

# **Public Education as Nation-Building in America: Enrollments and Bureaucratization in the American States, 1870–1930<sup>1</sup>**

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Current discussions of the effects of urbanization and industrialization on the bureaucratization of American public education in the later 19th century do not offer effective explanations of the expansion of the educational system in the first place. Enrollments were high much earlier than these explanations suggest and were probably higher in rural than in urban settings. We argue that the spread of public education, especially in the North and West, took place through a series of nation-building social movements having partly religious and partly political forms. We see these movements as reflecting the involvement and success of American society in the world exchange economy and the dominance of parallel religious ideologies. State-level data are used to show both the absence of positive effects of urban industrialism on enrollments and some suggestive effects of evangelical Protestantism and 19th-century Republicanism.

The rapid spread of public schooling across the continent during the 19th century is one of the most dramatic examples of institution-building in American history. In this paper, we consider theories and evidence on the origins and driving forces of this process.

We begin by reviewing current interpretations of the development of public education which focus on the creation of urban-industrial society and its effects on the systematization of schooling. It seems clear that the bureaucratic transformation of schooling had much to do with the rise of cities and of new social and economic relationships in commerce and in-

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dustry. But studies of the *formalization* of public schooling—the rise of large-scale and complex organizations, increasingly controlled by state regulation, professionally staffed and relatively highly funded, managing the lives of children in regularized ways—consider only part of what needs to be explained. They do not tell us much about the *creation* and *spread* of mass public education, and they do not sufficiently explain some basic facts. During most of the 19th century, the United States was overwhelmingly rural and nonindustrial. The apparatus of state control was extremely weak in most communities. Enrollments were generally higher in rural than in urban places, and high enrollments generally preceded industrialization. Hence, we believe that it is useful to separate two issues that are sometimes blurred: the expansion of enrollments and the bureaucratization of the system. In this study we seek to suggest how and why Americans expanded public school enrollments.

In brief, we argue that the spread of schooling in the rural North and West can best be understood as a social movement implementing a commonly held ideology of nation-building. It combined the outlook and interests of small entrepreneurs in a world market, evangelical Protestantism, and an individualistic conception of the polity. In order to understand such a social movement, it is important to take seriously the religious and political millennial cosmologies of the time, the patterns of political mobilization, and the connection of these with an evolving world economy. Such an interpretation seeks to combine, not isolate, economic, cultural, and political variables. We do not deny the importance of cities, industry, or bureaucratization, for these indeed became central aspects of 20th-century development; but for the 19th century, we believe, the central question is why rural people created schools and sent their children to them.

We conclude by presenting the results of our own analyses of statewide data on educational organization and expansion taken from the reports of the Commissioner of Education and from the U.S. Bureau of the Census for the years 1870–1930. Thus, we add our own analyses to existing empirical studies of enrollments and formalization, complementing microanalysis with a macrosociological study. Our purpose throughout—in the discussion of current theories, in our statement of the problem, in the presentation of a conception of education as a social movement, and in our empirical investigation—is exploratory. Given the gaps in current discussions, we want to identify some important issues and offer speculation about their resolution.

#### RECENT INTERPRETATIONS OF PUBLIC SCHOOLING IN THE 19TH CENTURY

The 20th-century bureaucratization of American society and the expansion and rise to world power of the American state have prompted waves of

reinterpretation of 19th-century American educational history. Scholars have looked for—and found—harbingers of corporate capitalism and a powerful state apparatus, especially in the urban-industrial Northeast and in urban educational systems. Several studies of Massachusetts, in particular, have argued that bureaucratic urban education gave structural support to industrial capitalism (Field 1976) and that it was promoted largely by capitalist elites and their professional allies, who profited from the new economic and educational arrangements (Katz 1968). Bowles and Gintis (1976) have hypothesized that the mid-century reforms were triggered by the entry of new groups into the wage-labor force, and that employers supported the demand for more schooling because they were able to use the schools to socialize workers and thereby to solve some of their problems of social unrest and labor control. While departing considerably from these authors in their analysis, Kaestle and Vinovskis (1976, pp. 84–90) have found a positive association in Massachusetts between town size and both the length of the school term and expenditures per pupil. Other studies have explored the bureaucratization of urban schools and the increasing use of the power of the state to standardize schooling and to compel attendance (Kaestle [1973]; Schultz [1973]; Lazerson [1971]; Tyack [1974, 1976]; see the review of these and related studies by Katz [1975], esp. pp. 147–94).

In this general conception, education is part of a basic economic and organizational change. The late 19th century was a period of growing governmental influence and consolidation of economic power. The pace of corporate mergers increased markedly about 1900. Huge new groups of immigrants were attracted to serve as laborers. A new kind of corporate capitalism became dominant—one foreshadowed in mid-19th-century Massachusetts: urban, organized, and adept at expanding the state to accomplish its purposes in such domains as education (Wiebe 1967; Kolko 1963).

Some of our state-level data fit in well with this interpretation. In table 1, we report data for two commonly used indicators of educational expansion: the reported average length of the school year in days and educational expenditures in dollars per pupil enrolled, both taken from the *Biennial Surveys of Education in the United States* (U.S. Office of Education 1870–1930). The first rows in each panel report the trends over time and show that during our period the average school year increased greatly in length and that expenditures per pupil also increased dramatically. The more relevant data are reported in the main body of each panel of the table. States are classified by region (which we discuss later), and northern and western states are further classified by their degree of urbanization in 1870 (relative ranks on this variable tend to be stable over time).

