmen (Jensen 1940:9–10; Main 1965:41–43, 219). Differences in wealth and status, however, were relatively small and unstable in comparison to European ones, and there was no hereditary aristocracy as in Europe (Handlin and Handlin 1982:55–56; Main 1965:221, 275; Wood 1992:113). Most differences between whites were finely differentiated in terms of relationships to other people, so they were highly relational, not categorical (Wood 1992:24). Furthermore, westward expansion, accomplished through the continual displacement of the Native Americans, created at least the possibility of social mobility for everyone except slaves (Larkin 1988:4–5; Main 1965:193–196, 221, 280; Nugent 1981:64–79). While slaves, who comprised about 20 percent of the population, were held in permanent bondage, perhaps as many as three-quarters of poor whites eventually became small property owners (Hawke 1988:128; Main 1965:271). White solidarity among the different European immigrant ethnic groups was fostered by definitions of self-interest and self-definition in opposition to black slaves and Native Americans (Rozbicki 2000:69). Thus, the major social difference was not between the social classes of European immigrants, but between free and unfree, which over time, became coincidental with race (Emigh et al. forthcoming).

Many of the early revolutionary leaders were wealthy, slave-holding plantation owners from Virginia (Morgan 1975:375–376; Smedley 1999:172; Wood 1992:121–122). Like other colonial leaders and political leaders in Great Britain at the time, few were full-time, professional politicians, and most returned to their other occupations or to their landholdings when possible (Rakove 1979:xvii; 1987:285). Serving in assemblies was a public duty that accompanied elite status (Beeman 2009:64–65; Rakove 1987:278–279; Wood 1992:287–288). Nevertheless, they supported American individualism, became formidable opponents of British colonial policies, and developed an ideology of republicanism to promote their cause (Morgan 1975:376; Smedley 1999:173). They formed a cross-class alliance with small and aspiring landowners, who felt their interests were closer to those of plantation owners than to poor blacks (Fields 1990:108–109; Morgan 1975:364–369, 376–387; 1988:168–169; Smedley 1999:173). Throughout the colonies, most of the population had been dominated by the landowning and merchant elite, so they were sympathetic to the republican ideology of linking taxation to representation and eventually allied with them (Jensen 1940:10; Morgan 1975:364). The ideologies of republicanism, personal independence, liberty, and distrust of authority—at least as they applied to whites—were widespread among all social groups (Greene 1982:30–31; Wood

1992:109, 171). Early revolutionary leaders throughout the colonies were able to forge a compromise between the more conservative elements of colonial society, who were often fearful and suspicious of democracy and nonelites, and the more radical masses, who had material grievances against the elites (Jensen 1940:11–12, 16; Wood 1969:322, 554; 1992:27, 172).

American racial ideology was closely and paradoxically connected with the rise of democracy and republican ideology. Unfree labor was viable in societies that tolerated inequalities of civil and political status because everyone stood in a relation of inherited subordination to someone else (Fields 1990:114; cf. Smedley 1999:96). But the American Revolution, based on the idea that all men had innate natural rights to liberty, problematized slavery (Du Bois [1935] 2007:1). The concept of race, which in this context defined blacks as belonging to a biologically inferior type of humanity, eventually resolved this problem by explaining slavery as a result of racial differences (Fields 1990:114).

This racialization of slavery, however, was a gradual social and historical process (Smedley 1999:98). Though Europeans never considered Africans or Native Americans to be their equals, at the founding of the colonies, some members of both groups, as well as some Europeans, formed categories of laborers with relatively few rights (review in Emigh et al. forthcoming). By the mid-nineteenth century, however, individuals considered to be of African descent were held in permanent chattel slavery with virtually no legal rights, while those considered to be of European and Native-American descent were not. Throughout the early national period, laws and customs gradually reduced the rights of individuals considered to be of African descent and increased the legal rights of individuals considered to be of European descent (review in Emigh et al. forthcoming). The United States was originally sparsely populated by Native Americans. However, they were quickly decimated through war and disease, so their numbers were not large enough to form a large servile labor force (review in Emigh et al. forthcoming). The remaining issue for the settlers and the US government then was to obtain their land, which they accomplished through treaties (usually shams) and their forcible westward resettlement, where they were out of view (review in Emigh et al. forthcoming). Thus, gradually, slaves were racialized as black but not white or Native American.

Race emerged at the intersection of a democratic political system and a plantation economy based on chattel slavery (Ford 2009:10). The creation of race in the early United States was a social process, involving

struggles among the white smallholders, large plantation owners, slaves, and Native Americans (Emigh et al. forthcoming). Race was historically constructed and was becoming increasingly hypostatized as a consequence of the outcomes of these struggles. As a consequence, race, not class, became a principal organizing category in the census.

The Origins of the Census in Taxation and Representation

The creation of the US census was strongly influenced by the idea that taxation should be linked to political representation. By the early modern period, the English/British Parliament's right to levy taxes had been firmly established for centuries (chapter 5). During the seventeenth and eighteenth centuries, the idea developed that Parliament represented the people that it ruled (Morgan 1988:52, 120; Wood 1969:24–28). This principle was transferred to the American colonies and their assemblies (Morgan 1988:43, 46, 124–131). Drawing on the precedent established in England/Great Britain, these legislatures, and in particular the lower houses, claimed an exclusive right to taxation (Morgan 1988:140). These two ideas—that Parliament levied taxes and that it was a representative body—became intertwined, creating strong precedents that legislatures could levy taxes because they represented the people they ruled (Adams 1980:13; Morgan 1988:52, 120, 140). Taxation without representation became a rallying point of the American colonists (Adams 1980:13).

The colonists realized that voting rights and political representation were restricted and unequal in England/Great Britain (Adams 1980:231; Anderson 1991:500; Morgan 1988:146; Wood 1969:165–166, 170; Zagarri 1987:37). Voters constituted only about one-quarter to one-third of the British population (Adams 1980:231; Morgan 1988:137, 175). In contrast, in the colonies, voters probably constituted a majority of adult males, legislative representation was better aligned with the population distribution, and periodic redistributions helped maintain this alignment (Adams 1980:231, 236; Morgan 1988:137, 146, 175; Wood 1969:171; Zagarri 1987:42–46). Colonial leaders hoped to distinguish further their new country from the home country by developing a more equitable link between taxation and representation. They focused, both in the Articles of Confederation and in the Constitution, not on creating systems of tax administration, but on establishing a representative legislature with powers that included taxation.

Representation and taxation, however, had to be accomplished through existing political units, namely, the colonies, or later, the

states, creating two practical problems (cf. Robinson 1971:146). First, voting rights in a national legislative body had to be assigned to these units. Second, national taxes had to be collected by distributing a fixed sum among these units that would, in turn, levy taxes on their inhabitants (this form of tax repartition was a common practice at the time). These problems were difficult to solve because states had opposing intrinsic interests, even if their delegates did not always argue consistently for them (cf. Beeman 2009:156–157; Robinson 1971:177–179). In the abstract, populous states should favor proportional representation but equal taxation (it would increase their representation vis-à-vis other states but allow them to pay the same tax amount as the other states). Less populace states should favor the reverse. Furthermore, small states should favor geographically based representation, while large states should support demographically based representation (Zagarri 1987:5–7, 64–67, 72–73). Similarly, slave states should favor counting slaves for representation but not taxation, while free states should favor the reverse (cf. Alterman 1969:176; Einhorn 2006:112–113, 164).

The census was eventually a compromise to these problems of representation that satisfied no delegates in its entirety but that was strongly based on the linked ideology of representation and taxation (Emigh et al. forthcoming). As early as 1754 and throughout the Continental Congresses of the 1770s, population counts of the free and slaves, in various formats, had been suggested as ways to apportion legislative bodies (Emigh et al. forthcoming). The wording of the Constitution in fact came from an amendment to the Articles of Confederation that was passed but never ratified (Emigh et al. forthcoming).

Linking Taxation and Representation in the Constitution Convention

Thus, the issue of taxation under the Articles of Confederation was never solved. Though the new nation defeated the British army, at the end of the war, it was deeply indebted, had a worthless currency, and faced punitive British trade policies (Anderson 1988:7–8; Becker 2000:392; Rakove 1979:338–362; Walashek and Swanson 2006:188). British and Spanish troops loomed at its borders to seize its territories if it fell apart (Petersen 1987:192). The government was virtually powerless to solve any of these problems because the Articles of Confederation gave it virtually no power (Jensen 1940:241–244; Walashek and Swanson 2006:188–189). Spurred by fear of social unrest and civil disturbances, delegates

from all the states except Rhode Island (which never participated in the Constitutional Convention) met in Philadelphia in May 1787 to strengthen the Articles of Confederation (Beeman 2009:16–17; Leitao 1996:38; Morgan 1988:266–267; Todd 2009:61; Walashek and Swanson 2006:189). What emerged was far more ambitious than a simple overhaul of the Articles; it was the US Constitution, mandating decennial enumeration to apportion legislative representation in the House of Representatives (Alterman 1969:183–187; Anderson 1988:7–8; Halacy 1980:31; Todd 2009:61).

Though many aspects of the Constitution were hotly debated, the use of the census was not particularly controversial and faced little opposition (Anderson 1988:9). In sharp contrast to Great Britain, there were almost no objections to a census. When discussing the census, some delegates thought that undertaking reapportionment should be at the discretion of the legislature, perhaps to assure that power remained with its commercial and eastern constituencies (Farrand 1911:571, 578–597; Robinson 1971:191, 196). Others however noted that adjustments might never be undertaken if it were left to the legislature because those in power rarely relinquished it (Farrand 1911:571, 578–597; Robinson 1971:197).

The final wording of this section of the Constitution was:

> Representatives and direct Taxes shall be apportioned among the several States which may be included within this Union, according to their respective Numbers, which shall be determined by adding to the whole Number of free Persons, including those bound to Service for a Term of Years, and excluding Indians not taxed, three fifths of all other Persons. The actual enumeration shall be made within three Years after the first Meeting of the Congress of the United States, and within every subsequent Term of ten Years, in such Manner as they shall by Law direct. (US Constitution 1787:Art. 1, Sect. 2)

This apportionment affected not only the number of seats in the House of Representatives but also the Presidency because the number of each state's presidential electors (the electoral college) was the sum of the number of the state's representatives and senators (McDonald 1965:185–186). Thus, the states' populations were crucial for distributing power among them (Anderson 1988:8–11).

Unlike the United Kingdom, where the census arose from the outgrowths of political arithmetic and the political and scientific ideas of the Enlightenment, the US census had fewer philosophical and more pragmatic roots. Many American revolutionary leaders were familiar with Enlightenment ideas of government and science, and these ideas

influenced the Declaration of Independence and the Constitution (Balinski and Young 2001:6; Landsman 1997:84–86; May 1976:97–101, 129–132, 161–167, 212–218, 278; Meyer 1976:179–188). However, the census arose largely as a strategic political compromise. The controversies over representation and slavery were intense, with delegates holding strong opinions on both sides of the issues. The compromises were mostly driven by the realization that without them, the country would split apart (Petersen 1987:192). As Hamilton and Madison readily admitted in the Federalist, the three-fifths rule was a "compromising expedient" between those viewing slaves as people and those viewing them as property (Anderson 1988:12; Hamilton et al. 1788; McKay 1981:1443; e.g., Farrand 1911:580–582, 587–588, 595). Similarly, the decision to conduct a population census was a pragmatic compromise as it was much easier to measure than wealth (Anderson 1988:12). The census was originally a political, not a scientific decision, with little thought that it might also provide systematic data collection beyond what was necessary for the apportionment (Clemence 1985:356–357; Wright 1900:13).

By the time of the Constitutional Convention, colonial and state censuses set precedents for a national census and apportionment by population. The questions in the Rhode Island census of 1774 were almost identical to those in the first US census in 1790 (Alterman 1969:175; Rossiter 1909:3). After independence, several state legislatures apportioned their votes using population, including Pennsylvania in 1776 and New York in 1777 (Alterman 1969:175; Zagarri 1987:41–42, 70). The first national enumeration in 1790 went more quickly in the states that had already taken a census than elsewhere (Rossiter 1909:46; Scott 1968:16). Many colonial censuses in fact contained more information than the first US ones (Cohen 1982:159; Wells 2012a:126). The actual enumeration went reasonably smoothly, though as usual, even during and after the 1790 census, some people were reluctant to report the true size of their households because they feared the information would be used to collect taxes or because of the biblical prohibition against censuses (Anderson 1988:10; Blodget 1806:76; Rossiter 1909:45–48; Scott 1968:17; Wright 1900:16–17).

Early Population Censuses in the United States: 1790–1840

The new US government under the Constitution, adopted in 1787, though stronger than under the Articles of Confederation, was still

a weak frontier state, much weaker than its European counterparts in general and Great Britain in particular, and it continued to be weak throughout the nineteenth century (Hannah 2000:34–36; Mann 1993:159; Wright 1900:12). After the ratification of the US Constitution, the Federal government possessed only four basic powers: collecting taxes, maintaining an army, controlling foreign and interstate commerce, and governing the western territories (Beard 1941:169–176). Numerous checks and balances further restricted its action (Heideking 2000:224). The legislature, executive, and judiciary were independent, and the legislature was divided between the House, elected by popular vote, and the more conservative Senate, elected by the state legislatures (Beard 1941:161–162; Heideking 2000:223–224). State and local governments were responsible for all of the powers not expressly vested in the federal government, including most tasks of governance (e.g., health, family, law, public works, police, poor relief) (Mann 1993:159).

Officially, the United States comprised the land from the eastern seaboard to the Mississippi River that had been ceded by Great Britain after the Revolutionary War in 1783, but most of the land between the Appalachian Mountains and the Mississippi River was only nominally under the political control of the government and organized into two large territories, the Northwest and the Southwest Territories (Dull 1985:146–147, 166; Gauthier 2002:5; Onuf 2000:374–375; Rossiter 1909:17–20). Though the Northwest Ordinance of 1787 outlined the basic provisions for territorial government in the Northwest Territory, there were few American settlers, and even the US government recognized some existing Native American land claims (Rossiter 1909:19; Todd 2009:57–60). The northern border with Great Britain, as well as the southern border with Spain, was disputed (Rossiter 1909:17). Neither the Americans nor the Europeans knew the extent of Jefferson's Louisiana Purchase in 1803, which was imprecisely mapped (Fleming 2003:126–128; Stenberg 1931:96, 101–108). Thus, the new federal government was a weak central authority, with many competing centers of power.

This government was not only small but also financially fragile. Though the census was designed to apportion taxation and representation, it was used infrequently for taxation. The federal government used the census several times during the late 1790s, the War of 1812, and the Civil War (starting in 1861) to levy taxes on land, houses, and slaves, by apportioning a total tax amount among the states, but otherwise it relied on indirect taxation (tariffs, customs duties, and excise taxes) that was more efficient (Anderson 1988:13, 17–20; 2010:156;

2012:xiii; Beard 1941:36; Dewey 1909:105–142, 299–306; Dunbar 1889:443–444; US GAO 1998:12). However, the federal government had no power to collect direct taxes on individuals, so census information could not be used for this purpose. Thus, the census became an exclusively political institution used to apportion legislative representation (Anderson and Fienberg 1999:7, 12).

Congress ratified legislation for the first enumeration of the US population on March 1, 1790 (Wright 1900:13). The following five censuses in 1800, 1810, 1820, 1830, and 1840 were authorized by similar acts (Wright 1900:17, 20, 25, 28, 32). Though there was no permanent federal statistical agency or bureaucracy responsible for taking the first six censuses or for interpreting the results, they were directed by the new national government, not the individual states (Anderson 1988:13–28). The Continental Congresses had ample experience with the individual states failing to take censuses or not providing information in the requested format (Anderson 1988:10). For the first six censuses, Congress instructed US marshals, under the supervision of the secretary of state, to appoint assistants to collect information (Anderson 1988:13, 18, 23; 2012:xiii; Halacy 1980:33–35; Wright 1900:13–32). The assistants were supposed to contact every American household to gather the prescribed information (Anderson 2012:xiii). Though the census bills for the first four censuses (1790–1820) specified a format, the federal government did not provide standard printed forms for the enumerators (Anderson 1988:14; US Congress 1845a:102; 1845b:12; 1845c:566; 1846a:550; Wright 1900:131). In 1790, the assistant marshals ruled blank pieces of paper by hand on whatever materials they happened to have and then recorded the information following the prescribed format, except in Massachusetts, where the marshal provided printed schedules for the assistants (Scott 1968:17–19; Wright 1900:15; e.g., US Government [1790] 1965). From 1800 to 1820, the state or individual marshals provided schedules of varying size and typeface (Gauthier 2002:6, 7). The US government began to furnish uniform printed schedules in 1830 (Gauthier 2002:5; Halacy 1980:39; Scott 1990:101; Wright 1900:15, 33). The marshals tallied the assistants' counts and then passed them along to the secretary of state and his clerks, who compiled them and gave them to Congress (Anderson 2012:xiii). The specified format for the census made this tallying relatively easy because the assistants could simply add down the columns to get the total count of individuals within the different groupings, but it may have constrained the amount of information that could be asked because a new column was needed for each category (Anderson 1994:11–13).

