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The American States and the Age of School Systems

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This paper advances a series of propositions outlining a model of educational change in American state school systems. It is argued that the enactment of compulsory school attendance laws marks the formal beginning of a state school system and determines a system's institutional and practical development and change. Once the previously unassociated parts of a state's educational system are linked, an institution is formed that, in part, undergoes self-generating change. Numerous aspects of this system are measurable, and the statistics that result reflect its development and progress. State school systems must mature sufficiently before they are able to review their own practices and affect change. Also, a state's geographical location, whether in the core of a group of states or at the periphery, influences the development of its educational system.

Introduction

It can be argued that the literature on the history of American education tends to divide into two camps. One focuses on the evolution of public schooling as a national experience (e.g., Bailyn 1972; Cremin 1980; Tyack 1974); the other, which is more diffuse, focuses on the shaping of individual state or community school systems (e.g., Kaestle and Vinovskis 1980; Katz 1968; Schultz 1973; Troen 1975). The multilevel, decentralized organization of American public education is what distinguishes it from the more centralized, national educational systems in Europe. The study of American education cannot remain very long at one or the other level, for they have influenced each other greatly and are closely interrelated. Therefore, the distinctive task in studying American education is to relate the whole to its parts, and vice versa.

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Descriptions of American education as multileveled, where each level is “nested” within another (see, e.g., Meyer 1980), recognize this task. But, although these descriptions may be correct, they may disguise more than they reveal by sustaining controversies over where one best enters the study of American education. In this paper, I assert that focusing on state school systems can aid greatly in explaining about educational change, that systemic differences among states can determine both local and national change in educational policy and practice.

Two aspects of organizations form the basis of the model. They are taken from Weber’s distinction between what he calls “formal rationality” and “substantive rationality” (Weber 1922/1978, pp. 85–109). The Weberian distinction defines formal rationality as the “extent of quantitative calculation or accounting which is technically feasible” and substantive rationality as the “degree to which the provisioning of given groups of persons with goods” is achieved. While the meanings originally intended by Weber are tied to late nineteenth-century approaches to economic processes, the distinction does serve to highlight two important aspects of educational institutions. In their application to the study of state school systems, broader connotations are intended. Formal rationality encompasses those aspects of organizational structure focusing on administrative theory and systematization. These institutionalizing aspects of school systems result largely from self-generating, internal expansion. Such growth of an educational system can be easily measured in numerous ways that are routinely calculated and preserved as formal records. Substantive rationality, in contrast, involves the more practical aspects of policy change, the results of implementation of judgments about the structure and provisions of the educational system. These judgments arise from within the school system or from interested parties served by schools and can lead to change in educational policy or extension of provisions.

The Formalization of State School Systems

The formalization of an educational system may be defined as the transfer of control over schooling to a political authority higher than

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that of autonomous social groups and communities. The success of this transfer of control is determined in part by the capacity of this higher political level to enact and enforce the nonvoluntary educational participation of diverse social groups and to tap its “organizational potential” (Stinchcombe 1965)—that is, mobilize and sustain its resources—away from immediate, local group bonds. Formalizing an educational system is indeed a difficult task because, when control is assumed by an independent political authority, it signifies a loss of power by local groups in exchange for a collective benefit (Coleman 1974). The degree of collective benefit will depend on the number and degree of equality of competitors for education.

The date of this transfer to a higher political authority marks the beginning of a school system as *a system*. The roots of a state’s educational system certainly predate the formal assumption of state authority. Nonetheless, a model of state educational change needs a defined, standard *starting point* (Mullins 1971, p. 61). For the American states, such a point is the date at which compulsory school attendance legislation was enacted.¹ Nationwide the span of time of this legislation was considerable; Massachusetts enacted first in 1852, and Mississippi enacted last in 1918 (see table 1). Enactment of compulsory attendance laws was not a uniform movement, nor was it an idea that diffused from a cultural center. Rather, the time span and pattern of enactment demonstrate that internal state conditions governed their capacity to inaugurate a state-administered school system (Richardson 1980*b*). The capacity, not simply the will, to mobilize and sustain resources at the state level determined when a state school system was formally born.

The enactment of compulsory school attendance depended on favorable structural conditions and active social and political forces. Traditional accounts of compulsory attendance laws interpret passage of the legislation as reflecting already high enrollment levels (Landes and Solmon 1972, pp. 77–78; Solmon 1970, p. 72). But the level of attendance was not a significant determinant of when enactment occurred. The size of voluntary school enrollment was neither a sufficient nor necessary condition for the formation of a system of common schooling. Many western territories enacted compulsory attendance before 1875 and without a sizable school-age population. Rather, enactment of compulsory attendance laws depended on an amenable economic base and demographics that lessened the constraints against transporting children to schoolhouses. Specifically, the combination of a high percentage of the male work force being outside of agriculture and a low ratio of school-age children to adult males was the essential determinant of compulsory school legislation (Richardson 1980*b*). The

TABLE 1

Dates of Legislative Enactment of Compulsory School Attendance Laws

1. Massachusetts	1852	26. Colorado	1889
2. New York	1853	27. Oregon	1889
3. District of Columbia	1864	28. Utah	1890
4. Vermont	1867	29. Kentucky	1893
5. Michigan	1871	30. Pennsylvania	1895
6. New Hampshire	1871	31. Indiana	1897
7. Washington	1871	32. West Virginia	1897
8. Connecticut	1872	33. Arizona	1899
9. New Mexico	1872	34. Iowa	1902
10. Nevada	1873	35. Maryland	1902
11. California	1874	36. Missouri	1905
12. Kansas	1874	37. Tennessee	1905
13. Maine	1875	38. Delaware	1907
14. New Jersey	1875	39. North Carolina	1907
15. Wyoming	1876	40. Oklahoma	1907
16. Ohio	1877	41. Virginia	1908
17. Wisconsin	1879	42. Arkansas	1909
18. Illinois	1883	43. Alabama	1915
19. Montana	1883	44. Florida	1915
20. North Dakota	1883	45. South Carolina	1915
21. South Dakota	1883	46. Texas	1915
22. Rhode Island	1883	47. Georgia	1916
23. Minnesota	1885	48. Louisiana	1916
24. Idaho	1887	49. Mississippi	1918
25. Nebraska	1887		

SOURCE.—U.S. Office of Education, *Biennial Survey of Education, 1916–1918*, vol. 1. Washington, D.C.: Government Printing Office, 1921, pp. 514–15.

converse of these conditions bolstered the barriers to enforcing school attendance and prevented the integration of local communities into a system controlled by the state political authority.

This common allegiance to the state political level parallels the definition of a national educational system formulated by Archer (1979, p. 54) as a “nationwide and differentiated collection of institutions devoted to formal education, whose overall control and supervision is at least partly governmental, and whose component parts and processes are related to one another.” As Archer points out, the political and systemic aspects of schooling have not necessarily been joined historically. For example, the Czarist bureaucracy in Russia controlled higher education before lower levels were integrated, and Catholic instructional networks existed in France independent of state centralization. For Archer, analyzing European societies, the date when the political and

systemic aspects of education were joined marks the origin of a national educational system. For the American states, enactment of compulsory attendance laws marks when the linkage of local educational networks to the state political level became feasible.

The integration of localities under a state-level authority was not only made feasible by economic and demographic conditions but was hastened by the activity of teachers beyond their local communities. State teachers' associations raised the political orientation of teachers from local to state concerns, an orientation consistent with their specific economic interests (West 1967, p. 115). This political orientation, in turn, led them to seek standards for minimal levels of school attendance and the standardization of school curricula through state-level organizations.

Compulsory attendance laws broadened the political constituency (Cubberley 1919, p. 381). Compulsory attendance placed the school-age population under the jurisdiction of the state and thereby bound the state to incorporating and educating whole groups not already voluntarily attending schools. Compulsory attendance enlarged the ranks of instructional personnel with direct and auxiliary educational functions and bound them to the state mandate.

