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CURRICULUM, CREDENTIALS, AND THE MIDDLE CLASS: A CASE STUDY OF A NINETEENTH-CENTURY HIGH SCHOOL

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This historical case study of a prominent nineteenth-century high school analyzes one example of the development of the hegemonic curriculum. This developmental process hinged on the complex relationship between the high school and its middle-class constituency, a relationship that was mediated by the market in educational credentials. Shaped by bourgeois ideological principles (merit, self-discipline, and utility), the curriculum of the mid-1800s provided the school's middle-class constituents with a valuable form of symbolic wealth: i.e. educational credentials. However, by the 1880s the market in educational credentials changed. Alternative suppliers appeared on the scene, and the middle class began looking beyond a high school diploma to the acquisition of professional credentials. This market pressure forced the high school to revamp its course of study. What emerged was a version of the modern hegemonic curriculum, in which knowledge is stratified, academic, and appropriated through individual competition.

In recent years there has been a surge of sociological interest in the school curriculum. Writers such as Dreeben (1968), Young (1971), and Bernstein (1971) were among the first to study what schools teach their students and how this instruction affects society. In the last decade, research on the curriculum has been dominated by a group of theorists who view schooling as a form of cultural reproduction. Bernstein (1974, 1977), Apple (1979), Sharp (1980), and most importantly, Bourdieu (1977) and Bourdieu and Passeron (1977) have argued that the school curriculum reflects and legitimizes dominant-class culture while it devalues working-class culture.

As Giroux (1983) has recently noted, however, the cultural reproduction approach is deterministic. It both overstates the power of dominant-class culture, which is considered capable of simultaneously reproducing itself and hiding its class origins, and understates the influence of the school, which is defined as the instrument of cultural reproduction. This view gives an aura of inevitability and functional necessity to the reproductive process and casts the school in the role of agent.

In this paper, the relationship between social class and curriculum is regarded as interdependent. The dominant classes exert cultural pressure on the school and shape its curriculum. At the same time, however, the school is an independent social and cultural force that shapes the formation of the dominant classes. Thus, class and school interact over time, molding each other in a process Giddens (1984) calls structuration. Resistance theorists such as Willis (1977) and Everhart (1983) have moved toward such an approach by stressing the extent to which students reject school culture and seek to replace it with their own alternative culture. However, such studies inevitably promote theories of social and cultural reproduction, although they show that the reproduction process is more indirect than previously thought: i.e., working-class students choose working-class culture in reaction to the school culture; it is not forced on them.

Only one recent study, by Connell et al. (1983), has represented the relationship between class culture and curriculum as interdependent and indeterminate. The study was based on a series of interviews with students, teachers, administrators, and parents in two contrasting types of high schools in Australia: public working-class schools and private ruling-class schools. Connell et al. argue that ruling-class schools, which draw their students from proprietary, managerial, and professional families, are organic to the ruling class, that they are not its agents. These schools are responsive to the perceptions and needs of the ruling class, but they also play a significant role in shaping those perceptions and needs. In contrast, working-class schools have a largely antagonistic relationship with the working

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class. Both types of schools are organized around the same structure of learning, a structure that is harmonious with ruling-class culture and discordant with working-class culture. Since this structure supports the dominant class and excludes the subordinate class, Connell et al. refer to it as the hegemonic curriculum.

The hegemonic curriculum is composed of "hierarchically organized bodies of academic knowledge appropriated in individual competition" (Connell et al. 1983, p. 120). In a modern capitalist society, certain kinds of knowledge are more highly valued than others; in particular, school-based knowledge and cognitive skills are valued over community-based practical knowledge and manual skills. Moreover, knowledge is considered a form of property for which individuals must compete, not an empowerment that should be acquired and used cooperatively.

The hegemonic curriculum reflects the life experiences of the dominant class in a capitalist society—experiences that are hierarchically arranged, cognitive, proprietary, individualistic, and competitive. Yet this curriculum simultaneously shapes the culture of the dominant class by requiring that its members spend an extended period of time in school acquiring a respectable amount of academically legitimated cultural wealth. In contrast to reproduction theorists, who argue that structure is cause and school is effect, Connell et al. argue that curriculum and class develop interdependently. In other words, neither is directed toward some structurally predetermined end. In addition, they suggest that curriculum development and class formation are two sides of the same process.

This paper presents a case study of the development of the hegemonic curriculum. As Silver (1983, p. 296) has noted, a case study by nature "is not representative, but exemplary." Its purpose is not to supply systematic evidence in support of a theoretical construct but to flesh out such a construct and assess its utility in explaining the complexity of an individual case. The case in point is the Central High School of Philadelphia, a prominent public school that began in the mid-nineteenth century with a partial hegemonic curriculum and then shifted to a fully hegemonic curriculum near the end of the century. My primary aim is to explain how and why this transformation occurred. To do so, I examine how the school and its primary constituency—the proprietary middle class—interacted over time. I examine how the proprietary middle class helped shape the school's curriculum and how this curriculum helped in the formation of the middle class. In addition, I argue that the relationship between class and curriculum was essentially a market relationship; i.e., the impact of each on the other was due to the fluctuations of supply and demand in the local market for educational credentials.

THE EARLY CURRICULUM: PRACTICAL AND MERITOCRATIC

Central High School was Philadelphia's first public high school. It was founded in 1838, and it remained the only public high school for boys until 1885. Because of its unique position, the high school played a prominent and influential role in the school system and in the cultural and social life of the city. Well aware of the school's influence, its leaders and supporters kept a complete record of its activities for posterity. These records are a valuable source of information on nineteenth-century schooling. They include a set of published annual reports written by various principals (Philadelphia Board of Public Education 1840–1915), a complete set of detailed faculty-meeting minutes from 1840 to the present, three published histories (Cliff 1888; Edmonds 1902; Cornog 1952), and the records of all students who ever attended the school. I drew a sample of about two thousand students from the latter source, picking those who entered in federal census years from 1840 to 1920. When possible, these school records were linked to the students' family records from census manuscripts (U.S. Bureau of the Census 1850–1900; Labaree 1983).

