

# WHY IS EDUCATION PUBLICLY PROVIDED? A CRITICAL SURVEY

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## Introduction

Schooling is publicly provided by every nation. Such a unique position is shared only by a very limited range of goods—national defense, courts, police, and roads. It is not immediately obvious, however, why education deserves such a special role. Nevertheless, in the United States educational outlays comprise more than 40 percent of the combined state and local budget expenditures. In countries such as Sweden, Israel, and the Netherlands, public non-capital expenditures on education account for more than 7 percent of the nation's gross domestic product.

What is especially perplexing about public provision of education is its cost. Per pupil expenditures are much higher in public schools than in private ones, but cognitive development has been found to be lower in public schools. Inefficiencies of public provision are not unique to education (Borcherding et al. 1982; Savas 1982), but the problem is to explain why all countries have adopted public provision even though it is less effective at teaching skills than private education.

A wide range of justifications and/or explanations of public provision of education can be found. This paper will argue that most of these hypotheses fail to explain why there is public provision instead of some other form of intervention. They also fail to explain why their reasoning is not equally applicable to other goods that are not publicly provided. Many of these explanations also share two additional problems: a paucity of empirical tests directly related to explaining public provision, and the lack of a general theory equally applicable to all countries.

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In the following sections, this paper reviews the costs of public provision and the conditions under which it arose in the United States and England, discusses the eight most frequently advanced explanations for public provision, and argues for a different hypothesis based on public choice theory.

## The Cost of Public Provision

Per pupil costs are substantially higher in public schools than in private schools. Table 1 shows the case for the United States, where it costs about twice as much to educate public school pupils. About three-quarters of the private schools are church-affiliated, and services contributed by religious staff are valued at less than market value, thus lowering the cost figures for private schools. Yet, even relatively liberal assumptions of the implied subsidies do not significantly alter the case. If we assume that 11 percent of current expenses go to religious staff salaries and that religious teachers are paid one-half the rate of lay staff (Bredeweg 1982, pp. 38–56), public expenses are still at least 1.83 times greater than private costs. Savas (1982, p. 102) found similar public/private differentials in schooling for both the severely and nonseverely handicapped. Given the magnitude of public expenditures, the financial gains from contracting out for such services would be tremendous.

The evidence suggests that the organization of resources in public schools is also wanting. Hanushek (1972, 1986) presented empirical evidence that current hiring practices and salary scales in public schools do not encourage those skills in teachers that produce higher student achievement. Salary scales reward teachers based on expe-

TABLE 1  
AVERAGE CURRENT EXPENDITURES PER PUPIL  
IN PUBLIC AND PRIVATE SCHOOLS

School Year	Expenditures per Pupil (\$)			Ratio: Public/ Private	Adjusted Private (\$)	Ratio: Public/ Adjusted Private
	Average	Public	Private			
1976–77	1,353	1,544	760	2.03	844	1.83
1977–78	1,512	1,736	819	2.12	909	1.91

SOURCES: *NCES Bulletin*, U.S. Department of Health, Education, and Welfare, 23 October 1979; *United States Catholic Elementary and Secondary Schools 1981–1982: A statistical report on schools, enrollment, staffing, and finances*, 1982.

rience and level of graduate education, both of which were found unrelated to student achievement test scores. Instead, a teacher's intelligence, as measured by scores on verbal ability tests, was highly related to such gains. Staaf's (1977b, pp. 152–65) brief survey of the literature confirms these findings.<sup>1</sup>

Alchian (1965) explained such results by pointing out some general characteristics of public organizations and then, in a later paper, applied his reasoning specifically to education (1968).<sup>2</sup> Public organizations, according to Alchian, do not directly concentrate the costs and benefits on decision makers. Hence, they have an incentive to shirk. The market process, on the other hand, forces firms to compete for customers, and firms inept at providing services will lose their customers to other firms. The organization of public schools protects educators from such competition because payments are not made directly by the students receiving the services, nor do public employees bear the consequences of poor service.

Recent work on student cognitive achievement provides further support for this hypothesis. By contrasting private and public educational systems with data on 59,000 high school students, Coleman et al. (1982) found that, after controlling for family background variables that predict achievement, children attending private schools learn at a faster rate. Using standardized achievement test scores in two developing countries, Columbia and Tanzania, Cox and Jimenez (1987) provided evidence that private schooling is superior to public schooling.<sup>3</sup>

In sum, the evidence suggests that public provision is costly not only in terms of current expenditures but also in terms of forgone investment in human capital. Nor does the list of such costs end here. If we accept that some of the public benefits derived from education are related to the level of investment in human capital, then less efficient public provision may have other costs as well.

<sup>1</sup>See Lott (1984) for a further review of this literature. West (1970) also provides a useful survey of the history of economic thought on this subject.

<sup>2</sup>See Alchian and Kessel (1962) for a similar discussion.

<sup>3</sup>One difficulty with the Coleman et al. findings is that they fail to examine what differences in family characteristics cause certain children to be sent to private schools in the first place. For example, the decision to send a child to a private school may signal the presence of other parental investments in their children, which may be responsible for some portion of the differential rates. But since this last effect cannot explain all of the difference, the study does confirm Alchian's predictions. West (1983) provided a public opinion survey showing that consumers of these services also believe that private schooling is of a higher quality than public schooling. Cox and Jimenez attempted to control for why the child was sent to a private school. See also Lott (1987e).

