

## **The Economic Development of the Pre-College Teaching Profession in Post-war America**

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The release, in 1983, of *A Nation at Risk* by the National Commission on Excellence in Education was accompanied by a renewed public interest in education reform. The decade leading up to the Commission's release of the document was enveloped in a series of dire economic circumstances. Longer, more severe cycles of inflation and periods of unemployment were compounded by the oil crisis of the early 1970s and subsequent gains in sales of more fuel efficient foreign automobiles. The decline of the traditional American industrial base and the shift toward the service and high-tech sectors, combined with rising state and federal deficits, reinvigorated an ongoing debate over the most efficient means of producing a competent, globally-competitive labor force in the public schools.<sup>1</sup>

Frequently omitted from the discussion of educational inputs and outcomes is the overall quality of elementary and secondary teachers in the labor force. A couple of explanations for this omission come to mind. First, for the very reason it is difficult (if not impossible) to measure all the investments—above and beyond finances—which are put into a child's education, it is troublesome to attempt to quantify individual components of a teacher's qualifications and performance for evaluation purposes. Second, there has been reluctance in recent years to criticize the teaching profession. Reform programs aiming to rectify the image of teaching in the public eye, and thereby improve overall teacher competence by recruiting more academically-gifted students

from high schools and colleges and successful individuals from other professions, have somewhat defused past tales of watered down pedagogy courses in colleges of education and of grammatical errors in notes teachers have sent home to parents.<sup>2</sup> But despite the efforts to unify public support for quality teaching, consensus on the elements of effective teaching has not been achieved.

The purpose of this paper is not to outline the elements of effective teaching practices. The information presented here rests partly on the assumption that such elements do exist, despite the difficulty of measuring them; and it will be argued that instructional quality at the pre-college level has grown in importance as an input to public education. The purpose of this paper is to investigate the economic and historical perspectives from which overall teacher quality is viewed. The major tasks involve 1) identifying and assessing the key economic factors which have helped to shape the teaching field during the twentieth century, particularly during the latter half of the century; and 2) assessing the impact of education reform efforts on the teaching profession, from an economic point of view.

### **The Growth of the Educational Credentials Market**

Historian David Hogan argues that the demand for education in America has been influenced by 1) the desire for social mobility according to meritocratic principles; and, more instrumentally, 2) a dependence upon educational credentials for social mobility.<sup>3</sup> Hogan traces the development of the educational credentials market to the unfolding of “a series of revolutionary economic changes” at the beginning of the nineteenth century. The importance of these changes resides in their ongoing impact on the “opportunity

structure,” a term Hogan defines as “the systematic social arrangement and spatial distribution of opportunities for economic independence, social mobility and material and social well-being in a society at a particular point in time.”<sup>4</sup>

The first major economic changes which helped to determine the dimensions of the current opportunity structure were the advent of the factory system and the industrial, rationalized labor processes of the industrial revolution. The demand for limited and specialized skills promoted a segmented labor force based, among other factors, on differentiated skill sets and educational credentials.<sup>5</sup>

Accompanying the industrial revolution was a “market revolution,” which may be viewed as the penetration of competitive market ideas and strategies into American social institutions: family, religion and the labor market. This phenomenon was particularly important to the development of the demand for education in that it formed the process of “proletarianization.” Proletarianization altered the opportunity structure by institutionalizing a unique set of means, in Hogan’s view, to occupational accession, social mobility, and social inequality. At the family level, proletarianization affected income, fertility and reproduction, the sexual division of labor, consumption of goods and services, as well as aspirations for education and financial improvement.<sup>6</sup> The rising importance of institutional factors in securing social mobility increased individuals’ reliance on institutions of education as a vehicle to securing competitive advantages over other individuals.