The first census covered the original 13 colonies, as well as Maine, Kentucky, and Vermont (US Congress 1845a:102–103). Jefferson arranged to extend the census to the Southwest Territory (Halacy 1980:33; Rossiter 1909:45). The Northwest Territory was perhaps too embattled in violence between the Native Americans and the settlers to make enumeration possible (Halacy 1980:33). The next five censuses also covered the states and the territories (Wright 1900:17, 20, 25, 28, 32).

Revolutionary leaders, George Washington, Thomas Jefferson, James Madison, Alexander Hamilton, and John Adams's son, John Quincy Adams, were involved with these initial censuses. Jefferson, Madison, and John Quincy Adams were secretaries of state and thus ultimately responsible for the censuses during their terms (Anderson 1988:13, 18). As secretaries of state in Washington's cabinet, Jefferson supervised the first census (Alterman 1969:170). Control over the 1800 census was subject of considerable controversy, as Congress argued about whether the census legislation allowed Timothy Pickering, the secretaries of state, too much freedom in establishing census regulations (Wells 2012b:128). President Adams replaced Pickering with John Marshall, who served until Jefferson became president and Madison became secretaries of state (Wells 2012b:128). Thus, Pickering drafted the instructions for the 1800 census, Marshall started the fieldwork, and Madison finished the fieldwork and published the results (Davis 1972:156; Wells 2012b:128). Madison delegated many of the details to his clerk, Jacob Wagner (Davis 1972:156).

John Quincy Adams in particular was closely and personally involved with the 1820 census (Davis 1972:157). Dissatisfied with the previous censuses, he methodically reviewed the previous censuses; expanded the schedule to include sex and age data on all classes of inhabitants, nativity, and occupation; and carefully drafted the first set of explicit instructions for the marshals (Davis 1972:157; Gauthier 2002:4–7). He specified that the assistants to the marshals "be *residents* of the county or city" that they enumerated (Wright 1900:134). The US census, like the UK one, drew on existing geographical units, such as towns, townships, wards, hundreds, or parishes (Wright 1900:134). However, Adams also specified that such units had to be "plainly and distinctly bounded by water courses, mountains, public roads, or other monuments" and that units could be combined; this gave the marshals geographic flexibility that the UK enumerators apparently did not have and perhaps moved slowly toward the creation of standardized geographical units (Wright 1900:134). Adams wanted to ensure that enumeration districts were practical and familiar to enumerators.

The census results were public: marshals and their assistants were required to post copies of the returns, with the names of the heads of households, in two public places for viewing and correction (Cassedy 1969:216–217; Clemence 1985:359; Halacy 1980:37; Scott 1968:20–21; Wright 1900:14, 18, 21, 25, 30, 34). (Thomas Jefferson added his name in Philadelphia in 1790 [Halacy 1980:37].) Summaries of the first census were published in the United States in 1791 and in Great Britain in 1793 (Halacy 1980:38; US Congress [1791] 1793:n.p.; Wells 2012a:127). Subsequent censuses were also published, usually by one of the branches of the US government (Anderson 1988:18, 23; Wright 1900:18, 21, 26–27, 30–31, 35). The 1820, 1830, and 1840 censuses were distributed to government offices and colleges and universities (Wright 1900:27, 30). Newspapers, which had been instrumental in generating popular interest in statistics and vital events before and after the American Revolution, also summarized the censuses (Cassedy 1969:117–124; Davis 1972:158; Wells 2012a:127; 2012b:127).

The early availability of the US census may have helped to create public interest and debate about demographic issues, a hallmark of later US censuses (cf. Landsman 1997:31–56). Authors, including government officials, began to draw on census figures (e.g., Blodget 1806:71–80; Coxe 1794:198–200; Pitkin 1816:327–333; Seybert 1818:20–28; see Cohen 1982:158–159, 165–169; Davis 1972:156–157). Dissatisfaction with the results published by Congress led two congressmen, Pitkin and Seybert (who was also a member of numerous scientific societies), to analyze the census themselves (Cohen 1982:167–169; Davis 1972:157; Fishbein 1973:7–8). Seybert noted differences in legislative apportionments stemming from large population increases and changes in the 1790, 1800, and 1810 censuses (Anderson 1988:21–22; Seybert 1818:3–4, 13). Congress subsidized the publication and distribution of Seybert's work (Davis 1972:157). Changes in population were particularly interesting because they were shifting power away from the original colonies and slave states to the western and free states (Anderson 1988:22–23). The works of Blodget, Pitkin, and Seybert were reviewed by contemporaries, who debated the adequacy of the data and the analyses (Cohen 1982:167–169; Davis 1972:156–157). Newspapers and almanacs also reported on censuses and advocated for improvements to them (Davis 1972:158; e.g., *Niles' Weekly Register* 1820a:319–320; 1820b:450–451). In the early nineteenth century, almanacs, gazetteers, congressional reports, newspaper articles, and quantitative tracts that reprinted data from censuses, congressional reports, or government trade statistics proliferated (Anderson 1991:503; Cohen 1982:165).

As in Great Britain, the position of populousness suggested that a large population was a sign of strength. In contrast to the British, who debated whether their population was growing or declining, Americans knew that their population was growing (Anderson 1988:11). American revolutionary leaders, such as Washington, Adams, Franklin, Hamilton, and Jefferson, portrayed the growing size of the American population as an indication of military power, commercial strength, prosperity, and their ability to defeat the British, especially to foreign officials (Anderson 1988:11; Cassedy 1969:204–205, 217–219; Prewitt 2010:240–241; Wells 2012a:127). In the Declaration of Independence, Jefferson argued that King George III was suppressing population growth (Prewitt 2010:240). Both Washington and Jefferson were disappointed with the census returns of 1790 when they did not show a total of 4 million people, and they suggested that the census must have undercounted the population (Cassedy 1969:219–220; Prewitt 2010:242; Rossiter 1909:48; Scott 1968:20; Wells 2012a:127). Washington ([1791] 1836:177) hoped that a large population figure would convince the Europeans of the growing importance of the United States (Rossiter 1909:48).

Debates Over the Expansion of Information

The first six censuses in 1790, 1800, 1810, 1820, 1830, and 1840 recorded the name of the head of the household (but not the names of other household members), legal categories of free and slave, and race, sex, and age categories that became increasingly differentiated over time and applied to more legal categories (Anderson 1988:14, 18, 23; Halacy 1980:33; Wright 1900:132–143). The later censuses added questions about nativity, occupations, disabilities, schools, and illiteracy.

Though the adoption of a census to apportion legislature was a pragmatic compromise, several efforts, mostly unsuccessful, pushed the census in a scientific direction (Emigh et al. forthcoming). Most of the debates over the expansion of the census revolved around whether additional information would prove useful and whether it was legal, given that the US Constitution did not specify or require anything other than an enumeration by legal status (free and slave). For the 1790 census, Madison, in particular, pushed for the census to provide more information, and he proposed some basic demographic categories (a mixture of legal status, race, sex, and age) that were partially adopted, and some occupational categories, that were entirely rejected (Emigh et al. forthcoming). Madison's demographic

categories, which corresponded to legal and political rights that were largely coincidental with race, resonated strongly with prevailing systems of social classification based on race (Emigh et al. forthcoming). In fact, the exact form of the questions matched this prevailing system (Emigh et al. forthcoming). In contrast, his occupational categories did not resonate socially, and occupation was not a widespread social category (Emigh et al. forthcoming). Politicians thus largely drew from preexisting social categories when developing the census (Emigh et al. forthcoming). Race in particular, because it was socially salient, entered the census, though it was not required for legislative apportionment.

In the discussion of the 1800 census, both the House and the Senate considered expanding the questions to include occupation, nativity, and more age categories (US Congress 1821:24; 1851:2492). A proponent in the House suggested that an occupation question would foster manufacturing and help determine taxation (US Congress 1851:2492). As in 1790, however, an opponent noted that many individuals had multiple occupations, which could not be included in the census (US Congress 1851:2492).

In 1800, several scientific groups pushed for occupational categories, marital status, finer age distinctions, and nativity information, but these efforts were also mostly unsuccessful (Anderson 1988:18; Cohen 1982:161–164; Davis 1972:155–156; Scott 1968:26). The American Philosophical Society, with Thomas Jefferson as its president (he was the US vice president in 1800), suggested adding more fine-grained age categories and nativity questions so that mortality could be examined for the native-born and the immigrant population and so that the contribution of immigration to population growth could be estimated (Davis 1972:156; US Senate 1800:6). He also proposed adding nine occupational categories (learned professions, merchants and traders, mariners, handicraftsmen, laborers in agriculture, other laborers, domestic servants, paupers, and "persons of no particular calling living on their income"), which he claimed would provide more information about the causes of mortality and health (Anderson 1994:15; Davis 1972:156; Halacy 1980:38; US Senate 1800:6). Jefferson was an advocate for statistical and demographic information; for example, he compiled records from colonial and other sources to estimate and analyze the population of Virginia (Cassedy 1969:227–230; Cohen 1982:151). Timothy Dwight, the president of the Connecticut Academy of Arts and Sciences (he was the president of Yale in 1800), also urged Congress to collect more detailed information on age, occupations (persons in handicrafts, merchants, land

cultivators, and professionals), nativity, and marital status (Anderson 1994:15; US Senate 1800:4). Dwight argued that knowledge derived from the close observation of facts and the use of statistics could promote the common good and create consensus during the fractious political debates of the 1780s and 1790s (Cohen 1982:156). Congress did not adopt any of these suggestions but did approve more detailed age categories in 20 year intervals for white men and women (though the reasons for these age groupings are not clear [Wells 2012b:127]) (Wright 1900:132). As in 1790, the other categories of "all other free persons except Indians untaxed" and "slaves" were not enumerated by age (Wright 1900:132). Congress showed little interest in the ages of slaves or the other free persons through the 1810 census, perhaps reflecting the hope that slavery would die out and the number of free blacks decline (Anderson 2003:25).

These scientific proposals may have overlapped with political concerns. Madison and Jefferson were founders of the Democratic-Republican Party that pushed for more radical democracy and a limited government in contrast to the more elitist and extensive government favored by the Federalist Party (Ellis 1987:300; Rakove 1987:279; Wood 1992:262). The Federalist Party was supported by the aristocratic elite, the gentlemen, who by virtue of investing money in land or commercial interests, did not have to engage in labor directly; in contrast, the Democratic-Republican Party was supported by direct producers, whether in agriculture or commerce, who labored and depended on engagement with the market (Shankman 2003:342, 347, 352; Sharp 1993:86, 137; Wood 1992:261–268). Although opposition against and support for scientific information in the census did not align as directly with the interests of landlords and merchants in the United States as in Great Britain/the United Kingdom, in both countries, the push for more scientific information was supported by rising social classes in opposition to older entrenched interests. Certainly, the pushes for more information in neither country came from supporters of large government but instead from individuals like Price or Jefferson, who were advocates of individuals' rights.

The 1820 population census added an occupation question, perhaps at the recommendation of John Quincy Adams (1875:134). In the recorded legislative debates, at least, there was less skepticism about the utility of recording occupation than there was debate about the form of the question. One legislator wanted to record the trade, occupation, or employment of all males over 16 years of age (US Congress 1855:879). This was modified however so that males were enumerated only within three broad occupational categories ("agriculture,"

"commerce," and "manufactures") that apparently followed Adams's (1875:134; US Congress 1855:879) suggestion. A proposal to include a fourth category for "the professions of law, physics, and divinity" was not approved (US Congress 1819:147; 1855:923). This occupation question was reconsidered in the 1830 census, but a House amendment dropped it from the final version (US Congress 1830; Wright 1900:132–133). A proposal to include categories of "free married persons" and "dwelling-houses" was not approved in 1820, but that census added a question about "foreigners not naturalized" that was repeated in 1830 (Scott 1968:27; US Congress 1855:880, 923; Wright 1900:133, 139).

The population questions remained the same in 1800 and 1810 (Wright 1900:132). Additional demographic information about race and age was collected in 1820 and 1830. Though "Indian" and "white" were the only races to appear explicitly in the first three census schedules (1790, 1800, and 1810), "coloured" was also used in 1820 and 1830 with respect to the category of free legal status (though not to the category of slavery), to produce the category "free coloured persons" on the census schedule (US Congress 1846a:550; 1846b:389; Wright 1900:133). Questions about physical disabilities were added in 1830, separating "whites" from "slaves and coloured" (Wright 1900:139). The census schedule also separately enumerated these "free coloured persons" from "all other persons, except Indians not taxed," though the all-other-persons category was placed somewhat ambiguously under the heading of "free coloured persons" (US Congress 1846a:550; Wright 1900:133). The all-other-persons category, however, was intended to capture assimilated Native Americans, and thus, the 1820 census was the first to record separately Native Americans who paid taxes (Smith 2012:131). This category of Native Americans was removed from the 1830 census (Wright 1900:138–139). These changes in the enumeration of Native Americans occurred during the debates over the possibilities of assimilating Native Americans to the white population or removing them to the western frontier. (The Indian Removal Act passed on May 28, 1830, just a few months after the census bill passed on March 23, 1830 [US Congress 1846b:383; Wallace 1993:66].) Though it is not clear exactly how the changes in the categories corresponded to policies of removal, there must have been considerable interest in the size of the Native American population. Thus, in these early censuses from 1790 to 1830, racial markers were consistently applied to whites, inconsistently but increasingly applied to free individuals of African or Native American descent, but never applied to slaves (cf. Anderson 2003:32).

For whites, the age groupings from the 1800 and 1810 censuses were mostly left intact in 1820 (Wright 1900:132–133). One additional category of white males between the ages of 16 and 18 years was enumerated separately to provide more information about individuals eligible for military service (US Congress 1855:923–924). In 1820, age subdivisions were added for the "slave" and "free coloured persons" categories (though not the category of "all other persons, except Indians not taxed") (Wright 1990:132–133). These categories were similar to the ones used for the white population, except that there were fewer categories for children for the nonwhite and slave population (Wright 1900:133). A proposal to enumerate children under the age of 10 years separately—presumably to make it more like the category for whites—was opposed because it would produce unreliable information (US Congress 1855:880). The additional age information about the nonwhite and slave population was added with the justification that one of the purposes of taking a census was to show the comparative increase of different segments of the population (US Congress 1855:880). This information was added around the times of the intense congressional debates over the westward expansion of slavery, and in particular how changes in the age or geographical distribution of the free and enslaved black population would affect legislative representation, the future of slavery, and white supremacy (Anderson 2003:29–32).

John Quincy Adams's (1875:135) suggestion to expand further the age categories for the purpose of helping to determine the health and longevity of the population was apparently not implemented in 1820, but his presidential address in 1828 may have been influential in expanding the age categories for whites to mostly ten year intervals in 1830 (Cohen 2012:131; US Congress 1828:20–21). For slaves and free colored persons, there were fewer age categories with larger age intervals (Wright 1900:138–139). Thus, the categories of the nonwhite population were not comparable to the white population; only the slave and free colored population could be compared directly (cf. Anderson 2003:32). Race was thus again highlighted as a major division in the population (cf. Anderson 2003:32).

The 1840 census retained the same basic structure of legal status, sex, race, and age. It added an occupational question, a question on schooling, and expanded the question about physical disabilities to include the numbers of "insane" and "idiots," separating whites from colored (Wright 1900:143). It also included a question about military pensioners to try to prevent fraud (Cohen 1982:183; Wright 1900:143). Apparently, Congress asked for these additions at the

last minute and without extensive input or debate (Cohen 1982:183; Wright 1900:143). In addition, however, in 1840, the secretary of state did not directly supervise the census; instead, it was directed by the superintendent of the census, William A. Weaver, who did not have extensive government service (Cohen 1982:185; Schor 2009:47). Weaver introduced more categories than the census act strictly specified, and the resultant schedule was very complicated, difficult to read, and hard to complete correctly, probably leading to an erroneous finding: the proportion of free colored "insane" and "idiots" was higher in the north than in the south (Anderson 1988:29; Cohen 1982:186, 203; Schor 2009:48–49). This finding sparked intense political discussion with proslavery advocates claiming that the figures provided support for the notion that slavery was the condition for "progress" among blacks, while abolitionists and African-American interest groups revealed major errors in the tabulation of the data (Cohen 1982:195; Nobles 2000:32–33; Schor 2009:49–50). This was the first time in the American census that broad public discussion by lobbies composed of and linked to experts led to substantive technical criticism of census information (Cohen 1982:196). The controversy also led directly to the organization of a census board (Schor 2009:52–56).