## The Introduction of Public Schools and the Level of Schooling

A brief survey of the history of education for the United States and Great Britain indicates that the introduction of public schools has produced only small gains in the general level of education. The 1860 U.S. Census shows that in states of the original 13 colonies, the white literacy rate in those states with public schooling was 99 percent compared with 93 percent in those states without it. This difference of only 6 percentage points may, however, be partly explained by the more rural nature of the states without public schools (Montgomery 1878, p. 6).<sup>4</sup>

In New York, the Free Schools Act abolishing fees for common (public) schools was not passed until 1867, and compulsory schooling was not instituted until 1874 (West 1967, p. 105). However, as early as 1812 a report commissioned by the state found: "In a free government, where political equality is established, and where the road to preferment is open to all, there is a natural stimulus to education; and accordingly *we find it generally resorted to unless some great local impediments interfere*" (quoted in West 1967, p. 103). In 1821 New York counted 352,479 students of all ages attending school out of a population of approximately 380,000 children aged 5 to 16 (p. 105). West (p. 127) concluded that, for New York, if "the term 'universal' is intended to mean, something like, 'most', 'nearly everybody', or 'over 90 percent' then we lack firm evidence to show that education was not already universal prior to the establishment of laws to provide a schooling which was both compulsory and free."

In his examination of the common school movement in New England, Fishlow (1966, pp. 40–67) argued that although the public system expanded both absolutely and in percentage terms, it did not add significantly to the percentage of children being educated. The primary effect of the public system was to shift children from private to public schools. Using data for Massachusetts, Field (1974, p. 22) found that "[Horace] Mann and his reformers were successful in the first one of their instrumental drives: curtailing the growth of private schooling." Field (p. 30) did not rule out the possibility that the entire increase in public attendance was at the expense of private attendance.

<sup>4</sup>Even if one argues that the states that first adopted public provision were the ones with the lowest initial literacy rates (and this does not seem to be the case), this does not affect my argument that in those states averaging a literacy rate of 93 percent, the potential gains from public provision were small.

State involvement in the public provision of education in England is usually dated from the Foster Act of 1870. Its objective was not universal free public schooling, but rather to "fill the gaps" in the private system; publicly provided schools received about one-third of their funds through fees from parents (West 1970, pp. xviii–xix). In fact, compulsory schooling was not established until 1880, and fees were not abolished until 1918. Yet ample evidence exists of widespread private schooling long before this act.

West discovered that in England "most people were already literate in 1870" and that "most parents bought education by modest fee-paying" (pp. 136, 131). Webb (1963) estimated that in the late 1830s between two-thirds and three-quarters of the working classes were literate. If anything, such figures may be underestimates, since those who performed the surveys usually were reformers anxious to establish the inadequacy of a purely private system (West 1970, p. 128).<sup>5</sup> Some have argued that if the government had any net effect on education during the first third of the 19th century, it was negative because of the imposition of taxes on schooling materials, the closing down of public reading rooms, and in certain cases the withdrawal of licenses from inns and coffee houses receiving particular newspapers (p. 127).

Table 2 provides convincing proof of West's claim that by 1858 most British children received some schooling. Out of a total population of 19.5 million in 1858, 2.5 million children were attending private schools. If there were 5.3 million children between the ages of 3 and 15, and if we accept the education commission's 1861 estimate that the average duration at school was 5.7 years, no apparent deficiency would have existed in the education of children (p. 142). West concluded that "what remains clearly to be shown [by the apologists of the 1870 Foster Act] is that the increase of school places in the government sector was not completely offset by the damage done to the growth of the private sector" (p. 156).

Using data from the *Michigan Income Dynamics Study* (1966–74), Lazear (1983) provided additional contemporary evidence that private incentives alone will yield investments in education relatively close to optimal levels. To the extent that parents cannot perfectly internalize the returns to investments in their child's education (that

<sup>5</sup>West (1970, pp. 129–30) presented evidence that in 1838, 87 percent of the workhouse children of Norfolk and Suffolk could read to some extent and 53 percent could write. In 1840, 79 percent of the miners of Northumberland and Durham could read, and about 92 percent of the adult population of Hull (population of 14,526) could read in 1839. West (pp. 132–35) provided additional evidence, such as the number of persons signing the marriage register, that confirms his earlier findings.

**TABLE 2**  
**GROWTH IN PRIVATE SCHOOLING, 1818–58**

Year	Population	Population of 3 to 15 Year Olds	Number of Students in Day Schools	Ratio of Students to Number of 3 to 15 Year Olds
1818	11,642,683	3,504,448 <sup>a</sup>	674,883	.193
1833	14,386,415	4,330,311 <sup>a</sup>	1,276,947	.295
1851	17,927,609	5,295,780 <sup>b</sup>	2,144,378	.405
1858	19,523,103	5,311,534	2,535,462	.477

<sup>a</sup>Derived in a similar manner as that for 1851, but I used the earliest estimates obtainable (1841) as a proxy for the percentage of population in this age group.

<sup>b</sup>Derived by assuming uniform distribution of population in the 0 to 4 and 15 to 19 age groups in 1851.

SOURCES: Mitchell (1980, p. 52); West (1970, p. 149).

is, intergenerational transfers cannot be enforced), their private return will lie below the social return on these investments. Lazear estimates an upper bound on this underinvestment of only 0.282 years for the mean individual.

A strong case can be made that, at least in some countries, public provision of schooling had a trivial (if any) effect on the proportion of children receiving education. In fact, as will be shown later, public provision was not necessarily the historical product of a belief that children would otherwise go uneducated, but rather of a belief that they were receiving the wrong type of education. It therefore seems difficult to argue that a universally applicable explanation for public provision can rest on the desire to end illiteracy.

## Public Goods and Public Provision

Alleged inefficiencies resulting from private production of public goods are often assumed to be reduced by public intervention. Such reasoning has provided a positive theory of the state (see Kalt 1981 for a discussion of this literature).

Friedman (1955, pp. 124–25) provided what is perhaps the most influential argument for government support of schooling to secure external benefits. Because buyers of education confer external benefits on those not purchasing education, the result is too little education. By taxing those who receive these benefits and subsidizing those purchasing education, the welfare of both groups can be improved. Friedman's reasoning justifies rules that require minimum levels of education, and government financing may be the least expensive way of enforcing them.

