

THE EXTENT AND NATURE OF WASTE AND RENT DISSIPATION IN U.S. PUBLIC EDUCATION

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It's time to admit that public education operates like a planned economy, a bureaucratic system in which everybody's role is spelled out in advance and there are few incentives for innovation and productivity. It's no surprise that our school system doesn't improve: It more resembles the communist economy than our own market economy.

—American Federation of Teachers President,
Albert Shanker¹

POLITICS, n. A strife of interests masquerading as a contest of principles. The conduct of public affairs for private advantage.

—Ambrose Bierce, *The Devil's Dictionary*

It is useful to approach the U.S. public education industry as a monopoly and ask how monopolies behave under different circumstances. Here, traditional economic tools developed by Alfred Marshall, Gordon Tullock, and Mancur Olson describe the outcome well.² In brief, the story goes like this.

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¹Quoted in "Reding, Writing and Erithmatic," editorial, *Wall Street Journal*, October 2, 1989.

²The typical Marshallian models emphasize how short- and long-run competitive adjustments tend to drive profits to normal levels on the margin. Gordon Tullock and his successors emphasized how competition for monopoly rents tends to dissipate those rents into

How Open Markets Work

Consider an open-market economy populated with greedy capitalists who have monopoly power, sell shoddy products, and reap excessive (above-normal) profits. There, since business owners can keep earned profits, there will be the entry of new capacity driven by the profit incentives of both new and existing greedy capitalists. This competitive process tends, over time, to drive inflated revenues (and prices) down to costs, and shoddy products disappear from the market. With revenues driven toward costs, including the cost of capital and rewards to entrepreneurship, there are constant pressures to produce at minimum cost, improve products, and continually search for innovations that will further lower costs and give competitive advantage. Ultimately, costs will be determined by the value of resources elsewhere in the economy. When customers do not like products, they can vote with their feet: there are always alternatives. Producers are accountable to market forces, operating from the bottom up.

In short, above-normal profits, low-quality products, inefficiency, and/or bloated costs attract more efficient capacity and competitors, and this entry will be corrective. Temporary excess profits are dissipated into lower prices and better products. The consumer is the winner.

How Markets Work with Government Involvement

Now, suppose government power is injected into a market—by price regulation, restrictions on entry, or outright government ownership—all with the purest of intentions, of course. Then, the competitive process turns from serving the consumer (by providing attractive, low-cost, alternatives) to serving the constituencies who benefit from the government regulation and control. Greed does not disappear under government control, it is simply directed away from serving the consumer toward supporting, entrenching, and enhancing

costs, thus producing welfare losses that may greatly exceed classic Harberger welfare losses. Mancur Olson emphasized how democratic political processes tend to produce powerful parasitic constituencies that become entrenched and impervious to reform efforts. Tullock's seminal work is "The Welfare Costs of Tariffs, Monopolies, and Theft" (1967). It is reprinted in Buchanan, Tollison, and Tullock, *Toward a Theory of the Rent Seeking Society* (1980), which also has many of the other classic works on rent seeking. An early survey is Robert D. Tollison's "Rent Seeking: A Survey" (1982). Olson's classic works are *The Logic of Collective Action* (1965) and *The Rise and Decline of Nations* (1982). There is a nice, nontechnical summary of his work in his obituary (*Economist* 1998).

the government power that controls the market and determines who benefits from that control. Instead of monopoly power and excessive profits being attacked and reduced by competitive entry, under the umbrella of government control, those who benefit use the government's power to protect and enhance monopoly power, further increase revenues, and squabble among themselves over a share of the inflated revenues. A vast panoply of parasitic constituencies develops and becomes entrenched. Consumers, faced with a monopoly, cannot escape by voting with their feet. Producers become accountable to the political process, not the competitive market. Artificial barriers to entry are erected to keep others, looking for a piece of the action, from joining the party. These markets become insulated from efficiency-producing entry and competitive discipline. Resources are wasted in the competition for the above-normal profits created and enhanced by government regulation, and, over time, these above-normal profits disappear into "costs." From an accounting perspective, the industry may not look excessively profitable.