The second process of the market revolution to affect the demand for education was the “creation of spatially stratified opportunity structures.” This was partly the result of the reordering of urban society according to residential patterns based on class separation. Stratification accompanied developments such as urban transportation systems in the 1850s and 1860s;<sup>7</sup> the rise of the automobile in the early decades of the twentieth century, along with upsurges in highway construction, helped to fortify the divisions along ethnic, racial and financial lines. Further, a decentralized education system allowed public schools to be financed largely through local property taxes. In these ways, ideas of equality of educational opportunity began to give way to “the class logic of the marketplace.”<sup>8</sup>

Educational credentialing therefore was increasingly viewed by parents as a rational process towards social mobility for their children. The decline of privately-owned businesses, the rise of industrialized production, and the increasing separation of manual and non-manual work likewise fueled parental demands for opportunities to extend schooling for children; without such an extension, credentials-conscious parents saw that their children stood to lose a competitive advantage in the labor force. With such concerns in mind, and with elementary school attendance becoming nearly universal, the number of high schools in the United States—constructed and maintained at state expense and subject to local control—grew dramatically toward the end of the nineteenth century. Between 1870 and 1900, high school enrollments increased nearly 800 percent. In the latter year, half of all American children aged five to nineteen were enrolled in schools; by 1950, the proportion was 8 in 10.<sup>9</sup>

However, by 1960, the high school's ability to give students a competitive advantage had diminished. A high school diploma had become a necessity for entering the white collar labor market and higher education.<sup>10</sup> This was due largely to a combination of two factors: steadily increasing enrollments and rising high school graduation rates. The estimates for the national high school graduation rate for 1900 are around 8 percent. In 1920, the rate was about 17 percent; and in 1940 and 1960, the rates were approximately 51 percent and 69 percent, respectively. So, for those most interested in securing competitive credentials, college level work was the next logical step; and enrollments grew substantially after 1960. By the late 1970s, the higher education market had become saturated, thus reducing the power of credentialing at that level to confer competitive advantages to its patrons and thereby promote social mobility.<sup>11</sup>

Hogan views the development of the educational credentials market—i.e., the increasing demand during the nineteenth and twentieth centuries for opportunities to obtain higher levels of educational credentialing—as a shift from property accumulation as the primary means for individuals to improve their social position.<sup>12</sup> Moreover, this development resulted from what Max Weber referred to as social “closure,” a strategy practiced by individuals to secure their market position at the expense of members of other groups.<sup>13</sup>

During the twentieth century, and particularly since the middle of the century, the concern for quantifying and comparing the performance of students has grown. Weber viewed the advancement of examinations as a tool utilized by certain groups to protect their market position through “the monopolization of specific...economic opportunities.”

Hogan writes that “education systems generally, and examination systems particularly, constituted forms of social closure reflecting the efforts of privileged groups to limit access of other groups to power and status.”<sup>14</sup> Such arguments about the growth of the credentials market and the historical utility of examinations have important implications for the discussion of current educational inputs. The quality of teachers has been, historically, a negligible factor in advancing people through schools.<sup>15</sup> Rather, the initiatives of individuals who enrolled in schools seeking credentials which would confer advantages in the labor force were the engines of achievement. It is presumable that aspirations among students for higher credentials originated and were encouraged largely outside the classroom, initially replacing property accumulation as the primary means to social mobility. Also, into the twentieth century, adequate wages in the labor market were available to those who were either unable or unwilling to compete for more credentials. We have seen, however, that the growth of the credentials market altered the strategies for securing adequate compensation and social mobility by gradually increasing the levels of educational attainment necessary for achieving such ends. Rising demand for credentials has increased the importance of examinations in regulating the flow of competitors to increased levels of attainment. Since standardized exams are taken across a stratified residential range—with variances dependent largely upon levels of educational attainment—effective inputs for exam preparation, including instructional quality, have become increasingly valuable.

## **Desegregation and Instructional Inputs**

The Supreme Court's decisions in *Brown v. The Board of Education of Topeka* (1954) and *Brown II* (1955), and the subsequent methods of implementing those decisions deeply impacted the American system of public education. The economic consequences of this case are the subject of an ongoing debate. A discussion of the major consequences is included below in order to outline how this reform has influenced participation in the credentials market and to suggest ways it has affected instructional inputs into public education.