More recently, however, Friedman (1976, p. 92) has stressed the differences between the existence of average and marginal net positive externalities:

I have never found any plausible argument for net positive externalities from schooling that would not be satisfied if 90 percent, to take an arbitrary figure, received schooling—the three R's. I have yet to see a plausible argument for any net positive marginal externality from additional schooling. But if this be so, and if private interest alone could lead to at least this much schooling—as I believe it is overwhelmingly plausible that it would—then there is no case from externalities for either compulsory schooling or the governmental financing of schooling.

If we accept Friedman's arbitrary figure of 90 percent, then the historical evidence presented above strongly confirms his belief that private interest alone often was sufficient to assure this level even before the introduction of either free public provision or compulsory schooling.

Two questions remain: Do such benefits exist, and, if so, what would be the best means of obtaining them? The next section reviews what economists and educators believe with regard to these questions.

#### *Democracy as a Public Good*

The relationship between democracy and education has been assumed to take three different, though not mutually exclusive, forms, depending on whether the benefit is believed to be the product of an individual's cognitive skill level. There appears to be a consensus that cognitive skills are positively related to support for democracy.<sup>6</sup> Some even claim that education itself is used to instill democratic values and a common set of views.<sup>7</sup> Thus, the three views can be

<sup>6</sup>The relationship between cognitive skills and support for democracy requires few references. Cohn's (1979, p. 260) extensive survey of the literature on the economics of education concluded: "Education provides a broad understanding of various aspects of the sciences, literature, and arts that help in molding 'well-rounded' people who are more likely to strive for the survival of democracy. Government provision and/or support of education is therefore regarded as a means to perpetuate and strengthen democracy." Others, such as Stapleton (1978, p. 29), found that high school and college graduates are generally more likely to participate in political activities, although he warned this may not be equivalent to increased support of democracy. See also Weisbrod (1962, p. 119) and West (1968, pp. 35–38).

<sup>7</sup>The notion that education creates a common set of views is widely held. Friedman (1962, p. 86) wrote: "A stable and democratic society is impossible . . . without widespread acceptance of some common set of values." Tullock (1983, p. 139) claimed that history "indicate[s] very clearly that Americanization and improving the quality of the votes cast by citizens were major motives [for public education]." Gurwitz (1982, p. 22) wrote, "Education is one mechanism through which the shared norms and common experiences that contributed to social cohesion and stability are inculcated." And John Stuart Mill ([1848] 1973, p. 953) offered his famous statement that "the uncultivated cannot be competent judges of cultivation."

described as hinging on whether one believes (1) democracy is something innately valued; (2) the intrinsic value of democracy is somehow realized as one becomes more educated; or (3) support of democracy should be taught in schools. A further division can be made in the second view between those who regard education as a means of instilling specific views or as inculcating a willingness to accept disagreement of others.<sup>8</sup> These differing views are well summarized by Davis and North (1971, p. 237), who predict that those groups excluded from the political process will not have the cost of their education socialized.

Several observations conflict with these views. First, the existence of democracy did not necessarily follow public provision of education. In fact that was often not the case as witnessed by two rather prominent examples—the United States and Great Britain. Second, the homogenization-of-cultures argument does not appear to provide a universal explanation of public provision. For example, Sweden (Heidenheimer 1982, pp. 269–99; Huntford 1980), which is regarded as homogeneous by many different measures (religion, race, and language), instituted public schooling relatively early. An interesting implication of this homogenization is that if everyone agrees with each other, it may lower the returns to voting.

The view that parents are unable to judge what are the proper views to be taught in a democracy can be examined on two levels. First, how can individuals choose the representatives who will make this decision if they cannot adequately judge the education themselves (West 1970, p. 211)? Second, why do we allow people to make extremely complicated decisions involving other areas of life (for example, which doctor will operate on a child), but not which educator will teach their child? Ironically, the rationale for the First Amendment assumes the competition of ideas is a good (Coase 1974).

Rowley and Peacock (1975, p. 128) note that tolerance of others is not a difficult problem to solve. Vouchers can produce social mixing simply by attaching restrictions to their use. In any case, the present system, which vouchers would replace, often encourages social isolation by zoning children from highly homogeneous neighborhoods into a single school. Through an examination of American public, Catholic, and private schools, Coleman et al. (1982, pp. 28–71) found that while there are relatively few blacks (though not fewer Hispan-

<sup>8</sup>The third point of view focused on the use of public education to create “social mixing” that would foster tolerance of other views necessary to run a democracy. Levin (1980, p. 251) expressed this view: “What makes the voucher approach unique is that parents will be able to send their children to schools that will reinforce in the most restrictive fashion the family’s political, ideological, and religious views.”



ics) in private schools, minority groups are much less segregated in private schools than in public schools. Their report also supports the hypothesis that private schools are diverse with respect to family income. When one considers only the broad middle-income category (those families with annual income of \$12,000 to \$38,000 in 1978), the children in this group are similarly distributed across the three types of schools.

If one accepts the first argument—linking the level of human capital to external benefits from democracy—and if one believes private schooling produces more human capital, it follows that a private system with a subsidy is superior to the present public school system.

A strong argument against the first or third explanation for public provision of education is that using subsidies would be more effective. As will be shown in the next section, however, this does not apply to the indoctrination hypothesis for public education. The explanation that follows will be a variation on the indoctrination theme.

#### *Crime Reduction as a Public Good*

Historically, the link between crime and education played an important role in the adoption of public provision of schooling.<sup>9</sup> The literature has proposed two possible relationships between education and crime. The most prominent view among modern economists focuses on an individual's future income stream as the opportunity cost of committing crimes.<sup>10</sup> Others, particularly many classical economists, point out that inculcating certain beliefs (for example, religious views or respect for private property) makes committing a crime

<sup>9</sup>West (1967, p. 108) quoted proponents of a free public system as arguing that under such a system, "it will be found universally true that the *minimum* of crime exists, where the *maximum* of moral education is found." Field (1974, pp. 42–48) found similar evidence in his study of the roots of public education in Massachusetts.

