Chapter 1

INTRODUCTION

THIS BOOK SEEKS to tell us how and why it happened that the most important feature of our social landscape is the large organization, public or private. Americans celebrate individualism and entrepreneurship, and some see organizations as getting smaller or more decentralized; so concern with bigness and bureaucracy may have abated. But we should be reminded that today, well over 90 percent of the work force works for someone else—as wage and salary employees—up from 20 percent in 1800; over half of the gainfully employed people in the country work for organizations with 500 or more employees, up from 0 percent in 1800. Today, although establishments have an average size of about thirty employees, organizations can own and control many separate establishments. And control is the important factor, not the size of the branch bank or the factory site or the fast food outlet or the service franchise. The truly big organizations, public and private, have come to define and even absorb much of our society.

Despite all the talk of downsizing, our organizational population has not become perceptibly thinner; the Fortune 500 industrials have declined in size by about 8 percent in a decade, but their average size changed little, from about 3,000 employees in 1979, the peak year, to 2,750 in 1993. That is still very big. Meanwhile, the average size of the 500 largest service corporations rose from 1,700 in 1982 to 2,750 in 1993, making them as big as the industrials (Useem 1996, 165). Even with the government contracting out many activities to private firms (generally large ones), government has not shrunk appreciably.

The American population increases, and so does the number of big organizations. More and more they have come to constitute societies in themselves, providing, on their own terms, the cradle-to-grave services that communities and small organizations used to provide. We could not have our level of affluence without organizations, of course, and some of them, including certain government organizations such as the armed forces or the social security administration, are bound to be huge.

But most do not need to be very large, and their size and power is troubling. Our economic organizations—business and industry—concentrate wealth and power; socialize employees and customers alike to meet their needs; and pass off to the rest of society the cost of their

pollution, crowding, accidents, and encouragement of destructive life styles. In the vaunted "free market" economy of the United States, regulation of business and industry to prevent or mitigate this market failure is relatively ineffective, as compared to that enacted by other industrialized countries.

Big noneconomic organizations also trouble me. Big churches and school systems and local, state, and federal governments also centralize power, socialize employees to bureaucratic values, "de-skill" them unnecessarily, and generate their own "externalities"—the costs of doing their business that are shifted onto a fragile environment or fragile groups within the polity.

Increasingly, especially since the mid-twentieth century, politicians and government leaders have tried to ameliorate these problems, saying that we need big organizations but that they need to be more responsive to citizens. In this area we have made some progress. But perhaps not enough. Antitrust enforcement has waxed and waned; conceptions of unfair competition are relaxed; big organizations and their masters dominate campaign financing and shape regulatory procedures. Cleaning up after the economic organizations has generated more big organizations to do the clean up, and they bring more externalities, and more incorporation of social functions that once were filled by small groups, families, neighborhoods, and small local governmental units. Elsewhere I have explored the possibilities, faint but real, for networks of small firms that can drive innovation and also distribute wealth and power more equitably (Perrow 1992). Networks of small firms have appeared in some parts of the industrialized world, such as Northern Italy, the Scandinavian countries, Japan and Taiwan to some extent, and even in parts of the United States (Sabel and Zeitlin 1997). An economy that allowed extensive use of small-firm networks was a possibility in the United States in the nineteenth century, and I will explain why that possibility disappeared.

Why did the United States grow big organizations and come to accept them? I will start with the early days of the Republic, with the first mass-production organizations using "wage dependent" labor, the textile mills, and the legal revolution that made big organizations possible before they even appeared. Until the Civil War there were few organizations large enough to matter and they did little shaping of the society, but it is important to examine the first ones because they prefigured future forms. Two types of textile mills developed, one with the attributes and the social consequences of our large mass-production firms, the other resembling small-firm networks that persisted until the end of the century. Then I will examine the second big business in the United States, the railroads, because they created the corporate form we now use.

This book ends with the decade 1910. In future work I intend to show how the organizational revolution that the railroads effected spread to government, schools, and religious and voluntary organizations in subsequent decades. But by 1910 or so, the organizational mold was set. Big bureaucratic organizations were turned out in all sectors in society, making it the form of choice for public and private problem solving by the end of World War II. The relevance of family, friendship groups, neighborhood associations, and small independent business and social service organizations conversely waned. Their vital functions, once a right of citizenship rather than of employment status, were increasingly absorbed by large organizations, creating a "society of organizations" rather than communities. The centralization of wealth and power increased in the nineteenth century as a result of the growth of large organizations. Not until the 1930s was it checked, as a result of steady, if mild, redistributive efforts over the next forty years by the federal government and by a variety of political and voluntary organizations. But centralization surged again in the 1970s and continued through the end of the century, as large private organizations grew, and wealth was further concentrated.