The table shows much higher levels of educational expenditure and much longer school years in more urban states. Toward the end of our period these differences decrease, but during the earlier years they are substantial.

TABLE 1

## TWO MEASURES OF EDUCATIONAL FORMALIZATION: AMERICAN STATES, 1870-1930, BY REGION AND DEGREE OF URBANIZATION

	YEAR						
	1870	1880	1890	1900	1910	1920	1930
Mean length of school term (in days):							
All states.....	117	122	127	137	154	160	170
SD.....	39 (35)	41 (36)	37 (43)	33 (45)	25 (46)	19 (48)	15 (48)
Total northern and western states*.....	131 (19)	140 (21)	142 (25)	152 (28)	168 (28)	170 (30)	177 (30)
Urban†.....	157 (6)	169 (6)	175 (6)	179 (6)	183 (6)	179 (7)	181 (7)
Middle†.....	116 (8)	126 (8)	141 (8)	154 (9)	167 (9)	168 (9)	179 (9)
Rural†.....	110 (5)	125 (6)	137 (6)	144 (6)	156 (6)	163 (7)	175 (7)
Border states*.....	112 (5)	121 (5)	126 (6)	136 (6)	150 (6)	154 (6)	174 (6)
Southern states*.....	86 (8)	76 (8)	89 (10)	97 (10)	121 (10)	135 (10)	147 (10)
Mean educational expenditures per pupil (in current \$):							
All states.....	9.3	8.1	11.9	14.2	28.6	74.3	68.6
SD.....	5.0 (37)	5.0 (38)	6.7 (43)	7.7 (45)	14.6 (46)	31.5 (48)	25.8 (48)
Total northern and western states.....	10.8 (19)	10.2 (21)	15.8 (25)	18.1 (28)	36.7 (28)	93.9 (30)	82.3 (30)
Urban†.....	14.3 (6)	12.4 (6)	17.7 (6)	24.1 (6)	43.1 (6)	96.7 (7)	84.6 (7)
Middle†.....	9.1 (8)	8.7 (8)	13.0 (8)	14.8 (9)	31.2 (9)	91.2 (9)	80.1 (9)
Rural†.....	8.3 (5)	9.9 (6)	14.1 (6)	16.5 (6)	34.2 (6)	85.8 (7)	77.1 (7)
Border states*.....	7.3 (5)	6.0 (5)	7.1 (6)	9.0 (6)	16.2 (6)	48.4 (6)	57.0 (6)
Southern states*.....	5.8 (8)	3.3 (8)	4.2 (10)	4.5 (10)	11.2 (10)	31.6 (10)	32.4 (10)

SOURCE.—From U.S. Office of Education 1870-1930.

NOTE.—Cell entries are means; cases are in parentheses.

\* States are included as they entered the Union. Southern states: Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, Texas, and Virginia. Border states: Delaware, Kentucky, Maryland, Missouri, Tennessee, and West Virginia. Northern and western states by 1870: California, Connecticut, Illinois, Indiana, Iowa, Kansas, Maine, Massachusetts, Michigan, Minnesota, Nebraska, New Hampshire, New Jersey, New York, Ohio, Oregon, Pennsylvania, Rhode Island, and Wisconsin; by 1930: Colorado, Idaho, Montana, New Mexico, North Dakota, South Dakota, Utah, Vermont, Washington, and Wyoming.

† States are classified as (1) urban if more than 33% of the population lived in cities of 2,500 or more; (2) middle if between 15% and 33% of the population lived in cities of 2,500 or more; or (3) rural if less than 15% of the population lived in cities of 2,500 or more (U.S. Census of the Population 1950)

Essentially the same differences are shown when we classify states by the proportion of the labor force in manufacturing or by the per capita manufacturing product (these variables are, at the state level, very highly correlated with urbanization).

Thus, we find, as others have, that these two indicators of educational development are associated with urban industrialism and rise over time with it. We have further employed multiple regression analyses of these two educational indicators across the northern and western states, incorporating other potential state-level explanatory factors. Throughout these analyses, urbanization continues to show consistently large effects. None of the other variables we have considered shows consistently large or significant effects. A set of these analyses is reported in Appendix A.

#### THE PROBLEM

Changes in the 19th century in educational organization may well have been supported by urban industrialism, though it is possible to argue about the particular processes involved. A problem arises, however, if this interpretation is turned into a general argument about the origins and spread of mass public education. Public school enrollments rose much earlier and in a more rural and less state-centralized context. Theories of educational bureaucratization may not clarify the reasons for the rise of the common school in the first place. Research on such measures as length of the school year and educational expenditures can be misleading when generalized to an explanation of the whole system, just as it is dangerous to generalize from the experience of an atypical state such as Massachusetts (an early leader in industrialization and state action and also in the creation of the kinds of statistics which are commonly used by present-day researchers). A number of specific points are relevant here.

1. *The United States was overwhelmingly rural and nonindustrial until late in the 19th century.*—In 1860, only about 20% of Americans lived in communities with a population over 2,500. Even by 1900, only 40% lived in such places.