This is a topsy-turvy wonderland of upside-down economics. Instead of quasi-rents being dissipated into lower prices and better products for consumers, rents are dissipated into accounting costs. In the Marshallian, open-market framework, short-run supply and demand adjust until prices fall sufficiently to yield only normal profits for the most efficient firms on the margin. But in a regulated market, costs rise to meet whatever revenues the regulatory process will yield. In both cases, capital may only reap normal returns, as calculated by accounting methods, but with vastly different economic welfare results.

The Classic Example: The U.S. Airline Industry

The classic example of how government regulation works was the pre-1980s U.S. airline industry, when the now defunct Civil Aeronautics Board exercised monopoly power by setting prices, controlling entry, and regulating the minutiae of the services provided.³ Supply was rationed by allocating operating certificates for city-pair routes. Productivity was low and stagnant. Cost-plus pricing was used to set prices. Strong unions took advantage of the situation to pump up wages and accounting costs rose to capture the available, inflated revenues, often setting in motion another round of price increases.

³A good description of the early effects of airline deregulation can be found in Moore (1986).

Prevented from competing on price, carriers competed on cost-inflating amenities. Dozens of lawyers, each with meters running at hundreds of dollars per hour, argued over the definition of a sandwich. The value of these above-normal profits and bloated costs was dissipated and capitalized into rents to powerful labor unions, other employees, and the value of tradable operating certificates, all of which appeared on the books of the carriers as “costs,” but which had nothing to do with real opportunity costs.

The subsequent partial deregulation of the airline industry has slowly reversed this process, resulting in lower fares, fewer amenities, wage concessions by unions, layoffs, reduced unit labor costs, and rising productivity. This process is still going on, often aided by actual or imminent bankruptcies, much to the chagrin of those who benefited from inflated wages and other costs under the regulatory regime. Similar effects have been observed in the railroad, trucking, and other industries that have been at least partially deregulated.

The U.S. Public School Industry

The U.S. public school industry operates in exactly the same way as any other regulated market and results in classic waste, rent dissipation, entrenched parasitic constituencies, and sclerosis. Waste has become embodied in bloated costs that rise to meet the revenues available from the political process. Success is measured by increased spending, not reduced costs or improved learning. Productivity is low and declining. Product quality has been flat for decades despite massive increases in spending. Labor-intensive production methods are frozen in place by outmoded funding formulas. Competitors are handicapped by classic predatory pricing (public schooling is “free” at the point of delivery), and the entry of private schools, home schooling, and, more recently, charter schools, is fought tooth and nail by the entrenched establishment to protect its monopoly rents. Investment and effort are directed primarily toward manipulating the political/regulatory mechanism to augment and keep revenues flowing. Investment and effort are then dissipated mostly into bloated labor costs, exactly like the pre-1980s regulated airline industry.

In short, with no private ownership around to claim the residual revenues above (marginal) opportunity costs, a vast residual ends up being divided among various squabbling constituencies. And this residual is sizable. As we shall see, private, charter, and schools abroad operate at 60–70 percent of the per pupil costs of U.S. public schools and the former rarely have any administrative superstructure above the school level.

As noted by Shanker, and explained by Olson (1965, 1982), a vast industry feeds off the regulation-created, and then dissipated, excess revenues in public education: bureaucrats, state and federal departments of education, colleges of education, education consultants, labor negotiators and mediators, and many others—almost all of whom produce nothing as measured by student performance, and who would disappear overnight in an open-market environment. The vast number of people who benefit from the public education system, either directly or indirectly, provide not only political largess and activity but also a complementary solid bloc of voters who will always vote to protect and enhance the revenues flowing to themselves.