For the first 50 years, Central's curriculum differed from a fully hegemonic curriculum in certain key respects. According to Connell et al., two characteristics define the hegemonic curriculum: (1) stratified academic courses and (2) a meritocratic pedagogy. Central was largely meritocratic, and it became even more so during the nineteenth century, but its original curriculum was neither stratified nor fully academic.

During most of the nineteenth century, Central's curriculum was explicitly practical. The school prepared students for direct entry into the city's commercial life rather than for college. Its purpose was "not to educate boys above their business, but for it" (Philadelphia Board of Public Education 1843, p. 65). This emphasis on practicality was manifested in three ways. First, the courses reflected a shift away from an overwhelming emphasis on classics, which characterized the traditional Latin grammar school curriculum, to an emphasis on modern languages and science. Thus, students spent between zero and 15 percent of their time studying the classics and over 40 percent of their time studying modern lan-

guages and science (see Table 1). Second, the science curriculum leaned heavily toward practical applications of scientific principles, which required a considerable amount of scientific equipment for demonstration. These acquisitions were also promoted as symbols of the curriculum's practicality. The most expensive and highly publicized piece of equipment was an advanced telescope, which was enshrined in an astronomical observatory atop the original high school building. Third, the curriculum included several courses that were explicitly designed to provide vocational training for white-collar jobs. These included courses in stenography, bookkeeping, mechanical drawing, and civil engineering.

These practical tendencies in the school's curriculum need to be put in perspective. Central's aim was not to provide its students with an apprenticeship for business. The vocational courses never comprised more than 12 percent of the students' schedule, and nearly all the remaining courses were academic (see Table 1). Most of the courses were in such traditional liberal arts subjects as English, literature, composition, French, geometry, chemistry, and physics—none of which can be considered practical, except in terms of cognitive skill acquisition. Central's much-vaunted astronomical observatory provided hands-on experience in scientific observation, but it was hardly relevant for future clerks, managers, and commercial agents. Thus, the high school's practical curriculum was actually an academic curriculum with a practical bent, and its usefulness was most striking when viewed in contrast to the traditional classical course from which it emerged.

Also, it should be noted that Central's curriculum was by no means unique. Most nineteenth-century high schools offered a similar course of study, usually identified as the English course. Although probably less comprehensive and less rigorous than Central's practical curriculum, the generic English course was a close match, right down to the classes in bookkeeping and stenography. In most high schools, the English course was typically paired with a classical course intended for those who were college-bound. Central also offered both options when it opened in 1838, but unlike many other high schools, it emphasized the practical course, which the catalogue referred to as the principal course. In 1856, the principal and classical courses were combined into a single program of academic subjects with a practical orientation. For the next 33 years, public high school boys in Philadelphia were given no choice in their course of study. Central presented them with a single, unstratified body of practical, academic knowledge.

Though Central's original curriculum only partially approximated Connell et al.'s hegemonic curriculum, its pedagogy was a closer match: i.e., knowledge was "appropriated in individual competition" (Connell et al. 1983, p. 120). In both purpose and practice, this was a thoroughly meritocratic school. According to one of its founders, Central was

> the School of the Republic . . . demanding no passport to its blessings, or to its laurels, save that which the people demands, and forever will demand from all its sons—INDIVIDUAL, PERSONAL MERIT [emphasis in original] (Dunlap 1851, p. 16).

Only those who obtained a high score on a competitive written examination were admitted, and only those deemed most worthy were graduated. The graduation rate at Central was quite low, as it was in most nineteenth-century high schools. Between 1838 and 1920, only 27 percent of the students admitted to the school graduated. It is tempting to attribute this low success rate to the inability of working-class families to forego the income of a teenage son, but as Table 2 shows, graduation rates were almost entirely unrelated to social class: 29.1 percent of students from the proprietary mid-

Table 1. Percentage of Time Devoted to Courses in Practical and Stratified Curricula

	Course							
Curriculum	Classical Languages	Modern Languages	English	History	Science	Vocational	Other	Course Years[a]
Practical (1871)	10	8	13	13	33	10	13	31
Stratified (1900)								
Academic								
Classical	25	4	14	14	36	0	7	28
Latin scientific	14	7	14	14	45	0	7	29
Modern languages	7	17	14	14	41	0	7	29
Commercial	3	17	14	21	21	17	7	29

Source: Philadelphia Board of Public Education (1840–1915).
NOTE: Percentages may not sum to 100 across rows because of rounding.
[a] Course years is the total number of years devoted to a particular subject in a four-year curriculum.

Table 2. Mean Graduation Rates for Central High School Students, by Social Class, 1840–1920

Social Class	*N*	Graduation Rate
Proprietary middle class	1,088	29.1
Employed middle class	482	25.5
Skilled working class	588	26.5
Unskilled working class	157	26.6
Total	2,315	100.0
Missing and unclassifiable	398	23.6
Total	2,713	26.9

Sources: U.S. Bureau of the Census (1850–1900), student records.

dle class and 26.6 percent of students from the unskilled working class graduated.[1]

The best predictor of a student's chances for graduation was his academic performance, measured by his grades. Table 3 reveals that 72.6 percent of students who achieved honor grades graduated, but only 17.6 percent of those without such grades graduated. For the classes entering in 1910 and 1920 (when records permit the calculation of grade point averages), the mean graduation rate was 77 percent for A and B+ students, 54 percent for B− students, 28 percent for C+ students, and only 5 percent for the rest. When both class and grades are included in a multiple classification analysis (MCA) of graduation rates (Table 4), grades still emerge as the most important predictor of success: The beta for grades is .50 and the beta for class is only .03. A second MCA, using a smaller sample but a larger number of variables (Table 5), yields a similar result.[2]

Table 3. Mean Graduation Rates for Central High School Students, by Average Grades, 1840–1920

Average Grade	*N*	Graduation Rate
Greater than 85 percent	461	72.6
Less than 85 percent	2,252	17.6

Sources: Student records, commencement programs, faculty-meeting minutes.

When separate MCAs are done for each entering class, grades are consistently the strongest predictor of graduation.

