From: Samuel Bowles + Herbert Gintis

CHAPTER 6

Schooling in Capitalist America: Educational Reform + the Contradictions of Economic Life (NY: Basic Books, 1976)

The Origins of Mass Public Education

> Most of you, indeed, cannot but have been part and parcel of one of those huge, mechanical, educational machines, or mills, as they might more properly be called. They are, I believe, peculiar to our own time and country, and are so organized as to combine as nearly as possible the principal characteristics of the cotton mill and the railroad with those of the model state's prison.
>
> CHARLES FRANCIS ADAMS,
> addressing the National Education Association, 1880

The evidence presented in the previous two chapters leaves little doubt that the U.S. educational system works to justify economic inequality and to produce a labor force whose capacities, credentials, and consciousness are dictated in substantial measure by the requirements of profitable employment in the capitalist economy. Nor will there be much dissent from the proposition that an essential structural characteristic of U.S. education is what we have called the correspondence between the social organization of schooling and that of work. An understanding of U.S. education, however, requires that we know more than the dominant economic effects of schooling and the structural mechanisms which produce these effects. We must discover how the school system changes. An analysis of the dynamics of U.S. education may be helpful in two respects. First, it will enrich our understanding of the correspondence between educational structure and economic life. The fit between schooling and work described in the previous chapters is, in one sense, too neat. The ensuing study of historical change in the U.S. school system reveals not a smooth adjustment of educational structure to the evolution of economic life, but rather a jarring and conflict-ridden course of struggle and accommodation. In this course, the school system has, for substantial periods, been organized along lines which, far from corresponding to the developing organization of economic life, appear as bizarre or anachronistic throwbacks to earlier times. We

find, further, that the process of change, as exhibited in the history of educational reform movements, contributes significantly to the impact of schooling on consciousness, ideology, and the class structure itself. Particularly important in this respect is the discrepancy between the rhetoric and reality of educational reform. The popular objectives, slogans, and perspectives of reform movements have often imparted to the educational system an enduring veneer of egalitarian and humanistic ideology, while the highly selective implementation of reforms has tended to preserve the role of schooling in the perpetuation of economic order.

Our second reason for studying the dynamics of the school system is rather more political. The apparently smoothly functioning conveyor belt which carries young people from birth to adult work—the family, school, workplace machine—has faltered and then been readjusted in the past. As we watch the present stumbling performance of U.S. education, we witness the opportunity for radical change. An understanding of the dynamics of development in U.S. education, particularly of the sometimes harmonious and sometimes strained relationships between educational structure and economic forces, provides the indispensable foundations for a modern strategy for change. We must know how we arrived here so we may discover how we may move on.

Stepping back from the historical material, we are struck, first, by the sheer magnitude of educational change since the American War of Independence. Until quite recently, in no society did more than a tiny minority of children spend more than a small part of their youth in formal educational institutions. Even today, there are relatively few countries in which the majority of young people spend most of their youth in schools. In most societies throughout recorded history, schools have not played a major role in preparing children for adulthood. American colonial society was no exception.

Two centuries ago, the structure and scope of American education bore little resemblance to our current school system. Along the way, many and diverse alternatives were considered and tried. Looking backward, one might—and many educational historians do—see an inexorable march along a single line of ascent. But to educators, politicians, and others living in each historical period, the way forward did not seem so clear; education has reached and passed many crossroads.

Prior to the nineteenth century, the main job of upbringing and training of youth was carried by the family, occasionally supplemented by apprenticeship or the church.[1] The school played a rather marginal role in the

process of child-rearing. Attendance, school reformers lamented, was sparse. Even for those attending, the school year was short. As recently as 1870, less than half of the children of age five to seventeen attended school; among those enrolled, the school year averaged seventy-eight days, or less than a quarter of a year.[2] Today, virtually all children in that age group attend school for an average of half of the days in the year.

The structure of schooling and not merely its extent has changed radically in the past two centuries. Early elementary schools in the United States were, not surprisingly, extension of the home. These "dame schools," conducted more often than not in the kitchen of a literate woman, provided most of the basic formal education available in the original thirteen colonies. Coexisting with the dame schools were the so-called "writing schools." These were ordinarily conducted outside the home but, like the dame schools, stressed basic literacy and computational skills. Like the dame schools, too, the internal structure of the writing schools was informal, bordering sometimes on the chaotic. At the other extreme, military discipline and drill prevailed in most of the charity schools for the poor.

Differing methods of instruction and student control, and the variety of structures of schooling do not exhaust the range of alternatives facing American educators a century and a half ago. Most seemed to accept the fact that different races and classes, and boys and girls, would attend quite different types of institutions. But even then, a substantial minority opinion in educational circles argued for the unification of all groups within the same school structure. Radically different proposals for the control and financing of education were also debated. Some would have left schooling in private hands, trusting to philanthropy to cater to the educational needs of the poor. Others promoted public schooling, but sought an extension of the prevalent "district system" which assured strict neighborhood control. Others, as we shall soon see, promoted a then thoroughly novel but now familiar educational structure. Public nonsectarian compulsory and tax-supported schooling was far from a foregone conclusion in the early years of the nineteenth century.[3]

But as the United States entered the last quarter of the nineteenth century, the modern school system, more or less as we know it, had taken form most completely in the urban Northeast. By 1880, asserts the educational historian Michael Katz:

> . . . American education had acquired its fundamental structural characteristics, they have not altered since. Public education was universal, tax-supported, free, compulsory, bureaucratically arranged, class based, and racist.[4]

Rapid growth in attendance paralleled these dramatic changes in the legal, financial and social structure of U.S. education. Twenty years before the Civil War, just under 38 percent of white children aged five–nineteen were attending schools.[5] By 1860, the figure had risen to 59 percent. Thus the few decades of educational change, which may be dated from Horace Mann's ascendency to the newly created Massachusetts State Board of Education in 1837, marked a major turning point in U.S. social history. For a period of comparable importance, we must await the evolution of corporate capitalist production and the closely associated Progressive Education movement around the turn of the present century.

In this chapter, we propose to answer the question: How did the present structure of U.S. education arise out of the political and economic conflicts of the mid-nineteenth century? In Chapters 7 and 8, we will extend our analysis to cover two other turning points in U.S. educational history: the years 1890–1930 and the period extending from roughly 1960 to the present. In Chapter 9, we will present an overview and interpretation of the results of our historical research.

In the second part of this chapter we treat, in rather broad terms, the joint evolution of economic structure and schooling in the antebellum period. Though essential, a broad survey of this type hardly does justice to the complexity of the material. Nor, we suspect, will it satisfy the critical reader. The available primary historical materials allow a considerably more searching investigation of our interpretations. We will draw upon these materials in three ways. First we will study the evolution of economic life and schooling in a particular town. Second we will examine the mid-nineteenth-century reform movement through the work of its greatest exponent, Horace Mann. Lastly, we will use detailed statistical evidence from town-by-town and state-by-state records to present our analysis of the economic bases for the rise of mass education. Our three types of evidence —detailed studies of a single town, a major reformer, and the available quantitative data—cannot, of course, demonstrate beyond a shadow of doubt the validity of our interpretation. The most we claim is that our detailed studies provide compelling support for our view and are, in important respects, contradictory to alternative explanations.