<sup>10</sup>A few references illustrate the relationship between earnings and crime. Singer (1972, p. 291) explains: "By increasing labor productivity, education raises the opportunity cost of crime, the losses that the criminal suffers if he is caught and the income he might have earned as a member of the labor force." Weisbrod (1964, p. 101) notes: "Benefits of education may take the form of reduced social costs of other activities; inadequate education appears to contribute to low income, which is associated with delinquency and crime. Thus, education may provide social benefits by freeing some resources now devoted to law enforcement and allied activities." Finally, Cohn (1979) built on earlier work by Phillips et al. (1972) showing that labor market status is a sufficient factor to explain rising juvenile crime rates. Cohn conjectured that if education increases labor force participation rates, increased education could help reduce the crime rate. Other prominent contemporary economists, including Friedman (1976, p. 92), support these arguments.

more costly.<sup>11</sup> Presumably, this is mainly achieved through instilling guilt. Despite differing views on the causal relationship between education and crime, one observation is widely accepted: education lowers crime and therefore constitutes a public good.

Two policy implications can be derived from the two views. Accepting the first view that private schooling increases investment in human capital more (and/or at a sufficiently lower cost) than does public schooling implies the superiority of subsidies over public provision. Moreover, Lott (1987e) has found that, even after controlling for other factors, increases in the proportion of children attending public schools are associated with increased juvenile delinquency rates for both U.S. time series data and California cross-sectional data by county.

The second view, that public schools instill certain beliefs, has less clear implications for the relationship between crime and education. As Lott (1987a) has shown, even with subsidies limited to governmentally approved schools, competition between them under a voucher-type system could result in underproduction of the political and moral beliefs sought. However, this hypothesis also predicts that public schooling should be more effective than private schooling in lowering juvenile delinquency, and this is not the case.

### *Economic Growth*

Some economists have justified past government intervention in education by pointing to divergences in the private and social rates of discount (Davis and North 1971, pp. 240–41). They claim the divergence results from “the poor state of development of the private capital markets and the relatively better state of the market for government funds, a situation that was probably characteristic of the

<sup>11</sup>In reviewing the opinions of classical economists, West (1970, p. 112) wrote: “But all the economists were strikingly united on one aspect at least of what can be called negative utilitarianism, that is, in the idea that education could reduce crime and disorder.” Many believed the difficulty with private schooling was that it provided “the *wrong* sort of education,” and they hoped to “lessen parental control over education” and obtain the “ultimate control of education” (West 1980, p. 5). Even Adam Smith (1776, vol. 2, p. 309) anticipated this later view: “The state however derives no inconsiderable advantage from their instruction. The more they are instructed, the less liable they are to the delusions of enthusiasm and supposition, which among ignorant nations, frequently occasion the most dreadful disorders.” Sir William Petty, however, probably was the first to claim the link between education and crime; he argued in 1662 that by controlling religious views, government could reduce crime (High 1984, p. 4). Thus, the view of earlier economists differs from those of their intellectual descendants. Rather than using the pecuniary cost of crime explanation, they focused on indoctrination by the state. See High (1985, pp. 312–14) for a historical account of other economists who have believed that state education reduces crime.

United States in the early decades of the nineteenth century" (p. 240, see also pp. 105–66). For example, public provision of engineering classes at West Point in 1802 and the subsequent public employment of its graduates by the army were justified by virtue of their readiness to fill positions in private industry in the 1830s. Davis and North then explain the coinciding de-emphasis of engineering at West Point in the 1830s: "Once the potential demand for engineers had become a real demand, engineering education became profitable even at private rates of discount, and it was no longer necessary for the government to continue its subsidy."<sup>12</sup> The key word is "subsidy." As Cohn (1979, p. 262) pointed out, "[Government provision] does not require government control of schools; the same objective could be achieved via some form of subsidy."<sup>13</sup>

Finally, it is not clear that government intervention has achieved the desired results. From his analysis of data for Britain and the Netherlands, Chiswick (1969) concluded that if one also considers nonhuman capital assets, minimum schooling requirements actually lower the wealth of relatively poor people. This is presumably because their return to other activities is higher than that in education.

### Public Provision as a Means of Creating Wealth Transfers to Educators

A hypothesis accepted by many economists (see Coase 1974, p. 390; High 1985, pp. 314–15; and Tullock 1983, p. 141) has been offered by West. West's (1967, 1968, 1970) studies of the history of public education in England and the United States have indicated that one primary force moving both countries toward free public

<sup>12</sup>Even if we accept the claim that the cost of government borrowing was less than for private groups during the early 1800s (and it is not evident that it was), the argument does not explain why public schooling was not introduced until the 1870s in many parts of the United States and in England. By itself the argument also explains too much. If the explanation were correct, the government should have subsidized the building of factories as well. Further, it is not clear why the differences in "potential" and "real" demand are important. While it is true that potential demand is associated with greater risk to the individual investor, it is also related to greater risk to the government. The cost to the government is forgone safer investments. See High (1985, pp. 315–36) for a discussion of the original debate over the economic growth arguments of Pigou, Smith and Sidgwick.