Thus, Central rewarded those students who displayed the greatest prowess in the individual competition over academic honors. However, academic competition at Central was undercut by an elaborate disciplinary policy that prevailed for the school's first 21 years. The explicit purpose of this policy was to instill self-control in the students. Demerits were given to misbehaving students and were deducted from their grades prior to the calculation of term averages. Grade point averages, therefore, reflected a combination of academic achievement and personal deportment. The first two principals believed that the school should not only transmit knowledge but also build character. Thus, the original curriculum and the pedagogy of Central High School reveal a less than full commitment to a strictly *academic* curriculum. The academic purity of Central's program was muddied by the school's devotion to practical content and personal conduct.

MIDDLE-CLASS IDEOLOGY AND THE EARLY CURRICULUM

The emphasis on practicality, merit, and character in Central High School's early curriculum was an expression of the entrepreneurial form of bourgeois ideology that became dominant among the American middle and

[1] Class membership was ascertained from the occupational titles indicated on school records and census manuscripts. The proprietary middle class consists of self-employed individuals, including artisans and professionals; the employed middle class consists of white-collar employees; the skilled working class consists of skilled workers who were not self-employed; the unskilled working class consists of semiskilled and unskilled workers. Persons whose occupational title was missing or unclassifiable are included in the "missing and other" category.

[2] The use of a binary dependent variable violates the assumption of homoskedasticity, which is required for regression analysis. Although some have argued that regression should not be used in such cases (e.g., Kousser, Cox, and Galenson 1982), I feel that its use is justified here. First, as Bohrnstedt and Carter (1971) have argued, regression is a remarkably robust procedure even when its assumptions (except for measurement error) are violated. Second, the primary effects of heteroskedasticity are an increase in the variance of the regression estimates and bias in the tests of significance. But since I use MCA primarily to establish gross differences between variables (via the betas) rather than fine differences in graduation rates, and since I base no conclusions on the significance tests, these effects pose no problem for the analysis. Third, graduation is the best available variable for measuring educational attainment. The number of terms a student has been enrolled in school confounds achievement (promotion) with failure (repeating a grade). The highest grade level achieved does provide a graduated measure of achievement, but it is not available for most years. Finally, students' educational attainment was more dichotomous than continuous: Students either dropped out in the first two years or they graduated. When I performed the same MCAs with the other two dependent variables, the relative importance of all the key factors remained the same.

Table 4. Multiple Classification Analysis of Mean Graduation Rates for Central High School Students, 1850–1920

Factors	N	Graduation Rate After Adjustments	Beta
Social class			
Proprietary middle	926	28	
Employed middle	420	25	
Skilled working	465	28	
Unskilled working	139	25	
Missing and unclassifiable	236	26	
			.03
Grammar school frequency[a]			
Over 50	233	31	
30 to 49	294	29	
20 to 29	437	32	
10 to 19	576	22	
1 to 9	687	26	
			.09*
Age at admission			
12 or younger	59	51	
13	384	35	
14	828	30	
15	581	20	
16	261	17	
17 or older	113	25	
			.16*
Grades			
No high grades	1,801	16	
Some high grades	426	73	
			.50*
Cohort			
1850	85	14	
1860	142	12	
1870	128	14	
1880	124	18	
1890	296	26	
1900	584	35	
1910	273	26	
1920	595	30	
			.16*

$N = 2{,}227$
Missing cases = 240
$\bar{X} = 27$
R^2 (adjusted) = .307
R^2 (adjusted) without grades = .081
R^2 (adjusted) with grades alone = .226

Sources: U.S. Bureau of the Census (1850–1900), student records, commencement programs, faculty-meeting minutes.
[a] This variable represents the number of Central students who attended the same grammar school that the subject student attended. It measures the effect of both educational preparation and residential proximity.
* Significant at the .001 level.

upper classes in the early nineteenth century. To explore the impact of this ideology on Central, we must first consider the class composition of the high school. As Table 6 shows, over two thirds of the students who attended the school between 1838 and 1920 came from the middle classes[3]; nearly half came from the proprietary middle class, and less than 7 percent came from the unskilled working class. The unrepresentativeness of Central's constituency becomes more apparent when we compare the class distribution of Central parents in

[3] Note that I designate Central as a middle-class school, deliberately avoiding the label *ruling class,* which is preferred by Connell et al. This term is inappropriate in analyses of most industrialized capitalist societies. Class domination most often occurs indirectly through structure and ideology rather than directly through the intervention of class members. Furthermore, the parents of Central students were generally not large-scale capitalists but middle-class proprietors. These parents were much more likely to be shopkeepers than factory owners.

Table 5. Multiple Classification Analysis of Mean Graduation Rates for Central High School Students, from Census Data, 1850–1900

	N	Graduation Rate After Adjustments	Beta	Raw Regression Coefficient
Factors				
Social class				
Proprietary middle	325	31		
Employed middle	150	19		
Skilled working	140	27		
Unskilled working	42	17		
Missing and unclassifiable	63	34		
			.12*	
Birthplace of family head				
U.S.	504	27		
Ireland	75	24		
Germany	66	20		
Great Britain	24	23		
Russia	28	32		
Northern Europe and other	23	48		
			.10***	
Birth rank of student and dependence of siblings				
Youngest, working	86	26		
Youngest, dependent	42	14		
Middle, working	157	26		
Middle, dependent	121	27		
Oldest	248	31		
Only child	66	24		
			.09**	
Grades				
No high grades	599	17		
Some high grades	121	78		
			.52***	
Cohort				
1850	53	9		
1860	89	14		
1870	96	16		
1880	94	18		
1900	388	37		
			.25***	
Covariates				
Grammar school frequency				.002**
Sex of family head				.194***
Age at admission				−.073***
$N = 720$				
Missing cases = 94				
$\bar{X} = 27$				
R^2 (adjusted) = .401				
R^2 (adjusted) without grades = .170				
R^2 (adjusted) with grades alone = .231				

Sources: U.S. Bureau of the Census (1850–1900), commencement programs, and faculty-meeting minutes.
* Significant at the .05 level.
** Significant at the .01 level.
*** Significant at the .001 level.

a particular year with the class distribution of household heads in the city. An index of representativeness produced from such a comparison for the year 1880 shows that the middle classes were heavily overrepresented and that the working classes, particularly the unskilled working class, were heavily underrepresented. Moreover, this class distribution was remarkably stable over the 80-year period covered by this study. In every year from 1838 to 1920, about half of the entering students were from the proprietary middle class.