A word must be said about what may seem to the reader to be a peculiar geographic narrow-mindedness on our part. Most of our evidence in this chapter comes from Massachusetts. The emphasis on Massachusetts is no accident. The educational reform movement which marked the first turning point in U.S. educational history originated in the burgeoning industrial cities and towns of this state and was dominated throughout its course by

the example of Massachusetts and its educational leaders.[6] Needless to say, the experience of Massachusetts was not perfectly replicated elsewhere, but we believe (and present some evidence) that the course of educational change in this state is not atypical of the rest of the country.

The Expansion of Capital and the Origins of Public Education

> Whereas our employers have robbed us of certain rights . . . we feel bound to rise unitedly in our strength and burst asunder as Freemen ought the shackles and fetters with which they have long been chaining and binding us, by an unjust and unchristian use of power . . . which the possession of capital and superior knowledge furnishes.
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> "Declaration of Independence"
> Beverly, Massachusetts shoe workers, 1844

On March 6, 1824, Kirk Boott, manager of the Merrimack Manufacturing Company in Lowell, Massachusetts, drove his carriage to South Boston to pick up Theodore Edson, a young Episcopal minister. Edson had accepted Boott's offer to move to the booming mill town fifteen miles north of Boston to preach and establish a school. "Conversation," Edson later recalled, "was easy, various and unconstrained as we drove on together." They arrived in time for Edson to tour the cotton mills before they closed down for the night.[7] Edson was to become the leading educator of the soon-to-be-flourishing city. His zeal to establish a modern and well-financed system of public education brought him into conflict, at one time or another, with just about every major political group in town, including his old friend Kirk Boott and the other employers.

At the March 1860 Town Meeting of Beverly, just a few miles from Lowell, the shoemakers, farmers, sailors, and laborers of the town outvoted the professional and business people and closed down the town's brand new public high school. Few of them had or were likely to have children in the school; the high school tax seemed to be little more than a gift to the well-to-do. Beverly's artisans were just about evenly split on the vote. But the professional and business groups voted to retain the school by a two to one margin; more than three-quarters of the working people of the town voted against it.[8]

The shoe workers played a particularly important part in the defeat of

the school, casting over half of the "no" votes. But to many of them, the school must have been a rather minor concern: That very week, after months of angry discussion and protest at the loss of independence to the capitalist employers who had come to dominate the shoe trade, most of them went out on strike. The strike, which spread to surrounding towns, was to become the largest in the U.S. prior to the Civil War.

The development of mass public education in the United States was the work of people like Kirk Boott, Theodore Edson, and ironically, the shoe workers of Beverly. As we shall soon see, it was because of—if not on behalf of—groups such as the striking shoe workers of Beverly that Edson, Boott, and others had forged an unequal and often uneasy alliance of reformers and capitalists for the purpose of establishing mass public education.

In colonial America, the basic productive unit was the family. Most families owned the tools of their trade and worked their own land. Transmitting the necessary productive skills to the children as they grew up proved to be a simple task, not because the work was devoid of skill, but because the quite substantial skills required were virtually unchanging from generation to generation, and because the transition to the work world did not require that the child adapt to a wholly new set of social relationships. The child learned the concrete skills and adapted to the social relations of production within the family. To put the point more technically: Production and reproduction were unified in a single institution—the family. Preparation for life in the larger community was facilitated by the child's experience with the family. While the nuclear, rather than the extended, family was the norm, people did not move around much.[9] Relatives tended to live fairly close to one another; children had ample opportunity to learn to deal with complex relationships among adults other than their parents and with children other than their brothers and sisters.[10]

It was not required that children learn a complex set of political principles or ideologies, as political participation was limited. The only major cultural institution outside the family was the church, which sought to inculcate the accepted spiritual values and attitudes. In addition, a small number of children learned craft skills outside the family as apprentices. Elementary schools focused on literacy training to facilitate a familiarity with the Scriptures. Above this level, education tended to be narrowly vocational, restricted to preparation of children for a career in the church, the "learned professions," or the still inconsequential state bureaucracy.[11] The curriculum of the few universities reflected the aristocratic penchant for conspicuous intellectual consumption.

Rapid economic change following the War for Independence set into motion forces which would radically alter the relationship between the family and the system of production. Commerce expanded dramatically: In the fifteen years before 1807, the value of foreign trade increased fourfold.[12] Larger commercial interests profited from the expansion of trade, amassed substantial concentrations of capital, and sought new arenas for profitable investment. Increasingly, capital was used for the direct employment of labor in production rather than remaining confined to the buying and selling of commodities and related commercial activities. The expansion of capitalist production, particularly the factory system as well as the continuing concentration of commercial capital, undermined the role of the family as the major unit of both child-rearing and production. Small shopkeepers and farmers were competed out of business. Cottage industry and artisan production were gradually destroyed. Ownership of the means of production became heavily concentrated in the hands of landlords and capitalists. Faced with declining opportunities for an independent livelihood, workers were forced to relinquish control over their labor in return for wages, or piece rates. The pay workers received increasingly took the form of a "wage" rather than a "price."[13]

The statistics for New York City for the years 1795 to 1855 illustrate these trends: A fourfold increase in the relative number of wage workers and a reduction by two-thirds in the relative number of independent merchants and proprietors.[14] In the country as a whole, agricultural pursuits —the stronghold of independent production—lost ground to manufacturing. In 1820, for every person working in manufacturing and distribution, there were six people engaged in agriculture; by 1860, this figure had fallen to three.[15] By the Civil War, the family no longer constituted the dominant unit of production. Increasingly, production was carried on in large organizations in which an employer directed the activities of the entire work force and owned the products of their labor. The social relations of production became increasingly distinct from the social relations of reproduction.

The emerging class structure evolved in accord with these new social relations of production: An ascendant and self-conscious capitalist class came to dominate the political, legal, and cultural superstructure of society. The needs of this class were to profoundly shape the evolution of the educational system.

The expansion and continuing transformation of the system of capitalist production led to unprecedented shifts in the occupational distribution of the labor force and constant changes in the skills requirement for jobs. Training within the family became increasingly inadequate; the productive

skills of the parents were no longer adequate for the needs of the children during their lifetime. The apprentice system of training, which, by custom, committed masters for a period of as much as seven years to supply apprentices with room and board as well as (sometimes) minimal levels of training in return for labor services, became a costly liability as the growing severity of depressions made the demand for the products of the apprentices' labor more uncertain. The further expansion of capital increasingly required a system of labor training which would allow the costs of training to be borne by the public. Equally important, the dynamism of the capitalist growth process required a training system which would facilitate a more rapid adjustment of employment to the business cycle and allow the constantly changing dictates of profitability to govern the allocation of labor.