The *Brown* decisions represented a sanction for equalizing opportunities of access to a satisfactory educational environment. However, in 1968, when the Supreme Court ruled against de facto segregation, including the cases in which avenues to desegregation were provided, it took upon itself the responsibility of compelling individuals to use those opportunities, in order to achieve a desired result: racially integrated schools.<sup>16</sup> Mandatory busing policies, which began in the early 1970s, ultimately had the opposite effect, especially in urban centers. During the 1970s, 80s and early 90s, "white flight" to the suburbs left public schools in cities across the nation with predominately non-white student enrollments. While it has been common in the past to attribute this change to racism, such an assessment overlooks an important economic factor: money was a better predictor than race of who left "forced-busing districts" and who remained. Certainly, the issue of race cannot be excluded and should not be diminished when assessing the consequences of this reform. Still, evidence suggests that those who fled cities as the quality of schools declined were generally the most financially able to relocate; the

“white” in “white flight” probably works more accurately in reference to collar color than to skin color.<sup>17</sup> Thus the Court’s decisions led to an environment in which choice was restricted for those the Court originally concerned itself with granting equal opportunity of access. Ultimately, the result has been diminished access to the educational credentials market for certain portions of the population.

One way of viewing how access to the credentials market has been diminished—and how instructional inputs have been distributed—is by considering another unintended consequence of the *Brown* decisions: the loss of teaching and administrative positions among African American educators. Between 1954 and 1965, more than 38,000 of those jobs were lost in 17 “southern and border states.” The 66 percent decline of African American students majoring in education in the period 1975-1985 compounded those losses. Reasons for the decrease in numbers of African Americans entering the teaching profession have included a “disproportionate failure” to fulfill revised requirements for certification; low performance on competency tests; the sharp reduction of teacher hiring in the 1970s, due to a teacher surplus; a decline in the number of Black students entering college overall; and a decreasing availability of financial aid for education students.<sup>18</sup>

One consequence of the *Brown* decision—the unprecedented opportunity for progress of the Black middle class—has been cited as a positive outcome of school and social reform. However, as Mildred Hudson and Barbara Holmes point out, such an assessment likely fails to take into consideration “the fact that those who moved rapidly into the middle class following *Brown* were those who had been taught largely by African

American teachers. Subsequent rates of upward mobility for African Americans have not been as dramatic and have even declined in recent decades.”<sup>19</sup>

### **Teacher Supply and Demand**

Following World War II, thanks largely to the Servicemen’s Readjustment Act of 1944 (the G.I. Bill), thousands of male veterans entered colleges and universities with the goal of receiving teacher certification. But as the post-war “baby boom” generation began to fill public schools, the demand for certified teachers outstripped production. Between 1950 and 1970, teacher college enrollments continued to grow, and at a significantly faster rate than traditional college and university enrollments. The hiring of new teachers eventually compensated for the enrollment increases in K-12 schools.<sup>20</sup>

The decline in K-12 enrollments during the 1970s, due to the movement of the last of the baby-boom population out of public schools, reduced the demand for teachers. Between 1973 and 1983, the reduction in demand was met with decreased numbers of teacher education graduates. During that period, colleges of education experienced reductions of up to 50 percent in the number of graduates they produced. Comparable percentages of faculty positions at those colleges were eliminated. The effects of the reduced instructional inputs at the post-secondary level and the subsequent decline in the quality of teacher education programs were exacerbated somewhat by the concurrent gains made by women and minorities in the labor force. As occupational choices became more plentiful, and since wages in other occupations grew (relative to teacher salaries),

the education profession lost its “near monopoly on female talent”; for the same reasons, a similar shift occurred among the non-white population.<sup>21</sup>

### **Educational Costs and Female Teacher Supply and Demand**

Recent studies on the relationships between the public finance of education and student achievement have been accompanied by concerns that the efficiency of public schools has decreased over the past several decades. Eric Hanushek has reported that real expenditures per pupil “have increased at almost 3.5 percent per year” over the past century. Between 1920 and 1950, per-student expenditures (in constant dollars) tripled; from 1950 to 1980, they tripled again. Between 1970 and 1990, per-pupil expenditures increased by more than 70 percent.<sup>22</sup> The rise in costs is attributable largely to falling student-teacher ratios (over 60 percent of the increase in school expenditures is attributed to the decrease in student-teacher ratios), which have resulted partly from reform policies.<sup>23</sup> The increase in expenditures, according to Hanushek, has not resulted in improved student performance. In fact, SAT scores fell sharply beginning in the mid-1960s, indicating “real and significant performance declines” even when it is considered that the larger proportion of students who began taking the tests at that time probably resulted, on average, in a “lower caliber of student” in the test-taking pool.<sup>24</sup> Similarly, Stephen Childs and Charol Shakeshaft have reported a positive (though small) correlation between investment and performance in the decades prior to 1960, a smaller correlation during the 1960s, and a negative correlation after the 1960s.<sup>25</sup> While teacher training and performance alone do not determine overall student achievement, and while those factors

