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The Institutional Genesis of Special Education: The American Case

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This article explores the historical context and institutional linkages that contributed to the genesis of special education during the early decades of this century. At the heart was the antinomy between a mandate for compulsory attendance and the practical interests for efficient school organization. The dilemma faced by city and state school systems was resolved by the successful anchoring of vocational education within public education and the scientific surety of intelligence testing. Yet key to the genesis of special education was the role of perceived gender differences. Early special education categories of backward pupils and truant and incorrigible pupils were defined by the conception of the “bad boy,” which linked special education to the male reformatory.

Introduction

The distinguishing mark of American education is that high levels of enrollment were achieved well before states mandated compulsory attendance. From this point alone, the subsequent development of schooling might appear neatly conceptualized—with the research task being to identify factors that explain the variation in attendance levels or the pace of growth as schooling expands toward its upper limit. But the developmental path of American education raises more explanatory questions than this one, largely because it is so broadly democratic. One such problem is conceptual: How shall we define the boundary of American education itself?

Amid the attention to popular schooling and its formal organization, the dilemma posed by deviant groups and their exemption from instruction has always loomed in the background. Most notable is the educational dilemma of exceptional children, only gradually rising out

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of scholarly neglect. The “origin problem” of common schooling leads to the doors of state institutions and schools for the special education of physically and mentally defective pupils (Richardson 1993). In any broadened account of the origins and growth of common schooling, one cannot long escape this parallel educational system. The “special class” emerges as a missing variable, well suited to link local narratives to the long-term historical trajectory of American education.

This article explores the interdependence of common schooling and special education. It does so by examining the historical construction of the special class for the instruction of exceptional children within public education. A central force was the legislation of compulsory attendance, signifying a mandate that states receive all eligible children of school age. From this act forward, states increasingly met with the problems of pupils unable to pass easily through the graded curriculum. Precisely because of its democratic vulnerability, the deviancies of physical and mental handicap persistently intruded on the operations of common school instruction, however indirectly. There is strong evidence that compulsory universal education occurred only after these boundary dilemmas were solved by the development of state-funded institutions for physically, mentally, and socially exceptional children. The organizational dilemmas of a democratizing public education heightened concerns and sharpened conflicts over the efficiency of city schools and promoted a wide interest in plans for student classification and grading that could accommodate a diverse school-age population. In spite of a number of alternatives that were proposed and in practice, the special class emerged as the dominant strategy and by 1917 was bolstered by the scientific surety of intelligence testing.

Although the problems of city school systems appeared resolved by the refinement of pupil classification, the genesis of special education hinged on the successful anchoring of vocational education within public schools. At the core of political conflicts over school efficiency was the role of manual training and vocational education and guidance and whether such instruction should be given an institutional system separate from public schools. The key turning point was enactment of the Smith-Hughes Act in 1917, which affirmed a federal level of

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support to states for vocational education. Moreover, consistent with the development of pupil classifications, the design of Smith-Hughes inserted gender as a distinguishing marker in vocational education. From compulsory attendance through pupil classification to the success of vocational education, the impact of perceived differences between boys and girls supplied much of the rationale for institutional changes that presaged the rise of special education.

This article does not seek to explain the origins or rise of special education (cf. Lazerson 1983; Carrier 1986; Richardson 1992). Rather, the term “genesis” intends to emphasize the contingent nature of historical events and circumstances that secured the special class and the education of exceptional children within the common school. Although the events constituted a long series that extended across the nineteenth century, the critical circumstances were compressed into the first two decades of the twentieth century. The broader context was the antinomy between a democratic access to common schooling and the requirement for efficient school organization. The focus is deliberately “partial,” concentrating on the crucial decades that defined the early categories of special education.¹ From this focus, however, we learn the roots of features that persist to the present. One of these features is the degree to which gender was made a part of the structure and content of special education.

From this historical foundation, the article turns to a state-level analysis of institutional linkages that extend from the passage of compulsory attendance to the early special education categories in 1940. The focus of the empirical analysis is on the relative influence of general processes of growth experienced by all state school systems and on the specific influence of gender as a factor that has conditioned the genesis and course of institutional development. Guided by a theoretical model of these institutional relations, we conduct a series of hierarchical regression analyses that test the strength of these forces at the state level.

The Historical Narrative: Mandates, Conflicts, and Turning Points

The Nineteenth-Century Institutional Order: Links in the Chain of Common Schooling

At the core of American common schooling, its true historical origin, was the traditional arrangement of apprenticeship (Cremin 1980, p.

336). The relation between a master and a young boy or girl was a means whereby youth would gain preparation for a trade, learn the capital laws of the community, and acquire the rudiments of book knowledge (Jernegan 1931; Douglas 1921; Seybolt 1969). Youth were “bound out” as apprentices with written stipulations that specified the terms of their indenture. What is distinctive about American apprenticeship is its retention as a foundation of a popular schooling that remained voluntary until the late nineteenth century. Although a traditional, community arrangement, apprenticeship nonetheless represented a model of social obligation and the theory of pedagogy (Richardson 1993). Indeed, the inherent expansiveness of American common schooling is rooted in these twin functions of apprenticeship. Responses to the decline of apprenticeship shaped the development of institutions throughout the nineteenth century.

The decline of apprenticeship undermined the capacity of local communities to rely on family members to care for their indigent and infirm members. At the same time that attempts were being made to codify the expectations of apprenticeship, states imposed labor requirements on the indigent and dependent, turning poorhouses into workhouses. These efforts were a prelude to a greater assumption by states of the obligation toward the indigent and defective classes. In preparation for this increased formal role, states conducted a census to gauge the numbers and distribution of their deaf and blind and their feeble-minded and insane members. On the basis of these counts, benevolent institutions for the indigent and defective were established under state support and administration.

The decline in the capacity of apprenticeship to care for and protect poor and defective minors foretells the sequence of events that established the “institutional state” (Katz 1978). This sequence of events saw the establishment of the insane asylum and state hospital for the deaf and blind *prior* to legislation for a state reform school or industrial school for delinquent youth (Richardson 1993). All states except two established the asylum before the reformatory, and all but four states established the state hospital for the deaf prior to the reformatory. And, finally, all but 11 states, nine of which were far western territories, established the state reformatory before enacting compulsory attendance. In summary, passage of compulsory attendance was enabled by the prior formation of institutions for the special and delinquent populations.

As a theory of pedagogy, the long-term influence of apprenticeship is evident in the persistence of vocational and scientific education. In much of European educational history, vocational and scientific education developed in separate schools and institutes *outside* a liberal

education, whether private or state supported. In the American case, however, the decline of apprenticeship was not followed by the creation of hierarchically separate, specialized institutions devoted to manual and industrial training.²

During the 1880s, the case for a broadened role of industrial education predominated debates at yearly conventions of the National Educational Association. What is significant is the pedagogical defense of manual training on grounds that it was an integral part of a youth's general intellectual development and not a distinct mode of learning. Against claims that manual training was a unique mode of learning, different from a liberal education in both content and instructional form, its defense was anchored in references to the historical function of apprenticeship generally and to its educational purpose specifically.