2. *Educational enrollments were high very early.*—What happens when we look at more direct indicators of the spread of mass education in the United States, that is, proportions of the eligible age group enrolled in schools (of whatever formalization or expenditure)? Using the census and state reports, Fishlow (1966*b*) argues that school enrollment was already high in the settled Northeast before the “common school revival” of the 1840s—averaging over 70% of whites aged 5–19—and that the major achievement of the mid-century movement was the extension of public education to the western states (and to a much lesser extent, to the South), Analyzing a random sample of the 1860 census, Soltow and Stevens (1977)

confirm Fishlow's belief that white male literacy was high even before the first census count in 1840. They find that illiteracy by decade age-groups ranging from 20–99 varied only from 5% to 8%, indicating that surviving men born early in the century had somehow become literate. Kaestle and Vinovskis (1976) also report high enrollments in Massachusetts early in the century—long before much industrialization occurred (see also Folger and Nam 1967).

State-level data show the overall pattern after 1870. Table 2 reports public primary enrollments, standardized to the school-age population (U.S. Office of Education 1870–1930). The first row of the table shows that by 1870, 58% of the children in the average state were enrolled in school. When the southern and border states are excluded, the figure rises to 76% and shows only modest further increases during the remainder of our period. Clearly, massive educational enrollments in America arose before sweeping urbanization and industrialization.

3. *State control was extremely weak.*—Theories stressing the state as a crucial mechanism in the creation of systems of public schooling do not shed much light on the early expansion of mass enrollments. State-level data show that only 6% of the states had a compulsory attendance law by 1870. While this proportion rose rapidly (to 49% by 1890 and to 100% by 1920), most of the rise occurred after enrollment was almost universal in the northern and western states. Further, Landes and Solmon (1972) show that the presence of such laws is not an effective predictor of subsequent rises in enrollment; rather, the laws tended to express public support for already high rates of enrollment. This becomes more understandable when one realizes how weak state educational bureaucracies were in the 19th century. In 1890, the median size of state departments of education was only two, including the superintendent (NEA 1931, pp. 5–6).

4. *Enrollments and bureaucratization were not positively related.*—Discussions of educational development in America sometimes proceed as if the expansion of the enrollment base of the system and the tightening of organizational links and shift upward in level of control were the same phenomenon. They are not. We have, in our state-level data, only the two measures discussed earlier to use as indicators of the formalization of the system—length of the school year and expenditures per pupil. But we suppose that other measures (e.g., presence of more graded schools, more professionalized teachers, higher levels of consolidation, more principals and other administrators, and more formal state and district rules) would show results similar to these. For 1880, across the set of northern and western states, primary enrollment ratios are correlated  $-.29$  with length of the school year and  $-.50$  with educational expenditures (21 cases). Such negative correlations hold throughout our data for the 19th century.

5. *Enrollments were as high (or higher) in rural areas as in urban ones.*—

**TABLE 2**  
**MEAN PUBLIC PRIMARY ENROLLMENTS AS A PROPORTION OF AGE-GROUP POPULATION: AMERICAN STATES,**  
**1870-1930, BY REGION AND DEGREE OF URBANIZATION**

	YEAR						
	1870	1880	1890	1900	1910	1920	1930
All states.....	.58	.65	.69	.74	.76	.80	.83
SD.....	.23 (35)	.16 (37)	.11 (42)	.09 (45)	.08 (46)	.09 (48)	.08 (48)
Total northern and western states:	.76 (19)	.75 (21)	.73 (25)	.78 (28)	.79 (28)	.82 (30)	.84 (30)
Urban.....	.70 ( 6)	.70 ( 6)	.69 ( 6)	.72 ( 6)	.70 ( 6)	.76 ( 6)	.79 ( 6)
Middle.....	.79 ( 8)	.77 ( 8)	.75 ( 8)	.79 ( 9)	.78 ( 9)	.77 ( 9)	.81 ( 9)
Rural.....	.76 ( 4)	.75 ( 5)	.80 ( 5)	.86 ( 5)	.85 ( 5)	.85 ( 6)	.89 ( 6)
Border states.....	.47 ( 5)	.64 ( 5)	.69 ( 6)	.75 ( 6)	.76 ( 6)	.77 ( 6)	.76 ( 6)
Southern states.....	.29 (10)	.45 ( 8)	.57 (10)	.63 (10)	.68 (10)	.75 (10)	.83 (10)

SOURCE.—U.S. Office of Education 1870-1930.

NOTE.—Cell entries are means; cases are in parentheses; for regional and urbanization definitions, see table 1.

Soltow and Stevens (1977) found that from ages 5–14 children of northern farmers had school enrollment rates almost identical with those of nonfarmers' children but that for older children rural rates were considerably higher (58% compared with 38%, for those aged 15–19). In their study of Massachusetts, Kaestle and Vinovskis (1976) found enrollments to be inversely proportional to town size. Comparing 1890 census returns for three industrial states with those of three agricultural states, Folger and Nam (1967) found lower enrollments for rural children than for urban ones at ages 5–9; about the same high enrollments for children aged 10–14; and higher rural enrollments for the older children. State-level data show the same pattern. Table 2 reports the relevant data. Among northern and western states, more rural states tended to have higher enrollment ratios throughout our period than did urban ones.