Only two things are more basic to the structure of our society than organizations: basic demographic forces and cognitive structures of the mind. Acknowledging these, I will make the following grand claim for organizations:

> Bureaucratic organizations are the most effective means of unobtrusive control human society has produced, and once large bureaucracies are loosed upon the world, much of what we think of as causal in shaping our society—class, politics, religion, socialization and self-conceptions, technology, entrepreneurship—becomes to some degree, and to an increasing degree, and a largely unappreciated degree, shaped by organizations.

This book will investigate the origins of large bureaucratic organizations in the nineteenth-century United States.

Some Central Concepts

Density and Concentration

Of course, large organizations have been necessary at least since the pyramids were built, and some, such as the Catholic Church, have been with us for a very long time. It is their sheer number and size, their *density* and *concentration* that is new since the nineteenth century. Density—the proportion of productive workers working for wages and sal-

aries under an explicit employment contract—has been very low for most of human history. Wage labor was rare, organizations employing people on contract were few. Density increased a bit in the eighteenth century as the first industrial revolution gained speed. Most estimates put the percentage of economically active people working for salary or wages at 20 percent at the beginning of the nineteenth century in the United States, over 50 percent at the end—enough density to make a difference even in large cities—and over 90 percent today. As we shall see in textile towns in Pennsylvania, having as little as 20 percent of the work force working for wages can affect the social structure of the town if the majority are employed by one or two large organizations. Concentrating the wage workers under one management gives that management power, not only over the lives of the workers, but over the community as a whole.

A factory of 100 employees was big in the first half of the nineteenth century, because most people worked on farms, in small trades, or in tiny organizations. Density may not have had much of an impact on society when these were all *small* organizations. In a typical mid-century American town, 50 percent of the gainfully employed worked in small organizations, and the rest worked on farms or in family businesses or were craftsmen and artisans and shopkeepers. Organizations of five or twenty people had little impact as organizations, per se. But if the employment in organizations was highly concentrated, that is, if a few of the organizations had 100 or 200 employees, they had concentrated power to shape the community. They could set wages, withstand strikes, ignore industrial accidents, control the school system, select religious denominations, block infrastructure improvements such as water supply and street paving, and fire employees who did not vote correctly. When 75 percent of the citizens of a city depend upon wages for a living, this high density increases the power that flows from concentration.

In the nation as a whole, large organizations became really important only in the last quarter of the century, when density and concentration were significant nationally, but the dynamics of their concentration of wealth and power appeared early in local settings, where it was recognized and opposed. Our story has to begin at the beginning, about 1820, as something historically novel appeared: a combination of a high density of wage workers and their concentration in a few organizations.

Size and Small-Firm Networks

The case of the textile mills in the nineteenth century United States will provide us with an effective example of the role of organizational size.

We will find that two models coexisted through much of the century: highly centralized, absentee-owned, and very large mass-production mills in New England (the "Lowell" model), and a network of quite small, decentralized specialty producers in Philadelphia. Once the former were in place little technological innovation occurred in the New England firms, whereas Philadelphia firms were consistently innovative. When the labor shortage disappeared in New England as the Irish victims of the potato famine arrived, the firms exploited labor and let the mill towns decay. In Philadelphia, the firms exploited workers less and invested in the infrastructure to make functioning communities. In the New England firms, wealth became highly concentrated, and their local and national power was great. In Philadelphia, simply because there were so many firms, profits were spread over many more people and families, and they were locally invested and locally spent, enriching the communities.

It should be noted that small firms can exploit workers and the environment just as much as big firms, but if the small firms are linked together in a network, sharing workers, space, capital, and technical knowledge, they are likely to come to realize that they share a common fate and must cooperate as well as compete, investing in labor and its skills rather than exploiting workers. Without the networking that can balance competition with cooperation, small firms are likely to exploit labor. Networks of large firms balance competition with cooperation, too, but their concentrated power is far more likely to produce negative social externalities than networks of small firms with dispersed power. Finally, to complicate things further, there are instances of small-firm networks supplying a few large firms without being exploited by them. The small firms are encouraged, or even required, to have multiple customers. The large firms want the small suppliers to survive even if they do not buy from a particular one in a particular year, since large firms ultimately benefit from cross-fertilization among many small firms.

We will discover these dynamics of size in other areas and even in the unlikely case of the railroads. It might seem inevitable that railroads would become big and national, but their size and reach was a matter of national debate. We will discover the innovative role of a small regional railroad, and the efficiency of decentralization through subcontracting in operating and maintaining the lines. Though the innovations in subcontracting were soon abandoned, they will illustrate that even in this prototype of large organizations some alternatives appeared to be more efficient for society.