The motivation to establish hospitals for the physically and mentally defective, reformatories for the delinquent, and a broadened curriculum to encompass manual training resulted in an institutional order that was more differentiated than hierarchical, resting on the relative administrative autonomy of local trustees. This loosely coupled array of schools encompassed a range of private and semipublic facilities, varying in name from home and public boarding school to state institution. Such an environment of diverse institutions was captured best by the nineteenth-century reformer Samuel Gridley Howe when he declared the Boston Experimental School to be "a link in the chain of common schools—the last indeed, but still one necessary in order to make the chain embrace all the children in the state" (cited in Wolfensberger [1976], p. 49). Howe noted that such residential schools resisted becoming "asylums" for incurables, assiduously maintaining their place in this chain of a common schooling. Their essential purpose was educational, bolstered by an optimistic ideology that viewed the feeble-minded as "improvable." As such, the deaf, blind, and feeble-minded were pupils.

The growth of this chain of schools and institutions throughout the nineteenth century followed a discernible pattern, initiated first through private and philanthropic efforts, then proceeding to state institutions and finally to city school systems (McDonald 1915, p. 104). As private and philanthropic efforts inherited the traditional functions of apprenticeship, which were then transferred to state institutions, the authority to intervene on behalf of the child was increasingly assumed by the state. The path from apprenticeship to state institutions was in many respects a rationalization of binding out, a transposition of this traditional authority into formal institutions. By this transposition, the reach of this authority was extended to populations that were not effectively accommodated by traditional arrangements.

Gender, Deviance, and Classification: The Reform School as Model

With the passage of compulsory school attendance, the boundary of common schooling was affirmed in ways that voluntary enrollment could not achieve. By specifying physical and mental deviations as grounds for exemption, states affirmed the boundary between residential facilities for exceptional children and a common school education. By specifying circumstances of poverty or distance from the nearest traveled road, schools modified their responsibility to problems of economic dependence and public welfare.

As long as schooling remained voluntary, there was little need to devise organizational means to accommodate diverse, disorderly, or uneducable pupils. Yet, once states mandated attendance, there was at least the formal command that schools accept all children of legal age. To meet the formal dictates of compulsory attendance, school created the “ungraded class.” Poor, physically unkempt, and disorderly children were assigned to ungraded classes as a proper exercise of *in loco parentis*. The ungraded class was common to urban school systems during the late nineteenth century (Van Sickle et al. 1911; Tropea 1987) and later became the special class for exceptional children.

Compulsory attendance necessitated a shared responsibility between parental and school authority, based on the concept of *in loco parentis* (Richardson 1993). Schools were required to conduct a census of those enrolled and to monitor their attendance. Parents were charged with the responsibility of bringing their children to school and were subject to fines for failure to do so. In spite of this mutual responsibility, the enforcement capacity of schools was weak, which diminished any threat against parental noncompliance. As a consequence, the status offense of “habitual truancy” emerged to contend with those children who defied both parental and school efforts to bring them to school. Once attendance became compulsory, absenting oneself from school took on a potential legal consequence. Truancy was never sharply defined, for it made delinquent illegalities and educationally relevant moral misconduct overlap. Initially, those youth who were “vicious and immoral” in character or found begging or frequenting immoral places could be excluded from attendance and committed to the state reform or industrial school.

In their classic study of the Chicago schools, Abbott and Breckinridge (1917) distinguished between truancy and nonattendance. There could be several reasons for nonattendance, including sickness, family death, church attendance, or work at home. Truancy, which accounted

for only some 5 percent of the total number of nonattendance cases in Chicago schools, was a willful absence from school without the knowledge or consent of the parent. Truancy belied a significant gender difference. Out of a total of 5,659 youth brought to the Chicago juvenile court in 1917 as truants, only 37 were girls. Habitual truancy was linked to the juvenile court, which in turn was the referral agency for commitment to the parental school. As the intermediate institution between the common school and the reformatory, the parental school was designed for “truant boys,” for “no provision was made for girls” (Abbott and Breckinridge 1917, p. 208). For girls, absence from school was largely excused by reason of “helping in [her] father’s shop, taking care of the baby, caring for her sick mother, or doing some other household task” (Abbott and Breckinridge 1917, p. 206). Such reasons for nonattendance and truancy were more often deemed socially benevolent and attributable to parental failings.

By century’s end, these deviations were compressed into the morally resonant category of the “backward” child. The resonance of this new category lay in its capacity to elude precise definition. The backward child was many things: slow in mind and often defective in body, poor in family background, and lazy but defiant in school. But above all these things, the backward child was “bad” and male. Backwardness and badness were now seen as causally related, with the direction eminently clear: “A boy is backward because he is bad” (Holmes 1915, p. 83; also Wallin 1924, pp. 75–85). This causal relation was the link back to habitual truancy.

The observations on truancy and nonattendance reported by Abbott and Breckinridge for Chicago reflected a broader pattern of how gender influenced the definition and treatment of delinquent and criminal deviancy. This difference in perception and treatment is evident in the timing of separate institutions established for males and females. A state’s legislation for its first reform school was almost exclusively for white males. For girls, the formation of the “industrial school” was the institutional counterpart to the male reformatory.

The need for separate institutions stemmed from the putative differences in nature between boys and girls. Where the boy is “bold, aggressive, active, gregarious,” the girl is “self-centered . . . having a less vital grasp of the real and practical world” but possessing a “strong idealizing sense” that should be wisely directed (Dewson and Hart 1910, p. 28). These differences called for alternative treatment strategies that could not be implemented if the sexes were committed to the same institution (Dewson and Hart 1910, p. 29): “The girl needs a separate school, an individual room, studious development of her indi-

viduality, training in self-protection, initiative, in wise spending of money, housewifery, domestic science including plain sewing, dress-making and millinery, the care of the sick, and the care of infants.”

Principles of rehabilitation and vocational guidance were ushered in with the juvenile court, in which the treatment of delinquency broke from the penalogical emphasis of early institutions. But the spirit of these new principles was itself guided by the conceptions of proper gender roles. For boys, the reform school should be organized around the mastery of skills that were largely mechanical and that would lead to employment and economic independence. For girls, the industrial school should be likened to the home, instructing girls in those domestic skills that “came early to the young housewife.” As Brenzel has shown for the Lancaster Industrial School for Girls (Massachusetts), the initial purpose of reform and education was “dropped in favor of jobs,” which turned it into a “British-style vocational school” (Brenzel 1983, p. 146).³

The transformation of the reformatory and industrial school toward a vocational purpose was a change as significant for the common school as it was for reformatory institutions. The broader implications of the life and administration of reform schools was articulated by David Snedden in a doctoral thesis submitted to Columbia University in 1907 (Snedden 1907). Snedden would soon become a prominent national figure in American education through his many writings as a professor at Columbia and from his position as commissioner of education in Massachusetts (1909–1916). But in his doctoral thesis he advanced a bold thesis: the “educational work” of the reform school had achieved much that could be of benefit to the common school. This early thesis extended into his subsequent work and kindled his practical efforts to reform the organization and administration of American education generally.