Members of the proprietary middle class were not salaried workers but owners, independent businesspersons. However, for the most part, these individuals owned relatively small businesses. Although some wealthy and powerful families sent their sons to Central,

Table 6. Percentage of Central High School Parents and Philadelphia Household Heads in Each Class

	1 Central High School Parents, 1840–1920	2 Central High School Parents, 1880	3 Philadelphia Household Heads, 1880	4 Index of Representativeness, 1880[a]
Proprietary middle class	47.0	51.9	23.0	226
Employed middle class	20.8	27.2	7.6	358
Skilled working class	25.4	23.4	39.9	59
Unskilled working class	6.8	3.5	29.5	12
N	2,315	114	114,196	
Missing and unclassifiable	398	16	0	
Goodman and Kruskal's tau for 1880 = .215[b]				

Sources: U.S. Bureau of the Census (1850–1900), student records.
[a] Column 4 = (column 2/column 3) 100.
[b] This measure of association was calculated from a percentage class distribution of Central household heads and non-Central Philadelphia household heads in 1880. Class is the independent variable.

they were more likely to opt for private school. Central's constituency was dominated by shopkeepers and master craftsmen, the petty entrepreneurs who had been considered middle class long before the arrival of industrial capitalism and who continued to hold this position, albeit in declining numbers, throughout the mid-nineteenth century.

It was this class that jumped to the support of that vast array of institutional innovations and ideological initiatives that burst onto the American scene during the Jacksonian era. Petty proprietors rallied around the penitentiary (Rothman 1971), the mental asylum (Scull 1977), the poorhouse (Trattner 1979), the privatized family (Ryan 1981), pietistic religion (Johnson 1978), the temperance movement (Gusfield 1963), and, of course, the common schools (Kaestle 1983). There was considerable ideological consistency among these reforms. All reflected middle-class concern about the disruptive effects of the expansion of capitalist social relations on the existing social order, and all sought to establish a new order that was both compatible with capitalism and congenial with middle-class interests.

Let us consider, in turn, three principles promoted in Central's early curriculum—self-control, practicality, and merit—in light of the middle-class ideology reflected in these institutional reforms. From penitentiary to poorhouse and from pietism to prohibitionism, these reform efforts were all aimed at building character through the development of a rigorous self-discipline. Kaestle (1983), Tyack and Hansot (1982), and others have argued that the founding of the common schools, in particular, is attributable to bourgeois concerns about the development of self-control. This obsession with self-control is a natural outgrowth of the experience of the petty entrepreneur in a competitive market. Central's second principal believed that self-control learned at the high school would prepare the student for "the real accountabilities of life" (Philadelphia Board of Public Education 1853, p. 125), especially, one might add, for the rigidly self-sufficient existence of the proprietary middle class.

Practical concerns—i.e., work-related or work-enhancing concerns—permeated the institutions created during the Jacksonian period. Inmates in all the new institutions were expected to develop work skills or at least work habits during their tenure; therefore, it is hardly surprising that high school students were confronted with similar expectations. One of Central's early leaders stated the core ideological principle succinctly: "It was very early a matter of anxiety with the Controllers [of the school system] to avoid the error, not of over educating the pupils, but of so educating them as to give them a distaste for business" (Philadelphia Board of Public Education 1850, p. 118). This strong predilection for business over intellectualism and for practical education over classical education, like the emphasis on self-discipline, emanated from the daily experience and developing thought patterns of the proprietary middle class. The one-track practical curriculum put Central in a strong position to defend itself against the charge directed toward nineteenth-century high schools generally—that they were designed to serve the needs of the elite—while still allowing it to serve the privileged few. But this political consideration does not undercut the significance of the connection between practicality and middle-class ideology. The practical curriculum could hardly have attracted so many middle-class students if they were ideologically committed to a classical education.

Meritocracy is another concern that emerges from entrepreneurial activity. In contrast to working-class culture, which is characterized by a pattern of cooperative coping, middle-class culture is characterized by competitive

striving (Connell et al. 1983, p. 42). Significantly, of all the Jacksonian institutions named above, only the high school was capable of promoting the principle of meritocratic competition. Neither the penitentiary, the asylum, the poorhouse, the family, the church, nor even the public elementary school provided a competitive arena, an incentive for individual striving, or a legitimate, merit-based reward structure. Central High School met all the requirements of a truly meritocratic institution. This helps explain why nineteenth-century high schools were so important, despite the small number of students they enrolled. Only here could one of the most important elements of bourgeois ideology be learned, practiced, and legitimized.

Of course, Central's meritocracy arose not only from middle-class ideology but also from the school's admissions policy. As noted above, only those students who obtained a high score on the entrance exam were admitted. Because admissions were highly selective, Central's students were high achievers; and because of economic pressures, most of them were middle class. Working-class families could ill afford to send a potential wage earner to high school. The few who did must have been extremely committed to education and assured of its promise of upward mobility. In short, Central's meritocracy consisted of those students who were most likely to make it work—high achievers who were self-selected, culturally homogeneous, and middle class.

As a matter of practice, therefore, Central's rewards were not distributed purely on the basis of merit, but then a pure meritocracy probably doesn't exist in any class society. What is significant about this nineteenth-century high school, however, is that its *formal procedures* for admission and graduation were truly meritocratic. After all, the school was free and open to boys of all classes, and both admission and promotion were determined by written achievement tests. The forces of ascription, which intruded on the process, came indirectly from the class structure rather than directly from class-biased procedures within the school. Thus, Central's middle-class constituents had it both ways: They reveled in the school's class-blind meritocracy (perceived as a concrete expression of bourgeois ideology), while they enjoyed privileged access to its social rewards.

The preceding discussion tracing the origins of Central's curriculum to middle-class ideology sounds very much like a cultural reproduction argument. It is time to restore some balance by noting that this curriculum was not only practical, character building, and meritocratic—traits that are easily identified as middle class—but also academic. The core of the curriculum consisted of traditional subjects that were much more closely associated with schools than with the bourgeoisie. The primary middle-class contributions to the curriculum were a few clerical courses and a shift in emphasis from one type of academic knowledge to another. Central's curriculum was not a pale reflection of middle-class ideology but an academic course of study shaped by this ideology. It offered experiences not freely available in daily middle-class life. It offered knowledge that could only be acquired at the high school, not vocational training that could be obtained more efficiently in a business apprenticeship. Thus, although Central High School was in many ways the creature of the city's middle classes, these same classes depended on the school to provide them with academic knowledge, which was simply unavailable anywhere else. The meritocratic competition that the school encouraged focused on the achievement of goals that were themselves largely academic—goals that were defined in terms of school-based knowledge and that were attained through a school-directed pedagogy.