Let me repeat that small organizations can exploit labor and produce unnecessary costs for society, but much evidence now exists suggesting that where they are interdependent—linked together in networks of exchange—they are less exploitive than large organizations, and their ex-

ternalities (from degree of pollution to wealth distribution) are more positive. Nor are they inefficient; networks of small firms can achieve economies of scale that match those of large organizations. They also appear to be more innovative (Perrow 1992; Sabel and Zeitlin 1997; Sabel 1989; Sabel and Zeitlin 1985). Large organizations tend to be socially responsive when appropriate governmental regulation is imposed on all competitors. If regulation is not universal, those who pay the added costs typically associated with socially responsive practices will lose out to their more "efficient" competitors who avoid these costs, at least in the short run. Small firms will be unresponsive to social needs if they do not identify a community of interests that realizes the long-run advantages of cooperation and social infrastructure investment. They will also be unresponsive if they depend completely on one large firm for their business; in such cases, they are price takers, ruthlessly competing with other small firms that want to sell to the large, monopsonistic buyer.

Responsive, innovative networks of small organizations are not prevalent in U.S. history, but could have been if we had taken a different path. (They were more common in Europe, where the state restricted the size and power of for-profit organizations.) Most of the economic organizations up through the Civil War were neither large firms nor part of small-firm networks; rather, the economies were local and the population rural, and although firms had the advantages of local monopolies—not conducive to social responsibility—they also had the constraints of local community pressure to minimize negative externalities. Where ample job opportunities existed, mitigating wage dependence, they at least had to be responsive to their employees.

Organizations or Capitalism

Because the role of organizations in shaping U.S. society has been neglected, I will emphasize them. Some may object that organizations per se are not so important, but rather that capitalism, in its evolving form, can explain much of what I will talk about. As one perceptive critic, Miguel Centeno, advised me, I should decide whether ours is a society of *capitalist* organizations (and therefore I am really describing capitalism), or a society of capitalist *organizations*, (wherein the organizational form that capitalists came to use was determinant). It is both, but the emphasis so far has been on capitalism; I believe an emphasis upon organizations is needed from the nineteenth century on. Capitalism predates our nation and existed without large organizations in Europe and in the United States through the early Republic. True, large bureaucratic

organizations proliferated under capitalism, from its mercantile through its industrial, finance, and monopoly phases, making capitalism appear to be the independent variable (the cause). But large organizations in noncapitalist economies have most of the same organizational properties and dynamics as those in capitalist countries, and so the form has transcended the type of economy. (I can apply my view of organizations to socialist societies as well as capitalist ones; in both forms the consequences of large size, bureaucracy, absorption, externalities, and other concepts that I will use apply. But I will not discuss or analyze so-called socialist societies in this book.)

Nevertheless, I cannot always separate capitalism and organizations, because they are inextricably entwined. For example, I will explain the drive for vertical and horizontal integration (creating oligopolies and monopolies) at the end of the century as a product of the managements' and workers' need for security and predictability, but one can also attribute the integration drive to the desire of the major capitalists of the time to eliminate competition in order to hold on to their wealth and power. I would argue that the "capitalism" argument (and its associate, the "class" argument) is correct but incomplete. There is an undeniable truth in the statement that historically, capitalism created bureaucracy and bigness. But once this form was loosed upon an industrializing world, no industrializing country, whatever its political system, could function with any alternative to big bureaucracies, though the size and the democratic responsiveness of the bureaucracies could vary greatly. So, although it is both—a society of *capitalist* organizations and a society of capitalist *organizations*—it is the latter that needs more exploration and emphasis.

Noneconomic Organizations

Though I will not pay much attention to noneconomic organizations (government, nonprofits, and voluntary organizations) because they were small, relative to economic organizations in the nineteenth century, they also came to create wealth and power in the twentieth century. But noneconomic organizations centralized wealth far less; the salaries and bonuses to top management are less, there are no stock options and no shareholders. Power is centralized in noneconomic organizations much as in economic ones, in that the top managers, the "masters," control the fate of employees under them, affect the fate of the communities where they provide jobs, extract other resources, and create some externalities by virtue of being big organizations, though not as many as

private organizations may. In either economic or noneconomic organizations, small size limits these powers and consequences.

Most important for government, however, is the check of democratic control on governmental masters through the electorate. The check is limited, imperfect, and subject to abuse, but there is no democratic control at all in the case of private economic organizations, on which most of us depend for our living. Only governmental regulation can attempt to control private economic organizations. Because governmental organizations are somewhat responsive to the electorate in democracies, I fear large governmental organizations less than large private ones.

European governments are large and absorb more of the economy's surplus, through heavy taxation, than the U.S. government does, but they also regulate private enterprise more closely, trying harder to limit their wealth and power and to equalize them in society. In addition, more social needs or functions (maternal and child care, health, advanced education, pensions) are provided by *democratically elected bodies*, rather than as *conditions of employment* in an organization. Less of society is contained in nondemocratic bodies (firms, most nonprofit organizations) and more social needs and functions are provided through somewhat democratically responsive governmental units, often quite decentralized ones. For this reason, the fact that government is large and strong in European democracies does not unduly dismay me. I wish that all large organizations, including government, were smaller, but a large and strong government appears to be necessary to regulate large and strong private organizations. As inefficient and cumbersome and as unresponsive as many governmental organizations are, a vigorous democracy checks the abuses of government far more effectively than the abuses of private organizations.