While undermining the economic role of the family and the adequacy of the apprenticeship system, the expansion of capital created, at the same time, an environment—both social and intellectual—which would ultimately challenge the political order. Workers were thrown together in large factories. The isolation, which had helped to maintain quiescence in earlier, widely dispersed farming populations, was broken down. With an increasing number of families uprooted from the land, the workers' search for a living resulted in large-scale labor migrations. Labor scarcity induced by an abundance of land and rapid capital accumulation led employers in the expanding sectors of the economy to rely increasingly on an influx of foreigners to staff the lowest-paying jobs. In the ten-year period beginning in 1846, the United States absorbed 3.1 million immigrants—a number equal to an eighth of the entire population at that date. (The better-known massive immigration of the pre-World-War-I decade constituted a somewhat lesser fraction of the total population.) Most immigrants, arriving with few resources other than their labor power, became part of the growing urban proletariat. Others, less fortunate, swelled the ranks of the "reserve army" of the unemployed, ready to take up jobs at near subsistence wages. They were a constant threat to the job security and livelihood of the employed workers. Transient—often foreign—elements came to constitute a major segment of the urban population and began to pose seemingly insurmountable problems of assimilation, integration, and control.[16] Cultural diversity came to be seen as a social problem. Ethnic conflicts shattered the calm and threatened the political stability of many towns.

With the rapid expansion of both industrial and commercial capital, inequalities in wealth increased. Using data from New York City, Brooklyn, and Boston, we estimate that, early in the nineteenth century, the wealthiest 1 percent of urban residents in the Northeast owned something

like a quarter of all tangible wealth. By midcentury, the figure had risen to about two-fifths. Moreover, fragmentary evidence suggests a drastic reduction of general mobility into the ranks of the very wealthy.[17] Significantly, only the economically stagnant towns appear to be exceptions to this trend toward wealth concentration.[18]

Inequality was increasingly difficult to justify and was less readily accepted. The simple legitimizing ideologies of the earlier periods—the divine origin of social rank, for example—had fallen under the capitalist attack on royalty, royal monopoly, and the traditional landed interests. The broadening of the electorate and of political participation generally—first sought by the propertied and commercial classes in their struggle against the British Crown—threatened soon to become a powerful instrument in the hands of farmers and workers. Common people did not limit their political efforts to the ballot box alone. Since the end of the War of Independence, Shays' Rebellion, the Whiskey Rebellion, the Dorr War, and a host of minor insurrections had erupted, often led by Revolutionary War heroes and supported by thousands of poor and debt-ridden farmers and workers. These rebellions seemed to portend an era of social upheaval.

The process of capital accumulation drastically changed the structure of society: The role of the family in production was greatly reduced; its role in reproduction was increasingly out of touch with economic reality. A permanent proletariat and an impoverished and, for the most part, ethnically distinct, reserve army of the unemployed had been created. Economic inequality had increased. Small manufacturing towns had become urban areas almost overnight. The expansion of capitalist production had at once greatly enhanced the power of the capitalist class and had inexorably generated a condition which challenged their continued domination. With increasing urgency, economic leaders sought a mechanism to insure political stability and the continued profitability of their enterprises.

Confronted with novel and rapidly changing economic conditions, working people, too, sought new solutions to the age-old problems of security, independence, and material welfare. The stakes of the economic game had greatly increased. As farmers and artisans became wage workers, they sought a means by which they or their children might recoup their lost status. Some—surely a small minority—proposed to attack the wage-labor system. Many saved what meager amounts they could afford in hopes of eventually getting back into business on their own. Others followed the lure of independence and cheap land and moved West. But for many, education seemed to promise the respectability and security which they sought.

A similar response to the expansion of capitalist production—though

with important variations reflecting differing economic, political, and cultural conditions—occurred in other countries. In England, both working people and employers supported some kind of educational expansion, although their objectives were radically different. An effective stalemate among the proeducational strategies of capitalist employers, the powerful and more conservative Church of England, and land-owning interests postponed the implementation of public education on a national scale until the 1870s.[19] In a few areas—such as Prussia and Scotland—where military or religious purposes dominated educational policy, mass instruction was implemented considerably before the impact of capitalist expansion was felt.[20] In the remainder of this chapter, we illustrate how this process of economic expansion and educational change came about in the United States.

The School System of Lowell, Massachusetts, 1824–1860

> . . . Let then the influence of our Common Schools become *universal*, for they are the main pillars of the permanency of our free institutions; a protection from our enemies abroad, and our surest safety against internal commotions.
>
> Lowell Massachusetts School Committee Report, 1846

The growing pressure for public education which marked the early nineteenth century reflected an increasing concern with production and with the conditions of labor. This concern took a variety of forms. In Boston, the cessation of overseas trade during the embargo of 1807 and the closing of the port during the War of 1812 shifted the interests of the propertied classes from a preoccupation with mercantile trade to a consideration of the opportunities of profit through direct employment of labor. The economic distress of this period intensified economic concerns among artisans and other workers. Both concerns were reflected in a petition which was presented in 1817 to the Boston Town Meeting calling for, among other things, the establishment of a system of free public primary schools. As this petition is something of a landmark, it may be worth investigating who signed it. Fortunately, William Weber has carefully analyzed the occupations and classes of these petitioners.[21] While the vast majority of the townspeople fall within Weber's category, "laborers," only 21 percent of the petitioners came from this class. The bulk of support (56 percent) is

found among the well-to-do artisans and shopkeepers. Large merchants and entrepreneurs, a minute percent of the populace, provided 23 percent of the signatures and over half of what Weber has classed as the educational leadership of the period.

The demand for elementary schooling in Boston apparently originated with the large propertied class and what might today be called the middle class. Not too much should be read into these data, however, for Boston was clearly an atypical case, representing as it did one of the major mercantile centers of the young nation. Boston would escape much of the social distress and turmoil which would accompany the Industrial Revolution soon to sweep over the Northeast. The wealth of the Boston rich, however, was intimately involved in both industrialization and educational "modernization." We may learn more about this complex story by looking into the educational and economic history of the booming industrial community of Lowell, Massachusetts, during the first four decades of its existence.

When the representatives of the Boston Manufacturing Company began buying up farmland along the Merrimack River in East Chelmsford in 1821, the district had a population of about 200.[22] Though according to school board records, the town—soon to become Lowell—had boasted at least one "Righting School" for over a century, most of the children were not in attendance. Within two decades, Lowell was to become the third largest city in the state, a center of the textile trade, and a leader in establishing one of the first modern school systems in the country.

The owners of the new mills which sprung up in Lowell sought to usher in a new era of industrialization, one which would ensure the profitability of their enterprise without spawning the poverty and human degradation which typified the English manufacturing centers. For the women recruited from the surrounding farms, work in the mills would be well-paying and their leisure hours would be spent in cultural activities and other moral recreation. A literary magazine would soon be formed for the mill women. As a more permanent work force was recruited, particularly from the ranks of Irish immigrants, schooling would play an increasing role in the overall social strategy of the mill owners. During the period of growth of the Lowell economy, the "respectable" members of the community articulated the arguments for a universal public school system which were later to become common throughout the United States.