Two points were of particular relevance. First, the fact that delinquent boys were separated from parents and friends required reformatories to develop a pedagogy of broader scope than found in the common school. Instruction had to attend to the whole child, joining literary instruction to practical and vocational training. It was the latter especially that was deficient in the common school.

Second, out of this contrast in pedagogy Snedden advanced a proposition that would become the cause célèbre of educational debate and reform in subsequent years. Snedden proposed that the reform school had evolved a system of classification that was superior to the simple divisions by grade found in the common school. For the reformatory, the “group” was the unit, and the bases of classification were differences in moral character and in physical or mental capability. The

reform schools had “discovered” the effectiveness of grouping boys who were “slow” or who were “hardened and vicious” and had learned to tailor educational instruction to them as a unit. The guiding principle behind these classifications was “contagion,” for segregation was necessary to protect against the spread of moral depravity and to separate according to obvious physical and mental differences.

The classifications developed within the reform school were mirrored in the common school’s ungraded or special class for truants and incorrigibles. This organizational connection was given some national priority by the Commonwealth Fund’s forceful promotion of the Program for the Prevention of Juvenile Delinquency in 1921 (Smith 1922, pp. 168–74). The supportive base of this effort was far-reaching, linking the Public Education Association of New York, the National Committee for Mental Hygiene, the New York School of Social Work, and the Joint Committee on Methods of Preventing Delinquency (see Cohen 1964, p. 120). Such a national strategy to prevent delinquency was to be entrusted to visiting teachers and psychiatric social workers, both of whom would operate in local schools to change attitudes and practices toward the socially maladjusted student. The child guidance clinic was the experimental arm of this strategy and served as the intermediate bridge between delinquency and the common school (Martens 1939). Although by 1930 the Commonwealth Fund had formally abandoned its role in delinquency prevention and the visiting teachers’ movement had waned as well, the legacy of these progressive reforms was in place: public schools had been sufficiently socialized to the precepts of intervention and treatment of social maladjustment (Thomas and Thomas 1928, chap. 5; see also Eliot 1925, p. 74).

Resolving the Antinomy of Democracy and Efficiency: The Alliance of Vocationalism and Mental Testing

At the beginning of the visiting teachers’ movement in 1906, the prospect of vocational education and guidance serving as institutional mediator between the industrial training of juvenile reformatories and the general instruction of common schooling was as yet too early to foresee. As Snedden himself observed, “It is yet too early to say just what form industrial work will finally assume in the public school system” (Snedden 1907, p. 382). As debates were beginning over vocational education, city school systems began to recognize and attend to inefficiency in pupil classification and promotion. The presumed inefficiency of city schools became an issue that resonated with alarming consequences (see Callahan 1962). The 1909 statistical sur-

vey of school inefficiency by Leonard Ayres, published as *Laggards in Our Schools*, was especially influential (Ayres 1909). From his survey of city school systems, Ayres estimated that nearly 34 percent of all elementary schoolchildren were “retarded,” defined as pupils who were more than two years older than the expected age for each grade. The statistical investigations by Ayres and others (cf. Thorndike 1908; Strayer 1911) informed policy decisions that would help guide the reform of schools, one of which was the call for the special class.

The national stature of these investigations was further stimulus to a systematic academic inquiry into the problems of retardation in city school systems. Most representative of this was the 10-volume *School Efficiency Series*, edited by Paul Hanus of Harvard (see Hanus 1913). With an initial prompting from the Committee on School Inquiry of New York, these volumes addressed problems of school supervision and organization with an eye to their commonality across cities and states. Despite differences across city school systems, one problem seemed to unite them most: the problem of detecting and classifying mentally defective pupils. The significance of this issue was made most clear with the volume submitted by Henry Goddard, then director of the Department of Research of the Training School for Feeble-Minded Children in Vineland, New Jersey (Goddard 1915). Goddard’s volume inserted the problem of feeble-minded schoolchildren directly into the issue of school efficiency and did so with two specific policy recommendations.

First, pupils must be classified into four categories. Goddard drew divisions between normal and supernormal (gifted) pupils and between the “merely backward” and the “feeble-minded.” The merely backward were pupils whose school problems were tied to environmental conditions. To improve the efficiency of schools, the need was pressing to identify and remove feeble-minded children. As Goddard noted, this could be effected only by those familiar with this population and trained in the new Binet-Simon scale of intelligence. Second, for Goddard, the only viable policy option was to retain these children *within* the city school and to entrust their supervision to a superintendent of schools and classes for defectives.

Goddard set a precedent for the significant stage in the genesis of special education (see Zenderland 1987). This stage was the mental testing movement generally and its success in installing a pupil classification system that carried the legitimacy of science. The figure most central to this was Stanford University’s Lewis Terman, who both popularized and institutionalized Alfred Binet’s work with the concept of IQ.

The breadth of Terman’s influence on the testing movement is well established (Marks 1974; Fass 1980; Chapman 1988). Terman

confirmed the statistical presence of feeble-minded children among the pupil population (Terman 1917). From his surveys of California school systems, Terman reported a ratio of 2 percent or higher, consistent with figures estimated by Goddard for eastern cities. Thus, California was no exception but foreshadowed the problem of feeble-minded children as a “menace” of national scope.

The entirety of Terman’s academic work was on the measurement of human differences, especially the exceptional cases of mental subnormality. But, for Terman, the promise of intelligence testing in schools was founded on a larger social purpose: to identify the feeble-minded is to distinguish those who lack the hereditary potential to acquire moral conduct from school knowledge (see Marks 1974, p. 342). Here, Terman’s imagery of a statistically small but disproportionately menacing number of feeble-minded children complemented the Progressive Era’s alarm over inefficiency. If the capacity to engage in moral conduct is given by the heritability of intelligence, the problem of inefficiency is a matter of finding those who are uneducable (see Horn 1924, p. 70). From Ayres’s “retardation” to Terman’s “feeble-minded,” there was effected an important conceptual transformation. A term once denoting organizational inefficiency was now redefined as intellectual incapacity.

Terman’s quest to distinguish those who could not profit from school knowledge led him, like Ayres, to promote the special class. But, with the scientific guidance of intelligence testing, the traditional mechanism of an ungraded or special class took on new meaning. For Terman, the larger concern was the “conservation of talent,” the need to reorganize schools such that instruction would conform to the variety of individual differences (Terman et al. 1922, p. 12). This required a differentiated school curriculum, a system of tracks that would at once segregate the mentally subnormal while protecting the intellectually gifted.⁴ Terman’s ideal and practical vision of mental testing in schools offered some resolution to the historic conflict that has shaped American education: the antinomy between having democratic access to a common schooling and having one administered with organizational efficiency.

However, mental testing was not sufficient, by itself, to resolve the antinomy. Resolution required a rationale for pupil classification directed beyond the immediate needs of schools. This was given by the renaissance of vocational education, now redefined as vocational guidance in a changed occupational world (Sears 1925, chap. 13). As Terman himself advised the San Luis Obispo school system, the remedy of the special class was “good argument for the introduction of manual training [and] domestic science” (Terman 1912, p. 137). David

Snedden's observations of 1907 seemed prophetic indeed. The form "industrial work" would finally assume now hinged on whether it would be outside or within the public school system.