Power

Big organizations are not everything; a lot of power exists outside them, and I do not try to explain everything through them. My account is not intended as a monocausal theory, though the relentless search for the organizational cause will give it that tone. Other sources of power include public opinion, social movements, voters, ideologies and values, and most important the powerful cultural practices of patriarchy, sexism, and racism. Organizations are shaped by these. They cannot fully have their own way not only because of other organizations (including the state and its legal powers), but because of nonorganizational forces such as culture and public opinion. Nevertheless, organizations have the means to give effect to, and amplify, these other sources of influence or

power in society, as well as to create power on their own. We will see how the New England textile mills amplified the cultural practices of ethnic discrimination, for example. Organizations deserve explicit attention in this regard.

I should note that wealth and power are not necessarily linked; an antislavery or pro-environment movement is not likely to be wealthy, but it can be powerful. The opposite—persons with great wealth who are not powerful—is not often remarked, but I assume it occasionally occurs, as with the heirs of private fortunes. But generally, wealth and power beget each other.

A word about one important way in which organizational size centralizes wealth. For economic organizations, the reimbursement structure is designed to have each employee produce a bit more value for the organization than he or she gets back in the form of salary, wages, and benefits. If it is not successful, there is no profit, and the organization is likely to lose out to more "efficient" ones, to be bought up or disappear. Many do. This "profit" on each employee (and a profit on transactions with suppliers, distributors, subcontractors, and the like) accumulates at the top of the organization.[1] The bigger the organization, the bigger the surplus is likely to be. (Though I do not have the data to demonstrate it, it is likely that the larger the organization, the greater the multiple of earnings of top officials over the lowest rank, further centralizing wealth.) If an organization buys up other firms, the profits from those employees go to the top. In addition, the larger the firm, the more market power it will have, further increasing profits, and the more political power it is likely to have because of its control of resources (jobs, capital, plants and equipment, etc.) that are vital to governments.

Culture and Other Shapers of Society

Because I want to emphasize organizations as an important force, or independent variable, I point to the cases where I would substitute organizational variables for the other variables that are generally ascribed. This strategy gives the whole project a lopsided emphasis, in that favoring organizations is only the first, remedial step; the second would be to discuss cases in which the other variables *are* the important variables and are responsible for shaping organizations as well as other things. Some early candidates for this second corrective exercise are the force of ethnic and religious identities and ties formed before organizational socialization; the retreat from business affairs of the Boston Brahmins after their textile and then railroad fortunes were secured (they chose family / class and culture over wealth and power); the Second Great

Awakening's impact on political leaders and, thence, organizations, perhaps putting brakes on exploitation; the primitive transportation system that initially limited organizational growth and thus the centralization of wealth and power; demographic changes such as death rates, age of marriage, and age of immigrants; legal structures such as primogeniture and the fellow servant rule; certainly the reform efforts of the Progressive era, which helped shape organizational structure and behaviors in ways they might not otherwise have taken; the growth "mentality" of the nineteenth century in towns and cities that functioned without significant organizational resources, but later built them—a mentality or cultural item that was furthered by the extraordinary abundance of natural resources available to an industrializing population (surely a significant independent variable that did not even need large organizations to be exploited); and the "democratic tradition" (or lack of feudal and monarchical structures) that checked some organizational excesses though it had little effect on organizational structure in the early nineteenth century.[2] In these cases organizations were significantly shaped by demographic, political, and cultural variables rather than the other way around. I will not ignore them, but their strength will not be properly assessed.

Instead, I will argue that organizations increasingly make our culture, including norms of family size and age of marriage; determine what is seen as efficient and for whom; and select our political values and direct our "will."

Organizations as the Independent Variable

The impact of large organizations on society has not been fully appreciated. The story of organizations in the United States can be found in works by historians, but quite a bit of digging is required.[3] Even in the other social sciences, organizations appear as dependent variables, created by other forces, rather than as independent variables, as actors in themselves. In many accounts of social change, wealth and power are not associated with organizations; wealth is resident in an individual, a family, or a class, and power is resident in persons or ideologies. Organizations are at best unproblematic resources for other expressions of wealth and power (W & P). This interpretation may occasionally be true, but I wish to explore the extent to which organizations may not only back up these sources of W & P, but shape them because of the characteristics of the organizations themselves, independent of persons, classes, and ideologies. To the extent that organizations are considered in discussions of W & P, they are often merely the suitcases that carry

more important variables, and have no distinctive properties of their own. But I argue that organizations produce more than their marketed goods and services, and will shortly list some of these products.