Educated workers, they noted, would be better workers. Homer Bartlett, agent of the Massachusetts Cotton Mills, wrote in 1841:

> From my observations and experience, I am perfectly satisfied that the owners of manufacturing property have a deep pecuniary interest in the education and morals of their help; and I believe the time is not distant when the truth of this will appear more and more clear. And as competition becomes more close, and small circumstances of more importance in turning the scale in favor of one establishment over another, I believe it will be seen that the establishment, other things being equal, which has the best educated and most moral help will give the greatest production at the least cost per pound.[23]

George Boutwell, who succeeded Horace Mann as Secretary of the Massachusetts Board of Education, summarizing the views of employers interviewed during his visit in 1859, wrote:

> In Lowell, and in many other places, the proprietors find the training of the schools admirably adapted to prepare the children for the labors of the mills.[24]

Upbringing in the family, evidently, was not adequate training for work in the rising industrial sector. Particularly after the mass influx of Irish workers in the late 1840s, the school committee saw the schools as a partial substitute for the home. Many of the city's children, lamented the committee in 1851:

> . . . Have to receive their first lessons of subordination and obedience in the school room. At home, they are either left wholly to their own control, or, what is almost equally bad, the discipline to which they are subjected alternates between foolish indulgence, and exasperated tyranny. . . .[25]

The mill owners echoed these concerns. Boutwell's summary reflects the writings of numerous employers:

> The owners of factories are more concerned than other classes and interests in the intelligence of their laborers. When the latter are well-educated and the former are disposed to deal justly, controversies and *strikes* can never occur, nor can the minds of the masses be prejudiced by demagogues and controlled by temporary and factious considerations.[26]

These and other salutory effects of schooling could hardly have been fully appreciated by either Theodore Edson or Kirk Boott—textile capitalist and soon-to-be schoolmaster—as they rode together in 1824 from South Boston to Lowell. But Edson's arrival in Lowell signaled a new departure for the educational system of the city. The changes in the structure and scope of schooling over the next generation were to become a pattern for the rest of the state.

The numerous and scattered district schools were consolidated and brought under the control of the central school board. This centralized body, unlike the decentralized district boards, articulated the concerns of teachers, lawyers, doctors and other professionals, and through them the

large property-owning elite of the town. Alexander Field's study of the social composition of the school board reveals that, over the first three decades of the Lowell school committee's existence, 85 percent of the membership was drawn from business and the professions; less than 5 percent were workers. The remainder, those with unknown occupations, were presumably farmers and perhaps workers whose occupation had not been thought important enough to record.[27]

Under the leadership of the centralized school board, the fraction of children attending school grew. The term was substantially lengthened. The larger numbers of children in school allowed the school committee, for the first time, to place students in separate classrooms graded according to age and scholastic proficiency. The curriculum was broadened. The "hidden curriculum" of the school came increasingly to stress "heart culture over brain culture," as the school superintendent of neighboring Lawrence put it.

Not all of the citizens of Lowell endorsed these changes. The first major source of opposition came from the farming families in the outlying districts who resented the growing elite domination of school policy through the town school board and the increasing restriction of the powers of the district school boards. The conflict over centralization came to a head at the 1832 Annual Town Meeting. That night, the citizens of Lowell reversed the decision of the central school board to disqualify a popular district teacher and later voted out the entire school committee.

As production expanded in the mid-1830s, the prices of textile goods began to fall.[28] By the mid-1840s, prices had fallen by between a third and a half. Real wages of textile workers were roughly constant over the years 1835 to 1855, so company profits could be maintained only by drastically increasing the amount of work extracted from the operatives. Despite the lack of significant improvement in the technology of production, output per worker rose, probably by something like 50 percent over the two decades beginning in 1835.[29] The increased pressure on labor coincided with, and was partly responsible for, the gradual replacement of "Yankee" workers by immigrant labor during the 1840s and 1850s. Now even the pretentions of a humane paternalistic industrial system were discarded. The antagonistic relations between capital and labor were revealed in undisguised form as the piecerates which paid workers were lowered year after year.

During the first two decades of Lowell's history when mill hands were recruited on a temporary basis from the surrounding rural towns, the major capitalists remained divided on the question of educational expenditure. On balance, even in th

on the side of public education. The two schools most highly regarded by the school committee were located on corporation property and served directly the children and workers in the adjacent mills. However, many manufacturers opposed taxation of their properties for expensive school construction. Kirk Boott himself opposed one of Edson's plans for a new construction on the grounds that it was too lavish. But as the problem of creating, controlling, and extracting ever-increasing amounts of work from a permanent labor force became more pressing, the support for public educaton among employers became virtually unanimous. Significantly, it was in the depression years of the early 1840s that Horace Mann, too, became convinced of the economic value of education.[30]

Irish parents and children evidently did not share the employers' enthusiasm for schooling. Though the precise causes are obscure, the Lowell School Board reports document a sustained school boycott by the Irish community and a number of attempts to burn down the school in the Irish neighborhood.[31]

By the outbreak of the Civil War, the outlines of a modern system of elementary education had taken shape in Lowell. Truant officers were employed to enforce compulsory schooling. Most school-age children, in fact, attended school for a good part of the year. The curriculum and classroom structure, now barely recognizable as descendant from the chaotic rural "writing schools," had begun to assume a form all too familiar to most schoolchildren in the present century.

These developments in Lowell were hardly unique. They were, indeed, repeated all over the state. Moreover, the changing position of the state government on the question of schooling had a major bearing on the turn of events in Lowell and elsewhere. We turn now to investigate the school reform movement at the state level.

Horace Mann's "Balance Wheel of the Social Machinery"

> . . . Education is not only a moral renovator and a multiplier of intellectual power, but . . . also the most prolific parent of material riches. . . . It is not only the most honest and honorable, but the surest means of amassing property.
>
> HORACE MANN,
> Fifth Annual Report of the Secretary of State Board of Education, 1842

One evening in May 1837, Edmund Dwight took Horace Mann aside at a social gathering and urged that he consider accepting the Secretaryship of the newly formed State Board of Education.* Dwight, a major industrialist from Springfield, had persuaded Governor Everett that the post was too important to be given to an educator. Mann seemed an ideal choice. As Secretary of the Massachusetts Senate, he had a substantial statewide reputation; his effectiveness as a politician had been amply demonstrated in his advocacy of railway construction, insane asylums, debtor law reforms, and numerous other humanitarian reforms. The formation of the Board itself reflected a growing recognition among industrialists such as Dwight and other respectable members of the society that the problems of labor and urbanization required strong action at the state level. Few persons, Dwight told Mann, could match his qualification, to meet such a challenge. Should Mann accept, Dwight was prepared to privately supplement Mann's salary in the new post.

The Board would have no administrative authority; its responsibilities were to be confined to gathering statistics and writing occasional reports on the status of education. To leave the Senate for this post must, initially, have seemed to Mann a political error. The very limited powers of the Board were hardly up to the task of dealing effectively with the rapid transformation of the Massachusetts economy and the growth of urban poverty and unrest.