<sup>13</sup>After an extensive review of the literature, Cohn (1979, pp. 137–61) found that although the evidence for the United States suggests that more education increases income, some studies have shown only a very weak relationship between education and the growth of the real national product in a number of countries. This could possibly be caused by mandated increases in educational investment leading to less investment in sectors where the marginal product of capital is higher.

education and compulsory schooling was the desire to transfer wealth to educators. By reducing competition from private schooling, as well as the returns from alternative student activities such as work, the efforts required by teachers to keep students in public schools were diminished. Further, since state payments to schools and educators varied according to the number of students in a school, the incentive to further eliminate such alternatives was strengthened. Elimination of private competition, however, did not always engender hostility from private teachers, because private schools were at times incorporated into the public system through gradually increasing subsidies. An expanding public system should also provide employment for displaced private-school teachers.<sup>14</sup>

Staaf (1977a) reasoned along similar lines, pointing to the relatively recent consolidation of school districts as evidence of changes designed to benefit members of the educational bureaucracy. Eugenia Toma (1983) provided weak empirical evidence to explain why professionals support appointed rather than elected state school boards and state superintendents. She found that educational professionals associated appointed boards with higher salaries, lighter teaching loads (defined as pupils per teacher), and more administrators per pupil.<sup>15</sup> Toma (p. 116) characterized the electoral process as a “monitoring device [that] constrains the ability of bureaucrats to transfer surplus to special interest coalitions or to themselves.” But she failed to investigate why politicians in certain states prefer adopting appointed school boards and state superintendents for ensuring higher transfers. The fact that the transfers to educators vary systematically with the type of bureaucracy (or institutional arrangement) implies that such transfers are created purposely for educators.

While West is correct in claiming that public provision creates wealth transfers to educators, such transfers cannot be a sufficient motivation for public provision of education. Governments have been able to create transfers to other occupations without resorting to public provision. Given the costly nature of public education (both

<sup>14</sup>Public educators’ desire to eliminate private competition is extensively documented (Field 1974, pp. 17–18, 20; West 1967, pp. 114–15). In New York, West found the agitation for compulsory schooling, which arose after the institution of free public schools, consistent with the hypothesis that teachers seek to maximize their income (1967, p. 124; 1968, p. 55). An examination of the history of English public schooling favors the wealth-transfers-to-educators hypothesis (1968, pp. 53–55). Recently, public school teachers in France demonstrated against President Mitterand’s failure to keep his campaign promise to abolish private schooling (Lepage 1983).

<sup>15</sup>Toma’s control variables change across regressions; they are often insignificant and sometimes of the wrong sign.

in terms of per pupil expenditures and forgone investment in human capital), why has some combination of licensing laws and subsidies not been used? If West's finding applied equally to all countries adopting public provision, why do they all choose this method of creating transfers? The answer is that transfers to educators must take this particular form because something else is being produced.

### Public Provision as a Means of Creating Wealth Transfers to Capitalists

Recent Marxist literature links the rise of factory production to the introduction and expansion of public schooling in America. These studies argue that the growth in public schooling was the product of an increased demand for a properly socialized work force and citizenry (Field 1974, p. 43; Bowles and Gintis 1976, pp. 174–75). The gains obtained by capitalists range from less crime (Field 1974, pp. 42, 48–49) to a more docile work force (pp. 50–52). Schools are seen as a means of instilling certain values (pp. 40–42), but those who benefit from this indoctrination constitute only a subset of society.

According to Field, when business and the professions are broadly defined to include clergymen, educators, newspaper editors, and lawyers, 85 percent of the members of the Lowell, Massachusetts, school board in the mid-19th century were drawn from business and professional groups and fewer than 5 percent were workers (p. 54). Field also found that school boards attempted to expand education by lengthening school sessions when particularly unruly groups—in the Lowell case, the Irish—were present in the population. School attendance rates, however, show that they were unsuccessful in attracting the Irish to public schools. Thus, despite the school board's efforts, schools were relatively unsuccessful in instilling the “correct” beliefs (pp. 312–18).

Gintis (1971, p. 274) described the function of schooling in America as creating a reward system that supposedly produces students well-suited to the “authoritarian” structure of factory production. His evidence consists of the “arbitrary” nature of grading. The structure of grading is claimed to be only partially explained by a student's cognitive abilities and primarily is viewed as rewarding those students who conform to the behavioral demands of teachers.

Gintis used his findings to explain certain “outstanding anomalies.” For example, he explained the numerous studies showing “very low monetary returns to the education of lower class people and blacks in the U.S., even with the level of cognitive development taken into account,” as resulting from a “failure of schooling to incul-

cate the required noncognitive personality traits in the observed groups” (1971, p. 267). Bowles (1972), on the other hand, attempted to explain such differential returns by pointing to the direct effect of family background on earnings. He claims that the measurement error is greater for family background than for other variables. Therefore, not surprisingly, correcting for this error increases the relative importance of family background.

Both Bowles and Gintis ignore the findings of Becker and Chiswick (1966) and Chiswick (1969) that help explain differential returns to schooling. Chiswick (1969) found that minimum schooling legislation results in lower returns to schooling for poor people. Becker and Chiswick suggested that the differential returns to schooling may also result from not controlling for postschool investments. They point out that less well-educated people generally put more time into postschool investments than do better-educated people, and that since this investment takes place upon leaving school, the earnings of the less well-educated people will be particularly low at younger ages.

The primary difficulty with the claim that public education arose to subsidize businessmen is that it cannot explain the prevalence of public education across countries. It is not possible to limit the indoctrination aspect of education to capitalist systems. In fact, Lott (1986) has shown that it is actually the relatively more socialist countries that place a higher value on such indoctrination.

### Wealth Transfers to the Middle Class: Director’s Law

A public goods discussion of equality helps facilitate a comparison of goals and consequences. Although equality is deemed desirable, many argue that the reality of the transfers produced by public provision of education coincides much more closely with “Director’s Law,” which states that public expenditures are made primarily for the benefit of the middle class.