One indication that Central's academic autonomy was not only strong to begin with but growing stronger was its early abandonment of the focus on character building. In 1859, over bitter opposition, the new principal abruptly ended the practice of grading students on both academic achievement and conduct.[4] "This practice," he argued, "was evidently unjust and injurious. It destroyed all incentive to study; it deprived the student of those honors which he had fairly won by diligence and industry" (Philadelphia Board of Public Education 1859, p. 133). He believed that the school's sole purpose was to promote academic achievement. This represented an important narrowing of the high school's mission: Instead of socializing students in the dominant ideology, it focused on its academic mission, which was to promote the acquisition of the school's own body of knowledge.

COMPETING FOR HIGH SCHOOL CREDENTIALS

Fierce competition for the credentials Central High School provided began soon after the school was founded. There were considerably more applicants than openings, and this state of affairs persisted even as the school grew. Why were the credentials provided by Central so highly valued in the local credentials

[4] Harvard College took a similar step 10 years later, ranking students by grades alone (Rudolph 1962, p. 348).

market? There are three reasons: the meritocratic admission and graduation procedures, the unique position of the high school in the local market, and, at the most basic level, the special structural needs of the high school's middle-class constituency. Note that the first two reasons involve *supply* considerations and that the third involves *demand*. At the conclusion of this analysis I will argue that the educational credentials market played a crucial role in the history of the high school by mediating the relationship between the school and the middle class.

Central's meritocracy defined the high school diploma as a form of cultural property for which many students could compete but which relatively few could acquire. Central bestowed its credentials only upon those students who demonstrated superior academic ability. This selectivity and the legitimacy these credentials conferred made them a scarce and valuable cultural commodity. Only one out of every 50 male first graders were eventually admitted to Central High School, but only one out of every 200 ever graduated. Being a Central student was a source of some distinction, but being a Central graduate was a signal honor.

Another reason Central's credentials were so highly valued is the uniquely high status the school had during the mid-nineteenth century. For 50 years it was the only public high school for boys in the nation's second largest city: This fact alone gave it a kind of solitary prominence, which no high school has achieved since. In the loose, prebureaucratic structure of the Philadelphia school system, the high school became the dominant market presence. In their eagerness to gain admission to Central, both grammar school students and teachers reshaped the lower school curriculum to meet the high school admission standard (Labaree 1983, Chap. 1). Few private schools could compete with the high school's prestige much less with its free tuition and its meritocratic credibility.

Even colleges were threatened by the upstart competitor. In the mid-nineteenth century, colleges and high schools frequently competed for the same group of students.[5] Central's position relative to these colleges was strengthened by two factors. First, in 1849, the state assembly granted the school the right to award college degrees to its students, which it has done ever since. Thus, the term *people's college*, which was popularly applied to high schools during this era, was uniquely appropriate to Central. Second, during the third quarter of the nineteenth century, the number of colleges in the United States grew considerably faster than the population, so that in 1880 there were 16.1 colleges per one million people—a proportion that has not been exceeded since (Collins 1979, pp. 119–21). Under these market conditions, college credentials were devalued. However, because of its unique position, Central was able to maintain the high value of its credentials.

The supply of high-status credentials was strictly limited. But this alone cannot explain why such a high market value was placed on the credentials Central provided. We must also show that there was a strong demand for these credentials. To examine the demand side of the market we need to explore the fit between high school credentials and the structural needs of the high school's primary constituency: the proprietary middle class. Before the nineteenth century, America's shopkeepers and master artisans enjoyed a relatively secure existence protected by a traditional economy and stable prices and costs. Under these circumstances, a father transmitted his class position to his son by transferring economic captial—i.e., by passing on title to the business or by establishing his son in a business of his own.

However, as is shown in Johnson's (1978) study of Rochester, New York, after the arrival of the Erie Canal, the rapid development of market capitalism and the resulting increased competition and price fluctuation created a sharp increase in economic and social instability. Thus, the transfer of economic capital became difficult. Ryan (1981, p. 152), in a study of middle-class life in mid-nineteenth-century Oneida County, New York, concluded that

> small-business men who were struggling to keep their own firms solvent were particularly hard-pressed to put their progeny on a sound economic footing within the middling sort. Of all the wills processed in Utica after 1850 a mere five witnessed the transfer of a store or workshop to a second generation.

In this era, the proprietary middle class was caught between two advancing dangers. On the one side, the encroachment of successful entrepreneurial competitors threatened bankruptcy. On the other side, the rapid growth of wage labor threatened proletarianization. As the reliability of economic property as a guarantee of social reproduction decreased, the middle class's dependence on *cultural property* increased. By the latter term I mean symbolic wealth, all those cultural traits (speech patterns, tastes, manners, style, and academic

[5] This was especially true between Central High School and its local rival, the University of Pennsylvania. During this period, the average age of admission was 16 at Penn and 14.5 at Central. Because there was a wide range of ages at each school, there was considerable overlap (Burke 1982, p. 116).

credentials) that are considered valuable because of their association with the dominant culture. The hegemonic curriculum teaches a form of knowledge deemed to be a desirable form of cultural property. This kind of property can serve either as a cultural corollary to economic capital (part of the property benefit that follows from owning capital) or as a crucial means of status attainment for those without capital.

I use the term *cultural property* in deliberate contrast to the term *cultural capital,* which Bourdieu defines as "instruments for the appropriation of symbolic wealth socially designated as worthy of being sought and possessed" (1977, p. 488). I reject Bourdieu's concept for two reasons. First, it reflects a reproductionist vision of education. In Bourdieu's theory, cultural capital is the key element in cultural reproduction. It is more than the accumulation of symbolic wealth (cultural property); it is the set of instruments or codes with which one can unlock the storehouses of such wealth. Members of the dominant classes are familiarized with these codes during early socialization. Therefore, they have easier access to the available stores of cultural property than persons from the lower classes (Bourdieu and Passeron 1977). Second, Bourdieu's concept misuses the word *capital* (Hogan 1985). In Marx's definition, capital is not just the means of accumulating private property but a social relation that determines ownership and control of *productive* property. By using the concept of cultural property, I have incorporated educational credentials into a broader social framework without committing the analysis to a reproductionist viewpoint or creating a false analogy to economic capital.