The key point is not the favorable *differential* between rural and urban enrollments; mistakes in census or school reports might wash out these differences (and errors in statistics were egregious, as Blodgett's census monograph on education pointed out in 1893). Nor is the point that rural pupils received as much schooling as urban ones. Because of irregular attendance at widely spaced ages, farm children probably went to school for fewer days, even if they enrolled in greater numbers. School terms were longer and daily attendance rates higher in cities. The question is, Why did rural people create schools in the first place?

Arguments which focus on urbanization, industry, or corporate elites do not help very much to answer this question. This does not mean that one should search for noneconomic interpretations or ignore the nationalizing influences abroad in the land. It is true that the rural school provided a focus of community and a socially integrating force (Tyack 1974; Kaestle and Vinovskis 1976). It is also true, as Solmon (1970) has shown, that rural schools were much cheaper than urban ones, both in direct costs (pay of teachers, buildings, etc.) and in opportunity costs, since the school calendar could be adapted to the need for children's labor on a seasonal basis. But these are proximate reasons and do not explain why rural communities built *public schools* rather than other forms of inexpensive socially integrating institutions.

#### SOME SPECULATIONS ON EDUCATION AND THE CULTURE OF AMERICAN CAPITALISM

It is by no means easy to construct an interpretation of the social movement that spread the common school, in part because the urban-industrial model has become central and in part because the theory of status inconsistency is the customary lens through which sociologists and many historians have viewed social movements. It is usually argued that the real

action in America was the creation of a bureaucratically structured modern society of large organizations and competing interest groups. In both cases, certain arenas of 19th-century politics—temperance agitation, sectarian rivalries, millennial thought, even abolitionism, etc.—appear as ephemera, a sideshow; the real story was the building of an organizational society, monitored by a powerful state (for critiques, see Meyer and Roth [1970] and Skotheim [1965]). Even the ethnocultural historians, who stress the motive force of religion and ethnicity, have generally been more interested in voting behavior than in institution-building through social movements (Jensen 1971; Kleppner 1970). Recently, Higham (1974) has reminded us, however, that we need to take seriously the millennial ideology by which 19th-century Americans, especially in the North and West, blended their religious and political faiths and which provided a potent unifying force for collaborative action. It is this Protestant-Republican millennial view of the polity, coupled with a particular view of the nature of capitalism, that we take to be central to the expansion of the common school.

Education is linked to the interests and ideology of capitalists, but capitalism is not only a division of labor and a system of production. It is also a system of markets, property, and exchange. Mid-19th-century America was largely a nation of small entrepreneurs, of small units such as family farms competing in an expanding world market. As late as 1900, about 42% of the population still lived on farms. Until the development of corporate capitalism, most of America had been at the periphery of a world capitalistic system in which the division of labor was worldwide, not simply internal to the nation (Wallerstein 1974*a*, 1974*b*; U.S. Bureau of the Census 1975, pp. 457, 465–67).

This 19th-century American economy embodied a deeply rooted culture and economic ideology glorifying and rewarding quintessentially capitalistic perspectives: property, rational investment, technology, free labor, and immense open markets (Foner 1970). Along with these economic tenets went complementary Victorian values of thrift in time and money, sobriety, temperance, competition, and order (Howe 1976). This class culture stressed production for long-distance markets, not “traditional” production for subsistence. At the same time, it drew on long-standing religious values and a congruent political ideology.

These economic and cultural values were also embedded in a distinctive conception of nation-building. The polity of free agrarian capitalism was not to be consummated in a strong and bureaucratic state; rather, it was to be located in individuals and in the exchange relations of a free society. One main concern, as with other early forms of capitalism, was to limit the state. The polity was to be created in the hearts and minds of individuals, in the purified citizen-members of a redeemer nation. The concern of these nation-builders was not so much to control labor as to include everyone in

their definition of the polity. Saved individuals, freed from the chains of sin and tradition and ignorance and aristocracy, were the carriers of political authority and meaning and responsibility (Marty 1970; Handy 1971; Hammond 1974; Tuveson 1968). This conception of the republican polity was grafted onto a tradition of Protestant concern for the education of the individual that stretched back to the time of Martin Luther (literacy had been high in small Protestant societies such as Sweden, Scotland, and New England long before the American Revolution).

This discussion, however, really applies only to the northern and western states. There was an important exception to this theory of an individualistic, free, capitalistic polity: the slave South and its subsequent caste society. Southerners were deeply Protestant and also distrusted a centralized state, but the political economy of the South was in many respects sharply different. Plantation slavery and the caste system stymied the kinds of inclusive and millennial nation-building movements found in the North. In the southern version of agrarian capitalism, labor control was a serious problem. Black workers were kept in a highly subordinated political, social, and economic position, not only under slavery but also under the subsequent caste system (Genovese 1971). This was in contrast to efforts in the North to incorporate all citizens into the kind of polity described above.

The educational statistics included in tables 1 and 2 show that southern and border states had radically lower rates of enrollment and expenditures and shorter school terms. On the eve of the Civil War, the South provided only 10.6 days of public school per white child as compared with 63.5 in New England and 49.9 in the north central States. Only slowly did the South begin to catch up with the North in the 20th century, and until recently there was gross discrimination in the resources devoted to the education of black children (Bond 1939).