The resurgence of vocational education during the early years of the twentieth century would certainly profit from the attacks on school inefficiency. Yet the immediate roots of this resurgence were in the settlement house movement. Out of this reform movement was born the National Society for the Promotion of Industrial Education (NSPIE) in 1906, which had such well-known figures as Jane Addams as originating members of its board of directors (Stephens 1970, pp. 53–67; see also Cohen 1968; Fisher 1967). Its first secretary was Charles Prosser, who left his work under then Commissioner Snedden in Massachusetts. The NSPIE exerted a national influence, but this national focus on vocational education was secondary to its role in defining the *location* of vocational education.

Amid the attacks on school inefficiency and against the context of an expanding industrial economy, the construction of a "dual system" that would distinguish trade and academic instruction reemerged as a topic of debate, and in a climate of concern over school efficiency it represented an attractive option of reform. In its review of manual training programs in Massachusetts, the important Douglas Commission ended with a recommendation for "distinctive industrial schools separated entirely from the public school system" (Lazerson and Grubb 1974c, p. 75). Such prominent figures as Snedden and Harvard president Charles Eliot, contrasting figures in other respects, nonetheless both advocated separate systems of instruction, one to impart trade and industrial skills, another to impart academic preparation. Snedden contrasted an education for "consumers" with an education for "producers," introducing a dividing line between a literary or general education and a practical or vocational education (Snedden 1920). The contrast between consumers and producers was a fundamental one, for the content of instruction was basic to where one was destined to be in life.

Eliot's call commanded the most attention, for it became the focal point of the political debate over vocational and academic education. In his address to the NSPIE delivered in 1908 (Eliot 1908), Eliot advocated a system of trade schools that would be separate from the public schools and that would meet the practical demands of a diversifying occupational system. These demands were not being met by a school system that emphasized liberal, academic instruction to the neglect of skills that must prepare youth to be actual "journeymen for the trades." But Eliot's call for a separate system of trade schools sharpened the debate beyond even his own inclinations. The new and

pragmatic dilemma facing schools was how students would be selected into a trade and vocational preparation. To this question Eliot introduced the crisp but volatile notion of “probable destiny,” connoting a tone of determinism between a student’s background and his or her appropriate occupational placement. With the notoriety given to Eliot’s address, the specter of a separate system of trade and vocational schools gained national attention.

Over the next few years the debate over vocational education centered on the locus of authority, whether the state public school system would extend provisions and retain control or whether local boards would be empowered to initiate vocational schools independent of state powers, both regulatory and financial. The practical outcomes of the debate ranged from models of state partnership with local boards, as exemplified by laws in Massachusetts (1909) and New York (1910), to Wisconsin’s act of 1911 establishing a dual system that invested full control over vocational education in the hands of a State Board of Industrial Education (Wirth 1972, pp. 61–62; see also Bennett 1937, p. 541). While Wisconsin was an exception, the salience of this struggle was broad enough that, in its annual meeting of 1913, the National Education Association defined it as “unit vs. dual control.”

The proposals for a separate system of trade schools were met by concerted opposition, most convincingly from academic figures such as John Dewey (Dewey 1913) and from organized labor (Lazerson and Grubb 1974*b*, pp. 101–15). But the struggle over trade schools came to a test case in the celebrated Cooley Bill introduced in Chicago in 1914 and 1915. Inspired by the Wisconsin Act and sponsored by the Commercial Club and other business organizations, the bill explicitly sought a dual system, one part general and another vocational (Krug 1964, p. 147; Wirth 1972, p. 211). In spite of its strong base of support in business and manufacturing interests, it was nonetheless defeated. The defeat of the Cooley Bill may be taken as a significant turning point in the institutional direction of American education (Rubinson 1986, pp. 541–42), for the defeat signaled that vocational education should properly be located within public schools and should coexist with academic instruction.

With the defeat of the Cooley Bill, the momentum turned to the public schools and the viability of expanding vocational preparation as elective courses and programs. The culmination of this momentum was the federal passage of the Smith-Hughes Act in 1917, marking a national commitment to vocational education. Smith-Hughes appeared to resolve the debate over dual control. By granting autonomy to states in how they would administer federal funds, the legislation appeared to favor those who had argued for a separate system of

trade and vocational schools. Nonetheless, fully 33 states utilized their existing state boards of education to administer the program, while the remainder appointed separate boards or created parallel boards of vocational education as part of the public school system (Kantor 1988, p. 43). It is ironic that the actual outcome of Smith-Hughes was to strengthen vocational education *within* public schools, thereby reinforcing unitary control.⁵

The federal sponsorship of vocational education released support to states that would augment the role of schools in pupil guidance generally and in guidance toward careers particularly. By implication, such sponsorship contributed to the retention of students who often entered school late, were laggard in their progress, and departed early. The problems of overage and truant pupils, those of backward social origins, and those of subnormal ability became confounded with the vocationalization of education. The historically older ungraded class assumed an organizational use with vocational guidance. And, because of that, the practice of managing school deviance assumed an organizational function with the more purposeful policy of career guidance. The distinctive purpose of career guidance was stated most eloquently by the intellectual doyen of American education, John Dewey: "An occupation is a continuous activity having a purpose," and "Education *through* occupations consequently combines within itself more of the factors conducive to learning than any other method" (Dewey [1916] 1929, p. 361).

The vocationalization of education modified a time-honored causal relation espoused by earlier manual and industrial education (Grubb and Lazerson 1975). The claim that the imparting of skills was the antecedent preparation to a trade was now modified, for the volatility of the job market greatly jeopardized that claim. Preparation must be more adaptive to the unpredictable demands of the job market (Kantor and Tyack 1982).⁶

This necessary deference to the job market once again highlighted the role of gender in vocational education. The return of gender to vocational education came from the home economics movement and through the powerful American Home Economics Association (AHEA), founded in 1908. The rise of home economics was a response to a changing job market that opened new occupational avenues to women. But, much like the differentiation within juvenile reformatories, these occupational avenues were cast in traditional terms to protect against job competition between males and females. For the years prior to Smith-Hughes, the focus of a vocational education for women was on the skills of "domestic science," preparing girls to enter homes of their own (Andrews 1914; Leake 1918). After Smith-Hughes, the

skills of domestic science were extended to secretarial and related office work, consciously preparing girls “for work in distinctly feminine occupations” (National Education Association 1910, p. 761; see also Rury 1991, pp. 141–47; Fritschner 1977, p. 230). The association of home economics with the politics of vocational education ensured that its curriculum would be differentiated along gender lines. As office work became feminized, female enrollments in commercial education rose sharply (Weiss 1981, p. 413), creating a gender distinction between commercial and industrial education (Kantor 1988, pp. 59–65). The concentration of girls in commercial classes appeared to aggravate the already low retention of boys in secondary schools. This “boy problem” (Hansot and Tyack 1990, chap. 7) heightened the motive for a vocational reform of the curriculum generally, but one that would serve the different occupational needs of male and female students.