The passive role of organizations in most accounts is suggested by the following familiar formulations, true but incomplete: Politicians "use" organizations; culture is "expressed" through organizations; organizations are "designed" for the efficient production of goods and services. When people do comment on particular organizational characteristics, the comments are generally limited to their imperfections as vessels, as in discussions of their best form or structure or of the leadership qualities required of their managers. But rarely do these discussions take into account any of the many characteristics of organizations that shape society. In this book, however, we shall see the effects of internal properties such as size, degree of centralization, skill requirements, and labor policies; the effect of environmental relations such as network properties, political power and the corruption of officials, and the ability to ignore social costs and pass them off to the weaker parts of society.

We hear that culture shapes our behavior, and because organizations are made up of behaving people, organizations therefore must be shaped by culture. They are shaped by culture, but they also shape culture. Or we hear that efficient forms prevail over inefficient forms, and so we think that the prevailing organizations must be reflections of this efficiency. True, in general and in a largely tautological sense, but whose efficiency is being realized; for whom is it inefficient? Organizational forms or structures may be chosen for ideological reasons by the masters and locked in by group interests; not all the stakeholders such as employees, their families, the community, and the natural environment, see their own efficiency realized by the same form that benefits the masters. Or we hear that political parties or Congress is the means of mobilizing political values or the political will, and thus politics is what we should study—this is the "independent variable." But while it is commonplace that large organizations fund the politicians, and it is noted that, for example, the sizable percentage of the U.S. senators who are millionaires a few times over have their millions invested in particular organizations, political scientists do not then turn toward the characteristics of these politics-shaping organizations. Furthermore, the political parties and Congress and the executive branch are all large organizations in themselves, with interests that are independent of any individual members and certainly the public, and thus can have a large say about which values will be offered and about the terms for mobilizing the "public will." The examination of governmental organizations has been largely limited to the inefficiency or efficiency of their services, not focusing on the way in which their properties as organizations

shape our considerations of legitimate services and even hide the source of problems that require services.

What Do Organizations Do?

I am concerned with what organizations do, beyond producing goods and services. As I said, organizations are more important than most theories allow, and their importance has not been fully realized. As a device to remind us that they do a goodly number of things that we are wont to take for granted, thus missing their distinctive contribution, I will sometimes italicize these functions in the rest of this work, as we see them performed in the concrete examples of organizational behavior. I will also run through important theories that have shaped our understanding of economic activity, and I have placed a summary of each in Appendix I for easy reference.[4]

What do organizations do, beyond producing goods and services, that makes them so protean? Drawing on Karl Marx, Max Weber, and numerous modern theorists, we can be reminded of the following:

Wage Dependence. Organizations generate wage dependence—a condition where you have to work to create the surplus value that will be used by someone else as wealth, prestige, or power, or you won't survive. The condition of wage dependence at first was resisted, but it gradually changed our stratification system and centralized social and economic power in society. Dependence on a wage or salary for survival was not taken for granted in the nineteenth century, but was characterized in negative terms referring to the only two institutions that had such complete control—"wage slavery" and "the industrial army." A democratic society could not experience much centralization of wealth and power if wage dependence were not extensive; it permits the accumulation of wealth from productive activity. Thus, wage dependency *centralizes surpluses*.

Centralization of Surpluses. If you work for only yourself, accumulation is limited to your own surplus or profit, not that of all your employees. If your employees can freely choose another employer or get part of their livelihood on their own, the employees can extract a larger share of the surplus, limiting accumulation by the boss. If the organizations are large, the mounting surplus means that wealth (or prestige and power for noneconomic organizations) is increasingly centralized, and this concentration can lead to power. Those with great wealth and power can shape ideologies and values and thus shape the culture.

Socialization. Organizations socialize us to fit their needs. From working in organizations, we get organizationally friendly habits of the heart and organizationally friendly cognitive patterns of the mind, stemming from unobtrusive controls over, and extensive socialization of, personnel and even customers. Among working adults in the nineteenth century, roughly three quarters of their waking time was spent in settings that had an interest in shaping their behavior; in the twentieth century, nearly half of their waking hours were so spent. This amount of exposure to conditions controlled by the organization helps transmit the culture favored by the masters.