cannot by themselves account for student performance gaps on examinations, teachers cannot be discounted as an educational input. Because decreased student-teacher ratios have been responsible for much of the increase in school expenditures, it is important to consider how the labor market for teachers has changed in the past few decades.

Research on changes in the labor force participation of females has shed light on some aspects of the increased costs of public education and on the development of the teacher market. Fredrick Flyer and Sherwin Rosen show that, from 1960 to 1990, as women entered the work force in increasing numbers, the demand for public sector provisions of children's education increased. They explain that "stronger labor market commitments of women increased the demand for teachers and allied staffs, as purchased school services were substituted for household-produced child services."<sup>26</sup>

Since teaching has been a predominately female occupation, increased market opportunities for women have raised the supply price of teaching. This increase, however, does not account for the bulk of increased spending on schools. Low student-teacher ratios have been a major contributor to the rising costs of schooling; in recent decades, those ratios have dropped at an accelerated rate. In the 1960s and 1970s, a large number of new teachers entered the labor force as the result of intensive hiring practices of schools; teachers were needed as students filled the nation's classrooms. However, the hiring practices overcompensated for the rapidly rising enrollments, and student-teacher ratios were pushed downward for the baby boom population. When the last of the baby-boomers passed through the school system, hiring diminished sharply. However, student-

teacher ratios continued to decrease. Part of the reason for this decrease has been greater occupational opportunities for women.<sup>27</sup>

Between 1960 and 1990, the number of women participating in the labor force nearly doubled, and the number of female college graduates increased by approximately 500 percent. As was previously mentioned, rising rates of female participation in the labor force increased the demand for school services. They also affected the costs of public education, as “schools and parents are imperfect substitutes.” In fact, about a third of the decrease in student-teacher ratios between 1975 and 1990 is attributable to the substitution of inputs from the public sector for “diminished household time inputs.”<sup>28</sup>

Because rising female participation rates are related to an overall increase in occupational choices for women, they are also linked to teacher supply. Flyer and Rosen explain that “[i]ndividuals who anticipate devoting less time to market work over their life cycle have less incentive to search for favorable occupational matches, holding constant initial human capital endowments, human capital accumulation technologies, and search costs.”<sup>29</sup> On average, female teachers spend 42 percent more time out of the labor force over the duration of their careers than do college-credentialed women in other occupations. This is explained by the lack of penalties in future earnings for teachers who temporarily leave the labor force; female college graduates in other occupations “are penalized substantially.” And despite the higher proportion of time spent outside the labor force, teachers enjoy higher levels of occupational tenure than male or female college graduates in other fields.<sup>30</sup>

## **Improving Instruction: Historical Barriers to Reform**

When combined, the results of these studies indicate several peculiarities inherent to the teacher market. For example, the relative flexibility of college graduates to leave and re-enter teaching, and the comparatively high levels of tenure in the profession attest to the difficulty of recruiting and retaining high quality teachers. Concerns over rising expenditures to public education—particularly during the latter half of the twentieth century—have no doubt abetted the situation by making public education systems resistant to raising teacher salaries. Not surprisingly, teacher salaries do have an effect on the number of college graduates who enter the teaching field: as salaries increase, so does the size of the teacher candidate pool. One study has shown that teachers who earn below-average salaries are about “one and a half times more likely” to resign at the end of their first year than teachers earning an above-average salary.<sup>31</sup>

This raises a more fundamental question about the development of the teacher market: Why, historically, have teachers not been paid well? There are several possibilities. A common explanation is that teaching has long been a predominately female occupation in a male-dominated labor force, where female labor has been valued less than male labor.