The proprietary middle class in the mid-nineteenth century was under such intense socioeconomic pressure from the advance of capitalist social relations that it jumped at the opportunity to acquire cultural property from Central High School. The school was ideally suited to fill this need: Its curriculum was already partially shaped into the bourgeois mold, its credentials were scarce and prestigious, and its reward system was meritocratic. Thus, demand for Central's credentials among the shopkeepers and master artisans at mid-century was strong indeed. By acquiring this unique form of cultural property, the proprietors' sons could ease into a very different kind of middle-class existence—one based on business employment rather than business ownership. The practical curriculum Central offered was relevant to such employment (compared to the purely academic classical course); i.e., students could learn a few useful skills such as bookkeeping and drafting. But more important than the vocational training was the symbolic wealth that students accumulated at the high school. Such wealth had limited utility for those with substantial economic property, but for white-collar employees, this cultural property was what marked them off from the wage earners of the working class. A Central High School diploma, therefore, offered its constituents a cultural reinforcement of middle-class standing, an entrée into business employment, and a hedge against proletarianization.

MARKET FORCES PRESS FOR CURRICULAR CHANGE

As I have shown, Central's original curriculum only partly resembled Connell et al.'s hegemonic curriculum. The school had a meritocratic pedagogy (in fact, it was probably more meritocratic than any modern American high school), but its course of study differed sharply from a hegemonic curriculum. The knowledge that was taught was uniform rather than stratified, and its academic character was adulterated by an emphasis on practical skills and character building. To understand this early curriculum, we have to understand the school's relationship with the city's middle classes. On the one hand, the curriculum was partly shaped by middle-class ideology, an influence that is apparent in the school's emphasis on merit, practicality, and character. On the other hand, the middle classes became dependent on the high school curriculum as a unique source of much-needed cultural property.

The relationship between Central High School and its middle-class constituency was mediated by the market in educational credentials. The strength of this relationship is evident in the high value placed on a Central High School diploma. During most of Central's first 50 years, the demand for the school's credentials was high, but the supply was scarce. This market situation led to a cycle of mutual reinforcement: Heavy middle-class demand increased the value of Central's credentials; the increase in value raised the school's prestige and strengthened its independence; the enhancement of the school's position led to a further increase in credential value; and these increases in value further stimulated demand. Given the neat circularity of this process and the satisfactions it granted to both buyer and seller, it is hardly surprising that Central High School was loath to permit more than minor tinkering with its strikingly successful curriculum. Why fix something that worked so well?

However, in the 1880s the relationship between the high school and the middle classes

began to show signs of strain. Critics in the press and on the school board claimed that Central had lost its rigor and its direction, that its curriculum was elementary and outdated, and that it no longer served the needs of its students. The faculty was sharply divided over the issue of change, but in 1887 it voted for a new curriculum. Two years later, a new program, similar to Connell et al.'s hegemonic curriculum, was established. What had been uniform was now stratified, and what had been a mixture of academic and practical became a purely academic track and a second, practical/vocational track.

This curriculum shift was a response to dramatic changes in the market conditions that defined Central's relationship with its middle-class clientele. A sudden increase in the number of high schools offering similar credentials coupled with a shift in the demand for these credentials caused the value of a Central High School diploma to decline sharply. Both the school's officials and its middle-class constituency believed that the curriculum should be changed to meet this dramatically different market.

The pressures that made educational credentials attractive to the middle classes in the mid-nineteenth century became intensified by the 1880s. In particular, the position of the proprietary middle class was even more threatened. Table 7 shows that from 1850 to 1880, while the proportion of middle-class employees in the male population of the city grew slowly, the proportion of proprietors remained the same. But between 1880 and 1900, the proportion of proprietors decreased and the proportion of business employees increased sharply, making the latter the dominant group within the middle class. This reduction in the role of proprietors in the city's class structure combined with the stability of Central's class distribution over the entire period meant that the proprietary middle class was increasingly overrepresented at the high school after 1880. Faced with declining opportunities for independent businessmen and increasing opportunities for business employees, the proprietary middle class shifted its pattern of investment from economic property to cultural property. The question then became, What kind of cultural property would prove most valuable to this class in the midst of its accelerating structural change?

Several factors influenced the way in which this question was ultimately answered. First, the social meaning of business employment was undergoing change. At mid-century, a clerkship was an apprentice position leading either to management or proprietorship. In 1850, 56 percent of Central's students entered clerk-type positions upon leaving school. In this era, therefore, business employment—especially when combined with highly valued high school credentials—was an alternative route to the proprietary middle class. But by the 1880s, such employment was no longer a temporary stop on the way to proprietorship. For the first time, proprietors had to think seriously about the likelihood that their sons would be permanent salaried employees: Being a clerk was no longer a stage in the life cycle but a career. Such a career was not what middle-class families wanted for their sons; it was separated from a working-class job by only a thin status differential and an even thinner pay differential. What kind of employment would be appropriate for the offspring of the proprietary middle class? What career would help preserve their social standing? The answer, which had always been available but which had not appeared so strikingly attractive until the last quarter of the nineteenth century, was the professions.

The professions offered a number of advantages over business employment, including higher prestige and higher income, but their most attractive feature (a feature that enhanced prestige and income) was the autonomy they granted. The professional was clearly no white-collar wage slave subject to the authority of the boss. His expertise and his ideology

Table 7. Percentage of Philadelphia Males in Each Class, by Year, 1850–1920

	1850	1860	1870	1880	1900	1910	1920
Proprietary middle class	15.4	16.8	16.1	15.3	13.3	12.6	11.3
Employed middle class	6.7	7.5	9.0	10.1	16.4	18.1	20.5
Skilled working class	52.8	46.8	43.7	42.2	37.3	27.2	29.5
Unskilled working class	25.1	28.9	31.2	32.4	33.0	42.1	38.7
N	55	127	92	114	516	353	595
Missing and unclassifiable	41	15	36	16	80	45	95

Source: U.S. Bureau of the Census (1850–1900).