Using multiple regression analysis, we have considered a number of variables that might account for the striking southern differences in enrollments and other educational variables: the high ratio of children to adults, the small urban population, the lack of industry, and the low percentages of Catholics and immigrants. None of these variables, when held constant, substantially reduces the differences. When the percentage of the population who are black is substituted for the regional variable, essentially the same results as in tables 1 and 2 are reproduced. But it is a mistake to think of the fundamental operative factor as being simply the proportion of Afro-Americans. We are comparing two political economies, for the regional distinction in itself captures contrasting social systems: the culture of northern freeholder capitalism with its inclusive concept of an individualized polity is very different from the plantation culture of the South controlled by whites and premised on the inferiority of a whole class of noncitizens.

*Smallholder capitalism and education.*—Focusing on the North and West,

we concentrate first on the interaction between its form of capitalist political economy and the religious-political ideology shared by those who spread the common school. One critical factor to understand in this whole process is the role of the American *farmer*, an important carrier of capitalistic culture, involved in rational calculations in a world market, and eager to maintain free action in a free society (Foner 1970; Welter 1962, chap. 10).

A political economy or moral polity based upon free individuals—freed both from traditional forms of community and from an old-world statism—requires great effort and constant vigilance: to educate these individuals (freedom from ignorance), to reform their souls (freedom from sin), to save them from political subordination (freedom from aristocracy), and to save them from sloth (freedom from old-world customs). To liberate such individuals and to link them by education and salvation to a millennial America seemed within the reach of a responsible citizenry. “Educate the rising generation mentally, morally, physically, just as it should be done,” a Yankee Republican senator exhorted his colleagues, “and this nation and this world would reach the millennium within one hundred years” (Welter 1962, p. 151).

The major educational agents of this individualistic political culture of capitalism—rational and universalistic in premises but almost stateless in structure—were actors whose authority was more moral than official. They combined in associations that look to 20th-century eyes like social movements—religious and other voluntary groups rather than organizations clothed with the authority of a bureaucratic state. But recall that in this conception of the polity the “nation” is really a state of mind more than a powerful apparatus. Thus, it was natural for religious leaders and missionaries, local booster elites, frontier politicians, and other scattered groups to join in a common social movement to create the common school (Smith 1967; Tyack 1966, 1970). What held such individuals together, in this 19th-century conception of the polity, was not the coercive or normative power of the state but their common consciousness of the laws of God and the demands of rational human order. These groups acted not simply to protect the status of their own children but to build a millennial society for all children. Their modes of thought and action were at once political, economic, and religious. That these school promoters were often in fact ethnocentric and served their own religious, political, and economic interests is quite clear; but they were doing so in a very broad way by constructing an enlarged national society.

We argue, then—and stress that our analysis is speculative—that it was not a narrow elite or powerful state that erected schools across the country but rather hundreds of thousands of people who shared a common ideology of nation-building. Such culture-bearers were not randomly distributed, of course. Some scholars have observed that rates of enrollment reflected the

religious and political cultures of the settlers (Bidwell 1966). In Massachusetts, Kaestle and Vinovskis (1976) found, for example, that the enrollment of pupils was highly correlated with the number of church seats in town, and in New York enrollments reflected the number of New England migrants. Fishlow (1966*a*) discovered the same pattern in the middle-western states at mid-century. Such patterns can be interpreted as evidence of the sort of evangelical culture-bearing we have in mind, but one which influenced the whole nation and flowed well beyond its New England origins. The process of school-formation, we believe, was akin to the massive voluntary creation of churches in American society and stemmed from a similar institution-building social movement.

#### EMPIRICAL EXPLORATION

This speculative interpretation can be examined empirically in many ways. One avenue is to investigate local leadership in the public school movement and the network of communication and association that linked a mobile population: for example, Smith (1967) and Tyack (1966) have studied the educational work of missionaries in the West. Another approach, exemplified by the quantitative study of individuals and towns in Massachusetts by Kaestle and Vinovskis (1976), is to do intensive analyses of local communities.

Our own exploration employs state-level data from the North and West over a seven-decade span, beginning in 1870, when comparable figures first become available. There is value in supplementing studies at lower levels of analysis with state data—despite the problems involved—since in this way we exploit the considerable variability among states and are able to treat the whole country over a considerable time span. In our view, macro-analysis and microanalysis usefully reinforce each other; and, indeed, our findings turn out to have important parallels in the research on individuals and communities.

Of course, costs are involved in the use of highly aggregated data. These data contain a good deal of error (Blodgett 1893). More important, we cannot tell whether findings arise because of processes at the state level itself or as aggregated results of lower-level processes. In our interpretations below, we avoid inferences about the level at which the processes under discussion operate. If we find that the presence of a given religious movement affects enrollment, for example, we avoid arguing that this reflects the individual predisposition of members of this movement to educate their own children more. Such a process might well be involved. On the other hand, the finding might arise because members of the movement were generally inclined to support the political demand for educating all children: an aggregate political process rather than an individual educational one.

Both possibilities are inextricably linked in our data (see Hannan, Freeman, and Meyer [1976] for a more extended discussion).