State School Systems and the Expansion of Formal Rationality

The date of formalization of a state educational system through compulsory attendance may be succinctly expressed by the *institutional age* of the school system, with Massachusetts being the oldest and Mississippi the youngest. The uneven propensity or capacity of states to enact compulsory attendance laws provides the basis for the first proposition.

Proposition 1: The legislation of compulsory school attendance enhances the integration of schooling as a system and generates a number of systemic processes critical to the organizational growth and integration of the constituency. These organizational processes expand over time.

It cannot be maintained that passage of compulsory attendance laws brought on immediate and dramatic effects. Levels of school enrollment were already high in most states by the time of enactment and were higher in some agricultural states than in urban states (Fishlow 1966, p. 427; Solmon 1970, p. 68; Soltow and Stevens 1977, pp. 232–34).

Some evidence suggests that passage of the laws did not significantly raise enrollment levels (Landes and Solmon 1972). Moreover, enforcement of compulsory attendance was often ineffective (Tyack 1974, pp. 70–71), and many local school officials were unaware of their state law (U.S. Commissioner 1889). Yet it is not clear how to interpret these facts; they may only demonstrate that the enactment of law often reflects already favorable conditions and remind us that passage does not quickly alter traditional behaviors.

The significance of compulsory attendance lies not in short-term practical effects but in how it formalized the relations among aspects of schooling that hitherto were voluntary or dependent on private or charity resources. Compulsory attendance signified the state's commitment to public funding, contributing in turn to the strengthening of public over private schooling (Kaestle and Vinovskis 1980, pp. 12–17). There is evidence that the enforcement authority that compulsory attendance laws gave to school officials contributed to the level of school enrollment and to the length of the school term (Stambler 1968, p. 199; Troen 1975, pp. 200–1). Compulsory attendance, in effect, compelled the state school system to change traditional behaviors and transform them into formal, structural relations.

Furthermore, compulsory attendance was fostered by its symbolic affinity to the broader national trend toward “compulsion,” reflecting what Burgess (1976, p. 202) has called the “general majoritarian mood.” Because the rise of common schooling paralleled the spread of an industrial economy, many have seen the school as a most accommodating arena for the inculcation of order and standardization (Bowles and Gintis 1976). Compulsory school laws are then seen as expressing the intent to diffuse the behavioral norms of an industrial economy. Such functional accounts of compulsory attendance laws contain some truth, yet such accounts overstep their evidence and miss the important symbolic effects of the laws. As Cohen and Rosenberg (1977, p. 124) aptly noted, “The laws were there less for what they produced than for what they promised and preached.” If we view them for what they promised, we may better explain why several western territories enacted compulsory school laws at the same time as did most northeastern states. For these emerging states, enactment was a symbolically declared school system formation even if the requisite school-age population and instructional personnel were lacking. Compulsory school attendance formalized the *anticipation* of conditions and thus gave to territories a symbol of their corporate existence (Richardson 1984b). If we view them for what they preached, compulsory attendance laws were a declaration that schooling would be a system. The duties of school

officers would be carefully specified, salaries would be fixed, and records would be maintained. The symbolic affinity between the national trend toward order and the legislation of compulsory attendance reinforced states' efforts to build up and sustain systems of common education. The effect of compulsory attendance, nourished by this national trend, was to imbue schooling with the new principles of administrative accounting and curricular standards. But again, the uneven response of states in enacting compulsory attendance laws is central to interpreting this effect.

If the school system's broadened constituency is to grow and become integrated, it must initially overcome the inertia inherent in having schooling confined within autonomous social groups. Legislating compulsory attendance mandates the state to overcome this inertia and to commit resources to systematizing the constituency. The school system tries to respond to a broadened and more heterogeneous environment that now places much value on technical standardization and predictability (Wuthnow 1981, p. 124). The length of the school year, the expenditures per pupil, the organization of schoolhouses, and the costs of transporting students are measures of system growth and, in turn, relate to the expansion of other resources. Curriculum standardization, school law codification, and noninstructional staff diversification illustrate the integration of the constituency. These interlocking dynamics help to explain some long-term state trends. For instance, lengthening the school year raised the costs of public schooling, which is reflected in higher expenditures per pupil. This, in turn, led to the progressive "feminization" of public school teaching as one means of meeting the economic demands of a state committed to compulsory school attendance (Richardson and Hatcher 1983). Older state school systems feminized their teaching ranks earliest, for they broadened their school constituency earliest.

The movement to consolidate or centralize schools is likely the most consequential of processes tied to compulsory attendance, as well as the most closely linked. The movement to consolidate schools entailed deliberately abandoning schools that would not otherwise have been forced to close to establish larger districts facilitating more efficient administration (Monahan 1914, p. 5). Centralization involved the placement of a school in the center of a township in order to maximize school attendance. As with enactment of compulsory attendance laws, both consolidation and centralization were contingent on the capacity of the system to mobilize a school population and absorb the ensuing costs. Here, the major barrier to mobilization was the resistance of rural communities to sending their children to distant schools (Tyack

1974, pp. 25–27). Part of the costs was transporting students at public expense. In keeping with this paper's primary theory, the oldest school systems legislated consolidation earliest; the southern states began consolidation only after the turn of the century (Monahan 1914). The institutional age of a state school system was a primary determinant of when consolidation would commence. Thus, the earlier a state enacted compulsory attendance, the higher the level of enrollment. This greater degree of school participation is positively related to school consolidation,² which is, in turn, positively related to the expansion of the size and diversity of administrative staff.³

The processes of growth and integration produce measurable indexes of educational systems that gauge the complex of institutional requirements that relate to the administration of school units and their personnel (see Kaestle and Vinovskis 1980, pp. 2–3). These requirements vary with the institutional maturity of the school system: the older the system, the earlier these requirements appear and the longer they have existed to be measured. Spurred by formalization, these measures rapidly become part of the state educational system themselves, providing recorded evidence of school functioning and outlining a written history of the system. It is a noteworthy feature of the history of state public schooling that we possess an almost year-by-year chronicle of indicators on state school systems from 1870 forward. Despite problems of error in some historical data (Ralph 1980), state school system reports reflect the recognition that they are historical structures, institutions definable in quantitative ways that record expansion and progress. State educational systems are not simply units and personnel coordinated through compulsory mandate. Rather, they are totalities that are evident as such through the cumulation of indicators here termed "formal rationality." Indeed, we are hard pressed to note any other institution that so assiduously and routinely measures and publicizes such indicators of development.

The conception of school systems as historical structures constrains how we are to interpret each institutional element. The indicators reflecting the formal rationality of the school system are not fully interpretable removed from their overall social organization. Change in the educational system is toward maximal values of its elements; that is, change will involve a movement to increase the expenditures per pupil, to raise the average teacher salary, to increase the diversity and size of noninstructional staff, or to maximize the cost efficiency of transporting students. These aspects of the educational system form an interdependent configuration. The history of system change from the onset of compulsory attendance may be seen as a continuous

sequence of transitions from one configuration to another constituting the natural development of the system. Before compulsory attendance, any one element of schooling was relatively free of others and contingent on outside resources. Consideration of the social organization of the elements yields a second proposition.

Proposition 2: Each element of the educational system determines others, and their coordinated relations are shaped by the age of the system.

This proposition strongly contrasts the popular theoretical view of educational change, which commonly removes an element of the school system, defines its theoretical relevance, and then measures its determinants. Most typically, state enrollment statistics have been isolated and used to argue for the spread of national development itself (Meyer et al. 1979). This explanation presumes that state educational systems are primarily influenced not by internal factors but by broad, national trends. Proposition 2, in contrast, accords state educational systems a greater autonomy from exogenous variables than is typically assumed. It asserts that state school systems are complex wholes; one element may not be removed easily without altering the estimation and interpretation of other elements.