Thus, most of what goes on in U.S. public education has little to do with educational output, which is why the education establishment vehemently resists the widespread measurement and dissemination of student achievement. Education output matters primarily as a marketing tool aimed at sufficiently controlling and consoling voters and the political process into believing that they are getting something for their inflated school taxes. Little does the public know that, beginning with the famous Coleman Report of the early 1960s, reams of research has shown that more than 90 percent of student achievement is related to factors beyond school control and spending. And student achievement has been flat, at best, for decades. Public education is an industry driven primarily by redistribution, not production. Its operational goal is to extract and protect as much revenue as possible from the public treasury and then dissipate it by redistributing the proceeds to various contending constituencies, where it then appears as costs.

Public school expenditure is not driven by opportunity costs—that is, the value of resources elsewhere—but by the ability of the public education industry to extract revenues from the taxpayers via the public choice mechanism. Expenditures are built from the top down, not the bottom up. Public school expenditures now average about \$9,500 per student. If the various public treasuries were to give this industry \$12,000 per student, it would spend \$12,000 per student. If the industry were given \$6,000 per student, despite the howls of pain from the various constituencies whose rents disappeared, expenditure would be reduced to \$6,000 per student. And since there is no connection between public school spending and student achievement, in neither case would student achievement change.

The remainder of this article attempts to detail the nature and extent of waste and rent dissipation in U.S. public education. I do so by estimating the broad extent of cost bloat in public education as compared with comparable private education.

Public versus Private Schools

U.S. private schools operate in a strange and schizophrenic market. On the one hand, they are faced with a tax-supported, monopolist competitor that practices classic predatory pricing. (If a supplier in any other market continually sold its product at a zero price, it would be prosecuted under the antitrust laws.) As a result, private schools have been forced into a niche market that operates under the inferior quality umbrella held up by the public schools. While private schools must be more market oriented, and leaner, than their public counterparts, they are also protected in their niches by the inferior quality public school umbrella under which they serve. Faced with a clumsy, bureaucratic monopolist as a competitor, the private schools may not be anywhere near as efficient as their reliance on parental choice would suggest. As one private school administrator once remarked to me: "It's hard to look bad with the public schools as competition." Further, in terms of techniques used, teacher training, and education philosophy, many private schools are not much different from their public counterparts. The point is that present private schools are probably not a good example of the schools that would emerge under a fully competitive education market, where all schools are either not publicly funded, or funded equally, and entry is unfettered by irrational and irrelevant regulation.

One problem faced in analyzing private education is the lack of systematic collection of private school cost data. Since most education data collection is by government agencies or teachers unions, both of which have large stakes in public education, a cynic might speculate that this vacuum is due to the education establishment's fear of what it might find—as we shall see, for good reason. Further, given the niche markets in which they operate, private schools are more eclectic, ranging from strict religious schools to expensive, elite boarding schools where costs approach that of Ivy League universities. The fact that most private schools have some kind of religious affiliation raises the issue of how to deal with some employees who may be paid less than market wages. Nevertheless, the statistics that do exist, taken together with various ways of adjusting these data for some private school peculiarities, give us a reasonable estimate of the efficiency advantages of private education, and hence a measure of the extent of rent dissipation in the public school system.

Public-Private Differences in Operating Costs

The key to assessing the waste in public education is to look at the cost of education in the private sector.

Direct Measures

Using data from the National Center for Education Statistics (NCES), John Lott (1987) estimated operating expenditures per pupil in private Catholic schools to be 54.7 percent of those in public schools in 1976–77, and 51.6 percent in 1977–78.⁴ Lott made an adjustment for lower-paid, sectarian teachers by doubling their pay for computational purposes.

In another study, Garett, Chan, and Sherman (1995) directly estimated per pupil operating expenditures for U.S. private schools.⁵ Using various estimating techniques, they found private per pupil costs for *all* private schools in 1991–92 to range between \$3,375 and \$3,550, or about 67.2 percent and 70.7 percent of public school current costs for that year, which were \$5,023 per pupil. When the elite college preparatory schools are excluded from these data, private school costs fall to about \$2,883 per pupil, or 57.4 percent of the comparable public school cost.