The alliance of AHEA with the NSPIE forged the political base necessary for passage of Smith-Hughes. In spite of an initial reluctance by the AHEA to identify home economics with legislation for vocational education (Palmer 1989, p. 92), the alliance solidified the precarious unity of the NSPIE, business (as exemplified by the National Association of Merchants [NAM]), labor (AFL), and education (NEA) to achieve federal funding for three vocational areas: agriculture, arts and industries, and home economics.

Theoretical Summary

The outline of the institutional genesis of special education is portrayed in the theoretical model in figure 1. The series of historical events that compose the institutional genesis of special education lead from the early nineteenth century to the period of “takeoff” in the late 1940s. By 1940, states had established a base structure of special education categories that reflected these series of historical events (Richardson 1992). From the erosion of apprenticeship to the events of the nineteenth century, these institutional developments were patterned. States first erected asylums and hospitals for the physically infirm and mentally defective. Following this, states established reformatories and industrial schools for juvenile disorderly youth. Once these institutions were in place, compulsory attendance at the common school was formally enacted with explicit provisions for the exemption of students with physical and mental deficiencies and for the expulsion of students who were delinquent. When viewed as part of this sequence, enactment of compulsory school laws had less to do with

FIG. 1.— Theoretical model: institutional linkages to special education

compelling attendance than with specifying the conditions for nonattendance.

Passage of compulsory attendance marked the turning point in the institutional genesis of special education (see Sarason and Doris 1979; Lazerson 1983; Carrier 1986; Richardson 1992b). It did so for the democratic obligation to receive (at least nominally) all eligible children of school age and made conspicuously visible those pupils who could not move easily through the grades. During the early years of this century, when nearly all states had enacted compulsory attendance, the inefficiency of “laggard” students in city schools was amplified as a national concern. It is important to note that a major part of the solution to this problem was imported from outside the common school. By adapting the classification scheme long practiced by juvenile reformatories, public schools began to accommodate the truant and incorrigible pupil, as well as the backward and the feeble-minded. By relying on the reform school as the institutional model, the ungraded class was implanted as the core unit of a special education for exceptional children.

Ultimately, the successful genesis of special education hinged on the 1917 Smith-Hughes Act extending federal aid to states for vocational education. The significance of vocational education derives from its placement within state public schooling. This placement permitted the continuation of nineteenth-century events and their most logical outcome: the expansion of special education within public schools.

Throughout this historical time frame, perceived gender differences influenced the construction of pupil classification and instructional content. While conceived as part of a practical adaptation to the problems of democratic admission, the character of the special class, that

content that linked it to the general growth of state school systems, was shaped by debates over the control of gender differences in deviant behavior. A primary association was forged between the bad boy and the backward child. In turn this construction generated consequences of even wider institutional reach. In particular, the early categories of habitual truancy and backwardness linked the special class within the common school to the control of male deviance in the juvenile court system. From its implication in the control of male backwardness, the genesis of special education was linked to the parallel system of male reformatories.

In terms that describe the general context that all state school systems faced, special education arose as a strategy to accommodate the dilemma of formalizing school attendance as compulsory and nominally universal. From the event of enacting compulsory attendance come a number of general processes of growth that all states experience over time. Part of an earlier enactment of compulsory attendance is a higher level of pupil expenditures, an expanding secondary enrollment, and an earlier participation in vocational education (see Trow 1966). In more specific terms, special education arose as a resolution of the antinomy between the political mandate for democratic access and the practical requirement for institutional efficiency. The potential void between the abstract statutory language of the state level and the immediate constraints of cities was minimized by a consensus over the social control of school deviance as founded on gender. The role of gender conditionalizes, as it were, the largely correlational thesis that stops at an explanation for the origins of special education with the passage of compulsory attendance. The policies formed to distinguish and control male and female deviance provided an educational purpose to the organizationally informal ungraded class. The confirmation that vocational education would remain within the common school transformed an antiquated practice into a system of special instruction, now linked to the different occupations that male and female students were seen as destined to enter.

An Empirical Inquiry: Institutional Linkages and Categories of Exceptional Children

Data Sources

The data for the empirical analyses are taken from standard sources that provide statistics on state school systems, specifically, the *Biennial*

Survey of Education (U.S. Office of Education 1933–34, 1937–38, 1940–60), and from decennial U.S. Census reports on population and occupational statistics for states and cities (U.S. Bureau of Census 1923).

Measures

As shown in the theoretical model, the institutional linkages follow events in the nineteenth-century, from the establishment of the state (lunatic) asylum, the reform school for boys, and the industrial school for girls to the enactment of compulsory school attendance. Although the date on which states legislate for a reformatory is some indicator of controls over delinquency (see Sutton 1988), such is an indicator of a “first” reform school only. Moreover, such a date nearly always marks a state’s control over male delinquency. The timing of state legislation for the girls’ industrial school is commonly some years after the establishment of the reformatory for boys.⁷ In this analysis, the establishment dates for males and for females are distinguished. Such a distinction allows for a finer detection of the time that “female delinquency” lags behind male delinquency. As shown in table 1, the correlation between the timing of the male reform school’s and the female industrial school’s enactment of compulsory attendance is nearly exact. Yet the correlation for the girls’ industrial school and female delinquents in 1917 is one-third less than that for males (and nonsignificant). While a state’s establishment date for the male reform school or the female industrial school is associated with *levels* of delinquents, these correlations reveal the comparatively weaker tie for females than for males. By 1920, the overall level of delinquents confined in reformatory institutions had peaked. Even more important is that states that were early to establish reformatories reached this peak earlier and had begun a decline in their levels of reformatory confinement. This decline would be toward intermediate arrangements, of which truant schools and classes were options.

From the date of enacting compulsory school attendance, varying from 1852 (Massachusetts) to 1918 (Mississippi) flow institutional effects that bear on early categories of special education. The timing of compulsory attendance embodies general processes of growth as state school systems mature over time (Richardson 1984). As confirmed in table 1, an earlier passage of compulsory attendance is strongly related to higher levels of (both male and female) secondary enrollment and to levels of pupil expenditure, both measured in 1910. In turn, both of these are positively related to levels of employment in manufactur-

TABLE 1

Zero-order Correlations for the State Model: Major Institutional Linkages

	Male Reform School	Female Industrial School	Compulsory Attendance	Secondary Enrollment (1910)	Manufacturing (1920)
Compulsory attendance	.48**	.44**			
Delinquents (1917)	-.45**	-.31			
Delinquents (1927)	-.45**	-.38*			
Male secondary enrollment			-.69**		
Female secondary enrollment			-.68**		
Pupil expenditures (1910)			-.73**		
Males/manufacturing (1920)				.43**	
Females/manufacturing (1920)				.36*	
Males/vocational education (1930)					.11
Females/vocational education (1930)					.30*

* $p < .05$.

** $p < .01$.

ing in 1920. To these levels of employment in manufacturing is joined the variation in enrollments in vocational education in 1930.