Proposition 2 claims that the elements of a state school system form a coordinated structure, which is in some respects akin to observations that school systems are self-generating (Ralph and Robinson 1980) or that they can assume “a life of their own” (Green 1980, p. 112). While it may be indefensible to presume that educational hierarchies are transsocietal and therefore obey a common “logic” (Archer 1981), it is recognized that much of educational expansion results from an internal momentum determined by prior levels of growth (see also Meyer et al. 1977). This acknowledgment is a methodological revision, but it highlights a certain vacillation about how educational change is to be conceptualized: either changes in educational systems are determined by variables exogenous to the system, or educational systems are treated as internally coherent and change is substantially self-generated.

However, the contrast between the two views is not merely technical. It exemplifies the broader question of how educational systems are to be understood as historical institutions. Educational systems must emerge; that is, many historical conditions—local, state, and national— affect how they form, how quickly they form, and the autonomy they achieve (Archer 1979). Once formed, however, outside historical in-

fluences can quickly recede precisely because educational systems are formalized as *institutions*. Exogenous variables are particularly relevant to the formalization of the school system because their influence is through the “corporate actors” who are instrumental in forming the system, such as religious or labor groups, guilds, or professional associations (Craig and Spear 1982, pp. 65–90). After formalization, exogenous variables are significant for how they alter the *coordinated relations* now established among the elements of the school system.

Such an approach has long been employed in analyzing physical and biological systems. In physics, the “closed system” of thermodynamics is said to be completely defined by three values or “coordinates”—density, pressure, and temperature. In biology, “open” biological systems may be based on sets of functional relationships influencing the effective adaptation to changing environmental conditions (Bertalanffy 1975, pp. 127–36; Sommerhoff 1950, pp. 74–76). Neither closed nor open systems are free from external influences. Rather, explicit attention is given to the values of the several elements that constitute the system at successive points in time and to how external, environmental changes may alter that system.

An exogenous variable is now reintroduced to analyze its capacity to “tighten” or “loosen” the coordinated relations of the educational system. An industrial base or urban growth can advance the maturity of a school system, for both may hasten the consolidation of schools and, in turn, reduce the costs of transporting pupils. A rise in per pupil expenditures, diversity of noninstructional staff, and average teacher salary may increase the institutional capacity to initiate reviews or challenges and to incorporate them as changes in educational practices or provisions. A significant change in these relations from what is predicted by analyzing the dates of mandatory compulsory attendance yields an empirical measure of institutional advancement. For example, Pennsylvania, a “young” northeastern school system, having enacted compulsory attendance in 1895, has nonetheless advanced institutionally and is at the forefront of substantive educational change.

The date of formalization is relevant for it marks a beginning of closure of the educational system and its solidification as an internally coherent system. Elements of the system and the relations among them exhibit a measurable structure. They are fixed early on as structural parameters. They form, to borrow from Bourdieu and Passeron (1977, p. 85), an “ensemble of relations whose variations express, not a sum of partial relations, but a structure in which the complete system of relations governs the meaning of each of them.” Modification of these parameters would signify “social change in the deeper sense of the term” (Duncan 1975, p. 57).

Educational Systems and Substantive Change

While the measures that serve as quantitative indicators of institutional growth, evaluating the system's progress in practice involves judgments about the success or justice in the provisioning of educational resources.

The institutional growth of a school system is substantially one of developmental "stages," which are, in part, expressions of the size and relations among the elements of the system. A strong noninstructional staff and auxiliary departments, a professional teachers' organization, a viable pupil transportation system, and a network of interdistrict relations are less developed in younger educational systems. Because they are institutionally younger, such systems cannot easily initiate judgments about the equity of educational practices or the provisioning of resources precisely because they may lack the reasons to do so or the organizational means to sustain such judgments. Practical change in school systems is, therefore, contingent upon a level of institutional maturity. Practical issues enter educational systems as (a) initiatives for redefining educational policy or remediating educational practice, and/or (b) claims for redistributing educational resources.

Equality of educational opportunity is a clear example of the evolution of a practical policy. Yet, the concept of such equality has never been singularly defined; it has been historically determined, evolving along with shifting implementation strategies (Coleman 1968). The implementation of change is not an abstract question; it is the practical matter of social groups penetrating the school system and of the school system being capable of incorporating initiatives for change. Institutional maturity determines when, how frequently, and with how much success claims are made for substantive change.

Proposition 3: The institutional age of a state school system remains a predictor of when substantive changes are initiated and incorporated into the educational system.

Although most initiatives for substantive change in state school systems can be traced back a long time, the successful realization of school provisions or organizational resources is historically more recent. Most state school systems diminished the impact of compulsory attendance by formalizing exemption clauses designed to maintain racial segregation or exclude students deemed uneducable. While initiatives by groups for full inclusion or extended provisions are by no means recent, their successful incorporation into state school systems comes well after formalization.

Three issues illustrate the proposition. First, the introduction of special education provisions into state school systems required an assertive ideology to overturn entrenched arguments about the ineducability of exceptional students. The initial emergence of these claims and the earliest mandated provisions are found in the oldest school systems (Richardson 1980a), and the pattern of enactment across the nation is influenced by institutional age and maturity. The shift from cultural to behavioral to health models to define “educability” is a sequential pattern of change linked to institutional age. The exemption of particular groups from full-time, regular instruction on the basis of cultural difference or deviant conduct cannot easily be sustained as school system jurisdiction is enlarged. Compulsory attendance compels the school system to expand its constituency, and school exemptions built around invidious cultural distinctions or truancy lose their viability. With time, they lose their statutory defense as well. Institutional age is key for over time the conditions favorable to these categorical changes develop.

Second, the rise of organized, militant teachers’ groups, who were the first with claims for the redistribution of educational resources, begins almost wholly in the oldest school systems. It is in these systems that the strongest teachers’ organizations are found. Young educational systems lack the institutional maturity to generate the necessary social bases from which challenges emerge and are pressed against established institutional practice. Notably, Cole’s study (1969) of the rise of teacher militancy in New York City demonstrates how gender, age, and social origin had a determining effect on predispositions to unionism. The increasing numbers of male teachers below age 30 and of working-class origins familiar with unions were critical to the success of the 1962 New York strike. These social changes reflect the evolution of school system composition as an institution develops. The remasculinization of teaching, which can only occur after feminization of the teaching ranks peaks, is a precondition to teacher militancy. The older school systems naturally undergo such compositional change earlier.

Finally, broad-based, legal challenges for the extension and protection of educational rights—challenges against state educational systems for civil rights compliance, right to education, special education placement, school suspension, and school finance—are filed earlier and more frequently in older educational systems. The filing of court challenges reflects politically favorable legal jurisdictions that have been shaped by state school systems whose institutional maturity fosters favorable circumstances and resources and networks of advocacy groups.⁴

As stated, Proposition 3 can be read as an overly strict assertion. That is, there is no claim that the date of enactment enables a prediction of a given change at a specified time. This proposition asserts that enactment establishes a configuration of relations that later raise the probability that certain substantive changes will be undertaken, and undertaken with greater success than in younger systems. To the extent that an institutionally advanced school system is marked by a more diversified administrative staff, more consolidated and accessible school districts, and greater participation of groups previously exempted from regular education, it will be more responsive to policy changes. At a minimum, older school systems would already have established personnel who are specially charged to resolve internal, integrative problems and foresee environmental changes.⁵

The argument that substantive changes in state educational systems arise during given stages of development emphasizes the staying power of the formal rationality of school systems. Formal rationality forms the evolved, institutional framework that can be static and powerfully resistant to change. Initiatives for substantive change must enter school systems through this preexisting framework. Here, the intersection of practical change with institutional norms tends to reveal a paradox: The successful incorporation of change will increase the reliance on preexisting institutional structures, which are themselves implicated in patterns of segregation and stratification. Attempts at substantive change in occupational and housing discrimination illustrate this paradox, for they often fail precisely because the means of redress remain constricted by the pattern of community stratification. As Mayhew (1968) succinctly noted for Boston, the pattern of claims against discrimination reflected the very pattern of racial stratification in the city. Discrimination continued because it was institutionally protected.