In other words, our empirical effort here is to find rough measures of the dominance of certain kinds of religious and political movements in a state and to show their effects on educational enrollments. We are unable to distinguish the processes, operating at several levels, that may be involved. We compiled the variables listed below by state from the relevant Census and Commissioner of Education reports. We also show in Appendix B the correlation matrices for key variables for 1880 and 1920. Our analysis focused especially on the effects of the following variables on school enrollments.

1. *Urbanization*.—The degree of urbanization of a state is determined by the percentage of the population in cities of 2,500 or more (U.S. Bureau of the Census 1950). In parallel analyses, we also examined the effects of per capita manufacturing product. These two variables are so closely related as to make simultaneous analyses of their effects impossible.

2. *Republican party dominance*.—We suppose that the votes for the Republican party during the 19th century are one useful indicator of the importance of a millennial view of the polity, the ethnocultural values represented in the public school movement and related social movements like temperance, and the culture of individualistic capitalism (Foner 1970; Kleppner 1970; Jensen 1971). For each state, and each decennial year, we measure the number of years of Republican control of the governorship during the preceding decade. Data are taken from Burnham, Clubb, and Flanigan (1976).

We paralleled our analyses here with measures of the size of the vote received by Free Soil candidates in 1848 and Prohibition candidates in 1888 (Burnham 1955)—these political movements probably reflected a very similar view of the polity. Political measures of these kinds, we believe, reflect quite general social orientations. And since votes are cast by adult populations, they reflect dispositions which have considerable stability over long periods of time.

3. *Evangelical Protestantism*.—We also consider the evangelical religious ideology an integral part of nation-building and closely related to expansion of schooling. Each Protestant denomination was coded (from 1 to 3) by the extent to which it reflected the millennial and evangelical movements of the 19th century (the coding scheme is reported in Thomas [1978]). The state is characterized by the weighted proportionate size of such evangelical denominations in its total population. Data are taken from U.S. Bureau of the Census reports (1870, 1890) and for later years from the U.S. Census Bureau's *Census of Religious Bodies* (1906, 1916, 1926, 1936). This measure provides an overall assessment of the strength of evangelical Protestantism in a given state.

4. *Percentage of the population that is Catholic.*—Data are taken from the U.S. Bureau of the Census reports (1870, 1890) and for later years from the U.S. Census Bureau's *Census of Religious Bodies* (1906, 1916, 1926, 1936). This variable is employed for two reasons. First, many writers have argued that educational expansion was a response to the growth of immigrant and Catholic groups, that older WASP groups created and expanded the public school system as an institution to press their culture on newer groups (Collins 1977; Carlson 1975). In part, we employ this variable in the analyses below to examine this hypothesis, but our test is partly vitiated by a second consideration. Many Catholic children attended parochial schools, but enrollments in these schools are not included in our data (they are not available for the earlier years of our study). Thus, we expect to find a negative effect of the Catholic percentage variable on enrollments for artifactual reasons. We employ the variable in this respect as a methodological control to make sure that the effects of such related variables as urbanization are not rendered spuriously negative because of the concentration of the Catholic population in cities.

5. *Percentage of the population that is immigrant.*—In order to test the substantive hypothesis better, we also studied the effects of the percentage of the population that is immigrant (U.S. Bureau of the Census 1870–1930). Unfortunately, this variable is so highly correlated with the Catholic percentage variable as to make simultaneous analysis risky. So, in our main tables we employ only Catholic percentage as a control variable. But to test the substantive hypothesis that the expansion of schooling reflected attempts to control immigrant populations, we present the results in a note to table 3 when this variable is added to the main analyses. These results are tentative for statistical reasons, but they do reflect our best estimate of the status of this hypothesis (since Catholic percentage, with its negative artifactual effects, is held constant in these analyses). Table 3 presents the results of a series of multiple regression analyses of these variables in relation to school enrollments. We summarize the results in the light of our interpretation.

1. Urbanization shows a consistently negative association with educational enrollments, no matter what other variables are controlled. In parallel analyses which include per capita manufacturing product in place of urbanization, the same pattern of consistently negative effects appears.

2. During the earlier decades of our study, as predicted, the index of evangelical Protestantism shows consistent, and in one case significant, positive effects on enrollments. By 1910, these effects disappear, and coefficients which are slightly negative appear. This pattern holds when a variety of other potential factors are held constant in the analysis. It seems likely that "social movement" factors influential in 19th-century educa-

TABLE 3

## MULTIPLE REGRESSION ANALYSES OF PRIMARY EDUCATIONAL ENROLLMENTS BY YEAR: NORTHERN AND WESTERN STATES ONLY

YEAR OF ENROLL- MENT	CASES (N)	INDEPENDENT VARIABLES												R <sup>2</sup>
		Urbanization			Catholic Percentage			Evangelical Protestantism Index			Republican Party Dominance			
		B	$\beta$	SE	B	$\beta$	SE	B	$\beta$	SE	B	$\beta$	SE	
1870.....	20	-.14	-.32	.11	-.0015	-.44	.0011	.00004	.14	.00008	.00076	.18	.00093	.41
1880.....	20	-.23**	-.67	.06	.0004	.13	.0005	.0009**	.54	.00003	.00043	.21	.00036	.48
1890.....	21	-.24*	-.65	.12	.0001	.06	.0003	.00014	.23	.00011	.00062	.29	.00046	.50
1900*.....	22	-.37	-.40	.31	-.0002	-.18	.0003	.00016	.34	.00013	.00060	.17	.00079	.10
1910.....	28	-.15*	-.42	.06	-.0003*	-.42	.0001	-.00007	-.11	.00008	-.00029	-.11	.00033	.55
1920.....	29	-.11	-.24	.07	-.0003	-.49	.0001	-.00011	-.16	.00010	-.0011*	-.31	.0005	.42
1930.....	29	-.43	-.11	.05	-.0004**	-.66	.0001	-.00004	-.08	.00007	-.00072*	-.25	.00037	.57