A comparison between the debates over occupation and race is telling: while the legislators feared dividing the white population by occupation, they readily divided the entire population by race, even if some category labels were racialized gradually (cf. Nobles 2000:29–30). Race was included because it was the primary social and political cleavage; strictly speaking, apportionment depended upon legal, not racial status (Nobles 2000:27, 30). Thus, occupational categories, unlike racial and legal categories, developed more slowly in the US census than in the UK one, where they were first used in 1801 and were already well developed by 1830. In comparison to the United Kingdom where both the economy and the occupational categories were more developed, the economy in the United States was still primarily agricultural and undeveloped. In the United Kingdom, class, not race, was the main social division, so the division of the population by occupation was seen as crucial. Thus, in both cases, the state was responding to lay social knowledge and interests, not introducing novel categories.

The debate over occupational statistics was part of a larger disagreement about how to unify the new and socially heterogeneous nation. In the 1790s, Congress split into divisions that verged on a party system that seemed to violate the ideal of a single, public, and common

good (Cohen 1982:155). Proponents of statistics argued that quantitative information could create unity. Such facts would dispel differences of opinion and guide a clear, correct course of action (Cohen 1982:155). Knowledge of the extent of heterogeneity would compensate for the lack of homogeneity and promote consensus on national political goals (Cohen 1982:155). Thus, understanding the differences between more detailed census categories would allow Congress to pass legislation in line with this reality and help legislators serve their constituents (Cohen 1982:163; Starr 1987:19). These proponents viewed society as consisting of diverse and competing groups; politics dealt with these competing interests (Starr 1987:19).

In contrast, the opponents of statistics viewed politics as the pursuit of a common good, so empirical knowledge was unnecessary (Starr 1987:19). Occupational statistics were at odds with the general view that society was an organic whole and that most individuals participated in a variety of economic activities: counting separate occupations was therefore divisive in principle and impossible in practice (Cohen 1982:163). The opponents of the occupational categories thought that using such information to determine the relative weights of economic interests conflicted with the idea of a single common good (Cohen 1982:163).

The eventual adoption of more detailed occupational categories, especially by 1840, was a result of increasing economic specialization, rising numeracy, the popularity of statistical manuals, an increasing perception of the importance of class, the increasing delineation of work and jobs, the increasing specialization of individuals in a particular activity, and the use of quantitative information by reform movements (Cohen 1982:164–174). However, it is not entirely clear why occupation was added to the 1820 census. There may have been a conceptual shift by that date so that common good was understood as something that could be broken down into component parts and analyzed statistically, and thus, more legislators may have viewed occupation as desirable information (Cohen 1982:164–165). However, it was dropped in 1830, suggesting that its 1820 addition may have stemmed more directly from the advocacy of John Quincy Adams and that broader social changes had more influence on the question in the 1840 and 1850 census when it was reintroduced and expanded.

Because legal status was centrally relevant to apportionment, slave, free, and untaxed Indians were the dominant categories used to divide the population (Anderson 1988:12). However, the language of the categories was gradually racialized—explicit racial language was

first attached as "Indian," then as "white," and then as "coloured." This reflects the process of the racialization of the social distinctions historically. Importantly, as we have shown, the census categories lagged behind the social changes. The racialization of slavery was firmly established before these first few censuses, which never used a racial marker for the slave category, and the rights of free blacks had been curtailed before any racial marker had been attached to the census category. Thus, the social divisions predated the census categories and were not shaped by them. Instead, these social divisions generated lay categories that census intellectuals drew upon and debated (Emigh et al. forthcoming).

Conclusions

Of our three cases, these early US censuses show the most state influences, but social influences were not missing, as the evidence for our five main arguments shows. First, from the state-centered perspective, strong states implement censuses to solve administrative goals. This perspective suggests that the strength of the British state made it possible to conduct regular colonial censuses. Nevertheless, the British did not conduct a census in their homeland at the time. Furthermore, the British had a relatively weak presence in the United States and lacked extensive geographical control. British censuses in the United States were facilitated by their links to colonial commercial and religious settlement. After independence, the idea of using the census clearly originated in the government, not in society, as in Great Britain. However, it was a small, weak frontier state that successfully carried out a population census—the first to apportion legislative rights (Anderson 1988:8–9). The close connection between population counting and political representation, the long colonial tradition of information gathering, and high numeracy facilitated population censuses and created support for them. Thus, while the US census was initiated by state actors, it succeeded despite the state's weakness. To understand how the census was possible, we evaluate our other arguments.

The census drew strongly on lay categories. The American population was highly numerate and interested in the use of statistics and quantitative reasoning. Furthermore, the census was organized around legal status and race that were the primary social divisions in the US population because of historical patterns of settlement and slavery. Although the Constitution never specified the adoption of racial categories, because legal status was racialized, race was highly

correlated with legal and political rights (Emigh et al. forthcoming). The racialization of the categories in the census followed temporally the racialization of the social categories, as blacks and Native Americans were increasingly denied rights throughout the end of the 1700s and the first half of the 1800s. Finally, the census strongly resonated with revolutionary ideals of fair representation.

However, census intellectuals played a much smaller role in the US census than in the UK one because social actors who might have pushed for the adoption of censuses were victorious revolutionary leaders who were largely incorporated into the new US state. In these early US censuses, census intellectuals included the marshals and their assistants who were recruited from the lay population and other religious leaders who also collected census-like information. Timothy Dwight and other commentators were also important in spurring revisions to census. However, unlike the British case, in which there were prominent individuals outside of the government who pushed strongly for the establishment of the census, there were relatively few such individuals in the United States. However, the primary reason for this relative lack of census intellectuals was that in the United States, revolutionary leaders like Madison and Jefferson were incorporated into the new US government, so they were then in politically powerful positions where they could implement and institutionalize the census. These and other revolutionary leaders were often from the planter aristocracy or merchant elite. Although these US leaders were familiar with Enlightenment ideals of good government, for them, the censuses primarily solved the practical problem of apportionment (though Madison and Jefferson in particular also thought that the census could provide useful social information). By detaching the census from British colonial purposes, they could adapt the census to their own purposes. In this sense, the census, though it originated in the state policies of Great Britain, was both an instrument of opposition to the British state and an exercise in building the US state.

The position of these state actors, or co-opted census intellectuals, and the form of their co-optation is linked to the issue of power. There was relatively little resistance to the census from the US populace or from within the government. During the colonial period, the populace and the officials offered some resistance to British information collection, usually as "weapons of the weak": sending less information than requested or generally passively resisting information-collecting efforts (Scott 1985:29–30). American officials were not powerful enough to challenge British ones, nor did they necessarily see their interests as different from the British. The US census

was tied very strongly to solving the problem of creating a system of fair apportionment that had been a central theme of the American Revolution. So the populace at large had few reasons to resist, and in fact, probably resisted the US censuses less than the British ones. Furthermore, prominent revolutionaries were incorporated into the new government and were given central roles in executing the first few censuses, so again, they were obviously invested in their success. Thus, though the state was relatively weak, it faced virtually no opposition to the census and instead had widespread support for it.

The historical trajectory shows how a strongly state-driven census history, originated by the British for essentially mercantilist purposes, was then adopted by a new state with extensive social support. Widespread familiarity with colonial information gathering, combined with popular numeracy, facilitated the census. Without a strong tradition of census taking by the British, it is unlikely that the new US government would have been successful in conducting its first census. Because the census was tied to revolutionary ideas of representation, it was widely supported by elites and nonelites. Thus, the US census started out as a strongly state-driven census: it not only drew on British precedents but also was created explicitly by US state actors. However, because it was mandated by the Constitution and determined apportionment, it was subject to constant debate, thus drawing in numerous parties who had stakes in its outcome and implications. A barrage of debates over the control of the information-gathering apparatus and the content of the questions accompanied each census. The US census returns were not confidential and were published and distributed widely. Thus, while originating in the state, the census was subject to constant social pressures. Of the three cases we examine, the US census illustrates the highest degree of interaction between the state and society. This particular path to information collection politicized population statistics (cf. Desrosières 1998:188–189). Although the census was state driven, its institutionalization promoted constant debate within a setting where knowledge production was decentralized and central authorities had weak legitimacy (Desrosières 1998:188–189). The US census was institutionalized in a way to force social participation, and this occurred in a context in which many individuals were numerate and interested in statistics.

These social factors and the historical trajectory explain the outcome. The US censuses, both before and after independence, were descriptive, not interventionist. They were never used directly for tax collection, though they were used to assess resources more generally. The British used them to assess the strength and size of the

colonies and, in a rough way, to understand how to extract resources and direct trade. In the United States, private citizens or members of the government used census data to address debates about whether the population of the United States was increasing or decreasing, in essays on other topics or in histories of states (Anderson 1988:17–18, 21–22). However, the central task of the US census was to apportion representation, which was essentially a descriptive, not interventionist purpose, aiming only to enumerate the population, not alter it. In fact, elite social actors pushed strongly for including more information, such as occupation, for scientific reasons or more general governance purposes, but political leaders rejected these efforts as irrelevant to apportionment. As originally conceived, the US census was largely a pragmatic political compromise, not a scientific data-collecting exercise.

CHAPTER 7

Precocious Censuses in the Italian Regional States

Although parish registration, and to a lesser extent, fiscal information gathering, set precedents for population censuses in the United States and England/Great Britain, on the Italian peninsula, these forms of information gathering were even more strongly linked. Along with civil and tax records, the rise of parish records in the sixteenth century created a vast reservoir of demographic information (Del Panta and Rettaroli 1994:28). On the Italian peninsula, as in England/Great Britain, a strong intellectual movement of political arithmetic, especially in Lombardy, Tuscany, Piedmont, and Naples, supported information gathering (Grab 2003:152–153; Patriarca 1996:16; Reinert 2005:31; Riley 2003:205–206; Woolf 1984:169). In typical Italian fashion, the proponents of political arithmetic were autonomous intellectuals, who shared a common culture across the different regional states (Reinert 2005:25). Additionally, Austrian Habsburg rule of Tuscany and Lombardy may have spurred information gathering (Grab 2003:152; Patriarca 1996:16; Reinert 2005:31; Riley 2003:205–206; Woolf 1984:169). While the Spaniards were precocious information gatherers elsewhere, their rule on the Italian peninsula may have inhibited censuses. Relatively little information was collected in Spanish Lombardy, and there was little movement toward censuses during Spanish rule of Naples (Wolfe 1932:362, 365–366). In sum, on the Italian peninsula, strong historical precedents for censuses were reinforced by social actors who supported their execution, either technically or ideologically, and few social actors opposed information gathering per se. This combination created massive amounts of information gathering and the early development of censuses. In this chapter, we focus on the rise of population censuses, noting how they arose out of fiscal information gathering

and parish registers (though we do not provide a complete history of these two precedents).

Ecclesiastical Forerunners of Censuses

Parish registers included records of baptism, marriage, death or burial, confirmation, and communion. Baptismal records began as early as the twelfth and thirteenth centuries, and they became more frequent, especially in northern and central Italian cities, in the fifteenth century (Day 2002:98; Del Panta and Rettaroli 1994:38; Italy MAIC 1862:37; Pini 1996:21). Marriage and burial records generally started later (in the fifteenth century) and were less plentiful than baptismal records (Cipolla 1991:142–143; Corsini 1974:651–654; Del Panta and Rettaroli 1994:38; Pini 1996:22).

The Catholic Church formalized its sacraments through parish registers, but registers were strongly linked to urban, civil, and commercial interests (Del Panta and Rettaroli 1994:37–39). Baptism and marriage records were tied to the rise of wealthy urban classes and the strengthening of class delineations, because they supported the transmission of patrimonies and dowries (Corsini 1974:661). Baptismal records could establish citizenship rights, eligibility for elected offices with minimum ages, and guild membership (Beltrami 1951:10; Corsini 1974:657; Del Panta and Rettaroli 1994:39). Civil authorities often initiated death records for public health needs, to estimate food requirements, and to expedite inheritance (Beltrami 1951:11; Carmichael 1986:28–29, 35; Ciappara 1988:13; Cipolla 1974:852, 857–858; Del Panta and Rettaroli 1994:38–40; Herlihy and Klapisch-Zuber 1985:260–262).

At the Council of Trent in 1545–1563, the Catholic Church began to mandate parish registers (Bossy 1970:53; Burke 2000:121; Del Panta 1974:11–12; Kertzer and Brettell 1987:89–90; Skolnick et al. 1973:103–106). In 1614, the church mandated five registers for marriage, baptism, burial, confirmation, and the *stati delle anime* (states of the souls or *liber status animarum*) (Ciappara 1988:14; Corsini 1974:648; Del Panta and Rettaroli 1994:35). Although parish records existed long before the Council's decrees, its mandate spurred record keeping as the number of registers dramatically increased toward the end of the sixteenth century (e.g., Corsini 1974:651–654, 667–671; Del Panta and Rettaroli 1994:41; Galloway 1994:229–231; Leti and Tittarelli 1976:15; cf. Alfani 2009:28).

These records were part of Counter Reformation reforms to strengthen the Catholic Church against Protestantism. Records were

part of an effort to eliminate clandestine marriages by requiring that marriage was publicly contracted in front of a priest and witnesses (Ciappara 2001:380). This effort started in the early Middle Ages, rooted in the understanding of marriage as a sacrament and as a consensual contract based on mutual affection between equal partners (Prodi 1989:17–19). It may have developed along with the increasing importance of the nuclear or middle-class family (in comparison to the aristocratic family) and individualism (Prodi 1989:16–17). This sacramental understanding of marriage became even more important after the Reformation to distinguish between Catholicism and Protestantism (Prodi 1989:18–19). Registers were visible signs that the marriage had taken place within the church and according to its prescriptions and thus helped to reinforce the Catholic Church's view of the society, the family, and the individual (Prodi 1989:17–20). Records assured that the event could be referenced in the future (Ciappara 2001:380). Marriage and baptismal records were related because baptismal records contained information that could be used to prevent marriages between individuals with kinship or spiritual ties (Corsini 1974:658). Death records made it possible for the living spouse to contract a new marriage (Rossi 1970:79–80). Although registers were clearly oriented toward creating orthodoxy, they also reflected the Catholic Church's growing commitment to socially and economically marginal individuals that needed pastoral care and to assuring that clergy were mindful of their duties (Ciappara 1988:14, 16). In at least some parishes, the clergy asked about religious beliefs and moral behavior (Burke 1987:43–47).

Parish priests made annual lists, the *stati delle anime*, around Easter to check whether parishioners had received confirmation, confession, and communion (Burke 2000:121; Chojnacka 2001:xix; Ciappara 1988:16; Del Panta and Rettaroli 1994:35). These records were part of the Catholic Church's attempt to reorient their followers away from organizations that spanned parishes, such as mendicant houses and confraternities, and direct them toward parishes (Romano 1996:110). They controlled sacramental practices and identified the negligent and the heretical (Burke 1987:124). The *stati delle anime* were quasi-nominative censuses and were important precursors for civil censuses.

Toward Population Censuses in the Regional States

Starting in the sixteenth century, many Italian regional states conducted censuses, mostly headcounts or simple enumerations, though

some were nominative censuses (Del Panta and Rettaroli 1994:27; Prato 1906:350). Censuses were taken for concrete administrative purposes: taxation, military service, providing the food supply, or public health and disease control (Del Panta and Rettaroli 1994:27). Although mercenaries fought most wars, communal Italian statutes frequently obligated citizens, considered more trustworthy than mercenaries, to join the military service (Hale 1984:314, 364; Mallett 1984:75). Although rural authorities were often responsible for keeping lists of able-bodied men under their jurisdiction, censuses conducted by central authorities may have been a more comprehensive solution (Hale 1984:357).

These states capitalized on the existing records of merchants and landholders, created by the long history of monetization, marketization, and written contracts. None of the many varieties of Italian landholding (e.g., ownership, sharecropping, semi-feudal holdings) or commerce arose primarily in opposition to the state, so there was little resistance to collecting information per se. Moreover, census categories emphasized place and location, with questions about place and length of residence, place of birth, and nationality. This emphasis had two roots. First, most northern regional states stemmed from city-states, where urban residents generally had more rights and duties of citizenship. Second, censuses were often conducted with the same technology as parish registers, which were based on location. In addition, however, censuses were also strongly tied to the particular social structures of these regional states. Merchant states, such as Florence and Venice, were leaders in collecting information (Burke 2000:136). In the commercialized regions with agrarian capitalism, such as Lombardy, demographic information tended to be split from fiscal information earlier than elsewhere.