As proposed, the timing of enacting compulsory attendance bears directly on the categories of backward and deaf but indirectly on the categories of truant and incorrigible pupils and mentally deficient pupils. As the historical narrative suggests, the early category of backward children was an immediate consequence of mandating compulsory attendance. Similarly, the category for deaf children ought to be a direct consequence of the general growth of a state school system. In contrast to the category for deaf pupils stands the socially “impure” category for truant and incorrigible students. As figure 1 contends, this category is linked to the growth of vocational education as part of general growth within common schools but is also linked to the system of delinquency outside of common schools. The argument that distinguishes the truant category is extended to the category for mentally deficient pupils. This classification is conspicuous by its intermediate position. As the focal issue of the mental testing movement, the category for mentally deficient students reflects the objectivity of mental subnormality. But, as the successor to backward children, the category was implicated in the control of school deviance generally and was influenced by the institutional association between common schooling and male delinquency specifically.

Of the four special education categories that are examined, only that of backward children is distinguished by gender. For the remaining categories, only total figures are available. While this reduces the capacity to sharply distinguish the substantive influences of gender from the more general processes of institutional change, the differentiation of delinquency by gender offers some means to explore and detect the historically important influence of gender on special education. (For specific definitions of the variables used in the analysis, see App. A.)

Analysis

The completeness of data is determined by the reporting of figures for special education categories. For the category of backward children in 1927, data are not available for 17 states, so that there are only 31 cases for analysis. Of the 17 states for which no backward children are reported, nine are southern states, five are far western, two are midwestern, and one is in New England. (See App. B for actual states.) For the measure of truant and incorrigible students in 1940, 46 states report such classes. For deaf students, the number of reporting states is 45, and for mentally deficient it is 44. In the empirical analyses, the

number of cases is at times reduced because of similar limitations in reporting for measures of vocational education enrollment or delinquency figures.

While the absence of full data for the early special education category of backward children presents problems for the empirical analyses, these patterns are to be taken as a reflection of the historical development of special education itself.⁸ For backward children, the fact that one-half of nonreporting states are from the South is some reflection of their “youthful” institutional age (Richardson 1984). The prospect of some systematic difference for these nonreporting states is assessed in the analyses of deaf and mentally deficient placements in 1940, for which there are nearly complete data.

Although the model specifies institutional linkages that extend from the early nineteenth century to the mid-1940s, the variation in number of cases precludes path-analytic techniques. Especially reduced by backward children, the restriction of all analyses to 30 cases would superimpose a statistical uniformity over the real historical evidence that illustrates the institutional genesis of special education. To remain as close as possible to the scheme of institutional linkages, we conducted a series of hierarchical regression analyses that focus specifically on the four measures of special education.

Results and Discussion

Tables 2–4 give the results of analyses that explore the relative influence of general institutional processes and the substantive role of gender. The first analysis explores the early category of backward children and the proposed linkages it had to compulsory attendance, to male and female delinquency (in 1917 and 1927), and to male and female enrollments in vocational education in 1930. The initial equation with date of compulsory attendance exhibits a strong predictive strength that is essentially equal for both males and females. For both males and females, the addition of vocational enrollment levels increases R^2 and reduces the magnitude of compulsory attendance as well. The reduction in compulsory attendance emphasizes the meaning of vocational enrollments as a measure of general processes of growth in state school systems.

In contrast to this general institutional growth, the addition of delinquency reveals a sharp gender difference in the category of backward children. For male backward children, the addition of delinquency in 1917 raises the R^2 and emerges as the strongest predictor (table 2, eq. [4]). Its addition essentially eliminates the initial contribution of

TABLE 2

Results of Hierarchical Regression Analyses: Male and Female Backward Children, 1927 (Standardized Coefficients)

EQUATION NUMBER	INDEPENDENT VARIABLES			ADJUSTED <i>R</i> ²
	Compulsory Attendance	Vocational Education (1930)	Delinquency (1917)	
Males (<i>N</i> = 31):				
1	-.57**			.31
2	-.39**	.33*		.38
3	-.43		.44**	.46
4	-.25	.33**	.42**	.54
Females (<i>N</i> = 31):				
5	-.61**			.35
6	-.53**	.31*		.41
7	-.47**		.08*	.27
8	-.22	.31*	.05	.33

* *p* < .05.

** *p* < .01.

compulsory attendance. For female backward children, no such effect of delinquency is found. For girls, the timing of compulsory attendance and the level of vocational enrollments remain as the predictors of female backward children in 1930.

For the analysis of truant and incorrigible students, the previous pattern that reveals the influence of male delinquency is again evident. The level of male delinquents in 1917 emerges as the strongest predictor of the total number of truant and incorrigible pupils in 1940 (table 3, eq. [4]). In contrast, the number of female delinquents shows no predictive influence on this early special education category. To confirm this gender difference, we conducted the analysis on only those states for which there were female delinquents in 1917.

While the number of states was reduced in this manner, the results remained the same: the level of male delinquents in 1917 remains the predictor of truant and incorrigible pupils in 1940 (table 3, eq. [5a]). While the number of male delinquents in 1927 displays some influence (table 3, eqq. [8], [10a]), it is the measure of delinquents in 1917 that reveals the linkage between male delinquency and the truant category. States with comparatively high levels of male delinquents in 1917 were institutionally older and began their declines in the population of reform schools (Richardson 1992*b*). As part of a long-term course of

change, this decline paralleled the expansion of truant and incorrigible as an early special education category. And, as elaborated earlier, this course of change was defined historically by the institutional tie between the male reformatory and school truancy.

The measures of backward and truant and incorrigible children represent early categories for the emerging system of special education. They are categories with the closest historical affinities to the mandate of compulsory attendance and to the subsequent problems of school laggards. In effect, they are categories most infused with social and cultural attributions, and are defined by the particular institutional responses generated by the school efficiency movement. When

TABLE 3

Results of Hierarchical Regression Analyses: Total Number of Truant and Incorrigible Children, 1940 (Standardized Coefficients)

EQUATION NUMBER	INDEPENDENT VARIABLES						ADJUSTED R^2	N
	Delinquency (1917)			Vocational Education (1930)				
	Total	Male	Female	Total	Male	Female		
1	.28						.05	36
2				.29*			.06	46
3	.27			.27			.10	36
4		.60**			.07		.34	43
5			.16			.13	.05	37
5a		.58**			.02		.30	36
	INDEPENDENT VARIABLES						ADJUSTED R^2	N
	Delinquency (1927)			Vocational Education (1930)				
	Total	Male	Female	Total	Male	Female		
6	.14						.01	39
7	.13			.30*			.06	39
8		.36*			.13		.11	46
9			.12			.18	.01	39
10								
10a		.34*			.14		.09	39

NOTE.—Equations 5a and 10a are constrained to match states reporting female delinquency for 1917 and 1927.

* $p < .05$.

** $p < .01$.

TABLE 4

Results of Hierarchical Regression Analyses: Total Number of Deaf and Mentally Deficient Students, 1940 (Standardized Coefficients)

EQUATION NUMBER	INDEPENDENT VARIABLES				ADJUSTED <i>R</i> ²	<i>N</i>
	Dummy Variables		Compulsory Attendance			
	Backward	South				
Deaf:						
1	-.28				.07	45
2		-.42**			.17	
3		-.06	-.45*		.22	
INDEPENDENT VARIABLES						
	Backward (Dummy Variable)	Vocational Education (1930)	Truants (1940)	Backward (1927)	ADJUSTED <i>R</i> ²	<i>N</i>
Mentally deficient:						
1	-.06				.01	44
2		-.13			.01	
3		-.02	.51**		.22	
4		-.04		.62**	.36	31
5		-.04	.28*	.56	.41	

NOTE.—Dummy variables: backward, states not reporting figures on backward children in 1927 coded 1; South, southern states coded 1.