Similar unintended outcomes are confronted when substantive change in school systems is initiated. The example of special education reform is most salient. Reforms intended to reach "all" children can unintentionally widen the disparities between children of different socioeconomic levels in their access to quality educational provisions. Weatherly (1979, p. 139) has demonstrated how the greater capacity of affluent parents to "press for preferred treatment for their children through the use of established appeals machinery" diminishes the objectives of special education legislation. A similar unintended consequence of the growth of special education provisions has been the evidence of disproportionate and improper placement of minority students in special classes for the mentally retarded (Kirp 1973; Mercer 1973; Richardson 1979). This results not from the willful intent of school personnel but from

established relations and the routine institutional life of the school system (Milofsky 1974; Sarason and Doris 1979). The persistence of racial imbalances even in the face of efforts to erase them testifies to the staying power of institutional relations (Beeghley and Butler 1974). Yet, there is no need to see these relations as natural and unalterable. To do so is to remove them from the context of their historical formation and to obscure how variations in context influence how these outcomes are formed and may be undone.

The diversity of outcomes resulting from the initiation of substantive change suggests that the state may not be the most appropriate level for analysis. It might be argued that the most telling arena of change is the local community or independent school district. The empirical work in support of "loose coupling" (Corwin 1981; Meyer, Scott, Cole, and Intili 1978) requires a recognition of the variation within states in response to change. There is much evidence that local communities and city or independent school districts differ in their responses to substantive initiatives, even when they may be geographically adjacent (Kirp 1982, p. 273). Differences in demographic composition, community political structure, historical attempts at innovation, and stratification patterns all affect the strategies adopted in response to substantive innovation (Berman and McLaughlin 1976; Corwin 1975; Fullan 1981; Peterson 1976).

Nonetheless, the recognition of variation among localities does not preclude examining the state level. The differing patterns of both resistance to and incorporation of substantive change, as well as of institutional expansion, must be acknowledged and interpreted within a systematic theory (Giacquinta 1973, p. 192). The extension of state authority through the consolidation of districts not only combines schoolhouses and student bodies but also brings with it a new definition of formal jurisdictions. New jurisdictional lines cut across time-honored boundaries defined historically by the original communities, increasing both the social and economic diversity within these jurisdictions, altering who has the administrative jurisdiction of public schooling, and creating an imbalance by ignoring communities' distinctive ecological and socioeconomic patterns. The consequences are considerable; in older school systems the source of mandates for change becomes increasingly distant from the local arenas most affected by such change.

The age of a state educational system is specifically relevant to change in local communities because it defines the standards in reference to which substantive issues are composed and establishes the boundaries within which these issues are contested. Court decisions may rule differently in different states, even when the circumstances prompting judicial action are similar. The decision favoring the state in *Prince v.*

Massachusetts (1944) contrasts with the favorable decision for the Amish community in *Wisconsin v. Yoder* (1972). In the former, the state's right to compel the school attendance of children over parental religious interests was upheld; in the latter, the state's authority to compel the school attendance of Amish children at secondary levels was adjudged inimical to the well-being of the Amish as a community. Such judgments affect the direction of change of the state school system. They set constitutional standards and form boundaries for the claims that may begin at local levels. Substantive change in state school systems, even if begun at the local level, becomes part of a cumulative political history. Successful claims enter the body of school laws and statutes and may affect the course of educational policy, being cited as either constitutional or historical precedent.

Such judicial precedents advance the content and scope of subsequent claims disputed in local communities. Such cases as *PARC v. Commonwealth of Pennsylvania* (1972), mandating the extension of educational provisions to mentally handicapped children, or *Larry P. v. Riles* (1972) in California, prohibiting the use of IQ tests on black schoolchildren and mandating the construction of alternative assessment techniques, go beyond most cases involving younger school systems. They are substantive claims as opposed to more "reactive" disputes, such as those over sex education in Kanawha County, West Virginia (National Education Association 1975) or the defensive efforts over the closing of public schools to resist desegregation in Prince Edward County, Virginia (Kirp and Yudof 1974, pp. 312–17). The institutional maturity of the school system defines this difference, for the substantive claims exemplified by the *PARC* and *Larry P.* cases are anchored to longer histories of substantive change and legal and historical precedents. Moreover, although these claims may have been composed initially to protect the interests of a particular group, their content is not restricted by those interests but embraces larger issues of equal protection and equal opportunity.⁶

Differences in the scope of claims parallel differences in levels of content. The scope of a claim can be defined by the range of groups to which it is potentially relevant. A broader scope reduces the variation in substantive disputes among local communities. Older state school systems gain a diffuse influence over local communities as a result of their greater consolidation. Consequently, while such consolidation increases the diversity *within* local districts, it simultaneously increases the potential for linkages to be formed *among* districts. On this point, Blau (1977, p. 49) states, "Surprisingly, society's inequality as well as its heterogeneity is more compatible with integrative social associations among its different segments when it exists primarily within communities

than when it results mostly from the great differences among communities. Much differentiation of any kind within communities and little among them furthers social relations among the various segments of society.” In educational matters, a greater diversity within local school districts will raise the probability for an identity of interests among communities. Substantive disputes may begin within a locality, yet the probability of cross-district linkages removes the dispute from its local arena and broadens it to the state jurisdiction.

An increase in the potential for linkages among local communities and districts also gives localities a reciprocal influence on the state level. This influence arises, paradoxically, from the enhanced capacity for particular groups to influence the state level and the course of educational policy. Advanced state school systems, because of their more highly integrated, internal structure, tie the cultures of diverse groups to the course of state-defined educational policy. Consequently, the very expansion of state authority alters the relationship between groups and local school systems (Bernstein 1971, pp. 92–93).⁷ The destiny of particular groups becomes linked to the direction that educational policy takes insofar as the policy objectively and visibly influences the school performance of specific groups. The cultural experiences of groups whose relation to the school system may historically have gone unquestioned or unnoticed now intrude into established educational practice as the content of substantive initiatives. The initiatives concerning “national-origin minority groups” exemplify this most sharply. The influential case of *Lau v. Nichols* (1974), filed by Chinese students against the San Francisco School District for the extension of bilingual educational provisions, illustrates the translation of a history of discrimination into denial of equal educational opportunity (Teitelbaum and Hiller 1977).

State systems’ role in substantive issues disputed in local communities may be summarized in the following propositions.

Proposition 4: The variation between states in the content and scope of issues of substantive change exceeds the variation between localities within states.

Proposition 5: The greater the diversity within local districts and the less the diversity among districts, the higher the density of cross-local ties that lead to substantive change.

Both propositions extend the assertion that the initiation and successful incorporation of substantive change is linked to the institutional maturity of a state school system. Older state school systems will be marked not

only by greater content and scope in substantive issues but also by a greater density of interest groups. These are community-based groups with ongoing organizations that can mobilize to assert substantive claims.

The expanded formal boundaries and cumulative history of educational change has affected the meaning and structure of American public education. In part, the state level follows the historical decline of influence noted for local units (see Meyer and Rowan 1978, pp. 92–93), and for now the federal level is gaining prominence. The state systems become part of the complex national system of public education. I turn now to the necessary complement to the concept of institutional age.

Educational Systems and Synchronic Change

I take as a heuristic example the analysis of modernization within emerging nations. The predominant mode of analysis has involved measuring the level of development as dependent on forces within each society. Thus, the degree of urbanization, the proportion of non-agricultural labor, and the extent of communication networks are often cited as major indicators of modernization. Explanations for why some societies modernize more rapidly than others, given similar “starting points,” are ontogenetic; that is, causal forces are within an individual society.

More recently, emphasis on the place of a society in the “modern world system” prompted revisions of traditional modernization theory (Chirot and Hall 1982). Individual societies occupy positions of relative dependence or dominance by virtue of their international ties. This introduces an additional vantage point from which to measure development. In addition to diachronic (historical) change, reflecting internal, developmental stages, synchronic (structural) change reflects the pattern of relations that exist among nations at a given time (see Bergesen 1980, pp. 1–12). Specifically, the placement of a society in the “core” or “periphery” of nations can accelerate or stifle economic growth, as well as education (Arnove 1980). For the American states, we may usefully identify a set of states and their educational systems whose interconnections form a “core,” while others form a “periphery.” Where a state educational system is situated may advance it or insulate it from educational change; this I term “national status.”