One consideration that has been left out of more recent studies of the teacher market is that students entering the teaching field have been low academic achievers. A 1954 survey of 10,000 graduates of 41 American colleges ranked the aptitudes of education majors above only home economics, physical education and social sciences majors.<sup>32</sup> In 1963, on the heels of The National Defense Education Act (1958),<sup>33</sup> James

Conant headed a study of colleges and universities in the 16 most populous states to assess, among other things, the quality of students in education programs. Using the English school system as a model, he argued that education programs would improve if teachers came from the top 30 percent of their graduating high school classes. “It is clear,” he wrote, “that in many [American] institutions many of those graduated as teachers must have scholastic aptitudes well below that of the top 30 percent...on a national basis.”<sup>34</sup> Also in 1963, James D. Koerner, President of the Council for Basic Education, stated that “teaching continues to attract the poorer students.” Socio-economic factors have accounted for much of this. Historian Richard Hofstadter has written that public schools have been staffed by the products of “culturally constricted lower- or middle- class homes.”<sup>35</sup> Indeed, for many, teaching has represented an opportunity to move up into a middle class occupation. Such was the case with thousands of veterans who entered colleges of education on the G.I. Bill after World War II.<sup>36</sup>

Other peculiar traits of the teacher market have made the profession resistant to change for quite a while. One of the last reforms to fundamentally and permanently alter American teaching was the adoption of the uniform pay scale in the early twentieth century. During the nineteenth century, especially in rural areas, layman school boards hired whom they wanted and paid the going rate, which was usually not very much, since training and certification requirements for teachers were low or nonexistent. It was an open labor market, where school boards hired people who would render the best service at the lowest cost. Generally, males earned more than females. In urban areas, by

contrast, there was no individual bargaining with school boards on salaries; regular salary schedules existed. Men, however, still earned more than women; and secondary teachers were paid more than elementary teachers. Reformers lobbied for certification requirements and equal pay for all teachers; reform platforms often consisted of statements in opposition to “class distinctions” based on gender or teaching position (salary differentials according to experience levels and credentials were approved).<sup>37</sup>

The single salary schedule did not please many school board members and superintendents who wanted to base compensation on “scientific” evaluations and evidence of teacher performance. Also discussed was the prospect of instituting a merit pay system modeled on business practices. Under such a system, higher salaries are awarded to individuals who demonstrate higher levels of competence and who contribute to increased productivity. Since the first decades of the twentieth century, teachers have protested, fearing that salary differences based on merit would create a divisive atmosphere by increasing competition among colleagues. Such competition, it was argued, would lead to the concealment of creative ideas, to the deterioration of collegial relations, and to reductions in productivity. Further, it was argued that there can be no true consensus on how to measure, evaluate, or even identify effective teaching.<sup>38</sup> Despite protests, forms of merit pay systems were implemented in school districts across the nation; they remained, however, in the minority. In the 1950s, about 10 percent of school districts had a merit pay system. In the 1970s, only 4 percent of school districts had such a system. By the mid-1980s, less than 1 percent of school districts reported having one.<sup>39</sup>

Another series of attempts to reform schools according to business models has repeatedly met the same fate as the merit pay plan; for-profit instructional strategies, however, fell off more precipitously than did the merit pay plans. During the late 1960s and early 1970s, the federal government allotted \$1 billion to state and local budgets. Several districts contracted out basic skills instruction to raise the test scores of low-performing students. Companies set up new facilities, abundantly equipped with supplies and advanced instructional technology (e.g., audio-visual and test-taking devices). The programs generally utilized extrinsic rewards and competitive activities as motivational strategies for raising achievement levels. In several cases, test scores increased. However, many programs did not survive for more than a few years. Programs in Gary, Indiana, for example, were shut down because of a legal challenge: the public school districts “were abdicating their role” in the formation of public education policy.<sup>40</sup> At one of the “Rapid Learning Centers” in Texarkana, Arkansas, a valuable lesson was learned about the effects that pressures to raise test scores have on instructional quality. It was discovered that at least one of the “curriculum managers” (teachers) had been “teaching the test” directly to students in order to ensure satisfactory outcomes and the company’s profits.<sup>41</sup> The discovery fueled teacher protests against the use of business-oriented techniques in the classroom.