Lombardy: Reforms, Capitalism, and Early Censuses

In Austrian Lombardy, the transformation of fiscal information, supported by protocapitalist landlords, led to the collection of separate demographic information. Austrian Lombardy was not particularly advanced in information gathering during the 1600s, but in the 1700s, the populace, and in particular protocapitalist landlords, broadly supported the reforms of the *Censimento* that altered land taxation and the head tax (chapter 4). Following these reforms, on April 3, 1769, the Austrian authorities also changed the method of collecting population information throughout the state of Milan (Italy MAIC 1862:179; Romani 1977:4; Sala 1980:160). Their royal

dispatch required that all births, deaths, and marriages in parishes be sent annually to local officials and then to the central census office, where they would be compiled into a table and sent to the Austrian court (Capra 1987:321). The tables also included total counts of the lay and ecclesiastical population, divided the lay population by sex and marital status, and separated adults from children (Italy MAIC 1862:179; Sala 1980:159). Censuses of the entire state of Milan (Austrian Lombardy) were also taken in 1763, 1773, 1774, 1799, and 1800 (Italy MAIC 1862:196–200). Priests collected this information at Easter, and they may have relied on their parish records, possibly following historical precedents (Cipolla 1950:144; Italy MAIC 1862:178–179; Sala 1980:159; Sella 1959:460–461). This procedural change seems to have shifted the responsibility for collecting population information per se away from the local census registrars who would have collected some demographic information in their capacity as tax officials. However, the Austrians kept most of this information from the public to the dismay of the Lombard elites (Patriarca 1996:115).

The Savoyard State: State Consolidation and Fiscal Information Gathering

Savoyard censuses seemed to arise out of fiscal information gathering, and administrative censuses seemed to have slowly split off from this fiscal information gathering. The Savoyard State (the territories of Savoy, Piedmont, Nice, Aosta, Oneglia, and starting in 1720, Sardinia [Symcox 1983:13–14]) conducted extremely intensive, but rarely extensive, information gathering. Although there were some protoindustries, in comparison to other northern Italian regions, it was never a commercial center, and agricultural relations retained more vestiges of feudalism (Symcox 1983:44). The strong nobility had some feudal privileges and concentrated landholdings, though the nobles owned a smaller proportion of the land than the nobles in southern Italy (Symcox 1983:52–53). Serfdom was eliminated by the sixteenth century, and peasants were smallholders, sharecroppers, or leaseholders (Symcox 1983:50). Tax evasion was widespread, but no evidence suggests that information gathering per se was opposed (Capra 1999:429; Prato 1906:318).

Starting in the Middle Ages, like the other Italian states, the Savoyard State was consolidated, but its transformation was perhaps more remarkable because of its geographical fragmentation (Symcox 1983:13–17). War was endemic, and beginning in the second half of

the sixteenth century, the region had a relatively large standing army (Capra 1999:428; Symcox 1983:13–17). Not surprisingly, information gathering was strongly linked to taxation, administration (in particular, food provisioning), and military purposes.

Information gathering in the Italian territories (in contrast to the French ones), generally including Piedmont and some of the other regions (but excluding Savoy), was especially intense. As in other Italian regional states, Piedmont had a tradition of cadastral surveys (e.g., Alfani 2010:517; Comba 1977:1–23). The Dukes of Savoy ordered censuses, starting with the one in 1559 that enumerated the population in categories of children under the age of five years, men in the army, the religious, and artisans (Capra 1999:428; Prato 1906:310). Another enumeration of the inhabitants older than three years of age was ordered in 1569 during a famine to determine the needed food supplies (Prato 1906:311). Similar counts were repeated multiple times between then and 1620, with increasing amounts of detail (Prato 1906:311–312). The 1621 census was intended to be conducted throughout the entire state, though it was completed in only a few places (Abrate 1973:19; Prato 1906:309, 313–314). Local officials were supposed to go to each house to collect information about the heads of the households, including name, surname, place of birth, age, marital status, occupation, tax assessment, and health (probably to determine fitness for military service) and about each member of the household, including name, age, marital status, occupation, and health (Abrate 1973:20; Prato 1906:314). Place of birth and occupation, however, were often missing (Abrate 1973:28–30). The census was supposed to capture the de jure population (*residente*) (Abrate 1973:21). A similar request for information was repeated in 1626, asking local officials to enumerate individuals' age, sex, marital status, occupation, and rank (Prato 1906:315). Starting in 1561, throughout the 1600s, and into the 1700s, major tax overhauls spurred fiscal information gathering to assess repartition taxes, the head tax, and the salt tax, eventually resulting in the collection of information about name, surname, age, sex, family members' names, and nationality (Alfani 2010:519–520; Capra 1999:429; Prato 1906:316–324). The public began to demand more specific enumerations to make taxation fairer, as suggested by an anonymous letter to the government in 1695, urging the collection of name, surname, nationality, sex, age, health, occupation, and household size (Prato 1906:324).

A major census was taken in 1734 throughout the Italian regions for military and fiscal purposes (Prato 1906:324–325). Local officials were supposed to visit each house to collect information about occupation,

religion, age, household composition, residence, nationality, and health (Prato 1906:322–325). The census also enumerated soldiers and the poor (Prato 1906:325). In 1742, the finance ministry collected economic and commercial information, creating the beginnings of a statistical office (Prato 1906:326). Less information was collected in Savoy, but a census was conducted in 1724 (Italy MAIC 1862:246).

A census, probably in 1773 or 1774, collected information about age and social condition throughout the entire Savoyard State (Italy MAIC 1862:246; Prato 1906:328). This census was the first to specify individuals as "souls" (*anime*) instead of "mouths" (*bocche*), probably because the civil information was verified through church records (Prato 1906:328). In 1775, the finance department recommended that all the provinces collect age, sex, and occupation (Prato 1906:329–330). Another state-wide census was also apparently conducted in 1783 or 1784 (Italy MAIC 1862:246; Prato 1906:330).

Information gathering was especially intense around Turin, starting with the municipal census in 1631 (Muttini Conti 1951:3). Civil authorities (independently of ecclesiastical authorities) conducted annual, nominative censuses in Turin from 1702 to 1708 and starting again in 1712 (Casanova 1909:5; Italy MAIC 1862:234–242; Muttini Conti 1951:3–5; 1958:11–14; Prato 1906:350). From 1702 to 1704, the censuses enumerated men, women, male children, female children, priests, soldiers, servants, and those able to serve in the military (Muttini Conti 1951:3). Starting in 1705, they collected individuals' name, surname, relationship to the head of the household, age, occupation, and health status (Muttini Conti 1951:4). Starting in 1714, they systematically included the surrounding region, which had been sporadically included in preceding ones (Muttini Conti 1958:13).

A 1787 census of the Duchy of Aosta highlights the Italian concern with enumerating both the de jure and de facto populations. The de facto categories for men were citizens, foreigners, mentally disabled (*imbecille*), and secular and regular religious (Prato 1906:331). The de jure categories for men distinguished between those absent from their native place of birth and those absent from the country (Prato 1906:331). The categories for women were similar but less detailed, without divisions between the types of religious and between those absent for the enumeration (Prato 1906:331).

Tuscany: The Long History of Information Gathering

Information gathering about the Tuscan population grew out of a long tradition of taxation that included the assessment of head taxes

(chapter 4) and an intellectual climate that strongly supported political arithmetic. In the middle of the sixteenth century, Tuscan enumerations could be used to analyze the size and distribution of the population, and in the eighteenth century, they could be used to analyze the demographic structure by sex, marital status, and age classifications (Del Panta and Rettaroli 1994:32). The Tuscan political reforms of the eighteenth century were not as far reaching as in Lombardy (perhaps because sharecropping, not capitalist agriculture, was widespread in Tuscany, there was less pressure for reform from landlords) or even as in Piedmont, but they still supported information gathering.

In the sixteen and seventeenth centuries, censuses were primarily conducted for fiscal, military, and administrative purposes (food provisioning) (Del Panta 1974:17). Population censuses per se seemed to have started around the 1500s, about the same time that taxation shifted away from head taxes and all assets and toward land (chapter 4). The first state-wide census in 1552 occurred simultaneously with the reintroduction of the flour tax and the reform of the salt tax, probably because the authorities needed to know the population size, and these different forms of information gathering may have been linked administratively (Del Panta 1974:17). State-wide censuses were also conducted in 1562, 1622, 1632, 1642, and 1672–1674 (Del Panta 1974:14–15). Their information was varied, but in Florence, they generally included the names of the heads of the households and the number of other individuals, sometimes grouped by adults and children (at 15 years of age), in the household by sex, and in the rural regions, they usually consisted of counts of individuals by sex enumerated by community (Del Panta 1974:14–15).

The central civil authority issued the instructions for these censuses, though it is unclear how the information was collected (Del Panta 1974:18). Civil authorities may have had an organization capable of conducting the 1562 and 1642 censuses, and they may have collaborated with the parish priests (Del Panta 1974:18). Parish priests, presumably at the request of the civil authorities, conducted the 1588 Florentine enumeration (Del Panta 1974:18). Civil authorities also used parish networks to conduct the censuses in 1672–1674, and the resultant counts were collected by dioceses or parishes (Del Panta 1974:15, 34).

In 1738, 1745, 1751, 1758, 1761, and 1765, censuses were conducted throughout the Grand Duchy of Tuscany; they included categories of sex and marital status and separated the adults from the children in each diocese (Del Panta 1974:15; Del Panta and Rettaroli

1994:34; cf. dates in Italy MAIC 1862:43, 51). Similar information was provided by population enumerations conducted through the *stati delle anime* in 1784 in each parish (Del Panta 1974:16). By the middle of the eighteenth century, the civil authorities gave the parishes precise instructions about the compilation of the *stati delle anime* (Del Panta 1974:18). In 1781, following an order of the office that regulated the relationship between the state and the church, duplicate records of all registrations were deposited at the bishops' headquarters (*curia vescovile*) (Bandettini 1960:59). In 1792, 1793, and 1794, population counts were enumerated in each parish (Del Panta 1974:16). The Florentine census of 1766 was strongly influenced by the city's economic structure and was conducted in strict collaboration with its merchants (Gozzini 1987:221, 226). It reflected the dominant economic sectors of the silk, wool, leather, and wood trades but not the occupational categories within them (Gozzini 1987:226).

A partial enumeration of the Sienese population in 1556, during a period of war, noted the number of men suitable for the army (Del Panta and Rettaroli 1994:33). In 1569, 1596, 1612, 1640, 1657, 1671, 1672–1674, 1677, 1686, 1693, 1737, and 1764, population counts (sometimes by parish) were conducted in Siena and its surrounding territory (Del Panta 1974:14–15). The 1569 census included calculations to help determine the amount of grain needed to feed the urban population and thus establish how much excess grain could be transported to Florence (a ban on exporting food stuffs from the Sienese territory, except to Florence, was introduced in that year) (Del Panta and Rettaroli 1994:33). The 1657 census also classified the municipal population by sex and separated adults from children, while the 1764 census distinguished between the de facto and the de jure populations (Del Panta 1974:14–15). There were enumerations in Lucca in 1733, 1744, 1758, and 1781 (Wolfe 1932:364).

The instructions for the 1784 *stati delle anime* enumeration discussed the problems of enumerating the de facto and de jure populations (Del Panta 1974:20). This particularly Italian concern with residence stemmed from a confluence of three factors. First, there was a widespread lay importance of region of origin, indicated by the common social practice of referring to individuals by a toponym whenever they had moved from a different location. Second, most rights and responsibilities, including taxation, were tied to citizenship, which was historically based on urban residence. The earliest censuses had fiscal roots and thus an interest in capturing the population that should be paying taxes, that is, the de jure population (Del Panta 1974:19). This was particularly problematic when there was

migration (e.g., in Tuscany, there was seasonal migration) (Del Panta 1974:19). Finally, censuses were tied to parish registers that were concerned mostly with establishing the de jure population.

In addition to these administrative roots, a genuine interest in statistical knowledge developed over time (Del Panta 1974:17). For example, the Florentine, Francesco Guicciardini (1483–1540), exhorted European sovereigns to follow the example of the Romans and conduct population censuses (Leti 2000:204). Inspired by the culture of the Enlightenment, the contemporary models of political arithmetic, and the policies of the Hapsburg reformer Duke Peter Leopold (1765 to 1790), Marco Lastri—a clergyman, agronomist, and member of the prestigious agronomic society, the *Accademia economico-agraria del Georgofili*—wrote a historical, demographic study using Florentine baptismal records (Capra 1999:436; Patriarca 1996:106).

Venice: Censuses, Social Class, and Oligarchy

Venetian censuses were strongly tied to the city's political structure, and in particular to its oligarchical yet representative government, in which social class determined eligibility for political office. Censuses were thus strongly tied to the nobility's attempt, starting in the thirteenth century, to differentiate itself from the rest of the citizenry and to consolidate its status (Beltrami 1951:10). Administrative purposes such as the assessment of food supplies, military strength, and public health were also important. Like Savoy, Venice had a large army; additionally, it was a small republic, attempting to remain independent.

Venetian head counts may have been conducted periodically as early as 978 (Contento 1900a:230–232). In 1440, the Council of Ten (*Consiglio dei Dieci*), a powerful council with a broad mandate over state security, ordered a count of Venetian men active in the army between the ages of 14 and 60 years, and in 1442, it ordered a count of the Venetian population (Muir 1981:20; Schiaffino 1974a:290–291). The general population survey distinguished between Venetians who were absent and foreigners living in the city (Schiaffino 1974a:291). In the first extant headcount from 1509, civil authorities enumerated the population in each parish and district of the city, probably using information provided by the clergy (Schiaffino 1974a:293). Individuals were classified as nobility, citizens, inhabitants, and travelers (*viandanti*; probably foreigners), as well as useful (*utili*) and useless (*inutile*) (Schiaffino 1974a:293, 295; Zannini 1993:88). This classification probably helped specify political privileges and

eligibility for administrative positions; the classification of the nobility in particular seems to have been linked to the consolidation of their class position (Zannini 1993:89). The classification of the useful and the useless may have distinguished between able-bodied adult males and everyone else (e.g., women, who were all classified as useless [Schiaffino 1974a:293], and the disabled), suggesting that the survey had a military purpose.

Another census was ordered in 1540, apparently by the clergy, and was perhaps divided into men, women, and children (Schiaffino 1974a:295). Another enumeration in the 1550s divided the population into nobles, citizens, shopkeepers and artisans, beggars, the religious, individuals confined to hospitals, Jews, and travelers (Schiaffino 1974a:296; see Schiaffino 1974a:297 for a discussion of the dating of this census). It also classified the population by sex and separated male from female children, and for the upper classes, it counted the number of families and servants (Schiaffino 1974a:296). This census may have been made for the purposes of determining the food supply (Schiaffino 1974a:296). This format was repeated in 1581, 1586, and 1593 and possibly also in 1563 (Schiaffino 1974a:297).

Starting with the 1586 census, the health commissioners (*Provveditori alla Sanità*), who maintained the food supply and protected the physical well-being of the population, took responsibility for the enumerations (Contento 1900b:42; Schiaffino 1974a:297–299, 303). Parish priests were responsible for collecting the information, and they may have drawn on the *stati delle anime* (Schiaffino 1974a:297–299, 304). This shift probably occurred because Venice had pacified its countryside, diminishing the need to estimate military strength, and authorities turned to the problem of the plague (Schiaffino 1974a:298). This shift helped to institutionalize the census and create a bureaucracy because the enumerations were no longer directed by ever-changing elected officials but by a more permanent staff (Contento 1900b:45; Schiaffino 1974a:299).

In the 1600s, printed forms were introduced and were used in virtually the same format in 1607, 1624, 1633, 1642, 1670, 1696, and 1761 (Contento 1900b:42; Schiaffino 1974a:300). The printed forms contained instructions, tables of columns and rows with headings, and blank cells where the census takers could write names and numbers (Schiaffino 1974a:334–338; a sample declaration is found on these pages). These forms divided Venetians into nobles, citizens, and artisans (Schiaffino 1974a:301, 334; Zannini 1993:97). In 1761, the three categories were the well to do (*benestanti*), merchants (*negozianti*), and artisans (Schiaffino 1974a:302). The census taker

recorded the name of the head of the household in the first column (for artisans, their trade was recorded) and the number of persons in the household in the second column (Schiaffino 1974a:334). Within each household, the enumerator recorded the number of persons in the following categories: priests of all ages, boys below the age of 18 years, men up to the age of 50 years, men above the age of 50 years, women above the age of 18 years, girls below the age of 18 years, male servants, female servants, and foreigners (Schiaffino 1974a:334). Several of the censuses classified the artisans according to their craft or gave details about them (i.e., master [*capi mistri*], sons of the masters, journeymen [*lavoranti*], apprentices [*garzoni*], and women) (Schiaffino 1974a:302). An institutional census included the organization's name and recorded the number of persons (often separating the men, women, adults, and children) in hospitals, monasteries, convents, and the number of women in religious communities (*pinzochere*) (Schiaffino 1974a:335). None of the censuses in the 1600s counted Jews; they appeared only in 1761 (Schiaffino 1974a:301).