A direct transfer of world systems theory to state educational change is neither possible nor desirable. What can be retained is how the

concepts of core and periphery imply that at different times some congeries of states are more important and dominant than others. An areal hierarchy forms by a combination of geographic influences and historical changes. Meinig (1978, p. 1198) best defines core status within the context of historical geography: "The concept is, of course, an abstraction—an efficient means of reference to a critically important imbalance in the overall human geography of a culture, nation or states. The concept refers to an areal concentration of elements basic to the cultural character and functioning of the society. . . . Authority is wielded from some sort of spatial system." The shape of these systems can be constructed by examining economic and demographic links uniting areas politically and culturally (Conzen 1977; Jones 1954). Three measures—population size, retail sales, and interbank loans—have largely been used to define core status (Borchert 1972, p. 352). Statistics on these resources establish fields of interaction that over time exert changing economic, political, and cultural influences. Such interaction includes the exchange of information, for they are "idea-area chains" (Jones 1954, p. 115) created by the hierarchy of states.

The addition of a state's national status invites a new proposition accounting for the fact that educational systems may be viewed focusing on two interrelated sources of change—one from their internal, institutional growth and the other from their participation in a broader, national system. The former emphasizes a sequential pattern of change. The latter emphasizes the conditions that affect the pace of institutional growth, the slope of change, and the changing national status of the state school system. We may speak of a state educational system as young chronologically yet advanced in its maturity through membership in or linkage to a set of core states. The addition of synchronic analysis implies two interrelated propositions.

Proposition 6: The chronological effects of the institutional development become progressively modified by a state school system's position within the network of national public education.

Proposition 7: The national status of a state school system will independently effect the rate and success of incorporation of substantive educational change.

Proposition 6 brings up the declining effects of compulsory attendance.⁸ The historical geographical perspective and its focus on the shifting geographic patterns of systems augments interpretation of the effects of compulsory attendance. Enactment of compulsory at-

tendance laws strongly affected the pattern of core and periphery states in the late nineteenth century. Although it is wrong to argue that the United States developed from a single core, between 1870 and 1920 the northeastern states strongly influenced the developing Midwest and the defeated South and was an early and dominant American “core” (Borchert 1972, pp. 353–54; Meinig 1978, p. 1193). This influence and control reminds us that the dynamics of the late nineteenth century were not solely ones of individual states developing on their own but of regional growth and differentiation and their mutual impact on the process of nation building. That the midwestern states enacted later than the northeastern, yet much earlier than the southern may be interpreted within the context of those nineteenth-century ties that made the Northeast central. For the South, those economic conditions inimical to the formation of state school systems—specifically, a persistent agricultural economy and its lack of capital accumulation—were as much regional as they were peculiar to individual states (Goldfield 1981, p. 1029). Furthermore, as Billings (1979, pp. 9–41) has shown, such conditions were linked to the South’s peripheral status in a world capitalist economy. As the Midwest gained its own measure of independence and as the South was “stitched back together,” the areal hierarchy of states changed and led in turn to internal changes in states. Enactment aligned states in such a way that a series of predictable and common internal changes was begun. Enactment symbolized a conformity to a national trend, yet gave an independence to states as well. The extent of a region’s “core” or “peripheral” status at the close of the nineteenth century reflected how quickly successive developmental changes would be experienced.

The alignment of core and periphery states change over time, representing a shifting grid of interstate relations independent of state institutional age. The effect of regional membership further depended on changes that were remaking patterns of interregional influence and exchange. As this alternating pattern of interstate relations changes, the direct effects of institutional age modify.

The concept of a state’s national status frees the interpretation from a rigid structuralist framework. Here, we allow that state school systems may move in progressive or retrogressive directions either in whole or in part (Craig and Spear 1982, p. 69), implying an effect from the interaction of institutional age with national status. Thus, a young educational system within a set of core states will experience dominant educational issues with a greater intensity and incorporate policy changes with greater speed. Whether it is an encompassing or partial institutional change is conditional on membership in or linkage to a set of core states, which fosters a corollary to Proposition 7:

Proposition 7a: Membership in a set of core states will effect a similarity among these states in the content and scope of educational change, whereas linkage to core states will have only partial effects, limiting the content and scope of change.

The basis for whole or partial substantive change can lie in common exogenous conditions. A young educational system may be linked to older systems through a common ethnic-racial school-age population that is the basis for a major court challenge to protect educational rights or to redistribute educational resources. As a consequence, the institutionally younger school system is “thrust forward,” experiencing initiatives for substantive change that may otherwise not arise. The state of Texas, which enacted compulsory attendance in 1915, has been an influential participant in court cases, from school finance cases to those examining the extension of educational rights to children of alien status.⁹ The Texas school system’s institutional youth by one criterion is increasingly offset by its membership in an economically dominant and demographically strategic core of states. Similarly, Colorado, a young state school system (having enacted in 1889) yet more regionally insulated from dominant economic and demographic forces, becomes nonetheless linked to core states through specific mandates to correct racial overrepresentation in special education classes. Such orders force educational personnel to adopt alternative assessment procedures constructed originally in core states as part of their earlier institutional response to such problems (see Talley 1979). These orders can alter the ethnically linked components of the state school system while only partially affecting other institutional elements. In Texas and Colorado, particular populations become a critical source of substantive educational change. Yet, for Texas, its core membership predicts a more thorough institutional change. In contrast, Colorado’s peripheral status predicts only partial institutional change.¹⁰

The injunction that a state school system may move retrogressively may become evident in the context of adaptation to mandates originating at the federal level. The passage of the All Handicapped Act of 1975 (PL 94-142), particularly, attempts uniform substantive change despite institutional differences across states. At a minimum, it exposes the varying capacity of states to comply with the terms of the mandate. In the context of synchronic relations, however, relative capacity is now a matter of present conditions; institutional age affords no inherent advantage or disadvantage. Rather, relative capacity is defined by national status paired with timing of federal legislative mandates. While core states will exert a greater influence on the direction and substance

of national educational policy, their own institutional maturity can exceed that policy once it is procedurally instituted. The similarity in the content and scope of substantive change among core states provides the criteria for national education provisioning standards. Nonetheless, institutionally advanced state school systems may not be in harmony with the terms of a federal mandate, and peripheral state school systems may have far to go to comply. Both may unfortunately move retrogressively.¹¹

An older state school system may be less organizationally able to respond within the dictates of a federal mandate; it may be forced to retreat on some of its own internal changes and reforms. Massachusetts, the chronologically oldest school system, was ahead of PL 94-142 by its passage of Chapter 766 in 1972 (Weatherly and Lipsky 1977), a landmark reform in special education. One intent of the reform was to weaken the dependency of educational provisioning on categories that defined handicapped conditions. To this extent, its design was to be more “content sensitive” and less “population sensitive” (Sabatino 1981). Although PL 94-142 was partly modeled after the Massachusetts law, its procedural outline, stemming largely from its funding structure, relies more on categorical means of identifying handicapped school children to facilitate the flow of monies to states and localities than does the Massachusetts measure. Despite its own internal changes in response to the successes and failures of Chapter 766, Massachusetts, in order to comply with PL 94-142, had to return to more population-sensitive procedures. The Massachusetts experience illustrates the potential irony of the relation of core status to national mandates. Not only had Massachusetts, a core state, evolved a more differentiated system of student assessment and classification but it also participated in the substantive issues that arose from challenges to school labeling and placement in other core states. Its own internal reform drew on the complexity of school relations reflecting advanced institutional age—namely, the tie between organizational inclusion of groups historically exempted and the statutory protections guaranteeing their right to education. The passage of PL 94-142 strained the state school system, placing organizational “stress” on local school personnel despite the advanced maturity of the system (see Bensky, Shaw, Gouse, Bates, Dixon, and Beane 1980).