NOTE.—When percentage of immigrants is added as an independent variable to these analyses, the following standardized regression coefficients (all nonsignificant) are obtained for the seven consecutive time points: .08, -.14, -.17, -.19, -.03, .39, and .00.

\* There is a problem with the data for 1900, especially with the urbanization variable. All of our attempts to ascertain the reason for these anomalous results have been unsuccessful. We have substituted manufacturing workers per capita in all of the analyses for 1900 to deal with these data problems since this variable operates very similarly to urbanization in all of the analyses.

\*  $P < .10$ .

\*\*  $P < .05$ .

tional expansion became increasingly replaced by factors related to the increasing impact of nationwide bureaucratization.

3. Republican party dominance shows consistently positive, but not statistically significant, effects on enrollment in the 19th century.<sup>2</sup> After the turn of the century, these effects become negative ones. We have discussed above some organizational changes that occurred about 1900, but it should be noted here that a number of scholars have seen 1896 as a turning point in the strategy of leaders of the Republican party. Forces of social reform and nation-building which had formed and shaped the party for 40 years, bringing into its structure reformist themes such as abolitionism and prohibitionism, and emphasizing unification and education on Protestant and Anglo-Saxon terms, were finally overshadowed by the rising power of urban capitalism and appeals to different constituencies. It is striking that this change took place just when our data show that the effects of Republicanism on enrollments shifted from positive to negative. Such an interpretation is, of course, highly speculative since the coefficients associated with this variable are statistically insignificant.

4. Throughout our analyses, the percentage of the population that is Catholic shows a negative effect on school enrollments, an effect which becomes large after the turn of the century. This may reflect negatively on the hypothesis that education was expanded to control the immigrant Catholic population, but we think it primarily reflects the fact that parochial school enrollments are not included in our data (the variable is thus employed in our analysis mainly as a statistical control). To get more directly at the central hypothesis involved, we added to the main analyses reported in table 3 the percentage of the population that is immigrant. The results are affected by colinearity—immigration is closely related to the proportion of the population that is Catholic—but no evidence of any positive effect of immigration on educational enrollments appears. Throughout our time period, most of the coefficients associated with immigration are negative (though insignificant), rather than positive, as the hypothesis suggests. We interpret these data to mean that whatever organizational changes immigration may have produced in American educational organization (see, e.g., Tyack and Berkowitz 1977), expanded enrollments were not central. A great concern with the social control and absorption of the immigrant population does not seem an adequate explanation for the expanded enrollments we observe in the 19th century.

The exploratory analyses reported in table 3 lend some support to our

<sup>2</sup> In parallel analyses, we have replaced the Republican dominance variable with other political measures which reflect individualistic nation-building: the state's vote for the Liberty party in 1844, for the Free Soil party in 1848, and for the Republican party in 1860. All three of these variables show positive effects (two are statistically significant) on primary enrollments in 1880.

argument that the expansion of education in the 19th-century North and West contained elements of evangelical Protestantism, freeholder capitalism, and an individualistic conception of the polity—phenomena we have grouped under the rubric of nation-building. They lend support to three general ideas: First, urbanization and industrialization were not prerequisites for the development of mass public education; on the contrary, the society of the rural North and West may have produced higher enrollments than did the towns and cities.<sup>3</sup> Second, the nation-building movement, for which we have used numbers of evangelical Protestants and Republican party dominance as indicators, did seem to have some effect on educational enrollment. The results for the 19th century are consistently positive, although perhaps because of our small number of cases not usually statistically significant. We have some general support for our theory, but further testing will require a more fine-grained approach, for example, through more studies of individuals and communities. Third, our statistical analysis suggests important changes in the control, character, and direction of American education at the turn of the 20th century. By 1900, all but a small percentage of the primary school population was enrolled. This lack of substantive variability in enrollments between states after 1900 makes our generalizations about causal influences more tentative.