The structure of employment was changing drastically: Between 1820 and 1840, the percentage of the work force engaged in agriculture fell from 58 to 40 percent; by 1850, the percentage would fall to 15 percent.[32] Employment in manufacturing was growing correspondingly. Cities were springing up in the once-rural state. Population grew from less than half a million in 1820 to over a million and a quarter in 1865. Many of the new Massachusetts residents were foreign born.

Led by the textiles and shoe industries, Massachusetts was experiencing its industrial revolution. Increasingly, the factory replaced the home production of the putting-out system or the small artisan shops. Housed in dormitories or urban slum dwellings, the new industrial labor force constituted a new and, to many of the well-to-do, a threatening element in the

* We have relied heavily on Jonathan Messerli, *Horace Mann: A Biography* (New York: Alfred A. Knopf, 1972), and Mann's Annual State Board of Education Reports which are found in both *Horace Mann*, and *Life and Works of Horace Mann* (Boston: Walker and Fuller Co., 1865–1868); and Alexander J. Field, "Skill Requirements in Early Industrialization: The Case of Massachusetts," working paper in Economics, University of California at Berkeley, December 1973.

social structure. Already fearing the thrust of Jacksonian democracy, the respectable members of society were beginning to realize that industrialization was undermining the once-stable and deferential communities of the state, and rapidly ushering in an era of conflict, contention, and possible social disruption.

Horace Mann viewed these developments with dismay. Some years earlier, he had been persuaded to reenter the political sphere after a long absence following the death of his first wife. His mission was to counter the political aspirations of what a Whig editor referred to as ". . . a coalition consisting of Jackson men, Anti-Masons, workeys [Workingmen's Party people], Fanny Wright men and infidels of all description."[33] The destruction and desecration of a convent by an anti-Catholic mob in Charlestown in 1834 was, Horace Mann noted, "a horrible outrage." While Mann was considering Dwight's suggestion, a riot, sparked by a collision of a Yankee fire-engine crew and Irish funeral procession, destroyed much of Broad Street in Boston. Reflecting on the Broad Street riot, Mann feared that the social fabric was weakening and that chaos would ensue unless strong state action was taken. After almost a month of deliberation, he told Dwight that he was ready to accept the post.

Mann was a supporter of the industrial system. His advocacy of railroads in the state was based on a conviction that the expansion of wealth through industrialization could provide the basis for a fuller and more abundant life for all citizens. However, Mann was distressed by the growing ". . . domination of capital and the servility of labor . . ." which renders the ". . . latter . . . the servile dependents and subjects of the former."

The structure of the society and economy would not long bear up under the strain. The problem facing Mann, as he assumed office, was how to amend the existing structures to insure their permanence. His objective, he wrote a friend, was ". . . the removal of vile and rotten parts from the structure of society as fast as salutory and sound ones can be prepared to take their place."[34] But how to prepare these new parts? He flatly rejected the notion that there was any necessary antagonism between classes; class conflict would have no place in his program. Unlike many reformers of his day, he did not support the rights of workers to organize. The idea of "some revolutionizers" that "some people are poor because others are rich," he labeled as dangerous.[35] An early supporter of temperance, he estimated that fully four-fifths of the pauperism in the state could be attributed to liquor.[36] It was education, he wrote, that would become "the balance wheel of the social machinery." Properly reformed and administered schools could provide a generation of:

> . . . Sober, wise, good men to prepare for coming events, to adjust society to the new relations it is to fill, to remove the old, and to substitute a new social edifice, without overwhelming the present occupants in ruin.[37]

The formulation of concrete educational objectives by Mann and the other reformers took time. Nonetheless, the years that Mann occupied the secretaryship of the State Board of Education saw the evolution of a comprehensive educational strategy, involving both the structure of elementary education as a whole and the internal structure of the school.

Mann sought an overall school system which would be public, tax-supported, and nonsectarian. In addition, the heavy demands of social reform and amelioration now being placed on the educational system required that virtually all children be induced, if possible, and forced, if necessary, to attend school. The school term would be expanded to increase the impact of education. Particularly important was Mann's conviction that children of diverse backgrounds should attend the same elementary school. By developing Common Schools, as they were called, Massachusetts would achieve:

> . . . a Free school system. It knows no distinction of rich and poor, of bond and free, or between those who, in the imperfect light of this world, are seeking through different avenues, to reach the gate of heaven. Without money and without price, it throws open its doors, and spreads the table of its bounty, for all the children of the State. Like the sun, it shines, not only upon the good, but upon the evil, that they may become good; and, like the rain, its blessings descend not only upon the just, but upon the unjust, that their injustices may depart from them and be known no more.[38]

Such a system, a writer in the *American Annals of Education and Instruction* had earlier argued, would enable the poor ". . . to look upon the distinctions of society without envy . . ." and to be ". . . taught to understand that they are open to him as well as to others and to respect them for this reason."[39]

But the internal structure of the school would have to change, too. One of the more important innovations, as we have already seen, was the graded school in which children were grouped according to age and proficiency rather than assembled in a single room, as they had been in the dame schools and writing schools. The graded school allowed a more standardized curriculum, graded texts, and the establishment of standards of individual progress or productivity. The Lowell School Committee was quick to perceive the advantages of this plan. In 1852, they wrote:

> The principle of the division of labor holds good in schools, as in mechanical industry. One might as justly demand that all operations of carding, spin-

> ning and weaving be carried out in the same room, and by the same hands, as insist that children of different ages and attainments should go to the same school, and be instructed by the same teacher. . . . What a school system requires is that it *be* systematic; that each grade, from the lowest to the highest, be distinctly marked, and afford a thorough preparation for each advanced grade.[40]

Moreover, they noted after a number of years, experimentation with the system:

> The expense of instruction has been materially lessened . . . a great deal of disorder has been checked; punishments are almost abolished; and a marked progress in study has been made. The change thus made is nothing less than a public benefaction.[41]

The curriculum was to be broadened; the three R's—bread and butter of the writing schools' offerings—were not sufficient intellectual training for the modern era. An understanding of political economy would surely make better citizens.[42] Not surprisingly, the other new subjects introduced often had an ostensible bearing on the world of industry or commerce. Foreign languages, geography, and even surveying were introduced. But one is struck more by the irrelevance of the material than by its utilitarian value. Consider the entrance examination for the Lowell High School in 1850. Applicants were expected to be able to name:

> . . . The capital of Abbyssinia, two lakes in the Sudan, the river that runs through the country of the Hottentots, and of the desert lying between the Nile and the Red Sea, as well as to locate Bombetok Bay, the Gulf of Sidra, and the Lupata Mountains.[43]

Even such evidently useful training as sewing was introduced less for its vocational value than for its moral effect. The Boston School Committee reported:

> The industrious habits which sewing tends to form and the consequent high moral influence which it exerts upon society at large may cause its introduction more extensively in all the schools.[44]

That those involved in education were more interested in the high moral influence of the school than in the intellectual product of education seems quite true.