NOTE: Because aggregate census data were used, master artisans could not be identified. In Tables 2 through 6, they are included in the proprietary middle class, but in this table, they are included in the skilled working class.

buffered him from both management and the market, thus neatly shielding him from the twin threats facing the proprietors: proletarian subordination and market competition. Because of the attractiveness of the professions to the declining proprietors, middle-class culture in the late nineteenth century evolved into a "culture of professionalism" (Bledstein 1976). On one level, this transformation reflected the change in the source of the class's social standing, from the autonomy of proprietorship to the autonomy of professionalism. But on another level, it represented an intensification of the class's dependence on academic credentials.

Most professionals in the nineteenth century achieved their positions by apprenticing themselves to an established member of the field. However, the most prominent members of each profession had generally received a degree from a professional school. The proprietors, who had already competed for the credentials offered by Central High School, had learned by experience that the accumulation of symbolic wealth was an important buttress for social position and that academic credentials were a significant addition to this wealth. If they were going to pursue the professions, they needed the appropriate academic certification. Thus, in the acquisition of cultural property, the emphasis shifted from the high school to the university. The result was a remarkable increase in the middle-class demand for professional-school credentials. According to Kett (1977, p. 154), there was a substantial increase in the number of professional students between 1878 and 1899, but the most dramatic increase occurred between 1888 and 1899: The number of dental students increased by 988 percent, the number of medical students by 142 percent, the number of law students by 249 percent, and the number of theology students by 87 percent. By 1889, when Central changed its curriculum, the school's clientele was no longer interested in a terminal program oriented toward business employment. Instead, these families wanted a strictly academic program that would prepare students for admission to the university. This is exactly what they got.

The supply side of the educational credentials market also underwent significant change in the 1880s, partly because of the shift in demand. By the end of the decade, Central faced stiff competition for the first time from both newly created high schools and newly invigorated universities. In many ways, the success of the public high school (in Philadelphia and elsewhere) was at least partly responsible for both developments. The elements that made Central so attractive—uniqueness, selectivity, and scarcity of credentials—provoked a demand for more of the same. Before the 1890s, Central's enrollments were between 500 and 600. This represented more than 1 percent of the total enrollment in the city's school system during the 1850s, but this proportion dropped below 0.5 percent by 1880. Under these circumstances, only a fraction of the city's middle-class families could hope to educate their sons at the school. Finally, in 1883, the school board yielded to middle-class demands and established a manual-training school as an alternative secondary institution. (Other such schools followed quickly on its heels, and by 1915 there were 15 public high schools in the city.) Thus, after 50 years of monopoly, Central had its first public competitor. To make matters worse, the new school's curriculum was similar to Central's. It offered a terminal, practical education with a manual-training component that was a more systematic and more intensive form of Central's hands-on approach. Thus, to distinguish itself from its secondary competition and restore the value of its credentials, Central had to revise its curriculum.

Central had found it could compete successfully with the mid-century college, which suffered from oversupply and underdistinction. But between 1865 and 1890, during the professionalization of the middle class, the university developed into the dominant force in American education (Veysey 1965). The cultural property the university offered, which at the highest level was certification for admission to the professions, was much more attractive than anything the high school could offer. Central, like other high schools, had to make a choice: It could preserve its practical/terminal curriculum and become useless to those in quest of professional credentials, or it could adopt an academic/college-preparatory curriculum and thus become subordinate to the university in the new hierarchy of American education. Central chose the latter course.

Only the purely academic courses were included in the new college-preparatory curriculum. As Table 1 shows, all vocational courses were eliminated and the classics and science courses predominated. These changes do not seem terribly dramatic, but as I have shown, the original curriculum was already largely academic. The practical curriculum was not created *de novo* by the middle class to reflect its worldview (as the cultural reproduction theorists maintain); instead, an existing body of school-bound knowledge was shaped into a program with a practical orientation. The change in the curriculum occurred at the margins, not at the core. The most significant change was in the orientation of the actors rather than in the content of classroom in-

struction. The new curriculum represented a major turnabout in the perceived purpose of a high school education, from preparation for business to preparation for higher education and the professions.

In addition to the change in the content of the curriculum, there was also a significant change in its form. A uniform course of study with no electives was transformed into a menu of courses offering a variety of hierarchically arranged knowledge. From the start, the academic course occupied the top stratum. After a few years of experimentation, the school settled on a format that further stratified the academic course into classical, Latin scientific, and modern language courses. (The classical course was designed for preprofessionals.) Below the academic course was the commercial course (called the scientific course before 1898). Thus, it seemed as if the old practical curriculum had been split in two: Its academic features were embodied in the academic track and its practical features were embodied in the commercial track. The latter prepared young men for entry into the world of business. It included both vocational courses and watered-down academic courses. A mechanical course (engineering) was added in 1912 and an industrial program (vocational) was added in 1919.

To understand the reasons for the stratification of Central's curriculum, we must look again at conditions in the credentials market. In the 1890s, more people were demanding access to high school, and in Philadelphia (and around the country) high school enrollment rates rose dramatically. As more people acquired the same piece of cultural property (a high school diploma), its market value declined. In a bourgeois democracy, it is improper and probably impossible to deny a citizen the opportunity to attend an institution as meritocratic as the high school. Thus, it became necessary to open access to a valued cultural good without decreasing its value to those who already enjoyed it. This was accomplished through stratification, a strategy derived from the middle-class principle of merit. In the Philadelphia school system, stratification occurred within and between schools, creating a hierarchy that is found today in American education.

As soon as Central adopted a college-preparatory curriculum (which included the prestigious classical course), it moved to a higher stratum than that occupied by the manual-training school (which offered a practical and terminal course). These two schools were no longer in competition, since they operated on different planes and for different goals. Thus, the proliferation of the new manual-training high schools did not threaten the value of a Central High School education. In addition, Central's curriculum was stratified internally, and it is no coincidence that it simultaneously expanded its enrollment. After 50 years of stable enrollments, Central grew from 561 in 1890 to 1,235 in 1900 and to 2,301 in 1910. This surge in the number of students did not swamp the credentials market, because that market was now separated into different tracks, which were ranked according to the strength of their association with the dominant culture of professionalism.