Divisions. Modern organizations use and shape ethnic, racial, and gender differences and divisions, acting on group identities and family structures, thus affecting much of what we call culture, and shaping the stratification system and political dynamics. They also have the power to reduce the divisions that exist in the society. In either case they are exercising power in society. We will see that in the nineteenth century large organizations used existing divisions and magnified them, reinforcing prejudices in most cases. In the twentieth century this continued, but using and creating divisions increasingly interfered with efficiency as skill levels rose and women were needed for the work force. The most striking case is that of gender divisions, as explored by Robert Max Jackson (1998), where hiring practices promoted more gender equality. Frank Dobbin and John Sutton (1998) document how human resource divisions in corporations, set up in response to federal prodding, developed justification for fair treatment that top management could accept, and thus fostered employment rights, thereby reducing divisions more than top management would have desired. Michael Burawoy (1985, 99–100) and others have noted that in modern organizations the internal divisions of seniority and skill can cut across divisions sustained outside of the organizations, such as race and gender, and thus reduce their salience; John Meyer and associates (1994) even go so far as to argue that large bureaucracies "rationalize" the world and in the process eliminate the "nonrational" divisions and distinctions that I find magnified in the nineteenth century. We know little about the circumstances that encourage the exploitation of division versus those under which organizations would ignore divisions recognized outside of the workplace. I belatedly discovered, too late for serious incorporation, the magnificent and award-winning book by Charles Tilly, *Durable Inequality* (1998), which has a great discussion of what I call "divisions," which goes far beyond my own formulation.

Structural Interests. Organizations have a "life of their own," in that maintenance and stability requirements, as well as group interests, form

around their structure and activities. These two set systemic limits on elite intentions. The ususal emphasis in "neoinstitutional" theory and population-ecology theory is on the way practices become valued for their own sake and thus locked in—a cultural view. I would emphasize instead the interests served by practices, an "interests and power" view. Departments and divisions will have interests that thwart those of the masters. Organizations are tools, but only "recalcitrant tools" (Perrow 1986). (The previously cited Dobbin and Sutton work on employment rights [1998] is an example. Another is the striking examination of how engineers in a variety of industries in the late nineteenth century fought both owners and workers in order to rationalize management in their own interests [see Shenhav 1999].) I will refer to the maintenance and stability requirements, and the group interests that become vested in the structure as "structural interests." (The interests that groups can realize are small compared to those that the masters realize; masters generally get what they want. But at times groups can be quite consequential, greatly limiting theories of rationality and efficiency.) These requirements and interests are conceptually distinct from the interests of the masters; they are organizational rather than part of the elite / class / family / person interests of the masters. Of course, in practice, the interests of groups in the organization and those of the masters are most often overlapping and conflated.

The term "structural interests" hardly captures the notion of the organization as an agent, an actor with needs and preferences, but it will have to serve. The organization is structured into groups, which develop interests in survival, growth, sexism, liberalism, and so on. The expression of these interests born of the organizational structure constitutes a part of "organizational behavior." Structural interests affect the socialization, divisions, and externalities of the organization.

Externalities. Organizations shape the external environment of neighborhood, community, and government at all levels. Some of the shaping is what economists describe as "negative externalities," or an unobtrusive transfer of wealth from communities and employees to the masters of the organizations. I have in mind such obvious things as pollution, the exhaustion of natural resources, and workplace accidents, but also the externalities of urban crowding, the failure to smooth production resulting in boom-and-bust cycles and layoffs, and some of our military adventures to secure investments and markets abroad. Since these are not included in the price of the goods or services, they are borne by everyone rather than just those that purchase the goods and services.

Concentration of Wealth and Power. The things that organizations do, beyond producing goods and services, combine to produce inequalities in the distribution of wealth and power. A system with many small organizations deconcentrates wealth and power; a system with a few big ones concentrates it (Perrow 1992).[5] I am ignoring the positive externalities here. Life would be shorter, nastier, and more brutish if it were not for the enormous productivity and efficiency of organizations, some of which may necessarily be large and bureaucratic. Organizations generate wealth and power; we need them. But large organizations make it possible to centralize the wealth and power they generate. (I will pass on the possibility that by extending life, and making it more pleasant and refined for the first world, we have condemned much of the third world and, worse still, stretched a canopy over the globe that will end it for all of us. I leave these scenarios to such impressive works as Paul Kennedy's *Preparing for the Next Century* [1993].) The point, necessarily oversimplified here, is that most of the negative externalities we have experienced were not necessary; with the abundance of this continent and the skills of its conquerors, we could have made far less of a mess of it had it not been for the particular conflux of events that generated our form of organizations. But there is more to this story than the concentration of wealth and power; there are general systemic effects that manifested themselves in the middle and late twentieth century. This is a period beyond the scope of this work, so I will mention them only briefly at this point.

System Accidents. One is the systemic impact of the distinctive dynamics of social systems in which large organizations are tightly coupled to each other so that unanticipated interactions create system-wide disturbances, such as stock market crashes, interruptions of service, widespread contamination, and opportunities for fraud and corruption. (This topic preoccupied me on a much smaller scale in my essay on normal accidents [1984, 1999]).

Absorption of Society. Another systemic effect, increasingly apparent in the second half of the twentieth century, is that large organizations wittingly and unwittingly absorb the functions performed by smaller autonomous units of society such as families, kinship networks, local churches, and small governmental units and businesses, weakening those parts of society that are not governed by an employment contract, and creating a "society of organizations" (Perrow 1991, 1996). For a powerful example of corporations "absorbing" and controlling the legal system see the work of Edelman and Suchman (Edelman 1990; Edelman and Suchman 1999).