It is evident, then, that reform attempts have involved strategies which stood to affect teacher compensation. It is also evident that the element of competition needed to comply with such strategies has not been popular among public school teachers. Rather, teachers have generally utilized collective bargaining to increase salaries. As

instructional competence has become more relevant to student achievement, however, collective bargaining has become a less effective tool for reforming the teaching field. In 1985, Albert Shanker, president of the American Federation of Teachers, emphasized the point when he warned teachers that collective bargaining fostered an image of teachers as a group of self-interested blue collar workers. “Unless we go beyond collective bargaining to teacher professionalism,” he said, “we will fail in our major objectives: to preserve public education in the United States and to improve the status of teachers economically, socially and politically.” Shanker argued that a negative image of teachers would require public schools to employ people from lower strata of talent and achievement, thus undermining the efforts of public education to cultivate capable students and a competent labor force.<sup>42</sup>

### **Conclusion**

Teacher quality has become increasingly important over the past half century. The development of a credentials market has driven up the need for credentials accumulation. While reform efforts have focused first on equality of educational opportunities, then on equality of educational results, housing markets stratified along lines of race and class (and similarly stratified school districts) have placed current students and the prospective teacher pool—especially in urban settings—at a disadvantage. There is a renewed incentive for developing historical and economic perspectives on the development of instructional quality in public schools. If educational attainment is still a viable means to social mobility for at least some of the population; if

segregated urban schools represent social inequality and economic inefficiency; and if either equality of opportunity or equality of results is a genuine goal of society, then the factors bearing on instructional quality should not be discounted when calculating the inputs to public education.

## Notes

1. Wesley J. Little, "Conditions and Forces Influencing Educational Reform," in Joseph A. Braun, Jr., ed., Reforming Teacher Education: Issues and New Directions (New York: Garland Publishing, Inc., 1989), 6-7.
2. Where teachers are concerned, the nation has been called to unify its opinion. Referring to a sense of frustration among business leaders, politicians, and educators about the "shoddiness in many walks of American life," which "is too often reflected in our schools and colleges," the authors of *A Nation at Risk* claim to understand "that the public will demand that educational and political leaders act forcefully and effectively on these issues. Indeed, such demands have already appeared and could well become a unifying national preoccupation. This unity, however, can be achieved only if we avoid the unproductive tendency of some to search for scapegoats among the victims, such as the beleaguered teachers." National Commission on Excellence in Education. A Nation at Risk: The Imperative for Educational Reform. (Washington, D.C.: U.S. Department of Education, 1983).
3. David Hogan, "'To Better Our Condition': Educational Credentialing and 'The Silent Compulsion of Economic Relations' in the United States, 1830 to the Present," History of Education Quarterly, Vol. 36, no. 3 (Autumn, 1996): 252.
4. Ibid., 245-46.
5. Ibid.
6. To illustrate the institutionalization of what Max Weber called one's "market capacity," Hogan cites that about 80 percent of the American work force was self-employed at the time of the American Revolution. One hundred years later, "more than half of the labor force was wage and salary earners; by 1910 the percentage had risen to 72 percent..." By the mid 1990s, wage and salary earners represented 85 percent of the labor force. Ibid., 246, 247 (& n.), 248.
7. Ibid., 248;
8. Ibid.; Barbara Barksdale Clowse, Brainpower For the Cold War: The Sputnik Crisis and National Defense Education Act of 1958 (Westport, CT: Greenwood Press, 1981), 41.