Predictably, the academic track at Central was the most popular. But just as predictably, this popularity was in part a function of the students' social class (see Table 8). In 1890, immediately after the installation of the academic and scientific tracks, 81 percent of the entering proprietary middle-class students opted for the academic course. Fewer than two thirds of the other students who entered that year selected this course. By 1900, the new curriculum had settled into the format it would keep for the next 20 years: The college-preparatory, academic course, which was broken into three strata, was on top, and the commercial course, which was more explicitly vocational than the earlier scientific course, fell below. The courses chosen by the students who entered in 1900 show a pattern of lessening interest in the academic course at each step down the class scale: This course was chosen by 72.2 percent of the students from the proprietary middle class, by 66.7 percent of the students from the employed middle class, by 55.2 percent of the students from the skilled working class, and by 14.3 percent of the students from the unskilled working class. The top track of the high school's newly stratified curriculum was most popular among the most privileged students, for whom it was a special school within the school. The new academic diploma provided these students with an exclusive and marketable piece of cultural property that enabled them to maintain their class position.

CONCLUSION

This case study of the Central High School of Philadelphia has provided an example of the development of the modern hegemonic curriculum. This developmental process hinged on the complex relationship between the high school's curriculum and its middle-class constituency, a relationship that was structured according to market principles. In the beginning, Central's students engaged in an intense competition for its business-oriented but still academic body of knowledge. The original cur-

Table 8. Percentage of Students Enrolled in Academic, Scientific, and Commercial Curricula, by Social Class and Year of Entry

Social Class	1890			1900		
	N	Academic	Scientific	*N*	Academic	Commercial
Proprietary middle class	126	81.0	19.0	216	72.2	27.8
Employed middle class	52	65.4	34.6	108	66.7	33.3
Skilled working class	62	61.3	38.7	116	55.2	44.8
Unskilled working class	6	66.7	33.3	28	14.3	85.7
Total	246	72.4	27.6	468	63.2	36.8
Missing and unclassifiable	40	95.0	5.0	72	83.3	16.7

Source: Student records.

riculum was shaped by middle-class principles (merit, self-discipline, and utility), but it also provided the school's middle-class constituents with a valuable form of symbolic wealth—i.e. educational credentials. At the same time, the very attractiveness of these credentials pressured middle-class families to organize themselves around the expectation of extended education. In the pursuit of this education, they found themselves being molded by an institution whose course of study was more bookish than bourgeois and whose standard of evaluation was limited to academic achievement.

As long as the supply of high school credentials was severely limited and the demand for them remained strong, there was little reason for Central to reform its curriculum. However, by the 1880s, alternative suppliers appeared on the scene and the middle class began looking beyond a high school diploma to the acquisition of professional credentials. The high school had already succeeded in reshaping middle-class culture. The university was accomplishing the same goal at a higher level. Like the early high school, the university offered a scarce and valuable cultural commodity, which served as a powerful inducement to the high school's old constituency. This market pressure forced Central to revamp its course of study, and what emerged was a version of the modern hegemonic curriculum, in which knowledge is stratified, academic, and appropriated through individual competition. This curriculum developed from the interaction of two forces: (1) the high school, whose concern was to preserve itself and its body of academic knowledge, and (2) the proprietary middle class, whose concern was to accumulate enough symbolic wealth to serve as a hedge against structural uncertainty. The high school and the middle class needed each other to survive and prosper, and both needed the educational credentials market that mediated their relationship. The result of this relationship was the hegemonic curriculum.

There are, of course, a variety of alternative explanations for the changes instituted at Central High School—explanations that are not based on the mediation of the educational credentials market or on the concept of hegemonic curriculum. Let us consider just two theories that are relevant to this case: modernization theory and reproduction theory.

In modernization theory, the development of stratification within and between high schools (which I have attributed to the changing supply of and demand for educational credentials) is best understood as part of a larger process of structural differentiation within societies. In this view, as societies (or organizational units within them) develop, they encounter increased population density and increased structural complexity. Thus, the development of the hegemonic curriculum at Central would be seen as part of this trend toward differentiation. But the order of events is all wrong. Central's enrollment remained steady during the period in which curricular change was debated and adopted; therefore, Central had not been pressed into instituting a multilevel curriculum by the force of numbers. Enrollments increased only *after* the change was instituted, which indicates that the newly stratified curriculum attracted the students (not that the increased enrollments forced the curriculum change) and that this change was designed to enhance the school's attractiveness. The school was attractive to the proprietary middle class not because it provided a differentiated curriculum that was useful to the general population but because it provided an elite course of study and a highly marketable credential.

But according to social reproduction theory, the development of the hegemonic curriculum at Central is an example not of the power of the credentials market but of the power of the dominant class to reproduce itself through the schools. According to this perspective, Central's tracking system reflected the existing class structure and was installed to maintain that structure. This is certainly a more parsimonious argument than the one I have pre-

sented here, but it fails to take account of the evidence from this study. At the functional level, reproduction theory is correct: The school was highly responsive to the needs of the dominant class, and the curriculum changes did indeed work to the benefit of this class. However, this explanation overlooks important school *processes*—e.g., how the school operated and how it experienced change—which should dispel any notions of inevitability or of ruling-class determinism. For example, the school's aggressively meritocratic pedagogy can be seen as an expression of dominant ideology and as a factor that enhanced the school's legitimacy; but it also barred a large number of middle-class children from admission and caused most of those who were admitted to flunk out—hardly the picture of a one-sided relationship.

The proprietary middle class created Central High School, dominated its student body, and reaped most of its benefits, but the school was not simply manipulated like a marionette. Once the high school was established, its creators needed the cultural property it offered to preserve their class position. They had nowhere else to turn (in the public sector) to acquire it, so they had to compete for its honors, submit to its rules, accept its academic knowledge, and endure the fluctuations in the exchange value of its credentials on the open market. The credentials market is a metaphor for the interdependency of the high school and the proprietary middle class. Thus, the adoption of the full hegemonic curriculum at Central in the 1880s is a sign of class weakness as much as class power, a sign of the middle class's dependence on the high school and its credentials and a sign of how quickly the class and the school had to act when their relationship was jeopardized.

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