A federal mandate sets forth a national criterion of educational provisioning that establishes an external referent for the evaluation of state school systems. Compliance with such a mandate becomes a force directing a state school system outward to substantive issues contested primarily in core states. This effect may be likened to the effect on educational development attributed to the “modern world

system.” Meyer, Ramirez, Robinson, and Boli-Bennett (1977) do not find internal characteristics of societies to be significant determinants of postwar expansion of primary, secondary, and higher education. They propose, contrary to traditional explanations for educational expansion, that the primary force behind the educational expansion across nations is their mutual involvement in a modern world system that uniformly affects societies—a system that recognizes that a modern nation has high levels of school attendance. Similarly, PL 94-142 sets a level of educational maturity through an explicit commitment to the full inclusion and education of handicapped children. This treatment of federal mandates departs from the interpretation of a uniform effect of the “world system” insofar as institutionally advanced school systems may be forced back, and much younger school systems may be strained to meet the terms of the initiative. The paired concepts of national status and institutional age permits us to think of the “decline” of a state school system much like the fall of a once strong nation.¹²

Notes

1. While there is a consensus that school systems were formed in the late nineteenth century, there is less consensus as to what sufficiently marks a system. Katz (1968) reinaugurated this question, at least indirectly, by arguing that the rise of the public high school marked a system. Kaestle (1973, p. 161) elaborated on this by arguing that the integration of common schools with public secondary instruction marks the “systematization” of schooling. Such features of a school system are not downplayed here. However, there is evidence that the enactment was itself a significant determinant of the number of public high schools formed by 1880 (Richardson 1984*b*). This again emphasizes that formal enactment had independent effects even when a school-age population was small.

2. “School participation” is multifaceted; that is, the routinely recorded indexes encompass (a) average length of the school year, (b) the average number of days schools are in session, and (c) average daily attendance of students. Yet, in addition, the model proposed here would include a measure of the range of social groups receiving full-time, regular instruction. As discussed later in the text, public school systems have long exempted groups deemed uneducable, be they physically or mentally handicapped or culturally different. The movement toward fully including various groups is linked to institutional age; the oldest school systems commence “mainstreaming” exempted groups first. In quantitative terms, the educational exemptions specified in school law are a potential measure of the degree of full inclusion in public schooling.

3. The proposition that early enactment is positively related to the expansion and diversity of noninstructional staff may be particularly relevant to studies that have examined the relation of administrative ratios (i.e., the proportion of noninstructional staff) to school system size. Results of this line of research

remain equivocal; the early study of Terrien and Mills (1955) reported a positive relation on cross-sectional data, yet subsequent studies found largely negative relations for longitudinal data (Freeman and Hannan 1975; Hendershot and James 1972; Holdaway and Blowers 1971). The latter studies concur that *time* must be examined in the analysis of administrative ratios, for cross-sectional data “may not provide accurate growth curves” (Holdaway and Blowers 1971, p. 285). Propositions 1 and 2 would require a more exact designation of the time frame in which the relative size of administrative components are examined, for they propose a critical period of expansion just after enactment of compulsory attendance laws. In addition, however, the propositions identify state school systems as the unit of analysis, not a sample of school districts taken from a state, irrespective of its institutional age and how that age shapes the composition of school districts (see later discussions in text). Finally, the propositions imply that a more pertinent variable is the *diversity* of noninstructional staff, which reflects a degree of expansion that is more sensitive to the idea that state educational systems are differentiated as a function of age.

4. Certainly the initiative to desegregate schools is a major example of substantive educational change. I do not directly address this example largely because it originated outside of state school systems with the *Brown v. Board of Education* mandate. The All Handicapped Act of 1975 (PL 94-142) is specifically addressed because it is consistent with earlier discussions of special educational provisions extended independently by state school systems. The patterns of interstate linkages associated with PL 94-142 may be applicable, however, to the matter of state compliance with racial desegregation orders.

5. The important fact that the substantive changes reviewed here are not themselves predicted by the date of school system formation illustrates that we cannot know that other types of substantive changes will arise over particular set periods. The limited nature of our knowledge on future critical issues restricts a model of educational change. Older school systems may have a greater institutional maturity, a different configuration of internal relations, yet this systemic difference from younger systems does not define what substantive changes will occur, nor does it predict effective adaptation to a changed federal environment that imposes mandates on states. The latter point is a necessary corrective to evolutionary models that err by attributing a greater “adaptive capacity” to more differentiated systems. This point is addressed by the addition later in this paper of the factor of a state’s “national status,” which adjusts the effects of institutional age (see also note 10).

6. The examples of court cases or educational issues introduced here do not so much directly support the propositions as they contrast or show paradoxes that the propositions may explain. The cases or events are cited here to illustrate the dual nature of substantive claims that cannot be separated by content and scope. It is hoped this criterion will help identify cases and events in relation to institutional age.

7. This dynamic argues that the experiences that distinguish a group are formally acknowledged and brought into educational policy. This contrasts with other approaches that emphasize the distancing between groups and the school system. Most notably, Bernstein (1971) speaks of the insulation of the “uncommon knowledge of the school” from the “community-based knowledge” of groups (pp. 92–93). Bernstein’s emphasis on the insulation of schooling from everyday experiences is more pertinent to a theory of how educational systems are able to reproduce social class divisions, where ascent through the

system entails a separation from community-based experiences. For state school systems, however, the experiences of diverse cultural groups have long been the focus of much educational policy, and the claims of groups have nourished movements for educational reform. The propositions advanced here attempt to pinpoint how these policy changes are initiated, by linking the age of state school systems to the degree of inclusion of diverse social groups.

8. It can be argued that the effect of institutional age upon the initiation of substantive change is somehow spurious, the result of relatively stable economic and political differences among states. This argument may be defrayed on two grounds. First, neither the size of the trade and manufacturing sector nor the average wage of nonagricultural workers significantly determined the date of enactment. Although these conditions were by no means irrelevant to the rise of school systems insofar as they reflected the patterns of “core” and “periphery” regions, they were less significant than the environmental constraints against bringing school-age children to schoolhouses. This evidence reemphasizes the importance of compulsory attendance laws as formal declarations of school systems, even in the face of remaining socioeconomic obstacles. Second, the introduction of synchronic relations into the model of educational change directly acknowledges that socioeconomic differences across states is *not* stable. Rather, membership in the core and periphery undergoes change, and in doing so, the effects of institutional age are altered. Thus, the key to the question of spurious effects lies precisely in the *interaction* of institutional age and national status.

9. The significant case on school finance in Texas is *Rodriguez v. San Antonio Independent District* (1973). The case requiring that the Texas school system admit children of alien status is *Plyler v. Doe* (1982).

10. Although I have argued for a definition and use of the terms “core” and “periphery” in the context of historical geography, other approaches address the “critically important imbalance” in exchanges. Shils (1975) presents a framework for identifying a center or core that exerts a greater symbolic influence on the remaining parts of a society. More recently DiMaggio and Powell (1983) note how an overattention to organizational differences deflects attention from the striking similarity or “institutional isomorphism” that many organizations exhibit. They present a series of hypotheses attempting to identify the determinants of homogeneity within an “organizational field.” Proposition 7a asserts that states with core status in a particular region form one such organizational field, and they will experience an institutional isomorphism, for they will share common prevailing educational issues. While DiMaggio and Powell contrast institutional and competitive isomorphism, the model of educational change outlined here would maintain that differences among state educational systems lie in causes that are more than competition for resources. Moreover, this model would stress that state school systems may want to model themselves after dominant (core) states, yet the factor of institutional *age* remains a critical barrier to that wish.

11. The proposition that a peripheral state can move “retrogressively” may be likened to some findings in world systems research. In their assessment of dependency theory, Delacroix and Ragin (1981) tested a “structural blockage argument” that proposed that economic development was impeded in the *advanced* periphery of the world economy. Although further along a path of development than others in a periphery-wide segment, these countries are blocked by the form of their participation in trade, and their dependency can

be altered only by internal state action (p. 1341). The parallel to state educational systems is a broadly similar consequence of blockage, yet one that specifies a retrogressive movement by peripheral states that have substantially far to go in order to comply with federal mandates. Proposition 7a implies a difference among peripheral states by the criterion of "linkage" to core states. States linked to the core may parallel "advanced periphery" countries in the world economy. What is outlined by a structural blockage argument and what is proposed here is, of course, reversed. Peripheral states *not* linked to the core may move retrogressively, for the difficulty in complying with mandates is strained further by an internal weakness, a less developed (young) state level.