For Catholic schools alone, this same study found operating costs to be \$2,378 per pupil, or 47.3 percent of public school costs. Considering that Lott made an upward salary adjustment for the low pay for sectarian teachers, this estimate is consistent with the results found by Lott.

For other sectarian schools—other than Catholic and Lutheran—the per pupil cost estimate was \$3,048, and for nonsectarian schools the estimate was \$2,967. These estimates are undoubtedly more relevant than those that include the Catholic and Lutheran schools, since they probably do not include sectarian teachers who have lower pay. These schools' costs per pupil are 60.7 percent and 59.1 percent of comparable public school costs, respectively.

One can also get some additional insight on the comparative costs of private and public schools by looking at the quoted tuition charged by private schools. For obvious reasons, quoted private school tuitions necessarily have a somewhat loose connection with costs. They are usually supplemented by endowments, contributions, fundraising events, in-kind contributions by parents, and below-cost wages for

⁴Education statistics usually distinguish between current operating and total costs. The latter include capital costs, and, in the case of public schools, the cost of state departments of education and pension liabilities as well. Thus, operating cost comparisons probably underestimate public/private school operating cost differences. It is useful to bear in mind that labor costs make up about 80 percent of operating costs.

⁵The data in this and the next two paragraphs come from Garett, Chan, and Sherman (1995). Comparisons with public school costs come from the NCES *Digest of Education Statistics* (2000: Table 167).

religious teachers and other staff. Yet, clearly these do not account for much of the observed difference between private tuition and public school costs. Kealey (1994: 15–17) found that in 1993–94 Catholic parish subsidies amounted to only about \$700 per student and other endowments and contributions totaled only 2 percent of Catholic school revenues.

On the other hand, quoted tuition usually reflects only the highest tuition paid and is usually discounted significantly under the guise of scholarships and financial aid, which are merely mechanisms for effecting classic textbook price discrimination. In other words, average tuition paid is usually much less than quoted tuition. Recently, Albertson College noted that its quoted tuition was \$19,800, but the average student paid only about \$11,000. In this way, quoted tuition overestimates costs.

David Boaz and R. Morris Barrett (1996) did a study of quoted private school tuition for the Cato Institute. Using data gathered from NCES for 1993–94, they found that “the average tuition for all private schools, elementary and secondary, is \$3,116, or less than half (45.4 percent) of the cost per pupil in the average public school, \$6,857.” Further, they found that about two-thirds of private schools charged less than \$2,500 in tuition. Recently, David Salisbury (2003) updated the Boaz-Barrett study and found the average private school tuition in 1999–2000 to be less than \$3,500 for elementary schools and \$6,052 for secondary schools. A weighted average of these tuitions is 47.8 percent of the comparable public school per pupil cost. With the indicated caveats, these data generally confirm the above private/public cost estimates.

Another piece of evidence on the comparative costs of public and private schools comes from charter schools. These are public schools that are relieved of most education mandate requirements, except health, safety, and civil rights, and operate under contract with a sponsoring agency, usually a school district, university, or state education agency. They are typically financed by a per-pupil appropriation equal to the state aid to local schools, but usually do not receive monies from the local school districts. They are also eligible for other grants and aids, but cannot charge fees to students. They normally do not receive any appropriation for school buildings, and thus usually lease or borrow for facilities out of their state appropriation. With state aid nationally about 49 percent of total school operating expenditures, this means that on average the charter schools that are given the most freedom probably operate at about 50–60 percent of the cost of regular public schools, a figure that is consistent with the preceding observations. Of course, state aid varies across states—from 30

percent in Illinois to 73 percent in New Mexico, among those that currently allow charter schools, and some states do provide additional funding as well (NCES 2002: table 156). Supporting this conclusion, my own detailed analysis shows that Idaho's charter schools operate at a cost of 65–70 percent of Idaho's public schools (Wenders 2004a).