These divisions seemed to be linked to the consolidation of the nobility vis-à-vis other Venetian citizens, but they also seemed to specify the rights of these other citizens and count the foreigners (who had fewer rights) (Zannini 1993:92–93). During the last part of the 1500s and the first part of the 1600s, a more industrialized textile sector had developed, which in combination with the economic decline of the 1600s, increased migration to Venice, and consequently the number of foreigners in the city (Zannini 1993:103–104). The census of 1761 may have been particularly focused on the poor, as organizations to distribute resources to them had been recently established in every parish, and these organizations needed information about the numbers of poor (Contento 1900b:64). After the second half of the 1700s, the urgent need to protect public safety declined and the more pressing need was to understand economic and political conditions, so the responsibility for the surveys shifted to the official body responsible for public finance (*Deputati e Aggiunti alla provvision del danaro pubblico*) (Contento 1900b:68–69; Schiaffino 1974a:303).

A few scattered surveys were taken in regions controlled by the Venetians on the mainland of the Italian peninsula, starting perhaps as early as the 1300s, probably for the purposes of assessing military strength, fiscal capacity, or the food supply (Contento 1900b10–11; Schiaffino 1974a:306–308). Enumerations of the Venetian territory were taken in 1548, 1557, and 1569 (Fornasin and Veronese 1999:244–246; Fortunati 1932:11; Schiaffino 1974a:307; Wolfe

1932:364). These were apparently simple headcounts by region, though the one in 1548 may have also distinguished between the useful and useless—a distinction that usually indicated a military purpose (Fornasin and Veronese 1999:244–246). A survey planned shortly after the outbreak of the plague in 1630–1631 was apparently never executed, perhaps because of opposition from the population who feared a military draft (Schiaffino 1974a:309). A survey of some of the territory may have been conducted in the second half of the 1600s (Fortunati 1932:11). The Venetian Senate ordered the first comprehensive survey of the territory under Venetian control in 1764 (Ferrari 1963:46–47; Schiaffino 1974a:307, e.g., Fortunati 1932:11). This census enumerated the general population within regions and by sex and age categories (up to age 7, age 7 to 18, age 18 to 50, and over age 50 years), and it also enumerated the ecclesiastical population (priests, brothers, and nuns) (Schiaffino 1974a:310–311). A summary table also counted the number of men suitable for military service (those between the ages of 18 and 50 years) (Schiaffino 1974a:311, 339). This census may also have been tied to commercial interests (Schiaffino 1974a:311–312). It may have been linked to the Venetian census of 1761 and conducted by the health commissioners or by parish priests (Ferrari 1963:47; Schiaffino 1974a:312).

Starting in 1766, censuses (*anagrafi*) were conducted every five years until 1795 for Venice and its territory (Fornasin and Veronese 1999:249; Schiaffino 1974a:319–320). These censuses were ordered by the public finance council and included instructions for their compilation (Schiaffino 1974a:313–319). Parish priests, under the supervision of local officials, collected the information on printed forms (Schiaffino 1974a:314–315). Three slightly different forms were used in Venice, subject cities, and the rural regions surrounding these cities (Schiaffino 1974a:340–342; there is a sample form on these pages). In all the regions, the number of families was recorded (Schiaffino 1974a:340–342). In Venice and the subject cities, the families were also classified by social status (nobles, citizens, and the general population [*nobili, cittadine, and popolari*]) (Schiaffino 1974a:340–342). In all the regions, men were classified into three age categories (up to age 14, age 14 to 60, and above age 60 years), women were recorded as a single group, and the number of clergy was recorded in regionally variable categories (Schiaffino 1974a:340–342). Similarly, the number of men of different trades and occupations was also recorded, using a large number of categories (approximately 50) that varied by region (e.g., "agricultural workers" were recorded only in rural regions) (Schiaffino 1974a:340–342). The number of people without means

of support, either an income or a trade, was also recorded (Schiaffino 1974a:340–342). The forms were set up to facilitate the comparison between different years of the census (Schiaffino 1974a:317). Some locations, at least, used categories not on the forms, including religion, additional occupational categories, and inhabitants of hospitals and other charitable organizations (Schiaffino 1974a:325). For example, in Padova, Christians and Jews must have been recorded separately, as the final summaries (that were on separate forms giving the population in various categories by commune and parish) list them both (Schiaffino 1974a:344). Jews were divided into three socioeconomic categories of the wealthy, those in the middle, and the poor (*benestanti, mediocri, inferiori*) (Schiaffino 1974a:344).

Papal States: Theocracy and Moral Censuses

Although parish priests were everywhere on the Italian peninsula crucial for the redaction of censuses, they were particularly important in the Papal States, a politically backward region with a strong bureaucracy. These censuses, often rooted in sacramental surveys, frequently focused on moral qualities. A census, probably in 1526–1527, gave the names of the heads of the households in each section of Rome, the number of people in each household, and some occupations and places of origin (Lee 1985:14–15, 19). It is not known how the census was conducted, but the variations in the style of the final manuscript suggest that a team of individuals collected the information that was then compiled into the final manuscript (Lee 1985:18). In Rome, a compilation of *stati delle anime* was made in 1592 (Dandelet 2005:207). For each Roman parish, it gave the number of men, women, families, bishops, priests, friars and religious, nuns, students and scholars, courtiers, the poor and sick, imprisoned, prostitutes, and concubines (Dandelet 2005:208). It indicated who had received first communion (and who had not) and the numbers of persons in each parish who had received communion (and who could have but did not) (Dandelet 2005:208). Starting in 1600, there were annual counts of the Roman population, dividing the population by sex (Castiglioni 1878:166–177; Cerasoli 1891:174–186). Because this information was often collected by priests, it included the number of communicants, the number of clergy and religious institutions, and the number of prostitutes (*meretrici*) and heretics (*eretici*) (e.g., Cerasoli 1891:174, 186).

Relatively complete censuses, though missing some regions, were conducted in the Papal States in 1656, 1701, 1708, 1736, 1769, and

1782 (some locations were enumerated in 1742 and 1802; Bonelli 1967:2–3; Corridore 1906:13–29, 52–53; Ferrantini 1948:280–281; Schiavoni and Sonnino 1980:192; Tittarelli 1974:381). These censuses were headcounts, reported by location, either by diocese and parish or by province and local community (Corridore 1906:13–29). The 1656 census was taken at Easter by the parish priests, who sent the information to their superiors, who then sent it to Rome (Corridore 1906:13–14). Other censuses also drew on ecclesiastical administrative units, parish priests, or parish records (Corridore 1906:15, Schiavoni and Sonnino 1980:192–193; Tittarelli 1974:381). The 1656 census did not report children under the age of three years in some provinces (Corridore 1906:14, 20; Schiavoni and Sonnino 1980:193). The method of conducting the 1656 census may have varied by location. For example, in Perugia, the information for the 1656 census was collected on printed forms for each parish that divided the population into three age categories (up to age 3, age 3 to 10, and above age 10 years) and enumerated the ecclesiastical population (above the age of 10 years) separately from the lay population in several categories (including priests and clerics, monks, brothers, and nuns) (see sample form, Tittarelli 1974:383). None of these censuses were apparently used to impose a head tax directly, but several were linked to fiscal motives or reforms or were used to repartition taxes or military expenses (Corridore 1906:22, 23–24; Schiavoni and Sonnino 1980:192–193). Until 1848, priests conducted censuses without help from civil officials (Castiglioni 1878:159). The censuses were used by the government and church officials but were rarely published (Castiglioni 1878:159; Italy MAIC 1862:16–17).

The Kingdom of the Two Sicilies: The Continuation of Fiscal Information Gathering

Fiscal information gathering was especially developed in southern Italy, but censuses developed slowly (Wolfe 1932:363–365). Like Tuscany, southern Italy (the two separate Crowns of Naples and Sicily were joined under a single ruler to form the Kingdom of the Two Sicilies [Davis 2006:16]) had a highly developed system of descriptive cadastral surveys that had been used for centuries. Both Kingdoms had their own institutions, laws, and customs (Davis 2006:16). Power was decentralized, and feudal tenures were much more extensive than elsewhere in Italy (Davis 2006:17, 19).

Starting around the mid-1400s, household enumerations were conducted regularly to assess taxes in the regions comprising these

Kingdoms. The surveys became highly regularized and collected extensive information about the population and its economic assets, especially in Sicily (Beloch 1937:96–118, 190–213; Del Panta and Rettaroli 1994:28; Longhitano 1988:27–39; Maggiore-Perni 1892:93–136; Sakellariou 2012:89–104; Wolfe 1932:363). Although undoubtedly taxes were not welcome, there seems to have been little resistance to collecting written information. In 1519, there was in fact an appeal to conduct a new census to distribute taxes more fairly (Maggiore-Perni 1892:120).

In contrast, there were few censuses. In Naples, in 1547, there was a population count of households and inhabitants, excluding children under the age of three years and residents of religious organizations and prisons, during a famine to distribute food (Beloch 1937:171; Sakellariou 2012:106). Several counts of households and inhabitants were taken in 1591, 1593, 1595, 1596, and 1606 (Beloch 1937:173–176). Ecclesiastical counts of households in 1599 and communicants in 1675, 1677, and 1688 were based on the visits by the parish priests (Beloch 1937:173–174). At the beginning of the Austrian rule in 1707, a population count of inhabitants was taken, followed by another in 1742 (Beloch 1937:181). Starting in 1765/1766, there were yearly population counts for the whole Kingdom of Naples based on the *stati delle anime* conducted at Easter by the parish priests that enumerated men, women, births by sex, and the ecclesiastical population (Beloch 1937:182, 230; Wolfe 1932:363). Enumerations of souls were conducted periodically in Sicily from the sixteenth to the eighteenth centuries (Demarco 1974:479). The last one, published in 1798, was a count of the inhabitants furnished by the parish priests on the basis of their parish registers (Demarco 1974:479; Longhitano 1988:37).

Censuses and the Political Economies of the Regional States

At the end of the eighteenth century, there was extensive information gathering about population in much of the Italian peninsula that was spurred by its long history of marketization, monetization, and public record keeping. Censuses developed out of fiscal information gathering and parish records. Both systems were locationally based, so residence was often an important category. Virtually everywhere, these elites aligned their interests with the state to support some form of public information gathering. There was little resistance to information gathering per se. The technologies for information gathering came from social forms of record keeping, with the state often

providing the impetus to systematize the information to fulfil its administrative and fiscal needs.

In addition, however, information gathering was strongly shaped by the regional states' political economies. In the northern, more commercialized regions, fiscal information gathering progressively focused on land, while censuses increasingly reported demographic information, mostly for administrative purposes. The most dramatic example is Lombardy, where the capitalists aligned with the state to reform taxation, and population censuses stemmed from this reform. Tuscany and Piedmont were intermediate cases where well-developed population censuses emerged more slowly. In both cases, political reforms were less extensive than in Lombardy, and agriculture less capitalist. The census in Piedmont clearly grew out of efforts at state consolidation and for administrative purposes, while in Tuscany, it grew out of the incredibly long tradition of fiscal information gathering. Venice and the Papal States were also intermediate cases, where population censuses strongly reflected the political structure of the regional state (oligarchical or theocratic rule, respectively). In the south, where landholding was more feudal, fiscal information gathering through hearth taxes continued, and population censuses developed late in the eighteenth century. In most states, censuses were either earlier or more extensive in the urban than in the rural regions. Hearth taxes were more frequently collected in rural regions, not in cities, creating a need for separate administrative information for the cities. Furthermore, information established the rights and duties of citizens, who were more often urban residents. Finally, cities were locations of nascent commercial activity and record keeping.

Counting People in the Napoleonic Period

The French controlled much of the Italian peninsula between 1796 and 1814. Between 1796 and 1799, much of northern Italy was organized into nominally independent republics (Grab 2003:154–157; Procacci 1971:208–215). After a series of Italian revolts culminating in 1799, the French established more direct control over the Italian peninsula until the end of their domination in 1814 (Grab 2003:157–159; Procacci 1971:208–215). Liguria, Piedmont, Parma, Piacenza, Tuscany, and the Papal States were directly annexed to France (Broers 2005:3; Dincecco et al. 2011:900–901; Grab 2003:169). The Kingdom of Italy was established in the north and the Kingdom of Naples was established in the south; both Kingdoms were nominally independent, though subject to French rule (only

Sicily and Sardinia remained independent) (Grab 2003:158; Procacci 1971:208–215).

The long history of information gathering on the Italian peninsula and the backdrop of the Italian Enlightenment and political arithmetic provided a climate conducive for the French, who were eager to accumulate information about their new territories (Patriarca 1996:16). The French found many local collaborators in information-gathering efforts in various regional states because many Italian intellectuals had been struggling to persuade the declining mini absolutisms that populated the peninsula in the late eighteenth century to collect adequate information (Cova 1979:124–126; Levi 1974:202–203). In the south, Cagnazzi, who was a professor of Economics and Statistics at the University of Naples until 1806 and later the minister of the interior, denounced the legalistic culture connected to the Bourbon regime as an obstacle to the development of statistics, and there was an internal struggle within the regime between reforming political economists and lawyers (De Lorenzo 1990:132–133, 136–138; Del Panta and Rettaroli 1994:48; Martuscelli 1979:xxviii). In Piedmont, political arithmeticians largely gave up on the government and began pursuing private information-gathering efforts (Levi 1974:203). In Tuscany, Lastri used his position at the Baptistery of San Giovanni to undertake a massive demographic project (Paoli and Graglia 1978:119). By the 1770s, many Italian intellectuals had broken with older mercantilist or populationist views of demography. They argued that well-ordered states should establish a correct balance between population, territory, and resources, and they were also interested in a broad understanding of human welfare that transcended the narrow fiscalism of the absolutist courts (De Gennaro 1980:639–642; Paoli and Graglia 1978:136). Many were interested in rates of mortality and fertility, as well as in more general information about economic and social conditions. When the French arrived, then, some intellectuals were already quite disillusioned with the old regime and were eager to collaborate with them.

The French instituted civil registration and population rolls throughout their subject territory (Bellettini 1974:455; Del Panta and Rettaroli 1994:46–47). Napoleonic authorities rationalized and centralized administrative, financial, judicial, and military systems, using French ones as models, and these new, uniform institutions helped unify the peninsula (Grab 2003:159). These information-gathering efforts developed out of the French municipal police code of 1791, reissued in 1793 and 1795, that required local authorities in France to collect population information and to update it yearly in November and December (Biagioli 1987:77; Faron 1997:25; Schiaffino 1974b:520, 524). Information

gathering also originated from the decrees of September 20 to 25, 1792, intended to secularize the civil state and thus bring birth, marriage, and death records under its jurisdiction (Schiaffino 1974c:343). Though these regulations predated French rule of the Italian peninsula, some information-gathering efforts on the peninsula seemed to have been influenced by these French laws, because the sort of data collected followed their prescriptions. For example, in 1796, in Milan, just weeks after the French invasion of northern Italy, the occupying authorities established a population count to organize the national guard and control migration (Faron 1997:28–29). Similarly, civil registration was introduced in northern Italy by decrees of June 17 and 24, 1797 (though registration procedures were implemented unevenly and altered only minimally in response [Schiaffino 1974c:348, 352]).

The other major influence on information gathering was the adoption of the Napoleonic French civil code that instituted civil registration of births, marriages, and deaths (Corsini 1974:680; Del Panta and Rettaroli 1994:47). It was adopted in France in 1804 and on the Italian peninsula at various times (Grab 2003:161, 169; Schiaffino 1974c:349). Officials recorded these events in duplicate, and the acts were supposed to be deposited in the local archive (Contini and Martelli 1985:193; Schiaffino 1974c:351). With this registration, the state attempted to shift power away from the church and toward itself (Contini and Martelli 1985:195).

In addition to the registers, the French organized population lists, which at the initial redaction, were similar to nominative censuses that included (though variably) individuals' name and surname, age, parents' names, place of birth and residence, nationality, the length of time that they had lived in the current location (for nonnative residents), marital status, occupation, and their means of supporting themselves (Bellettini 1974:459–460; Del Panta and Rettaroli 1994:46–47; Schiaffino 1974b:530; Sonnino 1974:426). The age of men under 60 years was supposed to be certified by the date of the baptismal act, for the purposes of military service (Bellettini 1974:460; Sonnino 1974:426). Civil registration and population rolls were instituted between 1805 and 1812 on the basis of the Napoleonic civil code in almost all of the territories annexed by, or subject to, the French (Bellettini 1974:455; Del Panta and Rettaroli 1994:46–47).

Information Gathering in the Regions Annexed to France

Data-collection efforts in the annexed regions generally seemed to have occurred relatively soon after annexation, perhaps because once

they were considered to be formally a part of France, existing French laws were applied. Thus, the original French regulations from the 1790s seemed to have been highly influential.