12. That an older state school system may decline because it is out of harmony with federal mandates parallels in some way the maladaptation of overspecialized biological systems (species) to changed environmental conditions. This parallel is discussed by Granovetter (1979) in a critique of theories of social evolution and advancement. Granovetter notes that the tendency to rank societies by their "adaptive capacity" based on measures of internal differentiation has led to an "imbalance of attention to taxonomy at the expense of dynamics" (p. 511). Part of these dynamics is the potential for a less developed society to be *more* effectively adapted than a highly developed society. As Granovetter notes, "If we index adaptive capacity by success, then the argument is merely circular, and the concept has no independent definition. If it is to have meaning it must be possible for societies with low adaptive capacity to have been successful because the exigencies which were most likely did not, for some reason, occur, and conversely, for societies with high adaptive capacity to fail upon being confronted with unlikely difficulties for which they were unprepared" (p. 502). In comparative terms, if we explain substantive policy changes by institutional maturity alone, the argument is circular, and we have no means to test empirically Propositions 7 and 7a. The index of national status by criteria independent of institutional age, located in the shifting and unpredictable external environment, makes the propositions testable by directly examining the contingent conditions state school systems would be best able to meet. Thus, the strength of the propositions is not found in focusing on institutional age alone but in its interaction with national status.

References

- Archer, Margaret S. *Social Origins of Educational Systems*. Beverly Hills, Calif.: Sage Publications, 1979.
- Archer, Margaret S. "On Predicting the Behavior of the Educational System." *British Journal of Sociology of Education* 2 (1981): 211–19.
- Arnone, Robert F. "Comparative Education and World-Systems Analysis." *Comparative Education Review* 24 (1980): 48–62.
- Bailyn, Bernard. *Education in the Forming of American Society*. New York: W. W. Norton, 1972.
- Beeghly, Leonard, and Edward W. Butler. "The Consequences of Intelligence Testing in the Public Schools." *Social Problems* 12 (1974): 740–54.
- Bensky, Jeffrey, Stan Shaw, Allen Gouse, Herman Bates, Benjamin Dixon, and William Beane. "Public Law 94-142 and Stress: A Problem for Educators." *Exceptional Children* 47 (1980): 24–29.

- Bergesen, Albert, ed. *Studies of the Modern World System*. New York: Academic Press, 1980.
- Berman, Paul, and Milbrey W. McLaughlin. "Implementation of Educational Innovation." *Educational Forum* 40 (1976): 345–63.
- Bernstein, Basil. *Class, Codes and Control: Towards a Theory of Educational Trans-mission*, vol. 3. London: Routledge & Kegan Paul, 1971.
- Bertalanffy, Ludwig von. *Perspectives on General System Theory*. New York: George Braziller, 1975.
- Billings, Dwight B., Jr. *Planters and the Making of a "New South."* Chapel Hill: University of North Carolina Press, 1979.
- Blau, Peter. "A Macrosociological Theory of Social Structure." *American Journal of Sociology* 83 (1977): 26–54.
- Borchert, John R. "America's Changing Metropolitan Regions." *Annals of the Association of American Geographers* 62 (1972): 352–73.
- Bourdieu, Pierre, and J. C. Passeron. *Reproduction in Education, Society, and Culture*. Beverly Hills, Calif.: Sage Publications, 1977.
- Bowles, Samuel, and Herbert Gintis. *Schooling in Capitalist America*. New York: Basic Books, 1976.
- Brown v. Board of Education of Topeka, Kansas, 347 U.S. 483 (1954).
- Burgess, Charles. "The Goddess, The School Book and Compulsion." *Harvard Educational Review* 46 (1976): 199–215.
- Chiot, Daniel, and Thomas D. Hall. "World-System Theory." *Annual Review of Sociology* 8 (1982): 81–106.
- Cohen, David K., and Bella H. Rosenberg. "Functions and Fantasies: Under-standing Schools in Capitalist America." *History of Education Quarterly* 17 (1977): 113–37.
- Cole, Stephen. *The Unionization of Teachers: A Case Study of the UFT*. New York: Praeger Publishers, 1969.
- Coleman, James. "The Concept of Equality of Educational Opportunity." *Harvard Educational Review* 19 (1968): 7–22.
- Coleman, James. *Power and the Structure of Society*. New York: W. W. Norton, 1974.
- Conzen, Michael. "The Maturing Urban System in the United States, 1840–1910." *Annals of the Association of American Geographers* 67 (1977): 88–108.
- Corwin, Ronald G. "Innovation in Organizations: The Case of Schools." *Sociology of Education* 48 (1975): 1–37.
- Corwin, Ronald G. "Patterns of Organizational Control and Teacher Militancy: Theoretical Continuities in the Idea of Loose Coupling." In *Research in Sociology of Education and Socialization*, edited by A. Kerckhoff. Greenwich, Conn.: JAI Press, Inc., 1981.
- Craig, John, and Norman Spear. "Rational Actors, Group Processes, and Development of Educational Systems." In *The Sociology of Educational Expansion*, edited by Margaret S. Archer. Beverly Hills, Calif.: Sage Publications, 1982.
- Cremin, Lawrence. *American Education: The National Experience, 1783–1876*. New York: Harper & Row, 1980.
- Cubberley, Ellwood P. *Public Education in the United States*. Boston: Houghton Mifflin Company, 1919.
- Delacroix, Jacques, and Charles C. Ragin. "Structural Blockage: A Cross-national Study of Economic Dependency, State Efficacy, and Underdevel-opment." *American Journal of Sociology* 86 (1981): 1311–47.

- DiMaggio, Paul J., and Walter W. Powell. "The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields." *American Sociological Review* 48 (1983): 147–60.
- Duncan, Otis D. *Introduction to Structural Equation Models*. New York: Academic Press, 1975.
- Fishlow, Albert. "Levels of Nineteenth Century Investment in Education." *Journal of Economic History* 26 (1966): 418–36.
- Freeman, John, and Michael T. Hannan. "Growth and Decline Processes in Organizations." *American Sociological Review* 40 (1975): 215–28.
- Fullan, Michael. "Research on the Implementation of Educational Change." In *Research in Sociology of Education and Socialization*, edited by Alan Kerckhoff. Greenwich, Conn.: JAI Press, Inc., 1981.
- Giacquinta, Joseph B. "The Process of Organizational Change in Schools." In *Review of Research in Education*, edited by Fred Kerlinger. Itasca, Ill.: F. E. Peacock, 1973.
- Goldfield, David R. "The Urban South: A Regional Framework." *American Historical Review* 86 (1981): 1009–34.
- Granovetter, Mark. "The Idea of 'Advancement' in Theories of Social Evolution and Development." *American Journal of Sociology* 84 (1979): 489–515.
- Green, Thomas F. *Predicting the Behavior of the Educational System*. New York: Syracuse University Press, 1980.
- Hendershot, Gerry E., and Thomas F. James. "Size and Growth as Determinants of Administrative-Production Ratios in Organizations." *American Sociological Review* 40 (1972): 215–28.
- Holdaway, Edward A., and Thomas A. Blowers. "Administrative Ratios and Organization Size." *American Sociological Review* 36 (1971): 278–86.
- Jones, Stephen B. "A Unified Field Theory of Political Geography." *Annals of the Association of American Geographers* 44 (1954): 111–23.
- Kaestle, Carl F. *The Evolution of an Urban School System: New York City, 1750–1860*. Cambridge, Mass.: Harvard University Press, 1973.
- Kaestle, Carl F., and Mark A. Vinovskis. *Education and Social Change in Nineteenth Century Massachusetts*. Cambridge: Cambridge University Press, 1980.
- Katz, Michael B. *The Irony of Early School Reform*. Boston: Beacon Press, 1968.
- Kirp, David. "Schools as Sorters: The Constitutional and Policy Implications of Student Classification." *University of Pennsylvania Law Review* 121 (1973): 705–97.
- Kirp, David. *Just Schools*. Berkeley: University of California Press, 1982.
- Kirp, David, and Mark Yudof. *Educational Policy and the Law*. Berkeley, Calif.: McCutchan Publishing Corp., 1974.
- Landes, William, and Lewis Solmon. "Compulsory Schooling Legislation: An Economic Analysis of Law and Social Change." *Journal of Economic History* 32 (1972): 54–91.
- Larry P. v. Riles, 343 F. Supp. 1306 (N.D. Cal. 1972).
- Lau v. Nichols, 414 U.S. 563 (1974).
- Mayhew, Leon. *Law and Equal Opportunity*. Cambridge: Harvard University Press, 1968.
- Meinig, D. W. "The Continuous Shaping of America: A Prospectus for Geographers and Historians." *American Historical Review* 83 (1978): 1186–1205.
- Mercer, Jane R. *Labeling the Mentally Retarded*. Berkeley: University of California Press, 1973.