The public goods nature of equality in education is widely accepted. Guthrie (1980, p. 91) argued that “one of the primary goals of education is to bring about an equitable redistribution of income.”<sup>16</sup> Levin (1980, p. 252) claimed public provision was necessary to ensure

<sup>16</sup>Weisbrod (1962, p. 119) concurred with this opinion: “Equality of opportunity seems to be a frequently expressed social goal. Education plays a prominent role in discussions of this goal, since the financial and other obstacles to education confronted by some people are important barriers to its achievement. If equality of opportunity is a social goal, then education pays social returns over and above the private returns to the recipients of education.” Kohn (1969), Bowles (1973), and Bowles and Gintis (1976) also hold similar views.

equality, because a system of subsidies would not be as effective. Poor parents would send their children to schools that reinforce those values that caused the parents to be poor.

Does public provision really have the intended effect of lessening income disparities? Stigler (1970, pp. 1–2) takes a strong stand against the historical success of public schooling in producing equality.<sup>17</sup> Studies by Hansen and Weisbrod (1969a, 1969b) confirmed Stigler's hypothesis for higher education in California. They found that more affluent students typically attend more affluent schools, and a much larger fraction of the rich than the poor attend state-subsidized schools. Later, Peltzman (1973) found that the effect of subsidized higher education has been to shift students to public universities without greatly affecting total higher education enrollment. He concluded that the effect of such subsidies has been to transfer wealth to middle- and upper-income families who would have sent their children to college anyway.

Grubb (1971) found that supporting elementary and secondary schooling in Boston to be regressive. His findings also supported Stigler's argument that upper-income families receive a larger absolute benefit from education on average than lower-class families. Others have claimed that the quality of a public school is positively correlated with the neighborhood's level of income (West 1968, p. 29; Becker 1972, pp. 254–55).

Some have made the mistake of confusing income equality with equality of wealth. Gurwitz (1980, p. 92) proposed that one way of reducing inequality was to force people to purchase "more education than they would choose, or be able, to purchase in a perfectly free market." Chiswick (1969) suggested that minimum schooling legislation, which increases investments in schooling, lowers investments in assets that have higher returns than schooling. Compulsory schooling would therefore diminish the inequality of wage income but *increase* the inequality of wealth.

Stigler (1970), citing Director's Law, claimed that education redistributes wealth to middle-income families because income provides an easy way to discriminate between coalitions of voters. As with other forms of discrimination, redistribution only succeeds if those who are its beneficiaries are unable to resell the good to those who are being discriminated against. Education, like most services, is nontransferable.

The evidence supporting Director's Law—that publicly provided education redistributes wealth from the poorer to the richer—is con-

<sup>17</sup>See also Becker (1972, p. 254) and Demsetz (1982, p. 91).

vincing. But it ignores certain institutional considerations and therefore has missed the correct underlying explanation of public provision. For example, Peltzman's explanation that low prices reduce the cost of a college education to those who would have purchased it anyway, appears incompatible with evidence that subsidies are limited to only a restricted number of public colleges. Why would people not be allowed this subsidy at any college in the state? Assuming that increased competition between schools increases quality, the people already receiving the subsidy simply receive an even larger real subsidy under competition. Further, Director's Law does not explain why schools within any given school district are not forced to compete against each other. The assignment of students to schools closest to their residence seems unnecessarily restrictive. If one wanted to separate income groups, school districts could be drawn (as they are in fact often drawn anyway) to take this into account. Limiting competition to those schools within a particular school district would not be identical to a full-fledged voucher system, but it would be an improvement in efficiency and would retain the system's redistributive aspect.<sup>18</sup>

Possibly, this seemingly inefficient arrangement of forbidding competition can be explained by focusing on other outputs being produced, which are valued by politicians. One output could be the inculcation of views politicians value. If politicians have limited resources, but want as many children as possible to attend public schools, they must provide higher-quality schools to wealthier families because they have more elastic demands for public schooling with respect to quality. Creation of wealth transfers from the poor to the rich is only incidental and does not contradict the argument. However, questions of why other methods of indoctrination are not as effective must still be examined.

<sup>18</sup>The Marxist view also fails to explain geographical assignment of students. Bowles (1973, pp. 352–53) argued that “the social relations of schooling are a reflection of the social relations of production,” and that the social relations of production are also reflected in the views of upper- and middle-income parents, who teach children to be self-directing and curious, and working-class parents, who want schools to emphasize “conformity to external authority.” If this is true, a voucher or competitive public system would accomplish the same ends. To the extent it is not true, a competitive system must weaken the notion that the structure of production instills certain beliefs in parents. If geographical assignment is necessary because working-class parents value their children being taught to be imaginative, then the structure of the production must not be very effective in influencing the views of parents. The Marxian view also does not explain why school districts are not exclusive to either upper- or lower-class neighborhoods, with competition limited to a given school district.



## Economies of Scale in Bureaucracy

Friedman (1962, p. 97) presented yet another explanation for providing public education rather than subsidizing private education to obtain any possible net marginal external benefits from education:

Another factor that may have been important a century ago was . . . the absence of an efficient administrative machinery to handle the distribution of vouchers and check their use. Such machinery is a phenomenon of modern times that has come to full flower with the enormous extension of personal taxation and of social security problems. In its absence, the administration of schools may have been regarded as the only possible way to finance education.

There are several problems with Friedman's reasoning. He does not explain why vouchers are now used for so many other goods (for example, Medicaid and food stamps) but not for education. An explanation based on inertia might help answer this: programs such as Medicaid and food stamps were adopted after vouchers became feasible, but public education was adopted before they became feasible. Once a certain method of provision is adopted, it may be too costly to change. Given the large gains apparently associated with such a change and assuming that inertia is the real explanation, the implied costs of changing the system must be very large. It appears unlikely, however, that the inertia would be of such a great magnitude.

The historical record provides a much more serious objection to Friedman's contention. Education was originally subsidized under voucher-type arrangements with private schools in such areas as New York. The government initially subsidized private schools "in proportion to the average number of pupils under instruction" (West 1967, p. 106; 1980, p. 5). Friedman does not explain why the voucher system preceded public education.