Although we have no direct evidence on this point, it appears likely that employers shared the educators' viewpoint. Intellectual skills were not required for most workers on the job. Luft's study of piece-rate productivity records of thousands of mid-nineteenth-century Lowell millworkers indicated no statistical relationship between individual worker productivity and literacy.[45] The elementary educational system was already much larger

than necessary to train the minority of clerical and professional workers who would need literacy in their work. In 1840, roughly three-quarters of the adult U.S. population (including slaves) could read and write; the literacy rate in Massachusetts was substantially higher. The fraction of jobs requiring literacy could not possibly have exceeded 20 percent.[46]

Concerning cognitive skills more advanced than literacy, we doubt that any employer familiar with the daily workings of their textile mills or other similar factories would seriously entertain the notion that the curriculum taught in the schools of the day had much connection to the productive capacities of the workers. The reasons why most larger employers supported public education apparently related to the noncognitive effects of schooling—in more modern terms, to the hidden curriculum. On this, we have ample testimony from the mill owners themselves.[47] Some school committees were quite explicit about what they termed their moral objectives. In 1854, for example, the Springfield School Committee wrote:

> The object of education is by no means accomplished by mere intellectual instruction. It has other aims of equal if not higher importance. The character and habits are to be formed for life. . . .[48]

They go on to designate a few of the prominent points that a teacher should inculcate in the formation of character: ". . . the habit of attention, self-reliance, habits of order and neatness, politeness and courtesy . . . habits of punctuality."

The connections between moral training in school and the needs of the business world were not missed by educators. A writer in the proreform *Massachusetts Teacher* wrote:

> That the habit of prompt action in the performance of the duty required of the boy, by the teacher at school, becomes in the man of business confirmed; thus system and order characterize the employment of the day laborer. He must begin each half day with as much promptness as he drops his tools at the close of it; and he must meet every appointment and order during the hours of the day with no less precision. It is in this way that regularity and economy of time have become characteristic of our community, as appears in the running "on time" of long trains on our great network of railways; the strict regulations of all large manufacturing establishments; as well as the daily arrangements of our school duties. . . . Thus, what has been instilled in the mind of the pupil, as a principle, becomes thoroughly recognized by the man as of the first importance in the transaction of business.[49]

In Lowell, Theodore Edson designed a special clock for classroom use which divided the school day neatly into thirty-two ten-minute recitation periods.

But neither Mann nor most of the school committees or manufacturers

confined their objectives to the inculcation of mere obedience. The schools must train young people, argued Mann, so that the citizen of tomorrow will ". . . think of duty rather than of the policeman."[50] A stable body politic and a smoothly functioning factory alike required citizens and workers who had embraced and taken on as their own the values and objectives of those in authority. Schools might do better than to instill obedience; they might promote self-control.

Widely practiced teaching methods of the period were hardly conducive to this purpose. The Lancasterian system, though not in general use, had captured the imagination of numerous educators. Intended primarily for the children of the poor, this approach to education was modeled after the factory rather than the family. Under this system, literally hundreds of children were instructed in a single hall, the main task of instruction and drill being done by more advanced children—monitors—under the direction of a single teacher. The Lancaster system, said DeWitt Clinton in 1809, ". . . is in education what . . . machines for abridging labor and expense are in the mechanic arts."[51] The monitorial system never found much favor with the well-to-do, but according to the early twentieth-century educator, Ellwood Cubberly, it served a useful purpose:

> In place of their idleness, inattention and disorder, Lancaster introduced activity, emulation, and a kind of military discipline which was of much value to the type of children attending these schools.[52]

The Lancasterian system was practiced almost exclusively in charity schools, particularly in New York, but methods of teaching in the public schools in Massachusetts and elsewhere were only slightly less regimented.

Disagreement on the relative importance of external and internal control provided the fundamental conflict which fired the heated debate concerning pedagogy between Mann and the Boston schoolmasters in 1844. The masters, in a pamphlet entitled "School Discipline," had attacked Mann's *Seventh Annual Report* as proposing methods which were dangerously permissive. Here is part of Mann's reply:

> . . . Here, then, is the philosophy of *School Discipline*. Authority, Force, Fear, Pain! The ideas of Childhood and Punishment indissolubly associated together. . . .
>
> Authority, Force, Fear, Pain! These motives, taken from the nethermost part of the nethermost end of the scale of influences, are to be inscribed on the lintels and doorposts of our school houses and embroidered on the phylacteries of the teachers' garments. . . . *Conscience* is nowhere referred to as one of the motive powers in the conduct of children. . . . That powerful class of motives which consists of affection for parents, love for brothers and sisters, . . . justice and the social sentiment toward schoolmates, respect for

> elders, the pleasures of acquiring knowledge, the duty of doing as we would be done by, the connection between present conduct and success, estimation, eminence in future life, the presence of an unseen eye—not a syllable of all these is set forth with any earnestness or insisted upon as the true source and spring of human actions.[53]

Through his newly formed normal schools for teacher training, Mann strongly urged a modification of classroom methods to tap the affection, loyalty, and other higher motives of students. The replacement of male by female elementary school teachers during this period constituted a step in the right direction. The fact that female teachers were much cheaper to hire than males may have provided the main impetus for the feminization of the teaching staff. But the shift in hiring policy was probably at least as much a reflection of the view that schools should increasingly become an extension of the family or, when necessary, even its substitute.

Not surprisingly, reforms of this magnitude generated opposition. The rural population, not yet awakened to the social distress, explosive potential, and commercial needs of the new industrial order, found the State Board of Education meddlesome and a likely source of increased taxation. Mann never looked forward to his speaking tours in the rural Berkshires. Those associated with private schools found the common school a threat to their eminent positions. Many of the unincorporated private academies did close down during this period, though the more prestigious incorporated academies prospered. A few critics could not swallow Mann's rigid insistence on the separation of church and school. The Boston masters and other old school pedagogues felt that permissiveness in the classroom was an invitation to anarchy in the streets. Abolitionists' attacks were spurred by Mann's acceptance of racially segregated education, as well, perhaps, as his attempts to curb abolitionist-minded schoolmasters from speaking publically on the subject.[54] (Later, as a member of the U.S. House of Representatives, Mann would himself adopt the antislavery cause.)

Mann did everything possible to portray himself as an embattled crusader. "When I took my circuit last year," Mann reported to Barnard, "I mounted on top of a horse, and went Paul Prying along the way, and diverging off to the right or left, wherever I scented any improvement. I believe that was substantially the way that Peter the Hermit got up the Crusades."[55]

But the history of the period reveals more Mann's overwhelming political power stemming from enthusiastic support from virtually all influential quarters. The one serious challenge to his position reflects the political climate of the day, and deserves brief mention.