What Kind of Organizations?

I am primarily concerned with organizations comprising large work forces (in the early days 100 persons or more was large). Initially, there were very few of them, and thus large bureaucratic organizations played a minor role (but an important prefiguring role) in the early part of the nineteenth century, and not a major one until the second half of the twentieth century. I assert different internal and external dynamics for small and large organizations (the small foundry compared to International Harvester), and I am not concerned with most small organizations. Nevertheless, it is necessary to discuss organizations with small, even tiny, work forces that control organizations through legislative mandates (e.g., the FTC in the 1920s) or the provision of capital (e.g., investment banks), or trade associations. These controlling organizations, as they might be labeled, such as regulatory bodies or the J. P. Morgan or Jay Gould directorates, have roles to play different from most organizations; there is no adequate conceptual term for them. They need not be "peak associations"; the regulatory agency is not an "executive" organization, though a merchant bank may be; the term "controlling organizations" comes closer, but "controlling" is an awkward adjective to use with powerful government agencies that regulate rather than control.

Behavior is motivated, and I assume that wealth and power are always favored over poverty and dependence. Therefore the motivations of individuals will not explain why we created big organizations in the United States, but not to the same extent in Europe. What needs explaining is why they arose when they did in the United States, why they did not proliferate in Europe, and how their rise might insure against their decline. My explanation is that our particular history allowed less regulation of the pursuit of wealth and power, and the pursuit occurred over a socially and culturally unencumbered landscape. In Europe monarchs, nobles, and the church feared the rise of large organizations that would be beyond their control, so they limited the accumulation of capital. The United States had no such restrictions; the citizens feared a large government but took few steps to limit the size and power of private organizations. In the United States, large private organizations were allowed to grow, in spite of considerable resistance, and this growth generated inequality. The accumulation of wealth and power through large organizations is the modern device for generating inequality.

Wealth is considerably more concentrated in the United States than in most nonsocialist industrialized nations. It is hard to make comparative

statements about power, but I believe that economic power is quite centralized in the United States. Social power is more fragmented and cultural in origin, and less in the hands of large organizations, but they play an increasing role here. Some other nations allow for an open contest for wealth and power (the contest is never absent) but restrict the contest considerably through structural devices that favor smaller organizations, limiting the concentration of W & P. They also distribute social services more widely or require private organizations to provide more, reducing the concentration of W & P if the political system is reasonably democratic. There are large governmental bureaucracies in Europe that, more than in the United States, mitigate the concentration of economic power and place more social activities in the hands of elected representatives rather than owners / masters, thus dispersing social power. Much of the dynamics of organizations in the late nineteenth century concerned the displacement of independent, generally proprietary organizations of small- to modest-size by large corporate forms. Unlike developments in Europe, this open field for concentrating W & P was created through deliberate nonregulation at the state and federal level. We will contrast the operation of a dispersed network of small proprietary firms with large organizations having a corporate form in the textile industry, and the modest-size firms before the 1890s with the corporate consolidation after that. Both, we should emphasize, are illustrations of the proposition that the degree of *concentration of wealth and power* depends on organizational forms and organizational regulation (the state).

Alternative Theories

My account draws on five theoretical traditions that are available to explain the success of large economic and noneconomic organizations. Technology played a big role, but I will emphasize that it was "socially constructed"—that is, particular technologies were selected and furthered by private organizations and the government. Technology is not often an independent agent acting on its own, though it sometimes is. The strategy and structure argument of the preeminent historian of business and industry, Alfred D. Chandler, is mined for its scholarship and insights, but qualified by paying attention to power and social costs, which Chandler ignored. The same power and social costs qualifications will be added to the valuable institutional economics tradition, which conceptualizes markets and industrial structures. Political scientists have given us a rich institutional argument, examining the governmental and political institutions that have tried to guide the processes of

industrialization into democratic channels, but I pay more attention to organizational elites as significant actors than to presidents of governments and to party platforms. I will draw most heavily on two additional theoretical traditions, labor processes theory and neoinstitutional theory, wrought by sociologists, political theorists, and an occasional economist. But both theories, I argue, have been insufficiently attentive to strictly organizational variables. Big organizations are distinctive beasts, and their characteristics have not been fully exploited by these traditions.

Naturally, there are many alternative explanations for the events we shall be discussing. At the pertinent points of the story I will refer to them, highlighting the distinctive nature of my own interpretation. A fuller discussion of these alternative theories and their strengths and weaknesses appears in the appendix. Here I shall do little more than to list them; in the text they will appear in italics to indicate that a discussion of them is available in the appendix. Here is a list of the alternative theories:

Technology. Inventions that required large organizations drove the economy and were an independent variable; organizational size and structure, and the products produced, were dependent on the technology.