## Monopsony Power for Educational Inputs

Bish and O'Donoghue (1970) and Borcharding (1971) claimed that the typical public goods analysis ignores instances in which the government faces upward-sloping supply curves for inputs. The implication is that in acting as a profit-maximizing monopsonist, the government underproduces public goods and pays inputs less than their marginal revenue product. The possibility of earning such monopsony rents created incentives for producers (that is, the government) to create monopsonies (Shibata 1973).

While no one has applied this argument explicitly to education, pay raises do attract additional public educators, and since higher salaries would also have to go to present educators, the marginal

outlay for additional teachers would be higher than the educators' salaries. In fact, educators state that higher wages are necessary to attract higher quality teachers.<sup>19</sup>

However, a simple test shows that public education was not introduced to create a monopsony for educational inputs. If such a hypothesis were true, we should observe both lower costs of education and lower teacher salaries. Since both are higher for public schools relative to private schools, this hypothesis must be rejected. Private schools would have an incentive to "chisel" on the monopsony arrangement by paying teachers higher prices and thus attracting those of higher quality. Public school teachers earn approximately 28 percent more than private teachers (see Table 3).

Any comparison of public and private teacher salaries will be objected to because the differences are not standardized for the amount of work required. Table 3 adjusts for this by showing the ratio of public to private teacher salaries divided by the ratio of pupils per teacher in public to private schools. This adjustment still leaves salaries of public school teachers 20 percent higher than their private school counterparts. Proponents of the monopsony explanation may

**TABLE 3**  
EVIDENCE OF GOVERNMENT AS A MONOPSONIST

Region	Teachers' Salaries 1982-83		Pupils per Teacher 1981/82		Ratio of (1)/(2)	Ratio of (1)/(2) to (3)/(4)
	(1)	(2)	(3)	(4)		
	Public	Private	Public	Private		
New England	18,812	15,536			1.211	
Mideast	23,083	16,188			1.426	
Southeast	17,715	14,519			1.220	
Great Lakes	21,755	17,056			1.276	
Plains	18,930	17,547			1.079	
Southwest	19,294	18,069			1.068	
Rocky Mountains	20,545	17,352			1.184	
Far West	23,612	17,660			1.337	
USA Average	20,531	16,103	18.89	17.87	1.275	1.206

SOURCES: *Statistical Abstract of the United States* (1984, p. 150); *United States Catholic Elementary and Secondary Schools, 1981-1982*; *USA Today* (17 March 1983): 2A.

<sup>19</sup>See *USA Today* (8 May 1984): 11A.

argue that this differential is caused by the higher quality of public school teachers. This contention is, however, contradicted by evidence presented above on the relative quality of the two systems.

Given that the teachers serve the same market and that the supply and demand for teachers in both the public and private sectors are in equilibrium, how can real wages differ? As already discussed, Hanushek (1972) noted that public teachers are required to invest in activities that do not improve their teaching skills. The imposition of more stringent requirements as a prerequisite to obtain the higher salaries associated with public schooling shifts back the supply curve in that sector. If these requirements do not raise the skill level of teachers in other activities (for example, teaching in private schools), the differences in public and private school salaries must be regarded as a rent public school teachers receive. But why do they receive such a rent?

### Imperfect Capital Markets

Alfred Marshall was probably the first economist to point out that imperfect capital markets can lead to an underinvestment in a child's education: "Those who bear the expenses of rearing and educating him receive but very little of the price that is paid for his services in later years" (in Thompson and Ruhter 1981, p. 3).

Pigou (1920), Friedman (1962), and Nerlove (1975) also recognized that most types of loans require collateral provisions that provide lenders compensation in the event of a loan default. Antislavery laws, however, prevent repossession of investment in human capital, and this makes educational loans riskier. Hence, even where an investment in someone's education would yield a high rate of return (in the form of increased future earnings), loans may not be made because of the problems of enforcing repayment. The implication is that, if left to itself, society will underinvest in education. Though such underinvestment would not be a problem in a completely *laissez-faire* society, it does arise in the presence of certain laws.

Leffler and Lindsay (1982, p. 7), in their examination of the health care industry, pointed out that methods other than public provision of medical schools are available to solve this problem. Their list includes "offering tax deductions or direct subsidies to the purchase of care, by offering subsidies to medical schools which lower fees, subsidies (scholarships) to students, or interest subsidies to the lenders themselves." They found (pp. 18–20) that it is much less costly to subsidize training than to subsidize consumption. Their conclusion is based on the assumption that the government's social discount

rate is less than the medical applicants' subjective cost of delaying consumption, estimated to be about 10 percent for the period 1952–76. Their results seem equally applicable to other types of education.

### Education as Indoctrination

The previous discussions relating crime and democracy to education have brought out the often explicit use of indoctrination by advocates of public schooling. The use of public education to instill certain religious views has long been widely accepted in many countries. Political indoctrination through schooling has an equally long history.

In many countries, public education often began at the instigation of churches (Tullock 1983, p. 140). In the United States, public education was for a long period openly religious. "In fact, the very growth of the Catholic school system was a result of the feeling that a majority view of religion and morality was being imposed through government schools that was in opposition to the minority beliefs of Catholics" (Spring 1982, p. 89). Field (1974, p. 52) cited school committee reports in Massachusetts requesting that teachers "impress some moral or religious instruction" on their students. Private religious schools in New York were subsidized during the early 19th century (West 1967, p. 106). Nasaw (1979, p. 40) stated, "The common school education would be a moral education."

The use of publicly provided education to instill political views seems no less explicit. Nasaw (1979, pp. 40–41) discussed how "Whig prejudices color[ed] the presentation of most issues" in early American public school history books. Even Thomas Jefferson "proposed to censor and control the political texts at the University of Virginia. His fear here was the possible teaching of his political enemy, federalism" (Spring 1982, p. 83).