For example, Piedmont came under French domination in 1800 and was annexed in 1802, so the 1791 laws that required information to be collected about the French population applied there (Grab 2003:169; Muttini Conti 1951:1; Schiaffino 1974b:524–525). This recognition spurred the mayor to redact a nominative census of Turin and its surrounding countryside (*contado*) in 1802 (Muttini Conti 1951:1; 1958:8). The census of Turin included individuals' name and surname; day, month, and year of birth (which was supposed to be confirmed by a baptismal certificate); place of birth; occupation; marital status; the floor of the building where they lived; and the period of time that they had lived in Turin (Muttini Conti 1951:1, 13, 16–18). Much of the same information was apparently collected in the countryside as well, including name and surname, age, marital status, and occupation (Muttini Conti 1958:23, 29, 37, 49, 61). A census was redacted, and civil registration was instituted in Genoa in 1808 (Faron 1997:26–27; Zangheri 1963:5; cf. Sonnino 1974:427).

Similarly, Tuscan officials explicitly referenced the 1791 French legislation and its categories of information (Biagioli 1987:77; Giusti 1926:438, 440; Gozzini 1987:222; Schiaffino 1974b:525). Correspondingly, the nominative census of Florentines between January and April of 1810 included, on printed forms, the individuals' name and surname, father's name, mother's name and surname, date and place of birth, length of residence for those born outside of Florence, occupation, marital status, and economic status (in five general categories of wealth) (Giusti 1926:435, 442; Gozzini 1987:225). It also indicated whether a member of the household was absent and the reason for the absence and the annual rent paid or the rental value of the habitation (Giusti 1926:435, 439). There was a space left for the official's observations (who could note, for example, if individuals were disabled, could not provide for themselves, were inexplicably idle [*volontariamente ozioso*; literally, voluntarily lazy], or if they refused to give information or were suspected of deliberately giving false information) (Giusti 1926:439–440).

Despite these French influences, the census had strong Florentine ones. The occupational categories, as in 1766, were strongly influenced by the merchants and the government officials responsible for commerce: information was collected about economic sectors as in 1766, but the 1810 census also included information about the hierarchical organization of the sectors—whether individuals were

masters or apprentices—which was in the interest of the more senior merchants (Giusti 1926:440, 450, Gozzini 1987:226). The census also included information about the ownership of shops, which was apparently in the interests of the new shopkeepers and small businesses, which had recently expanded (Giusti 1926:440, 450, Gozzini 1987:226). Tuscan municipal officials were concerned about the evasion of military service and the provisioning of the indigent (Giusti 1926:438, 441; Gozzini 1987:223). Parish priests, who were already collecting information for their parish records, often assisted in collecting the information for the census (Gozzini 1987:223). Officials also noted that missing birth dates could be obtained from the cathedral's baptismal records (Giusti 1926:439).

Information gathering was also undertaken in the other regions of Tuscany annexed by France (Biagioli 1987:79). A resolution of September 1808 (that also referenced the 1791 French law) established a registry for all of Tuscany that was to be updated yearly. An office of civil registration was established in 1808 to keep all the registrations and to calculate summary tables by combining the information from the registers with figures sent from the parishes (Italy MAIC 1862:38). A census of Tuscany was taken in 1809 under the jurisdiction of the local municipal authorities and the parishes (Biagioli 1987:79). Censuses and registries were also conducted in Lucca, Pisa, and Leghorn and in some of their surrounding regions between 1807 and 1813, often with the help of parish priests (Biagioli 1987:78–80; Faron 1997:27).

Between 1809 and 1814, the French introduced population lists and registers in the Papal States (Leti and Tittarelli 1976:73). In Parma, the French ordered a nominative census in 1791 for the purposes of repartitioning the personal tax that counted everyone aged 12 years and older (Italy MAIC 1862:62). The French introduced registries in Parma under the French Civil Code in 1805, which were used until 1814 (Italy MAIC 1862:62).

Information Gathering in the Kingdoms of Italy and Naples

In these two Kingdoms, data-collection efforts stemmed explicitly from decrees that were supposed to be adopted throughout the entire Kingdom. In the Kingdom of Italy, a decree on June 8, 1805, shortly after its establishment, created administrative districts, and a decree on March 26, 1806, established civil registration of births, marriages, and deaths (Bellettini 1974:457; Schiaffino 1974c:349; Zangheri 1963:4). These registrations, however, were also incomplete and irregular (Schiaffino 1974c:360–361; e.g., Sonnino 1974:416).

Napoleonic officials originally tried to exclude the clergy from participation in this new civil registration, but it was impossible to collect the information without the parish priests (Schiaffino 1974c:356–359). Moreover, the clergy, as well as the populace, were often reluctant to cooperate with civil registration, as it seemed to undermine the authority and prerogatives of the church (Schiaffino 1974c:351–352, 359).

A decree of June 29, 1809, in the Kingdom of Italy required every municipal administration to form general population lists as well as specific lists for applying the head tax; the same law regulated the office of the census (Bellettini 1974:458; Faron 1997:35; Schiaffino 1974b:529–530). However, it was not implemented and was therefore renewed with a law of June 1811 (Bellettini 1974:458; Schiaffino 1974b:529–530; Zangheri 1963:5). Though the general population lists were supposed to be executed like a nominative census, the information was not always collected at the same time, and it sometimes relied on previous censuses (Bellettini 1974:459). In Milan, for example, the establishment of the population register was difficult both because of conflict between various officials and because of a lack of funds (Faron 1997:36). On November 1, 1810, the government issued a decree to establish the population roll (Faron 1997:36). Municipal officials visited every house in Milan to collect information that was supposed to include individuals' name, familial relationships, place of birth, age, marital status, and occupation (Faron 1997:37–38). The age of men under 60 years was supposed to be verified by a birth certificate, presumably to verify their eligibility for military service (Faron 1997:38). Individuals were supposed to notify officials of changes in residence (Faron 1997:38). Between 1810 and 1812, following the Napoleonic decrees of June 29, 1809 and June 11, 1811, multiple surveys were taken throughout the Kingdom of Italy (Sonnino 1974:427). Much of this region had been under Habsburg rule, so these information-gathering efforts were undoubtedly facilitated by the previous ones conducted by Austrian officials (Sonnino 1974:427).

In the Kingdom of Naples, in 1806, the new administration created a statistical agency that attempted to shift information gathering from ecclesiastical to civil authorities (Izzo 1974:497). A decree of October 1808 established civil registration, starting on January 1, 1809 (Contini and Martelli 1985:192; Izzo 1974:498). In addition to technical problems of collecting the information, there was considerable resistance to civil registration, which seemed to undermine the sacraments of the church and could be used for military

conscription (Contini and Martelli 1985:199–201). In 1810, a regulation established the procedures for an annual population census that was supposed to include individuals' name, sex, age, state of health, marital status, occupation, and an indication of whether the family had immovable assets (Izzo 1974:499; Martuscelli 1979:xxx–xxxiv). It was also supposed to record emigrations and immigrations (and the reasons for the residential changes), births, and deaths (and their causes) (Izzo 1974:499; Martuscelli 1979:xxx–xxxi). The census, which was influenced by Cagnazzi, was implemented in the following few years (Izzo 1974:499–500; Martuscelli 1979:xxxiv–xxxvi). The regulation established the specifications for summary tables, which were completed between 1813 and 1815 though the cooperation of the parish priests and the municipal authorities (Del Panta and Rettaroli 1994:48; Martuscelli 1979:xxxvi). As elsewhere on the Italian peninsula, during the Napoleonic period, more information was collected in the central city of Naples than outside it (Sonnino 1974:417).

French Rule and Information Gathering

During the Napoleonic period, to summarize, French laws that were designed to create uniform civil records for the entire population provided the impetus for counting much of the Italian population for the purposes of war, taxation, politics, policing, good governance, and provisioning. While these efforts created some uniformity, they were not entirely successful because French administrative structures were not sufficient to collect these data. Moreover, these efforts were always local, variable, and sporadic. Not surprisingly, more information was collected about urban residents than rural ones. Registers and censuses were conducted with Italian social practices and infrastructures, primarily preexisting municipal and ecclesiastical organizations, not with technologies imported from the French. At this time, cities were the principal locations of economic, fiscal, and political power and centers of taxation and administration, and their administrations dealt with social crises, poverty, and policing (Biagioli 1987:80). Urban residents often had more rights and responsibilities than rural ones; documentation both stemmed from and reflected this imbalance. On the Italian peninsula, the French found an intellectual climate receptive to their desire to accumulate knowledge about their new territories (Patriarca 1996:16–17).

Not surprisingly, information gathering seems to have been most extensive in Lombardy and Tuscany, where there were long histories and intellectual traditions of information gathering. Official

information gathering in Milan during the Habsburg period culminated in the *Censimento*; within Italy, population registration in the Napoleonic period was most developed in Milan (Faron 1997:27). As we showed in chapter 4, information about the population was collected in Lombardy in the 1700s by census registrars in conjunction with the *Censimento* for fiscal purposes because of the head tax, although the focus of the *Censimento* was the land tax. Local Lombard notables and statisticians shaped developments there (Woolf 1984:168–169). Likewise, in Tuscany, extensive information gathering started with the tax surveys in the 1400s, and censuses developed early there, spurred by the intellectual climate and Hapsburg reforms.

Thus, while the impetus for the systematization of information gathering came from the French, the Napoleonic implementation was most successful in Italy, where the French built on long-standing traditions, not in France or elsewhere in Europe (Faron 1997:26–27). On the Italian peninsula, the French drew on the extremely long tradition of counting people for fiscal and other purposes and the favorable intellectual climate to compile registers and conduct population censuses. While Cipolla (1991:126–127) and Woolf (1984:168–169) argued that the French rule transformed Italian data collection, it is more likely that it introduced a measure of uniformity to a set of widespread, but variant, regional state practices. In the mid-nineteenth century, in fact, Italians complained about this decidedly French view of Italian statistics, noting the many Italian censuses and statisticians (Italy MAIC 1862:11).

Conclusions

Although the state-centered perspective suggests that strong states collect extensive information, the Italian regional states were relatively weak ones, with easily challenged geographic integrity and usually subject to foreign rule, but they nevertheless conducted relatively sophisticated information gathering about their populations. In accordance with the state-centered perspective, these Italian censuses were shaped by the administrative, military, and fiscal needs of these states (e.g., Del Panta and Rettaroli 1994:27). However, the censuses were also affected by social influences, as our evidence for our arguments shows.

The regional state censuses strongly reflected their political economies (e.g., commercial, agricultural, capitalist, feudal), their political structures (e.g., absolutist, oligarchical, representative, theocratic), and their systems of lay categories (e.g., occupation, social status,

residence, morality). In addition to these differences, however, the Italian censuses were shaped by pan-peninsular cultural features: the intellectual tradition of political arithmetic among autonomous intellectuals, the focus on residence growing out of the reliance on ecclesiastical and municipal technologies, and the overall climate of marketization, monetization, and written culture (Burke 2000:136; Italy MAIC 1862:11). This social culture created the overall context in which information was widely used and valued even after literacy declined, the broad Italian emphasis on place, and the specific categories deployed in the regional state censuses.

These regional state censuses depended on the extensive support and participation of census intellectuals. Autonomous intellectuals, following the unique Italian tradition, provided extensive intellectual justification for censuses, as well as summarized and analyzed information. They pressured government actors to conduct information-gathering activities. Parish priests did much of the actual house-to-house data collection. They were extremely knowledgeable social actors, as they kept parish registers. These actors were only partially co-opted. Priests always retained their ecclesiastical positions, even as quasi-official data-collection agents, and intellectuals moved in and out of government positions in irregular ways.

Finally, nowhere on the Italian peninsula did elites oppose information gathering in principle. Instead, they cooperated with the state to institute specific forms of information gathering that supported their interests and rights. The social location of these elites shaped how much information was collected as well as its form and content. Political reformers and capitalists tended to support the creation of separate population censuses and geographical land surveys, while elites with more feudal characteristics tended to support the continuation of hearth taxes that were based on a combination of information about land and people.

The overall Italian historical trajectory was also crucially important. As we have shown, Italian precedents for collecting population information stretched for centuries: taxation included large amounts of demographic information, and the populace was familiar with its collection. French information gathering brought a measure of uniformity to the information-gathering practices of the regional states and thus built on this long tradition (Cipolla 1991:126–127; Woolf 1984:168–169). The continuity between Italian and French data collection undoubtedly explains it success (Faron 1997:26–27). For centuries, states and societies interacted over the collection of demographic information. Both knew their part in the process: individuals

knew how to provide information, while states knew how to systematize it.

This historical trajectory of intense interaction between states and societies, along with lay categories, information intellectuals, and power relations, in the Italian regional states created precocious censuses, including very early and highly developed nominative ones. As taxation became focused mostly on land, demographic information gathering became a separate activity. Although it was conducted for military, fiscal, and administrative purposes, it was shaped by social categories, social actors, their ability to influence state actors, and the long trajectory of information gathering. These censuses were primarily descriptive, aiming to provide information about the state of the populace. They never had the goals of changing the characteristics of the population; this would come only in later centuries.

Part III: Conclusions

Early censuses in the United Kingdom, the United States, and Italy grew out of specialized techniques to collect separate information about people; and their land, wealth, income, and goods (chapters 5, 6). These censuses first focused on the assessment of the populations' resources, but they gradually shifted toward an interest in demographic information per se. This split generally occurred earlier where capitalism was more widespread (Great Britain and some Italian regional states). Of course, these censuses were conducted for administrative purposes, as the state-centered perspective suggests (Curtis 2002:509–511; Desrosières 1998:167; Eastwood 1989:283, 289; Giddens 1985:179–180; Higgs 2004:70, 72; 2005:3; Kertzer and Arel 2002:5–6; Lam 2011:52–57; Schor 2009:10–16; Scott 1990:68–69; Shaw and Miles 1979:32). But these pressures cannot explain the huge differences among these censuses.

The UK census was established in 1801 but remained a rough headcount through 1831. This was surprising, given it was a strong state, but this outcome reflects the tradition of resistance to information gathering in general and the few precedents for collecting census-like population information in particular. Elite social actors pressed hard for a census: the census bill was defeated in 1753, and they finally overcame state resistance to it in 1801. The UK census, however, was not highly developed: its goals were descriptive and imprecise, and its information remained rudimentary. Censuses drew extensively on administrative structures established through local administration, poor relief, and parish registration.

In contrast, the United States, a weak frontier state, conducted an early population census in 1790. Still, it was state driven: the US census was introduced by state actors (though they were not state bureaucrats in the modern sense) and mandated by the Constitution for the narrow purposes of apportioning political representation and direct taxes (although this latter use was never common). Yet, it drew on a long colonial tradition, had widespread social support, was firmly institutionalized, and drew on widespread lay categories. Thus, state and social actors became highly invested in it.

The regional states of the Italian peninsula, like the US colonies before the American Revolution, exhibited wide variation and were relatively weak states. However, these states conducted numerous censuses, starting in the 1500s. Most were headcounts, classified by a few social characteristics, though some nominative censuses were conducted. These censuses arose from parish registers and fiscal information gathering, and they were originally for taxation, provisioning the food supply, or assessing military potential. Slowly, their focus shifted toward understanding population dynamics. Throughout the Italian peninsula, there was a long tradition of information gathering, and there was little resistance to written information per se. These censuses strongly reflected the monetized and marketized social structure of the Italian peninsula and its tradition of autonomous intellectuals, as well as the particular social settings of the regional states.

These three cases show that state strength was not the primary determinant of the establishment of a census. The strongest state, the United Kingdom, had the least developed census, while the weaker states had the more developed ones. Thus, we argue that social factors crucially shaped the censuses.

First, lay categories shaped the censuses. The UK census focused on occupational categories because class was the most important social difference in this world's first industrialized country and because the class structure was thought to reflect the nation's strength. Despite the deficiencies of the early UK censuses, they had detailed occupational categories earlier than the US or Italian ones. The dominant US census categories were racialized legal ones. Nothing in the Constitution required the specification of race. Yet, beginning with the category of "white" and "Indian," race immediately, but unevenly, entered the census forms. The Italian censuses also reflected their social origins. The censuses in the Papal States, for example, drew strongly on church traditions and focused on moral categories. Venetian and Florentine censuses reflected their occupational and commercial structure. All the Italian censuses emphasized place more than the US or UK ones,

probably because their political geography was rooted in city-states where residence influenced political rights and because of the reliance on parish registration.

These lay categories corresponded temporally to the formation of the industrial working class. The UK census formed around the same decades that the industrial working class emerged as a political actor (1790–1830). In contrast, the US and Italian censuses were conducted before the working classes emerged as political actors (toward the end of the nineteenth century and in the twentieth century). The predominant categories of each census derive, therefore, from the social struggles occurring at the census's founding: class in the United Kingdom, race in the United States, and place in Italy.