* $p < .05$.

** $p < .01$.

we turn to the categories of deaf and mentally deficient children, these would be, presumptively, the most “pure” classifications of exceptional students, being relatively free of social and institutional bias. Their genesis ought to be a function of general processes of growth, namely, the timing of compulsory attendance and the grounding of vocational education within state school systems.

Such an interpretation is clear for the category of deaf children. Only the timing of enacting compulsory school attendance has a significant bearing on the level of deaf students in 1940. Moreover, this singular effect is maintained after controlling for some systematic different that might be associated with nonreporting states on backward children in 1927 and for the regional distinction of southern states. Both of these potential influences are measured in a dummy-variable analysis. While

nonreporting states (backward) are lower in the level of deaf children, it is the regional difference of southern states that yields the (statistically) significant effect, producing an initial R^2 of .17. Nonetheless, the timing of enacting compulsory attendance taps the influence of institutional age beyond this regional contrast, absorbing the effect of this South–non-South distinction and significantly raising the R^2 to .22.

In contrast to the pattern for deaf students, the category of mentally deficient exhibits no such purity from influences of social deviance. The analysis begins with the levels of vocational education in 1930. As shown in table 4, this measure exerts virtually no influence. If the analysis were to begin with pupil expenditures in 1910, a significant effect would be found ($\beta = .31$, $p < .05$; $R^2 = .10$). Yet, what happened to this antecedent influence, the erosion of its indirect effects, is found in the striking impact of truants on the category of mentally deficient students. As shown, the level of truant and incorrigible students emerges as the sole predictor of the mentally deficient category. The measure for backward children reveals equally strong predictive strength, reflecting its historically close association with the truant category. In spite of their close association, they each exhibit strong independent effects.

For the category of deaf children, the significant effects of nineteenth-century institutional formation suggest that later placement levels are a consequence of an “institutional momentum” of a state school system. Yet, in contrast, the category for mentally deficient students is marked by the external institutional context of a delinquent population. Where the population of male delinquents exerted a significant influence on the level of backward children, this outside context continued its indirect influence on the level of mentally deficient students in 1940. As this analysis implies, the male track that links reform schools to truant children infused the categories of backward and mentally deficient children with the social and cultural attributions of delinquency, while it remained independent of the classification of deaf children.

A final note.—Reporting that only the timing of compulsory attendance has a significant effect on the level of deaf students might be taken as unduly partial, because our model proposes only one line of influence on this category. To further test the purity of this category, and the interpretation that levels of placement are a function of the institutional age of a state school system, we examined the effect of truant and incorrigible students and male delinquents on placement levels of deaf children. A relationship might be expected between truant and deaf students, if only because both are indicators of general

processes of growth. Nonetheless, in contrast to mentally deficient students, there is virtually no relation between truant and deaf students, nor between male delinquents in 1917 and deaf students. This contrast reinforces the interpretation of deaf students as a pure category tied to the institutional age of a state school system but retains the interpretation of the mentally deficient category as the heir to categories of backward and truant children, both of which are historically infused with the control of male deviance.⁹

Conclusions

The study of special education has long stood outside the routine work of sociology. While this neglect has been diminished by critical studies into the dependence of special education on regular schooling, these have been restricted to narrowed time frames. Against this neglect, and against cross-sectional views as well, this article seeks to highlight special education as occupying a most critical place in the development of state school systems. The special class was an organizational step-child born of the enduring conflict between the ideal of a common schooling and the practical demands for efficiency in meeting this ideal. However, special education arose not as an automatic response to this conflict but as a purposeful enterprise legitimated by the functional and intellectual alliance between intelligence testing and vocational education.

The genesis of special education began at the city level and centered on the problem of school laggards as the symbol of school inefficiency. The symbolic resonance surrounding the overage pupils in city school systems contributed to a reform impulse that was fed by a diverse range of interests, from business and labor to academic and political. Despite this diversity, and likely because of it, attempts to distinguish and segregate a manual and industrial education from a public system failed. As a consequence, vocational education was anchored inside the public school.

Because vocational education was now to remain within the public school, its own historic function became entwined with the organizational means to control deviant pupils. As the moralization of compulsory attendance met up with the vocationalization of schooling, school guidance now stood parallel to the ungraded class. At the core of the genesis of special education was the intersection of vocational education with the formalization of public schooling.

This intersection would bring with it broken promises as schools embodied the growing conflict between public goals and private ends (see Grubb and Lazerson 1982, p. 134). As one indicator of this conflict, the genesis of special education was significantly stamped with a gender difference. This difference was rooted in nineteenth-century institutional origins and persisted through the return of vocational education. As the empirical analyses reveal, two relatively separate institutional paths are discernible. The male path relates reform school formation and the male delinquent population to the special education categories of backward and truant children. With this path we see the historically constructed association of the bad boy with the backward child. In contrast, the female path relates the formalization of public schooling to vocational education, reflecting the more manifest purpose of common schooling. In contrast to the bad boy, the working girl was closer to the avowed function of vocational instruction. As a consequence, the vocational education of girls may have served to protect them from both the external label of delinquent and the new internal classification of truant and incorrigible.

From its institutional genesis, special education has attained a maturity that affords it a greater independence from regular education (Hurt 1988). Yet, as this article shows, gender was carved deeply into the structure of special education. Moreover, this early stamp of gender on special education has persisted in patterns of referral and placement. In the most extensive study of special education placement prior to Public Law 94-142 (1975), Mercer (1973) found that 97 percent of those referred were boys. From Office of Civil Rights data for 1978 (U.S. Department of Health, Education, and Welfare 1978), males represented 66 percent of the total special education placements. For the categories Seriously Emotionally Disturbed and Specific Learning Disability, the male placements were 76 percent and 72 percent, respectively. Only for the category Gifted or Talented did the proportions by gender approach equality, with 48 percent male to 52 percent female.

The persistence of this gender (as well as racial) overrepresentation is an outcome of structural and legislative constraints on school districts, of what Mehan has termed "practical circumstances" (Mehan 1992, p. 13). While the constraints that appear day in and day out in a bureaucratic setting can account for much of the gender and racial composition of special education, albeit unintended, these constraints are more than immediate and structural. As this article concludes, they are deeply historical, set in the crucial period of the genesis of special education.