### CONCLUSIONS

We have examined factors affecting educational enrollments and reorganization in the American states during the seven decades from 1870 to 1930. We have attributed the dramatic educational differences between the southern and northern states primarily to the very different forms of capitalist political economy created during the expansion of the world system into the two regions. We argue that the spread of schooling in rural areas of

<sup>3</sup> A problem remains, however. Our theory argues against the supposition that urban industrialism positively affected 19th-century enrollments. And the coefficients of table 3 indeed are not positive, but they are consistently negative. Why does this occur? The literature suggests an explanation. Perhaps the urban bureaucratization of education "tightened up" both the organization of educational enrollments and their reporting, eliminating the rural inclination to enroll over- and underaged children in the primary schools for at least a month or two each year (Kaestle and Vinovskis 1976) and to report nonattenders as enrolled. If these explanations are correct, the negative effects of urbanization in table 3 should disappear if some measure of educational formalization is used as a control. Following this line, we repeated the analyses of table 3, adding our measure of educational expenditures per student, with the expectation that the inclusion of this variable might eliminate the negative coefficients associated with urbanization. The results showed that, contrary to our expectations, the expenditures variable does not usually affect enrollments negatively; furthermore, its inclusion does not lower the negative effects of urbanization. So we are left with the conclusion that the negative effects of urbanization occur through mechanisms other than the formalization of the system.

the North and West reflected a commonly held ideology of nation-building that combined the outlook of small entrepreneurs in a world market with evangelical Protestantism and an individualistic conception of the polity. The urban-industrial system affected chiefly the bureaucratic elaboration of the rudimentary common school, especially in the years following 1890.

One might interpret this twofold analysis as reflecting the destruction of the pastoral schools of egalitarian America by the rise of urban capitalists and an encroaching state at the turn of the 20th century. We think not. It is a mistake, we believe, to see the scattered freeholders and entrepreneurs who shaped rural America as isolated and traditional people or to suppose that the cosmologies of the 19th-century evangelists—religious, moral, political—were concerned only with otherworldly (read “not economic”) life. Pastoral folk do not create gigantic systems of public instruction or prosper as producers and traders in long-distance markets. The urban-bureaucratic system of mass education we have now did, in a sense, begin in the industrial towns of Massachusetts at the mid-19th century, but that pattern of intensive, systematic schooling was to be atypical until much later—until that critical period in our history when the economy became more centralized in direction, the state apparatus vastly enlarged, and the older conceptions of nation-building transformed into an ideology of “technical unity” more congruent with an everyday life dominated by large organizations (Higham 1974).

APPENDIX A

MULTIPLE REGRESSION ANALYSES OF FORMALIZATION INDICATORS BY YEAR: NORTHERN AND WESTERN STATES ONLY

		INDEPENDENT VARIABLES												
		Urbanization			Catholic (%)			Evangelical Protestantism Index			Republican Party Dominance—Party of Governor			
CASES	(N)	B	$\beta$	SE	B	$\beta$	SE	B	$\beta$	SE	B	$\beta$	SE	R <sup>2</sup>
<b>Length of school year:</b>														
1870	17	87*	.51	38	.05	.04	.32	-.001	-.01	.021	-.58	-.34	.37	.35
1880	20	90**	.61	30	.29	.23	.24	.014	.17	.015	-.11	-.12	.19	.49
1890	21	49	.39	34	.11	.31	.09	.034	.15	.035	.26*	-.34	.12	.61
1900*	21	-4	-.04	22	.30**	.79	.07	.105*	.56	.025	-.09	-.06	.17	.77
1910	28	24	.33	14	.06*	.44	.02	.003	.02	.018	.13*	.25	.07	.48
1920	29	24**	.57	6.9	.02	.22	.01	-.007	-.10	.010	.03	.08	.05	.41
1930	29	22**	.67	5.5	.00	.04	.01	.004	.09	.007	.00	.01	.04	.40
<b>Educational expenditures:</b>														
1870	17	11**	.54	4.2	.046	.29	.036	-.001	-.10	.0024	-.034	-.16	.040	.48
1880	20	86**	.58	3.1	.012	.10	.026	-.003	-.33	.0016	-.007	-.08	.018	.34
1890	21	16*	.71	7.5	-.017	-.27	.021	-.019*	-.45	.008	-.008	-.06	.028	.38
1900*	21	11	.52	6.5	.025	.31	.022	-.005	-.13	.007	-.046	-.16	.050	.52
1910	28	22*	.48	11	-.024	-.30	.019	-.017	-.22	.014	-.12*	-.37	.06	.13
1920	29	24	.30	15	-.051*	-.40	.025	-.001	-.01	.022	-.22*	-.34	.11	.19
1930	29	17	.23	16	-.016	-.13	.029	.007	.06	.022	-.02	-.05	.11	-.10

NOTE.—B = unstandardized regression coefficient;  $\beta$  = standardized regression coefficient.

\* See note to table 3.

\* P < .10.

\*\* P < .05.

APPENDIX B

1880 AND 1920 ZERO-ORDER CORRELATION MATRICES: NORTHERN AND WESTERN STATES ONLY

1880 (1920)	Urbanization	Catholic Percentage	Evangelical Protestantism Index	Republican Party Dominance
Catholic percentage. . . . .	.40 ( .39)			
Evangelical Protestantism index. . . . .	.09 ( .07)	-.30 (-.24)		
Republican party dominance. . . . .	-.10 (-.03)	-.16 ( .08)	-.31 ( .02)	
Primary enrollments. . . . .	-.59 (-.43)	-.26 (-.57)	.38 (-.07)	.13 (-.35)
Length of school term (in days). . . . .	.73 ( .64)	.41 ( .48)	.19 (-.11)	-.19 ( .08)
Educational expenditures per pupil (in current \$). . . . .	.60 ( .15)	.42 (-.31)	-.28 ( .10)	-.02 (-.39)

NOTE.—*N* = 29; the numbers in parentheses are the correlation coefficients for 1920.

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