Second, the role of census intellectuals, and the degree to which they were co-opted into the state differed in the three countries (cf. Loveman 2005:1661). In Great Britain/the United Kingdom, elite social actors' pressure to establish a census helped overcome social and governmental resistance to it. The UK census was executed largely by local notables, agencies, and officials, not central government officials. Thus, even the census administrators were not fully members of the state. On the Italian peninsula, as in Great Britain/the United Kingdom, a strong tradition of political arithmetic, as well as the unique Italian general intellectual culture of the autonomous intellectuals, supported information gathering. On the Italian peninsula, as in Great Britain/the United Kingdom, parish clergy helped conduct the censuses, but they were even more important on the Italian peninsula. In contrast, the United States was relatively devoid of census intellectuals. However, in the United States, strong supporters of the census became incorporated into the new state, and thus, they advocated for or implemented censuses from inside the government as fully co-opted census intellectuals. In these early censuses, these social actors generally acted as individuals and only exceptionally on behalf of organization or lobbies. In the United States and the United Kingdom, censuses were commonly shaped by gentlemen scholars, whose social positions allowed them to support the collection of demographic information. On the Italian peninsula, these men were also often autonomous intellectuals, with cultural ties across the regional states. None of these states had census bureaus or officials in the modern sense, though such offices were probably most developed on the Italian peninsula.

Third, social power was also crucially important. In Great Britain/the United Kingdom, landlords generally opposed information gathering; their power waned with the rise of the commercial and

manufacturing classes, who generally supported information gathering. In contrast, in the United States and Italy, there was no organized social group that opposed, at least in principle, information gathering. US colonists had resisted British information gathering, but when the census was strongly tied to the widely held revolutionary ideals of representation, most of the population supported it. Similarly, there was also little resistance per se in Italy, though for a different reason: information had been collected in the regional states for centuries and drew on social information gathering. A strong tradition of interaction between state and social actors already existed. In sharp contrast to England/Great Britain, nowhere on the Italian peninsula did elites, such as landlords or merchants, define their interests in opposition to the state. Furthermore, in the United States, those who came to power in the new government favored the census, and they held the power necessary to implement the censuses. Thus, even strong states, such as Great Britain, could successfully gather information only when they did not threaten powerful actors. In contrast, weak states such as the early United States and the Italian regional states could undertake impressive information-gathering efforts when they corresponded with the interests of powerful actors.

These patterns gave rise to quite different historical trajectories of information gathering. In Great Britain, there was virtually no historical tradition of collecting information about the population before 1801 because of strong resistance from elites both inside and outside of the state. Not surprisingly, the first census was somewhat underdeveloped. During this period of time, the census was only loosely institutionalized in the state and the collection of information per se remained a largely local affair. While the state set the census in motion, social forces provided the pressure to conduct it, the machinery for doing so, and the information about the occupational categories. However, there were few incentives for nonelites to be interested in the census because it had few practical implications. Thus, it drew little social interest outside of intellectual circles. Therefore, the UK census drew on lay categories, but there was relatively little interaction between the state and society over it.

In contrast, the US census was initially more state driven than the UK one. It originated as a mercantilist colonial mechanism and was adopted by the new state for apportionment. The official in charge of the census was a permanent state official unlike in the United Kingdom; however, as in the United Kingdom, the census during this period of time was only loosely institutionalized, as much of the apparatus for conducting it was temporary. Of course, the US census

was based on lay categories of race and legal status, but virtually none of the impetus for conducting it came from social forces per se as in Great Britain/the United Kingdom. However, in sharp contrast to Great Britain, in the United States, the census was institutionalized to involve many social interests. Debates raged in the US Congress over the census schedules and the apportionment that followed information gathering. Extensive commentaries also followed the census publication. In the United Kingdom, during this period of time, there were also some debates, but these debates subsided once the census was established. Thus, while the US census started out as a largely state-driven affair based on lay categories, the UK census began as a largely socially driven affair based on lay categories. However, the institutionalization of the US census created much more interaction between the state and society than in the United Kingdom.

On the Italian peninsula, by this period of time, the collection of population information was largely routinized because of its long history. Unlike in the United States or the United Kingdom, Italian regional state administrators did not need to mobilize to undertake new information gathering so much as to reorient it away from fiscal purposes toward demographic ones. Scholars pressed for governments to continue to refine and expand their information gathering efforts, and government and social actors continued a largely cooperative pattern of collecting information. There was a close interaction between the regional states and their societies, creating repeated rounds of information gathering. These historical trajectories, combined with lay categories, the nature of information intellectuals, and power relations, shaped the nature of censuses in all three locations.

While states definitely had concrete goals, they could be fulfilled through descriptive censuses. The shift to interventionist ones occurred later. In fact, fiscal information gathering was often more instrumental than these early descriptive, demographic efforts. We illustrated the descriptive nature of information gathering, which occurred in four general ways. First, state as well as social actors' agendas were rarely or only partially implemented; second, much collected information could not be used as intended; third, state as well as social actors' agendas were contradictory; and fourth, goals could not be easily translated into information gathering. For example, although Prewitt (2010:241) suggested that revolutionary-era Americans accepted the idea that a government could alter the population through a census, the widespread acceptance of populousness during this period was not associated with the capacity to alter the population. Similarly, nineteenth-century UK censuses were not methods of social control

or central planning of social interaction but a response to warfare (Higgs 2004:70; cf. Giddens 1985:179–180; Scott 1990:68–69).

Of course, census administrators had purposes that they implemented (e.g., Curtis 2002:509–511; Giddens 1985:179–180; Kertzer and Arel 2002:5–6). In Great Britain/the United Kingdom, the census was supposed to address mercantilist debates about population size. In Italy, population censuses were related to practical purposes of taxation, military service, public health, and food provisioning. However, these were both broad goals, not specific ones. The population censuses did not always allow for the tax to be assessed with the information; the information was used more generally to estimate resources. In the United States, the census was specifically focused on political apportionment (Anderson 1988:8–9). Though it was supposed to facilitate taxation, it rarely did. Thus, censuses remained descriptive during this period of time because they were not designed to constitute populations as objects of policy intervention.

CHAPTER 8

Conclusions

The "sociology of statistics" demonstrates that official information is never a collection of neutral facts (Alonso and Starr 1987:1; Burke 1987:27; Desrosières 1998:324–325; Espeland and Stevens 1998:338–339; Kertzer and Arel 2002:2; Nobles 2000:1; Petersen 1969:868; Porter 1995:33–34; Thévenot 1990:1276). The predominant thrust of this literature suggests that information is influenced more by the state than by society (Desrosières 1998:324–327; Nobles 2000:3; Woolf 1984:89; review in Ventresca 1995:8). This view suggests that states develop and conduct official information gathering, which in turn shapes social classification (Anderson [1983] 1991:164–170; Cohn 1987:230; Hacking 1990:2–3; Patriarca 1996:11; Star and Lampland 2009:8; Starr 1992:264–265). Social forces have not been completely ignored, but they have received less attention than state ones (e.g., Burke 1987:125; Cohen 1982:219; Giddens 1981:218; Lee 1993:80–81; Petersen 1969:868; Starr 1987:20; Ventresca 1995:14; review in Higgs 2004:11–13).

We developed a systematic model to examine both social and state influences as well as their interaction. In contrast to much of the sociology of statistics, we do not wish to assume that the state is influential in producing official information. At the same time, we also do not wish to assume that society is influential. Instead, we wish to examine the historical conditions that explain how either of them, or their interaction, influences information gathering. To do so, we traced three historical cases over time: England/Great Britain, the United States, and the Italian peninsula. These cases provided a range of state and social conditions that make it possible to show how and when these social and state forces, and their interaction, were important.

In our empirical chapters, we reviewed five specific empirical implications of our model. First, we showed that in all five cases, state strength could not have been the crucial determinant of official information gathering. Weak states often collected considerably

more information than strong ones. Second, we showed that lay categories were the foundation of official information gathering. In all the instances of information gathering, censuses strongly reflected social categories. Third, in most of our cases, we identified social actors, whom we call information or census intellectuals, who were crucial in collecting official information. The US case was somewhat exceptional in this respect. Social actors were not particularly prominent in advocating for the first census. However, as we noted, part of this exceptionalism is explained by the fact that at the time, there was a very porous line between state and social actors, and the advocates for censuses were incorporated into the government. Fourth, we noted that power relations were crucial in determining where and when lay categories and intellectuals influenced official information gathering. Powerful social actors could facilitate or block information gathering, as well as influence how it was gathered. Finally, in all of our chapters, we examined the historical trajectories of information gathering, and in particular how states and societies interacted to produce information. In Great Britain, social actors blocked information gathering, so relatively little written information was collected over time. In comparison, on the Italian peninsula, social actors either had few objections to information gathering, or they actively encouraged it. Information was used extensively by both social and state actors, creating a strongly interactive information-gathering process. In the United States, there was widespread numeracy and ideological support for the first census, even though it was largely state driven. Furthermore, it was institutionalized in a way that made information gathering crucial to many social interests. This institutionalization facilitated the interactive information-gathering process. We reviewed these five empirical implications in our chapters in detail, so we now turn to specifying how we can use our findings in conjunction with figure 2.6 to illustrate the full interactive model.

A Micro-Macro Interactive Model of Information Gathering

We developed an interactive model of information gathering, linking the micro level, the meso level, and the macro level, in both society and the state. The clockwise flows in figure 2.6—the state-centered perspective—have been our foil to understanding the counterclockwise flows—the society-centered perspective. The state-centered perspective, that states influence censuses, and through them, the populace, most generally suggests that states have specific purposes in

redacting censuses, they find staff to conduct such censuses, and the populace responds by providing information, in turn shaping organizations and systems of classification. States' purposes varied historically. States initiated fiscal information gathering to increase their revenues to wage war (chapters 3 and 4). Early population censuses were often redacted for related mercantilist purposes of illustrating the wealth and power of nations or for taxation or for administrative purposes (chapters 5, 6, and 7). We never rejected these arguments. Instead, we showed their limits: they underestimate society's power to shape information, they downplay the effect of the interaction between states and societies on information gathering, and they cannot show how the influences of states and societies are historically contingent.

Thus, we highlighted societies' influence on information gathering. At the macro social level, common-sense knowledge or lay categories were always the basis for information gathering. We showed that the basic categories and practices of information gathering corresponded to different practices of lay knowledge in different countries. For example, oral culture formed the basis of information gathering in England, while written culture was its basis in Tuscany. In the eighteenth and nineteenth centuries, censuses were differentially focused on social class in the United Kingdom, race in the United States, and place on the Italian peninsula.

At the meso and micro social levels, social actors located within particular social institutions determined where, when, and how this common-sense knowledge was converted—or not—into official information. After all, not all lay knowledge became incorporated into official information, nor were lay categories unchanged when they were translated into official categories. We drew attention to particular sets of actors, such as intellectuals or elites, at different times in our different cases. Information intellectuals were key in translating lay categories into official ones because they developed techniques and official categories that could capture lay knowledge that populations would understand. Such intellectuals were notaries in Tuscany, surveyors and engineers in Lombardy, parish priests and autonomous intellectuals throughout the Italian peninsula, and local notables in England. Historically, there was a trend toward the institutionalization of these information intellectuals in formal organizations with varying degrees of autonomy from other state institutions, which eventually created census bureaus (e.g., they were frequently co-opted by states [Loveman 2005:1661]). Elites were also important influences on information gathering—sometimes opposing such

collection and sometimes advocating for it. Nonstate actors, elites or other social actors, did not usually advocate for fiscal information gathering, but elite opposition to such state activity could prevent it, as in England/Great Britain. In contrast, elite support—or lack of opposition—as in Tuscany and Lombardy facilitated it. Elites, however, took the lead in advocating for censuses and specific categories in all three of our cases.

In the state domain, the state actors then systematized this social information. We showed that what states collected and systematized varied historically, based on social actors' translation of lay categories into official ones and state actors' adoption of these categories at the micro state level. Censuses were highly developed outcomes of mercantilist information gathering in the United States that focused on race, less developed outcomes of ecclesiastical information gathering in the United Kingdom that focused on class, and well-developed outcomes of fiscal information gathering on the Italian peninsula that focused on place.

Finally, we have also traced the historical trajectory of this micro-macro integration. The state-driven perspective reflects a cross-sectional methodology: at any particular point in history, it points to the information-collection activities of state actors that support a clockwise interpretation of figure 2.6. However, our longitudinal approach illustrates how previous rounds of information gathering—both the clockwise and counterclockwise flows in figure 2.6—shaped subsequent information gathering. For example, in all three cases, information about land, people, and things came to be collected in specialized ways across the late Middle Ages and early modern period, but there were country-specific ways that this was accomplished stemming from the interaction between states and societies in previous rounds of information gathering. In England/Great Britain, strong social resistance to information gathering about people meant that the state had few techniques to conduct population censuses and had to rely on social and local institutions. The census bureaucracy was slow to develop. In contrast, in the United States, the census was broadly supported. Thus, over time, there was considerable debate among state and social actors about what information should be collected but not over the premise of collecting information. On the Italian peninsula, regional states collected vast quantities of information that depended on their political economy: in some regions, demographic information came to be collected separately from information about assets; in others, the two forms of information were merged for many centuries. The censuses on the

Italian peninsula developed out of intense interaction between the state and society over these centuries of information gathering. It was not ultimately the immediate result of concrete demands by either the state or society for specific information as in the United States or the United Kingdom. We have undoubtedly missed—or misconstrued—aspects of the interactive process of information gathering. Our combined method of genealogy and comparison helped us to understand how different patterns of information gathering developed differently over time in different locations, but we have undoubtedly obscured crucial points about how these patterns unfolded in specific times and places that more detailed archival evidence would have provided. We hope that other scholars investigate and challenge the model we have presented here. We now turn to considering how figure 2.6 fits to our particular cases in more detail.

England/Great Britain/The United Kingdom

In England, information gathering for fiscal purposes was precocious. Early medieval surveys, based on oral testimony, were the most advanced in Europe. Yet, this form of fiscal information gathering did not lead directly to more information gathering or population censuses. This had relatively little to do with the strength of the state, as the English state, one of the most consolidated states in Europe, was powerful enough to collect taxes. Instead, this failure of information gathering was linked to the pattern of state and social interaction. Fiscal information gathering was rooted in the feudal tradition, based on oral testimony by local notables, who were essentially information intellectuals allied with, or identical to, powerful landlords, who opposed information gathering. They passed along enough summary information to make taxation possible, but relatively little individual-level or family-level information was written down and retained. As the state experimented with different forms of taxation, the small amount of information that was collected came to focus differently on goods and land but not on people. An extensive state bureaucracy eventually developed to collect excise taxes, but it focused on the production and sale of goods. Though land was taxed, it was never comprehensively surveyed.

Because relatively little information was collected historically about people, population censuses developed not out of fiscal information gathering but out of poor relief and parish records. The first UK censuses were temporally later and collected less information than the US ones, though the British state was stronger. Censuses in the

United Kingdom initially had mercantilist imperatives similar to fiscal ones: to determine the nation's wealth and power. Social actors, including an alliance between clergy and the rising merchant class as well as individuals who were concerned that Great Britain was declining in the quantity or quality of its population, pressed Parliament to conduct a national census. Class formed the major social division in Great Britain/the United Kingdom; not surprisingly then, the first censuses focused on occupation.

Here, we interpret this information in terms of our analytic model in chapter 2, figure 2.6. We start by tracing the counterclockwise flows through the mechanisms of social power and categorization to understand the social influences on information gathering. Starting with macro society and moving counter clockwise, we noted that medieval England was a feudal society, with feudal forms of land tenure, based on rights to land and over people. This provided the lay categories that were the basic pieces of information and its social organization throughout much of the medieval and early modern period (meso society). This information was known to landholders (micro society) and was passed orally by local notables to representatives of the state who collated the information (micro state). Nascent bureaucracies developed to collect this information (meso state), and the information was the basis of the state's financial apparatus and consequently the basis for the state's geographical and political consolidation (macro state). The political structure of the state, in turn, supported the feudal structures of society, and in particular the devolution of rights to land (macro society). Thus, the counterclockwise flows explain how the structure of society shapes categorization: how lay categories are shaped by social forces and translated into categories of information gathering by social actors that are then taken up by state actors.

We can also consider the clockwise flows that trace the state influences on information gathering. The power of the feudal state was based on resources for waging war to control access to territory (land) (macro state). To collect resources, the state instituted information gathering. The state created a bureaucratic structure (meso state) to collect this information and sent its representatives (micro state) to collect it through individuals on juries (micro society). This information gathering reinforced individuals' rights to land and patterns of landholding (meso society) and supported the feudal social patterns (macro society). In turn, these feudal social patterns reinforced state structures (macro state) that depended on the devolution of power through landholding. In this way, we can see that fiscal information gathering was an interactive—and reinforcing—process between state and society.

However, we can also use the model to note where the interaction between state and society was absent and therefore how information gathering was blocked. In the case of feudal England, we noted that powerful landlords generally prevented the extensive collection of written information about their assets and demographic information, even when they assented to taxation. Thus, the amount of information that was passed between social and state actors was minimal. In terms of figure 2.6, the flow between micro society and micro state was disconnected. Little written information was divulged by landlords to state bureaucrats and therefore little information was collected by the state. Even less information was retained for the use of either state or social actors.