In 1838, the Temperance reformers succeeded in gaining passage of a

bill which would limit the sale of alcoholic beverages to those who could purchase it in lots of fifteen gallons or more. For the Whig governor who signed the measure, this attempt to close down the saloons and limit drinking to the well-to-do was not much of an asset at the polls. The new Democratic governor, in his inaugural address, announced his intention to abolish the State Board of Education and its secretary. A committee of the House quickly reported favorably on a measure to halt the development of normal schools and close down the State Board. Though Mann marshaled his forces and managed to get to enough state legislators to defeat the impending legislation, the incident does suggest that the most serious threat to the new educational order came more from the party of Jackson than from the reactionary churchmen or narrow-minded business interests.

At its base, the incident reflected a conflict between proponents of the older decentralized community-controlled school system and those who, like Mann, sought to centralize control over the schools in the hands of enlightened and specially trained professionals. We have seen, earlier, the temporary success of the Lowell town meeting protest against the centralization of the school system. The same conflict—between proponents of what the historian Michael Katz calls "democratic localism" and "incipient bureaucracy"—is, indeed, a continuing theme in the U.S. educational history extending right down to current conflicts over "community control" of schools. Similar conflicts erupted over this period throughout the New England states and formed the basis of a major debate at the Pennsylvania Constitutional Convention of 1837–1838. New York City's "first great school war," extending over most of the first half of the nineteenth century, was fought—partly along ethnic lines—over this issue of school centralization.[56]

We now turn to the difficult task of investigating to what extent Mann succeeded in transforming the structure of education.

Ordinarily, we learn about reform movements through the writings of the reformers and their opponents and, later, from their apologists and detractors. It is wise, however, to go beyond what was said and attempt to assess what was done. This is no easy task, but it is essential to understand the thrust of the reform movement. Educational reform movements usually espouse a wide variety of objectives; yet, more often than not, the actual implementation of these programs in the schools is highly selective. The differing fates of reform programs in practice is frequently at least as revealing of what the reform movement was about as is a study of the writings of the main actors. This will be particularly the case when we come to study the Progressive education movement of the early decades of

the present century. But a study of the impact of Mann and the other reformers on the schools of nineteenth-century Massachusetts is also instructive. As it turns out, the reformers did not make progress toward all of their objectives. Considering Massachusetts as a whole, the percentage of people under the age of twenty enrolled in school (both public and private) fell slightly from 46 percent in 1837 to 43 percent in 1860. Even taking into account the gradual increase in the length of the school session, the amount of schooling afforded to young people did not increase over this period.[57] As we shall see shortly, in this respect Massachusetts was atypical.

What did change? We are indebted to Mann's passion for numbers for our ability to answer this question with some confidence. The reformers did accomplish a significant increase in the percentage of school-age children enrolled in public as opposed to private schools. Attendance at private institutions fell both absolutely and relatively. The common school was coming to be a reality. The amount of resources devoted to public schooling increased dramatically, not only due to the expanding numbers of children in public school, but through a marked increase in per-pupil expenditures. Taking account of changes in the level of prices over this period, the rate of increase of per-pupil expenditure amounts to well over 2 percent per annum. The consolidation of district schools is reflected in a modest increase in the average size of schools: from twenty-seven in 1839 to thirty in 1859. Moreover, by the end of this period, women teachers had come to predominate in primary schools. They constituted roughly seven-eighths of all public school teachers.[58]

How are we to assess the impact of Mann's reforms? That some of Mann's contemporaries pictured him a radical is, perhaps, not surprising; his reforms were at once progressive and conservative. Sensing its productive potential, he embraced the new capitalist order and sought through social amelioration and structural change to adjust the social institutions and the people of Massachusetts to its needs. At the same time, Mann's reforms had the intent (and most likely the effect as well) of forestalling the development of class consciousness among the working people of the state and preserving the legal and economic foundations of the society in which he had been raised. The reformed school system of Massachusetts was Mann's crowning achievement. It was truly an innovative solution to the problem of conservative adaption to change. It was soon to be duplicated around the country.

The Spread of Public Education

> Let your common school system go hand in hand with the employment of your people; you may be quite certain that the adaption of these systems at once will aid each other.
>
> Letter from Abbott Lawrence of Massachusetts to William Rives of Virginia, 1846

We have argued that the expansion of the industrial capitalist system was a major force promoting educational reform and expansion in the antebellum period. Our evidence from the town of Lowell and from the study of Horace Mann's reforms certainly point in this direction. Yet, the reader may object that these are exceptional cases. Would a detailed study of another industrial town or another reformer support these conclusions? We suspect that as more detailed case studies are conducted, our interpretation will be supported. In the meantime, we must content ourselves with the less detailed, but quite comprehensive, statistical evidence available in state educational reports and in the U.S. Census. A number of excellent studies are at our disposal. We will consider first a statewide study of Massachusetts before considering national data.

The argument that there was an intimate connection between economic and educational change is supported by the recent research of Alexander Field on mid-nineteenth-century Massachusetts.[59] Drawing upon town-by-town statistics and on both schooling and economic and demographic structure, and using the technique of multiple regression, his work supports the view that the impetus behind the implementation of school reforms was not from urbanization itself, not the introduction of capital intensive machinery, but rather the rise of the factory as the dominant production unit. He found that school boards were most likely to press for educational expansion in those towns characterized by a large percentage of workers employed in large establishments and a low level of capital per worker. A more detailed consideration of Field's results reveals that it was crowded conditions (measured by inhabitants per dwelling) and the relative size of the Irish community, not the size of the town itself, which was associated with school-board attempts to lengthen the school year.

Field's study is unusual in that it allows us to distinguish between the intent of the town school boards and the response of parents and students. The school board determined the length of the school session; its attempts to expand education are perhaps best measured by this variable. But the levels of actual attendance were, for the most part, out of their hands. The

percentage of school-age children attending school reflected the complex interplay of factors involving parents, children, social pressures, and the employment situation. Using Field's results, we can develop a quantitative picture of the conflicting interests at work in the process of educational reform. Significantly, despite the demonstrated positive relationship between the length of the school session and the presence of a large Irish community, school attendance was no higher in towns with large Irish populations. This evidence is consistent with the interpretations that the Irish influx provoked school boards to expand the school system, but their attempts, at least prior to the Civil War, were effectively offset by the indifference or resistance of Irish parents and children.