- Meyer, John W. "Levels of the Educational System and Schooling Effects." In *The Analysis of Educational Productivity*, vol. 2, *Issues in Macroanalysis*. edited by Douglas Windham and Charles Bidwell. Cambridge, Mass.: Ballinger Publishing Co., 1980.
- Meyer, John W., Francisco Ramirez, Richard Robinson, and John Boli-Bennett. "The World Educational Revolution, 1950–1970." *Sociology of Education* 50 (1977): 242–58.
- Meyer, John W., and Brian Rowan. "The Structure of Educational Institutions." In *Environments and Organizations*, edited by Marshall W. Meyer. San Francisco: Jossey-Bass, Inc., 1978.
- Meyer, John W., W. Richard Scott, Sally Cole, and Jo-Ann K. Intili. "Instructional Dissensus and Institutional Consensus in Schools." In *Environments and Organizations*, edited by Marshall W. Meyer. San Francisco: Jossey-Bass, Inc., 1978.
- Meyer, John W., David Tyack, Joane Nagel, and Audri Gordon. "Public Education and Nation-Building in American: Enrollments and Bureaucratization in the American States, 1870–1930." *American Journal of Sociology* 85 (1979): 591–613.
- Milofsky, Carl. "Why Special Education Isn't Special." *Harvard Educational Review* 44 (1974): 437–58.
- Monahan, A. C. *Consolidation of Rural Schools and Transportation of Pupils at Public Expense* (United States Bureau of Education Bulletin no. 30). Washington, D.C.: Government Printing Office, 1914.
- Mullins, Nicholas. *The Art of Theory: Construction and Use*. New York: Harper & Row, 1971.
- National Education Association (NEA). *Kanawha County, West Virginia: A Textbook Study in Cultural Conflict*. Washington, D.C.: National Education Association, 1975.
- Pennsylvania Association for Retarded Children (PARC) v. Commonwealth of Pennsylvania, 343 F. Supp. 279 (E. D. Pa. 1972).
- Peterson, Paul. *School Politics Chicago Style*. Chicago: University of Chicago Press, 1976.
- Plyler v. J. and R. Doe et al., 80-1538 (1982).
- Prince v. Massachusetts, 321 U.S. 158 (1944).
- Ralph, John. "Bias in Historical School Enrollment Figures." *Historical Methods* 13 (1980): 215–21.
- Ralph, John, and Richard Robinson. "Immigration and the Expansion of Schooling in the United States, 1890–1970." *American Sociological Review* 45 (1980): 943–54.
- Richardson, John G. "The Case of Special Education and Minority Misclassification in California Public Education." *Educational Research Quarterly* 4 (1979): 25–40.
- Richardson, John G. "Historical Change in School Classification." *Educational Research Quarterly* 5 (1980): 50–62. (a)
- Richardson, John G. "Variation in Date of Enactment of Compulsory School Attendance Laws." *Sociology of Education* 53 (1980): 153–63. (b)
- Richardson, John G. "Settlement Patterns and the Governing Structure of Nineteenth-Century School Systems." *American Journal of Education* 92 (1984): 178–206. (a)
- Richardson, John G. "Historical Transitions and the Origins of Common

- Schooling in the American States." In *Handbook of Theory and Research in the Sociology of Education*, edited by John G. Richardson. Westport, Conn.: Greenwood Press, 1984. (b)
- Richardson, John G., and Brenda W. Hatcher. "The Feminization of Public School Teaching, 1870–1920." *Work and Occupations* 10 (1983): 81–99.
- Rodriguez v. San Antonio Independent School District, 36 L. E. 2d 16, 93 S. Ct. 1278 (1973).
- Sabatino, David A. "Are Appropriate Educational Programs Operationally Achievable under Mandated Promises of P.L. 94-142." *Journal of Special Education* 15 (1981): 9–23.
- Sarason, Seymour, and John Doris. *Educational Handicap, Public Policy, and Social History*. New York: Free Press, 1979.
- Schultz, Stanley K. *The Culture Factory: Boston Public Schools, 1789–1860*. New York: Oxford University Press, 1973.
- Shils, Edward. *Center and Periphery: Essays in Macrosociology*. Chicago: University of Chicago Press, 1975.
- Solmon, Lewis C. "Opportunity Costs and Models of Schooling in the Nineteenth Century." *Southern Economic Journal* 37 (1970): 66–83.
- Soltow, Lee, and Edward Stevens. "Economic Aspects of School Participation in Mid-Nineteenth Century United States." *Journal of Interdisciplinary History* 8 (1977): 221–43.
- Sommerhoff, G. *Analytical Biology*. London: Oxford University Press, 1950.
- Stambler, Moses. "The Effect of Compulsory Education and Child Labor Laws on High School Attendance in New York City, 1898–1917." *History of Education Quarterly* 8 (1968): 189–214.
- Stinchcombe, Arthur. "Social Structure and Organizations." In *Handbook of Organizations*, edited by J. G. March. New York: Rand McNally & Co., 1965.
- Talley, Rhonda C. "Evaluating the Effects of Implementing the System of Multicultural Pluralistic Assessment: A Qualitative Perspective." *School Psychology Digest* 8 (1979): 71–78.
- Teitelbaum, Herbert, and Richard J. Hiller. "Bilingual Education: The Legal Mandate." *Harvard Educational Review* 47 (1977): 188–90.
- Terrien, F. W., and D. Mills. "The Effect of Changing Size upon the Internal Structure of an Organization." *American Sociological Review* 20 (1955): 32–39.
- Troen, Selwyn K. *The Public and the Schools: Shaping the St. Louis System, 1838–1920*. Columbia: University of Missouri Press, 1975.
- Tyack, David. *The One Best System*. Cambridge, Mass.: Harvard University Press, 1974.
- U.S. Commissioner of Education. *Compulsory Attendance Laws in the United States* (Report for 1888–1889, Part 1). Washington, D.C.: Government Printing Office, 1889.
- U.S. Office of Education. *Biennial Survey of Education, 1916–1918*, vol. 1. Washington, D.C.: Government Printing Office, 1921.
- Weatherly, Richard. *Reforming Special Education: Implementation from State Level to Street Level*. Cambridge, Mass.: MIT Press, 1979.
- Weatherly, Richard, and Michael Lipsky. "Street-Level Bureaucrats and Institutional Innovation: Implementing Special-Education Reform." *Harvard Educational Review* 47 (1977): 171–97.
- Weber, Max. *Economy and Society*, vol. 1. Berkeley: University of California

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- Press, 1978. (Originally published in German in 1922.)
- West, E. G. "The Political Economy of American Public School Legislation." *Journal of Law and Economics* 10 (1967): 101–28.
- Wisconsin v. Yoder, 406 U.S. 205 (1972).
- Wuthnow, Robert. "Comparative Ideology." *International Journal of Comparative Sociology* 22 (1981): 121–40.