Appendix Description of Variables

A. The major independent variables are indexed accordingly: ASYLUM is measured as the date states established their first insane asylum; REFORM is measured by the date states enacted the first reform school for males, and the first industrial school for girls; COMP ATTENDANCE is the year states enacted compulsory school attendance; SECONDARY ENROLLMENT is the proportion of the total males and females enrolled of the 10–14 age-eligible population measured in 1910; PUPIL EXPENDITURES is the level of state expenditures per pupil measured in 1910; MANUFACTURING is the proportion of males and females aged 10 and over engaged in manufacturing occupations in 1920; VOC ED is the enrollment levels of males and females in vocational education, indexed as the number enrolled per 1,000 of the state school-age population enrolled in school in 1930; BACKWARD is the number of male and female students in special classes for backward students per 1,000 of the state school-age population enrolled in 1927; TRUANT is the total number of truant and incorrigible students in special classes per 1,000 of the state school-age population enrolled in 1935; DEAF and MENTALLY DEFICIENT are indexed as the total number of deaf and mentally deficient students in special classes per 1,000 of the state school-age population enrolled in 1940. Because of the extreme range of these latter measures, both are log transformed.

B. The states that lack data on backward children are (South) Alabama, Arkansas, Delaware, Florida, Maryland, Mississippi, Oklahoma, South Carolina, Virginia; (Far West) Arizona, Idaho, Nevada, New Mexico, Wyoming, North Dakota, South Dakota; (North) Vermont.

Notes

1. The adjective “partial” is borrowed from Gianfranco Poggi’s lucid summary of Max Weber’s classic thesis linking Puritanism and capitalism. In emphasizing Weber’s own insistence that his work did not seek the causal origins of capitalism but only its “genesis,” Poggi notes: “I call Weber’s argument ‘partial’ because it addresses a single, distinctive and (relatively speaking) minor aspect of a very large historical problem: how to account for the *genesis* of modern capitalism” (Poggi 1983, p. 79; emphasis added). Poggi further notes that Weber’s work was “complex” insofar as a reasonable account of capitalism “comprises a number of discrete points, connected by a corresponding high number of steps or transitions” (p. 81). Taken together, the emphasis on partial relations strengthened understanding of the complexity of the problem, thereby giving the account a greater theoretical leverage (“momentous” [Poggi 1983]) in view of its wider implications. The emphasis on the genesis of special education shares Poggi’s summary of Weber’s methodological intent.

2. England provides an example of European educational development. Pressure for an expanded secondary education resulted in the creation of “junior technical schools” as set out in the 1902 Education Act. The decision to establish new educational structures is a persistent feature of British educa-

tional history, for “the creation of new, lower-status structures protects and even enhances the status of existing structures,” i.e., the grammar schools and elite universities (Silver 1983, p. 156).

3. This vocational emphasis introduced a division within female deviance, isolating “sexual precocity” as most serious and subject to severe punishment (Schlossman and Wallach 1978). In turn, this division contributed to the creation of prisonlike female reformatories that exacted this punishment as “partial justice” (Rafter 1985; see also Lekkerkerker 1931, chap. 5).

4. Experimentation with a differentiated curriculum had been undertaken by a number of city school systems. Often bearing the name of the city in which they were utilized (e.g., Cambridge, Batavia, Chicago), distinct plans for the classification and promotion of students were known and debated. For all plans, the routine of the age-graded system was a Procrustean bed, compelling the bright and advanced to move at the same pace as the slow and unable. Against this organizational flaw, the various plans experimented with flexible grading, discretionary promotions by individual teachers, and different schemes of tracks for average and gifted pupils (U.S. Department of the Interior 1923). Yet, in spite of the acknowledged flaws of age grading, actual practice appeared to follow the most economical path. The results from a national survey of superintendents, principals, and teachers reported in 1910 (Hartwell 1910) confirmed a dominant reliance on group teaching and ungraded classes, demonstrating that mechanisms that involved the “least amount of structural reform . . . achieved the widest use” (Chapman 1988, p. 51).

5. The fact that the design of Smith-Hughes appeared to favor advocates of dual control but in reality favored unitary control suggests that the debates over a separate system of vocational schools simplified an otherwise complex time. In many respects, the debates over unitary or dual control went on among friends, where familiar names would represent the interests of business and manufacturing, while educators and intellectuals would present counterarguments. While Wisconsin had gone the furthest toward dual control by its act of 1911, various forms of dual control had existed in states well before Smith-Hughes. By the 1890s there was a considerable number of trade and vocational schools in place across the states. Moreover, these schools were separate from the public schools but often enjoyed financial support from public sources. Two additional points are relevant here to the “unintended consequence” that Smith-Hughes sealed the location of vocational education within public schools (Kliebard 1987, p. 144). First, vocational schools varied in name, including intermediate trade school, independent industrial school, industrial training school, and manual training school. This variation in name belied important differences within the vocational education movement itself, expressing significant contrasts in pedagogical philosophy. These contrasts were often deep and bitter (see Krug 1964, p. 231) and to this extent may have weakened collective efforts to secure dual control as a national priority. Second, the growth of vocational education within public high schools had been dramatic much before Smith-Hughes. As given in the *Report of the Commissioner of Education*, in 1900 there were 540 public high schools reporting “technical or manual-training” courses, enrolling 68,440 students (*Report of the Commissioner of Education* 1900). By 1915 the number of schools reporting such courses had increased to 2,442, enrolling 125,807 students. Moreover, by this year, the report gave numbers for courses that framed Smith-Hughes, namely agricultural and domestic economy. Thus, Smith-Hughes did not inau-

gurate vocational instruction within public schools but rather reinforced what was already an established fact.

6. The unintended outcome of Smith-Hughes (see n. 5) of appearing to favor dual control but in reality anchoring vocational education within public schools helps one to understand the emergence of a “differentiated” curriculum. As Lazerson and Grubb note (1974a, p. 30), the narrow definition of Smith-Hughes led to the expansion of vocational instruction in part-time courses, in effect producing a system separate from academic instruction. From this view, dual control was not defeated by Smith-Hughes but rather relocated in public schools as a basis for subsequent curricular tracking.

7. The simple correlation between the male reformatory date and the girls’ industrial school date is .85. For 34 states the male reformatory was established prior to a girls’ industrial school. The mean lag between these dates is 17.8 years. For six states the girls’ industrial school was established prior to the male reformatory. For these states, the mean lag in years is 3.8. While these states indicate a female industrial school formed before the reform school for males, it is evident that boys were confined either in the state prison or in another facility (for these comparison dates, see American Prison Association [1937]).

8. This uneven entry of states into the data set parallels the analysis of nations reporting evidence of school enrollment levels that constitute measures of “mass education.” As nations enter the “modern world system,” they produce these data and report them to international bodies that are, like the Reports of the Commissioner of Education, the sources from which cross-national research on mass education draws its data. (For an example of this as a substantive issue, see Meyer et al. 1992, p. 133.)

9. A final test of the purity of deaf placement was the addition of the percentage black of the state school population in 1940. This compositional factor has been implicated in the volatile issue of “racial overrepresentation” in Educable Mentally Retarded classes made evident in all large city school systems since the 1960s (see Panel on Selection and Placement of Students in Programs for the Mentally Retarded 1982) and has been found to be a significant factor in the rate of expansion of these classes from 1950 to 1976 (Richardson 1992). Despite this, there is virtually no relation to either deaf or to mentally deficient placements for this cross-sectional point of 1940. This again strengthens the particular institutional relations that defined the genesis of special education.

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