In England the Utilitarians worried not so much that children were not receiving education, but that they were obtaining "the wrong sort of education" (West 1980, p. 5). West (1970, p. 127) examined why the desire to spread literacy was not always the guiding principle in British government actions. He noted:

On this subject most modern specialists seem to be agreed and the documentary evidence is abundant. The frightened reactions of early 19th century English governments against the spread of political literature among the "lower orders" took the form of fiscal and legal action against the spread of newspapers especially those critical of government.

Marxist claims of indoctrination (Field, Bowles, and Gintis) have been examined above. Bethell (1983) and Lott (1986) provided con-

temporary evidence of inculcation of views. High (1985, pp. 309–11) provided a useful survey of the debate by economists concerning the use of state education to instill “values essential to a good society.” Overall, the belief that public provision can be used to instill certain views is overwhelmingly accepted and is well-supported by the evidence.

### A Possible Alternative View

Only the use of education to indoctrinate appears difficult to dismiss. It is still necessary, however, to specify the gains politicians receive from inculcating values. Virtually all government actions create wealth transfers, even when such actions solve free-riding problems. Moreover, when manipulating the size and distribution of such transfers, politicians act to maximize support. Utility-maximizing models of political behavior consistent with microeconomic theory have focused on the costs faced by the opposition and the benefits from the support these transfers create (Downs 1957; Buchanan and Tullock 1962; Stigler 1971; Peltzman 1976). What appears lacking in the literature is the analysis of specific investments governments make to enhance the support and/or mitigate the opposition arising from transfers.

Traditionally, political entrepreneurs are assumed to maximize a political support function consisting of the number of net gainers and net losers from government policy and the probability these respective groups will throw their support for or against the politicians. In turn, these probabilities depend on the size of the net transfers. This maximization procedure is performed subject to the costs of creating the transfers, such as organizing the groups that gain from the transfers. The politicians who gain the highest level of support win, given the technology of marshalling political constituencies. Innovations can also be made by the politicians in lowering the cost of making transfers.

One possible method of lowering the cost of transfer payments is to instill certain ideological beliefs—for example, the perceived legitimacy of the existing transfers. If individuals believe that the government is “fair” and “legitimate,” the costs of undertaking government actions are reduced. Assuming that citizens have imperfect information and that additional information, including misinformation, will change behavior, then it does not matter whether this inculcation consists of changing tastes or holding them constant. The vigorous debate over ideology versus self-interest as an explanatory model aside (Stigler and Becker 1977; Kau and Rubin 1978, 1979;

Kalt and Zupan 1984; Lott 1987c, 1987d; Peltzman 1984), the outcome is the same. If people's views depend on the information they receive, it follows that changes in the relative costs of receiving information produce different views. Indoctrination, or "socialization," might serve as a substitute for expenditures on police in mitigating opposition. This sort of alternative investment does not need to arise from conscious plans to lower the costs of wealth redistributions by governments but can emerge as a "survival" characteristic. Governments making transfers at the lowest costs are challenged less frequently than others. Over time, governments exhibiting the characteristics associated with the lowest cost methods of action taking should grow larger and more numerous.

Government control over media and education changes the mix of information people receive. By raising the cost of antitransfer information and lowering the cost of protransfer information, views more sympathetic to transfers are produced. The level of opposition arising from a certain level of transfers can be mitigated by using force (totalitarianism) or indoctrination (education).<sup>20</sup> The higher the level of transfers, the greater the opposition and thus the greater the return to indoctrination. Likewise, if totalitarianism also makes people worse off by restricting their real opportunity set and raising the level of opposition, then, under certain conditions, the return to education will increase with the level of totalitarianism. In fact, Lott (1986) found both of these predictions to be true across 90 countries in 1975 and 41 in 1977. As noted above, the standard public goods explanation for democracy predicts the opposite relationship between totalitarianism and education. Leaders of totalitarian countries would avoid creating a more independent and critically reasoning constituency.

Lott (1984, 1987a) has shown that the returns to other investments used in producing this information can also vary predictably with the level of totalitarianism. One such investment can involve higher real salaries that public educators receive. Treating educators as any other interest group, however, will not explain why public provision is used for education. In terms of the indoctrination theory, the threatened loss of higher earnings can serve as a complement to exclusive territories in ensuring that the desired information is pro-

<sup>20</sup>Totalitarianism in the model is seen as having two essential characteristics: (1) the more costly it is for opposition groups to oppose government policy, the more totalitarian a country is defined to be; (2) totalitarianism is viewed as being similar to a tax in that it restricts people's real opportunity set. Higher levels of totalitarianism, like higher levels of taxes, make people worse off and generate more opposition to the ruling coalition.

duced. The loss of this income stream need not be explicitly linked to the information produced by educators in order to influence their behavior. Educators concerned about maintaining their earnings may produce information to defend their status.

Lott (1984, 1987b) found that the rents vary systematically among teachers in white and nonwhite school systems in South Africa. The wealth transfers to educators argument would seem to predict that since white teachers in South Africa have the greatest political power, they should be the most successful in lobbying for higher salaries. Instead, Lott's studies found that those with supposedly the least to gain from supporting the government—nonwhites teaching in the three nonwhite school systems—receive the larger rents. The hypothesis advanced here is consistent with precisely such a result since it predicts that the return to indoctrination is highest among nonwhite students.

## Conclusion

The conventional explanations for publicly provided education are inadequate: they do not present a general theory of public provision; they do not explain why public provision is essential to their arguments; and they fail to consider the historical record. In their place, I have suggested that governments willingly bear the costs associated with public provision because it reduces the costs of other government actions—in particular, the costs of transferring wealth.

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