Strategy and Structure. The historical work of Alfred Chandler and the theoretical work of "contingency theorists" say that the structure of the organization is shaped by the technology and the strategy employed by leaders. This is a specification and elaboration of the pure technology argument.

Political / Administrative. Administrative theory and the theories of political and governmental organizations assume that organizations are means to political processes and shaped by them, but have little autonomous impact.

Political Power. Organizations are the means to express more basic societal processes and groups (family interests, dynasties, regional interests, etc.); organizations are not actors in their own right.

Stratification. Organizations are signals of class, or carriers of class, and the key variables are such institutions as education, ethnicity, and religion, rather than organizations per se.

Labor Process. Organizations are more central in this theory, they are the source of domination and of accumulations of wealth and

power; but the efficacy of elites is overstated (because organizations are not passive tools of elite interests) and the benefits of organizations understated.

Culture / Neoinstitutional Theory. This theory emphasizes routines, imitation, unreflective responses, custom and normative practices, and convergence of organizational forms; it deemphasizes power and conflict.

Society of Organizations. My own position builds on all of these because each has some selective validity, and some of them a great deal. All are important. My own position can be summarized as the "society of organizations" view, which, by way of a brief explanation, focuses on large organizations as recalcitrant tools fashioned by particular elites. My theory involves a group interest / power model, modified by structural constraints of routine cooperative behavior. Its features include the following:

- *history* is path-dependent, accidental, only partially developmental
- *structure and environment* rather than entrepreneurship explain success / failure
- *technologies* are chosen to fit preferred structure / ideology
- *culture* shapes and is shaped by organizations; the latter is emphasized
- *labor process* is shaped in part by workers' resistance and can occasionally be a key factor, but acquiescence in dependency, and tradeoffs in benefits, are more often the common lot of employees
- *bureaucracy* (formalization, standardization, centralization, hierarchy) is the best unobtrusive control device that elites ever had.

Conclusion

The nineteenth century is the prelude to our market society with its distinctive form of capitalism. There was nothing inevitable about the turn that the century took. It was the product, first, of the "initial conditions": a lightly populated land of great natural resources, a fear of a strong state, and a powerful industrial revolution in Europe, and second, it was shaped by the decisions of organizational leaders and a supporting cast of elected and appointed government servants. Many conditions were in place to grow a society of well-regulated and moderate-sized firms focused upon regional economic development; at various points in the century many citizens argued for this. But other conditions made a quite different society possible and it was the one we got—an

economy with lightly regulated, very large firms focused upon national economic development, with all the attendant social costs that accompanied the concentration of wealth and power this allowed. My argument is that while culture, politics, technology, efficiency concerns, and entrepreneurship all played a role, the most neglected and the most significant role was played by formal organizations. Organizations are more than the shadow of the entrepreneur. Their shape affects working conditions and points of community access; their size affects their ability to control competition and control politics and regulation; the density and concentration of their employees in a community determines the degree of wage dependence, and thus power over employees and the community. And when organizations grow large enough there is the possibility of significant internal interest groups whose concern for stability and internal power deflects the direction of the organization from the path the leaders prefer.

There were very few large organizations in the United States during the first three quarters of the nineteenth century, and so culture, politics, technology, and investment capital did most of the shaping of society. But we must examine the origins of large organizations and the alternatives available. Political changes in law, contradicting some cultural themes but supporting others, and changing forms of capital accumulation, allowed for the growth of a few large organizations in the first half of the century, particularly among the textile firms. We will examine them closely because one textile area, New England, almost instantly put into place the basic features of large-firm, corporate, mass-production industry, which did not bloom as a dominant form until the last decade of the century, but which determined almost all that followed. Another textile area, Philadelphia, represented another form, that of networks of small producers, which represented a path that became less and less viable by the end of the century. Most industry was not a network of small firms, but rather, small and moderate-sized firms without mass production and significant bureaucracy. But most industry, until the 1880s or so, was closer to the Philadelphia textile model than the New England one.

After examining the legal revolution that made large private, unregulated organizations possible before they even appeared, and considering in detail the two textile models as examples of alternative possibilities, we will turn to the decisive industry of the nineteenth century, the railroads. Absolutely critical to economic development, railroads started out as public-private enterprises, but soon shed most forms of public representation and regulation in favor of privatization. But the railroads did more than privatize a public good of major consequences (and the United States was the only industrialized nation to let this happen): they

were the impetus to get (purchase, really) rulings that made organizations "persons," with many attendant privileges; that allowed firms to own stock in, and thus control, other firms (often close competitors) and to centralize capital in New York City; and that when they had drunk their fill of private capital and government gifts, enabled the massive merger movement of the 1890s. Railroads also set the pattern for labor relations, created a national rather than a regional economy, and were the subjects of both the deadliest labor conflicts and the largest fiscal scandal of the century. We will examine their protean impact at length, as well as the alternative organizational forms for railroading that appeared but were discarded.