9. During the period 1879-1900, the number of high schools in the nation rose from about 500 to about 6,000, mostly in cities. Hogan, 249-51; High school enrollments: David Tyack and Larry Cuban, Tinkering Toward Utopia: A Century of Public School Reform (Cambridge, MA: Harvard University Press, 1995), 21.
10. Hogan, 251.
11. Tyack & Cuban, 48; Hogan, 251.
12. "Whereas the class position of most Americans in 1840 was almost entirely a function of their ownership of property, a century later educational credentials had become the primary and proximate determinant of class position for most people by virtue of the capacity of educational credentials to regulate access to the opportunity structure." Hogan, 253.
13. Ibid., 254; Max Weber, "Selections," in Anthony Giddens and David Held, eds., Classes, Power, and Conflict: Classical and Contemporary Debates (Berkeley, CA: 1982), 62; idem, Economy and Society: An Outline of Interpretive Sociology, Guenther Roth and Claus Wittich, eds. (Berkeley: 1978), 1: 302-04.
14. Quoted in Ibid., 254; Weber, "Selections," 62; idem, Economy and Society, 341-43.
15. It is interesting to note that, through the first decades of the twentieth century, fewer than half of all teachers held college degrees. Thomas Toch, In the Name of Excellence: The Struggle to Reform the Nation's Schools, Why It's Failing, and What Should Be Done (New York: Oxford University Press, 1991), 136. See also Little, 7-8.
16. In *Brown II*, the Court charged the federal district courts with desegregating schools "with all deliberate speed." Through this channel, the issue was brought back to the Supreme Court in 1968 in *Green v. County School Board of New Kent County*. The Court ruled that there was an "affirmative duty to eliminate 'dual' school systems 'root and branch,'" Quoted in Andrew J. Coulson, Market Education: The Unknown History (New Brunswick: Transaction Publishers, 1999), 136; *Green v. County School Board of New Kent County*, 391 U.S. 430 (1968).
17. Coulson, 137-38.
18. Mildred J. Hudson and Barbara J. Holmes, "Missing Teachers, Impaired Communities: The Unanticipated Consequences of *Brown v. Board of Education* on the African American Teaching Force at the Precollegiate Level," Journal of Negro Education, Vol. 63, No. 3 (1994): 388, 389, 391.
19. Ibid., 390.
20. Little, 8; Fredrick Flyer and Sherwin Rosen, "The New Economics of Teachers and Education," Journal of Labor Economics, Vol. 15, No. 1, Part 2: Essays in Honor of Yoram Ben-Porath (Jan., 1997): S117.
21. Little, 9-10.
22. Tyack & Cuban, 21; Eric A. Hanushek, "Measuring Investment in Education." The Journal of Economic Perspectives, Vol. 10. No. 4 (Autumn 1996): 15.

23. Hanushek, 10-11. Teacher-student ratios have declined from 26.9:1 in 1955 to 17.1:1 in 1995. Coulson, 148; See also Hanushek, 12; “over 60 per cent of the increase in school expenditures...,” Flyer & Rosen, S105.
24. Hanushek, 13.
25. Coulson, 207; Stephen Childs and Charol Shakeshaft, “A Meta-Analysis of Research on the Relationship between Educational Expenditures and Student Achievement,” Journal of Education and Finance Vol. 12, no. 3 (1986): 260.
26. Flyer & Rosen, S105-06.
27. Ibid., S117-21.
28. Ibid., S105-06, S113.
29. Ibid., S106.
30. Ibid., S126 & S128.
31. Coulson, 147; Richard Murnane, et al., Who Will Teach? Policies That Matter (Cambridge, MA: Harvard University Press, 1991), 37, 46
32. Toch, 136.
33. The NDEA followed the launching of *Sputnik* by the Soviet Union, which raised concerns about America’s level of technological preparedness for the Cold War. The NDEA authorized the federal government to allocate substantial funds for financial aid at the post-secondary level, to improve the instruction of math, science and foreign languages, and to identify and support students at the secondary level with high aptitudes in those subject areas. See Clowse.
34. James Conant, The Education of American Teachers (New York: McGraw Hill, 1963), 237. Conant’s recommendations for improving the quality of teacher candidate pools included the reduction of attrition rates during high school; an increase in the number of “able students” entering college; and the reduction of college dropout rates. Ibid., 238.
35. Toch, 136; James D. Koerner, The Miseducation of American Teachers (Boston: Houghton Mifflin, 1963), 39-40, 42-43; Richard Hofstadter, Anti-intellectualism in American Life (New York: Knopf, 1970), 311.
36. Among the arguments made against the passage of the G.I. Bill was the prediction that large numbers of veterans entering colleges would bring down academic standards. See Clowse.
37. Tyack & Cuban, 127-28.
38. Ibid., 129-30; Coulson, 148.
39. Coulson, 146; Tyack & Cuban, 130.
40. Tyack & Cuban, 119.
41. Ibid., 119-20.
42. Albert Shanker, “The Making of a Profession,” transcript of a speech given at a Niagra Falls teacher convention (Washington, D.C.: AFT, 1985), 2; Toch, 141-42.

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