Numerous quantitative studies support the view that resistance to public schooling among the foreign-born was widespread. In their multiple regression study of attendance levels in New York State counties in 1845, Kaestle and Vanovskis found a strong negative relationship between school attendance and the percentage of the population born outside the United States. Also negatively related to school attendance was a variable measuring the extent of poverty in the county.[60] Kaestle and Vanovskis found a positive but statistically insignificant relationship between attendance on the one hand and degree of urbanization and per capita tax valuation on the other. Of 1,066 truants in Boston in 1849, 963 (or 90 percent) had foreign-born parents.[61] Thernstrom's study of Newberryport, Massachusetts, shows that native-born workers tended to send their children to school while Irish-born workers resisted schooling. Irish-born preferred, if possible, to use whatever savings would result from their children's labor to buy property.[62]

Though useful in identifying gross relationships, the above quantitative data are not adequately complex to capture the ethnic dimension of the conflict over school expansion. The foreign-born did not oppose education itself, but rather public schooling controlled by others. In New York and elsewhere, the Irish community fought hard for its own schools. The professional and business elite did not attempt to force the children of all foreign-born families into school. Their "target populations" were the foreign-born in the potentially explosive urban proletariat and reserve army. They were concerned not so much with cultural diversity as with the threat of social unrest. The evident cultural diversity in late eighteenth-century New York City, which included significant numbers of economically independent Dutch, Huguenot, and other non-english-speaking people, did not concern the well-to-do nearly as much as the growth of the English-

speaking but impoverished Irish community in the early nineteenth century.[63]

The economic transformation of Massachusetts during this period was more thoroughgoing and dramatic than that experienced in most states, but the conditions existing in neighboring Connecticut, New York, Pennsylvania, and wherever the wage-labor system was coming to dominate the social relations of production were not so different from those which had prodded the capitalist and professional classes of Massachusetts to action. The spread of public education outside Massachusetts was hardly uniform, or universal; both before and after the Civil War, the states exhibited dramatic differences in the pace at which public elementary education was expanded. Nor were the particularly urban or wealthy states in the lead. Albert Fishlow has demonstrated that school attendance in the mid- and late nineteenth century appears to be unrelated to the level of income or the degree of urbanization in the state.[64]

In the South, prior to the Civil War, the well-to-do saw little value in public schooling, particularly in those states with large slave populations and relatively few wage workers. Where manufacturing did employ any significant numbers of people, public schools followed. A study of state-by-state education and employment statistics for the period of 1840–1860, conducted by one of us in conjunction with Janice Weiss, revealed, for example, that attendance at public schools was positively related to the percentage of the labor force employed in manufacturing and negatively related to the importance of slaves in the state's economy. Extending our study to cover the years 1860–1880, we found that the demise of slavery and the Reconstruction Period brought with it an expansion of schooling, again following closely the evolution of the labor force in manufacturing.[65]

At least as important in this period, we suspect, was the vigorous struggle of blacks for more education in the postslave South. However, the educational development of the Southern states was not, as these results might suggest, determined solely—or even primarily—by forces internal to the states. The rest of the country, and particularly the Northeast, had a major influence on the Southern school system: The carpetbagger and the Northern capitalist were quickly followed by the schoolmaster. Starting in 1866, Northern capitalists exerted their influences directly through early educational foundations such as the Peabody Fund and the Slater Fund.[66] By the turn of the century, John D. Rockefeller and other major financial figures had begun to sense the importance of Southern agricultural productivity and of black labor in the continued profitability of capitalist enterprises. The early trickle of capitalist philanthropy to Southern education grew to a flood. Over its first decade of existence (1901–1911), the newly formed General Education Board—a private body channeling corporate funds into school reform—would receive $50 million from Rockefeller alone. This gave the Board an annual operating income far in excess of the education budgets of most Southern states.[67] Always working within the framework of Southern power and race relations, these Northern philanthropists sought to eradicate the educational backwardness of the South with the support of the blacks themselves. They met with only mixed success. Between the Civil War and World War I, enrollments and expenditures in Southern education expanded dramatically, and the dual system of school with its separate, and increasingly unequal, facilities for blacks and whites was firmly established.[68]

In the farming areas of the West, the spread of public education appears to have been associated not, as some would have it, with the strength of an independent farming class, but with its opposite, the development of a wage-labor force in agriculture. The study by Medoff and Buchele indicates that public educational expenditures were significantly and positively related to the mechanization and increasing use of wage labor in agriculture. No relationship whatever was found between educational expansion and per-capita income or urbanization.[69]

Interestingly, Buchele and Medoff found that, taking account of the apparently relevant dimensions of the economic structure of each state, those which were the centers of the Populist revolt (Minnesota, the Dakotas, Nebraska, Kansas, North Carolina, and Alabama) devoted significantly less resources to public education during this period. This finding, of course, invites a variety of interpretations. But it is hardly surprising in view of the fact that, unlike Horace Mann and the other reformers, the Populists identified the structure of the economy and not the lack of schooling as the source of poverty, economic insecurity, and inequality. While supporting public education, Populist leaders had emphasized a more immediate and more direct economic objective. "With the collapse of political Populism," observed Lawrence Cremin, one of the foremost educational historians of this period, "educational reform seemed to gain new vigor."[70] Yet Populism would, in the end, make a major, if unexpected, contribution to the growth of education in the West and South, for it was precisely the fear of Populist revival that led many major capitalist organizations—the Rockefeller-endowed General Education Board, the American Bankers Association, at least four major railroad companies, the National Implement and Vehicle Association among them—to lend their

political and financial support to the fledgling agricultural education and extension movement.[71] Education was not an objective of Populist agitation. But it was certainly one result. Increasingly, business leaders came to see schooling and extension work as a safe alternative to the "agrarianism" and economic transformation espoused by so many late nineteenth-century farmers.

Conclusion

> Education universally extended throughout the community will tend to disabuse the working class of people in respect of a notion that has crept into the minds of our mechanics and is gradually prevailing, that manual labor is at present very inadequately rewarded, owing to combinations of the rich against the poor; that mere mental labor is comparatively worthless; that property or wealth ought not be accumulated or transmitted; that to take interest on money lent or profit on capital employed is unjust. . . . The mistaken and ignorant people who entertain these fallacies as truths will learn, when they have the opportunity of learning, that the institution of political society originated in the protection of property.
>
> THOMAS COOPER, *Elements of Political Economy*, 1828

The statistical studies reviewed in the previous section are not, of course, all that we would like to evaluate critically in our interpretation of educational history. In our attempt to get a broader picture, we have lost much of the detail of our earlier case studies. Measures such as capital per worker, or workers per farm, or slaves as a percentage of the working population do not adequately capture the relevant data on the class structure and mode of production. Statistics on the growth of enrollments or school expenditures fail to capture much of what was important in the nineteenth-century educational reform movements.

Despite these drawbacks, however, these large-scale statistical studies, in conjunction with our earlier evidence, present a dramatic if sketchy picture of educational change. There can be little doubt that educational reform and expansion in the nineteenth century was associated with the growing ascendancy of the capitalist mode of production. Particularly striking is the recurring pattern of capital accumulation in the dynamic advanced sectors of the economy, the resulting integration of new workers into the wage-

labor system, the expansion of the proletariat and the reserve army, social unrest and the emergence of political protest movements, and the development of movements for educational expansion and reform. We find also a recurring pattern of political and financial support for educational change: While the impetus for educational reform sometimes came from disgruntled farmers or workers, the leadership of the movements—which succeeded in stamping its unmistakable imprint on the form and direction of educational innovation—was without exception in the hands of a coalition of professionals and capitalists from the leading sectors of the economy.

We note in closing, however, that no very simple or mechanistic relationship between economic structure and educational development is likely to fit the available historical evidence. As we saw in our study of Lowell, Massachusetts, and of Horace Mann's work, political factors have intervened between economic structures and educational outcomes in complex and sometimes, apparently, contradictory, ways. In the next chapter, we expand our analysis to cover the Progressive reforms of the first part of the twentieth century.