We can also understand the initiation of the population censuses in terms of figure 2.6. During the late seventeenth and early eighteenth centuries, England was in the process of a transition to capitalism, and the industrial and working classes were forming (macro society). Landholding remained, however, crucially important, and parishes remained in many ways the basis of social support for the poor and dislocated (meso society). Numerous social actors pushed for the collection of population information, including parish clergy who were responsible for distributing poor relief, gentlemen scholars who were interested in demography, and the rising merchant class who had an interest in the more systematic collection of information (micro society). These actors pressured Parliament to conduct the census; some of these social actors were incorporated into the state (micro state). Over time, a bureaucracy developed to collect the information, and Parliament could draw on this information for administrative purpose (meso state). Although these censuses were primarily descriptive, their use reinforced the political structure of the British state, with its unique combination of democracy and constitutional monarchy (macro state). State actors, in particular, used the information to understand the age and occupational structure of society (macro society). When the census was successfully instituted, the flows between state and society were interactive.

The Italian Peninsula

Here, a different trajectory unfolded. Intensive information gathering about people and land for fiscal purposes started in the late Middle Ages on the Italian peninsula, somewhat later than in England, but there was an unbroken historical trajectory of information gathering that led directly to population censuses. The Italian peninsula was

characterized by numerous regional states. In the Middle Ages, some were relatively strong political actors, but none were consolidated states. Their relative strength declined in the early modern period during repeated waves of foreign invasions and rule. However, the Italian peninsula had a strong tradition of monetization and marketization, accompanied by the extensive use of written documents for public and private purposes that served as the basis for the states' systematization of information. Although the Italian peninsula was politically fragmented, there was a strong cultural unity, reinforced by the presence of autonomous intellectuals, who had influence across the regional states. Across the early modern period, a strong intellectual tradition developed to support information gathering. As in England/Great Britain, a lively movement composed of political arithmeticians pushed states to collect information. In addition, social actors such as notaries, surveyors, and priests actively participated in collecting information or providing institutional support.

Information gathering in the different regional states followed different paths, but in many states, cadastral surveys were redacted that served as the basis for tax assessment. Extensive written information was collected about land and other assets, as well as about the population. While the populace resisted taxation, there was little resistance to information collection per se, as in England. In fact, social actors often favored tax reforms that supported their interests. Social actors also supported information gathering because it produced written records that documented transactions. In many regional states, these cadastral surveys were conducted repeatedly over centuries, creating a strong historical trajectory of, and precedents for, information gathering.

As in England/Great Britain, fiscal information gathering about land and people became distinct over the early modern period. However, on the Italian peninsula, as the two sets of activities separated, they produced substantial amounts of written information that was retained. The collection of population information separately from fiscal information often followed a reform in taxation that created pressure for additional demographic information. Head counts were initiated as early as the 1500s and soon came to include classifications by social categories such as marital status, sex, and age. Nominative censuses were conducted in some locations within regional states, starting in the early 1700s.

We can also interpret fiscal information gathering on the Italian peninsula using figure 2.6. Of course, the details of the attributes of state and society are particular to each regional state. However, using

the examples of the Tuscan *catasti* and the Lombard *Censimento*, we provide a similar interpretation for figure 2.6. We noted that both regions were characterized by protocapitalist merchant activity and protocapitalist agriculture (macro society). In these northern Italian regional states, by the late medieval period, feudal land tenure had virtually disappeared, and land was owned outright. Commercial and agricultural activities were mutually dependent (meso society). They provided the basic lay categories of fiscal information gathering (e.g., price, value, yield, area). This information was known to all parties involved in the transactions (e.g., buyers, sellers, landlords, tenants) and was recorded in writing in notarial contracts and personal accounts of merchants and landlords (micro society). This information was then passed along to representatives of the state, often through the use of written documentation (micro state). We do not always have enough historical information to know exactly how census intellectuals interacted with state officials, but in both the Tuscan and Lombard cases, it seems that co-optation was the predominant mechanism (cf. Loveman 2005:1661). Notaries and surveyors, for example, were incorporated into the nascent state bureaucracies that developed to collect and retain this information systematically (meso state). The information was the basis for the state's financial apparatus, either for the local regional state or for the foreign ruling state (macro state). In turn, this political structure of the state supported the protocapitalist structures of society, and in particular private property rights over assets and land (macro society). Thus, in the cases of the Italian regional states, the counterclockwise flows again illustrate how lay categories of fiscal information gathering are generated from the structures of society and are taken up by state actors.

Likewise, we can interpret the clockwise flows that trace the state influences on information gathering. The political geography of the Italian peninsula created intense competition among the regional states themselves and among other European states for control over them (macro state). Warfare was endemic and created a need for fiscal resources, leading states to create bureaucracies to record and collect information to increase fiscal resources (meso state). The officials in these bureaucracies developed techniques to collect information (micro state) from individuals throughout society but with a focus on the owners of assets (micro society). This information reinforced the rights of property owners (meso society) and the patterns of commercial and agricultural activities (macro society). The strengthening of these commercial and agricultural activities in turn reinforced the specific nature of the state structures unique to the various regional

states (macro state). This process created an interactive pattern between the state and society. State actors collected information—that social actors already had readily available for their own purposes—to use for taxation. Social actors also could draw on the information collected by states to confirm their rights to their assets.

This pattern of interaction between state and society continued as information about people was separated from information about assets. The exact configuration varied by regional state. However, in most of the population censuses, parish priests were crucial to the collection of information, so we can understand how to apply figure 2.6 by considering their role. During the early modern period, the basic patterns of state and society interaction continued, but the church was another crucial feature of the social structure that made population censuses possible. Starting again with the counterclockwise flow, we noted that in the Middle Ages, the commercial structure of the northern Italian states was linked to religious institutions (macro society). Widespread numeracy and the importance of knowing age were crucial aspects of the social structure. While the historical details are not always clear, parish record keeping and merchant's guild membership practices were mutually reinforcing, creating the first registries of vital events (meso society). These registration practices were reinforced by the Council of Trent (meso society) that mandated sacramental record keeping by parish priests (micro society). The registries kept by parish priests could be easily turned into censuses, and the information in the censuses taken up by state officials (micro state) and summarized and retained by state bureaucracies (meso state). The predominant mechanism of interaction between state and social actors here again was co-optation. Population information was used to support state structures in a variety of ways for taxation and administration (macro state).

Similarly, we can understand the state influences on information gathering as a clockwise interpretation of figure 2.6. The structural features of the state remained relatively unchanged during the early modern period, and the endemic geopolitical conflict on the Italian peninsula meant that states had huge fiscal requirements (macro state). However, the shift to taxation based primarily on land during the early modern period left states without adequate administrative or fiscal information about the population. Thus, state bureaucracies (meso state) and state officials (micro state) tried to fill these gaps by collecting population information. This activity supported the information gathering by parish priests and encouraged individuals to keep accurate records of age (micro society). In turn, this supported

institutional records, such as parish registries (meso society), and knowledge of ages (macro society).

Figure 2.6 also explains the influence of the patterns of social and state interaction on information gathering. Unlike in England/Great Britain, where social actors blocked information gathering, on the Italian peninsula, social actors rarely objected to information gathering and often actively supported it. Information flowed both ways between state and social actors (between micro state and micro society). Thus, as we noted, there was a strong interaction over time between state and social forces and strong historical precedents for information gathering.

The United States

Here, censuses developed out of British mercantilist, colonial ones. There was a long tradition of information gathering about people and relatively little resistance to censuses, and after the Revolutionary War, the newly established US government institutionalized the census in a way that assured that many parties were interested in it. Unlike in England/Great Britain and on the Italian peninsula, in the United States, there was little history of cadastral or hearth surveys that simultaneously collected information about land and people. However, information was collected for colonists' commercial and religious uses, as well as for the purposes of taxation and state administration by the British and colonial governments. There was a strong interest in demographic information, numeracy and literacy were widespread, and there was extensive ideological support for linking taxation and political representation. This social context provided the backdrop for the first, and relatively early, national US census. Despite its roots in fiscal information gathering, this census was used not for taxation but to apportion the vote. However, because of the way that the census was used politically, it became the center of considerable attention in both the state and society.

Again, we can trace the counterclockwise flows in the US case. The United States was a primarily agricultural, frontier society but had unusually strong support for information gathering (macro society). As on the Italian peninsula, religious institutions and commercial ventures supported it (meso society); few social actors opposed it, and many supported it ideologically (micro society). As in the United Kingdom, in the United States, the officials collecting the information were originally nonstate actors who were temporarily hired as census enumerators, so again the mechanism was one of co-optation. These officials

(micro state) were able to collect the information, and slowly over time, the census bureaucracy developed (meso state). Censuses made it possible to structure the legislative assembly and shaped the democratic structure of the state (macro state). In turn, the state supported the democratic structures of the early US society (macro society).

Similarly, we can trace the flows in the opposite direction. The early US state was a nascent representative democracy (macro state), with legislative assemblies that had the power to mandate the creation of institutional practices such as the census (meso state). The politicians drew on colonial precedents to implement a census to solve the problem of legislative representation and sent census enumerators to collect demographic information (micro state). Individuals responded to such requests for census information (micro state), and social organizations developed that analyzed such information (meso society), spreading numeracy, an interest in demographic information, and the ideology of democratic representation (macro society). This ideology supported the nascent and fragile democratic state (macro state).

The US case also illustrates how the interaction between state and society supported information gathering. Unlike the Italian and British case, it first seems that the US census was strongly state driven, as it is proposed and implemented by state actors, with seemingly little direct pressure from social actors. However, as on the Italian peninsula, US social actors had few objections to collecting demographic information. Furthermore, the line between US state and social actors was particularly porous, as the politicians proposing and advising the first census moved in and out of public life. Thus, information flowed between state and society. The US case also illustrates particularly well the link between the meso and macro state levels. The information that was collected through the census was directly used to structure the legislative body and thus shaped the state (counterclockwise flow). At the same time, the structure of the state created the need for the information (clockwise flow). While some of the Italian regional states suggest this link between democracy and information gathering, it is clearer in the United States. In the United States, the strong social support for the census, along with politicians' practical use of it to apportion the vote, institutionalized it in a way that assured its longstanding influence.

Comparing Other Dialectical Understandings of Information Gathering

While this "Gramsci sandwich," with dialectical readings of Weber and his followers as the pieces of bread is perhaps surprising, it draws

on the best developed theories at the micro, meso, and macro levels. At the micro level, Schutz provided the best developed theory of how interaction within a social context creates lay and scientific categories. At the meso level, Gramsci provided the best developed theory of how intellectuals' ability to translate lay to scientific categories varies socially and historically. At the macro level, Weber's theory of bureaucracy best explains how state bureaucracies, which include information-gathering offices, depend on social formations, including pressures created by census intellectuals. We link these theories together, as one begins where the other ends.

Although dialectical theories are most commonly associated with Marx, they are used in the Weberian tradition. Phenomenology can be framed as dialectical; it conceptualizes the micro-macro link as dialectical and specifies in detail the micro processes (cf. Lave 1988:20; Warren 1984:118; Zucker 1977:728). Thus, Marxist and phenomenological analyses are highly complementary (cf. Gardiner 2000:127; Merleau-Ponty 1962:442–450; Sartre 1963:97–98; Warren 1984:116–143). Although western Marxists tried to understand how individual-level incentives create capitalism or how individual-level consciousness is linked to class movements (e.g., Brenner 1985:214–215; Lukács 1971:xviii–xix), they do not generally focus on the details of how common-sense categories influence interpretive interaction with any historical specificity. Phenomenology, however, specifies that background knowledge and interaction are internally related through typifications. Thus, in contrast to western Marxism, phenomenology provides extensive detail on how common-sense classifications work in practice on the individual level within a given meso or macro setting. However, phenomenological accounts do not generally consider the historical configurations, as do Marxist ones, that allow for (or block) the translation of lay categories into information categories from the micro to the meso to the macro level. For example, Berger and Luckmann (1966:45–85) explain that institutionalization occurs through social processes such as habituation, language, and roles, but their discussion revolves around logical possibilities, not historical instantiations of these processes and their variability.

Though Schutz and his followers provided a more well-developed theory of how social interaction based on typical categories forms the basis of information, Gramsci provided a way to understand how intellectuals drawing on, but also possibly transforming, common sense can create explicit conceptions of the world that maintain or alter states' political systems. Though both Bourdieu and Gramsci can be used to analyze classificatory struggles, only Gramsci's theory

gives real power to ordinary actors and common sense to transform social conditions, while Bourdieu's theory, as well as Weber's, focuses on how the dominant classes dominate ordinary actors (Burawoy and Von Holdt 2012:7–10). Thus, Gramsci's theory, in contrast to Bourdieu's, makes it possible to understand the relationship between lay and scientific categories in historical and empirical—as opposed to logical—terms. Our historical analysis is possible because of our Gramscian approach to culture that views common sense as the basis of social scientific categories and rejects the usefulness of a logical opposition between categories of analysis and categories of practice dominant in Bourdieuian work. Foucault's theory can also be used to understand the power of classificatory schemes over individuals. However, for Foucault, modern power is largely invisible and agentless, so he, unlike Bourdieu and Weber, has no theory of individual-level action that can be used to understand classification struggles among individuals. Thus, Gramsci's analytic stance—that common sense has a theoretical basis and that it can be systematized by intellectuals, depending on the social and historical conditions, to transform the political system—is unique.

Our perspective also provides a more fully dialectical reading of Foucault. If knowledge is power, it is not because states are inherently powerful enough to impose information gathering on the populace, but because states successfully implement it when the information is already widespread in society or where there is strong and widespread support for its collection. Information gathering enhances the power of the state when the categories resonate socially, not when they are alien concepts. States cannot collect information that societies do not know. This interpretation reframes Foucault's use of the dialectic: state and social information gathering are dialectically related, not state information gathering and resistance to it.

Implications of an Interactive View of Information Gathering

We suggest that our interactive view has some broad implications for the social construction of information gathering. We will overstep our evidence in drawing these broad conclusions, but they are points that can be examined with further empirical research in other cases. First, if we are correct, information from censuses is not the narrow result of the request of one party—this is often construed as the state—for some specific piece of information that can then be used for some specific purpose. Instead, it is the result of a social context

in which numerous parties engage in debates about what should be collected in censuses and how the information should be used. These debates create a social context in which information itself, methods to analyze it, and the purposes for which it should be used are all socially constructed. Knowledge is a result of a social context in which many parties interact and have a stake in the outcome. We have illustrated this here by noting that comparatively and historically, censuses emerged in the United States and the Italian regional states where the interaction between the state and society about the information was particularly intense. The noncorrespondence between state formation and the origins of censuses is particularly troubling for state-centered theories. Census technologies developed first outside of bureaucratic states, and national censuses drew extensively on social actors, as census bureaucracies did not exist for the first censuses.

Second, though we have emphasized in the long run the interaction between states and societies in creating information, we have also identified particular historical moments when either the state or society led some particular act of information gathering. We tried to show—obviously we also looked for—instances where society, not the state, led. We argued that this occurs much more frequently than previously recognized. We identified different ways in which this happened. For example, social actors had more information than state actors in fifteenth-century Tuscany, social actors in Great Britain pressed hard for population censuses, and social actors pushed for occupational categories in the US censuses only to have these demands rejected by state actors. The identification of these social pressures leads us to speculate about broader historical patterns in social and state influence, leading to our third and fourth conclusions.

Third, we suggest that there is no invariant historical movement toward more social influence. Social influence on information is not a result of some broad movement toward modernization, for example. In terms of the overall content of information and patterns of resistance to information gathering, there is no evidence of increasing social influence over time. We argued that the overall content of information gathering, as it is based on common-sense knowledge, must be influenced by society.

Fourth, however, we do note the changing patterns of information gathering that varied according to the purpose and timing of information gathering in more specific respects. Early information gathering was probably more dependent on social knowledge, in contrast to later information gathering that had been subject to multiple rounds of adjustment on the part of states and societies. States, in the

initial rounds of information gathering, were completely dependent upon taking up whatever society could offer. The balance of state and society seems slightly different in fiscal information gathering than in demographic information gathering. While societies provided the content of fiscal information, states usually provided the impetus for collection and systematization. Social actors rarely asked to have their resources extracted from them, though they may have strongly influenced the process of such collection once the state initiated it. However, the reverse seemed to have been true of censuses: social actors and state actors often pressed for the collection of population information.

Fifth, in emphasizing the influence of social actors, we presented a "bottom-up" version of power that includes the influence of ordinary, everyday individuals. Neither state actors nor social elites could impose information gathering on the populace. Nevertheless, there is perhaps a dark side to this social influence. Censuses seem to have the most power over their populations not where states had an abstract agenda that they imposed on the population (as such schemes usually failed), but where states successfully took up social categories so that information gathering strongly resonated with the population. It is perhaps co-optation, not coercion, that gave states more control through censuses.

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