In summary, if we exclude the unadjusted Catholic school costs, and average the higher Catholic schools costs found by Lott (54.7 percent), the private school costs excluding the elite college prep schools (57.4 percent), and the average of other-than-Catholic-and-Lutheran secular and nonsecular costs (59.9 percent), we find the private school operating costs per pupil average about 57.3 percent of public schools' costs.

Special Education

The establishment's first response to such an assessment of the relative costs of private education is to bring up the bogeyman of "special education." It is therefore instructive to look at this program in some detail.

Special education is a program created by a federal mandate under the Individuals with Disabilities Education Act of 1975 (IDEA). It is an underfunded mandate that requires local public schools, but not private schools, to provide special education services to children with disabilities. Those who bring up this subject seldom take out their calculators and show how the additional expense of special education is sufficient to account for the observed private-public school cost differences. They simply mention them as a way of changing the subject. As I shall show, while this program is undoubtedly expensive, as much as the education establishment claims otherwise, expenses associated with IDEA are not large enough to change the conclusions of the previous section.

Special education students can be classified into two broad categories: (a) those with mental retardation, serious emotional disturbance, deafness, blindness, autism, and head injury, and (b) those with specific learning disabilities (SLD). Classifying a student as having a specific learning disability is very subjective, often arrived at by merely showing that the student was not progressing as fast as his peers. Thus, the President's Commission on Excellence in Special Education (PCESE) noted that the SLD classification migrates from disability to low achievement—from a problem inherent with the student to one that may result from ineffective teaching (PCESE 2002: 25). Amazingly, the Commission found that about 80 percent of

those students classified as having specific learning disabilities—about 40 percent of the total—were so classified “simply because they haven’t learned how to read” (PCESE 2002: 3).

Over the period 1976–99, the percentage of students identified as special education cases rose from 8.3 percent to 11.8 percent. Those in the former category declined from 6.5 to 5.8 percent, and those classified in the SLD category rose from 1.8 to 6.0 percent (Greene 2002; PCESE 2002: 2, 24–25). Thus, the rise in special education students and expenditures is entirely due to the increased identification of students with specific learning disabilities.

Eliminating the influence of special education on public school costs has little effect on the cost differential between private and public education. The PCESE (2002: 30) found the total cost of a special education student to be \$12,474, or about 1.7 times the total per pupil cost in 1999–2000 of \$7,340 (see also NCES 1996, 2001: Table 167). However, the latter figure also includes special education expenditures. With special education students accounting for about 11.8 percent of the total, applying a little algebra to this situation reveals that the estimated cost of a nonspecial education student is about \$6,653 or 1.875 times that of a nonspecial education student. This corresponds closely to the Department of Education’s estimate of 1.9 (PCESE 2002: 31). Thus, public school costs are about 10.1 percent higher ($\$7,340/\$6,653$) than they would be without the burden of special education. This means that, instead of private education’s per pupil cost being about 57.3 percent of the comparable cost in public education, when the full inflated special education burden is taken into account, private education’s per pupil costs rise about 10.1 percent—to 63.1 percent of those in comparable public education. Thus, even taking into account the inflated cost of special education to the public schools, private education is still much cheaper than public education.

But this result undoubtedly overstates the true cost burden of special education on the public schools. To the extent that children are overclassified as having SLD, some of this “burden” may simply be dissipated rents. To account for this overstatement, I assume that the special education students classified as having SLD remained the same proportion of the total as they did in 1976—1.8 percent instead of 6 percent. This produces a total in special education of 7.6 percent in 1999–2000. Using this adjusted percentage to account for the additional burden of special education on public school costs, private education’s per pupil costs relative to those in comparable public education increase only 6.1 percent—from 57.3 percent to 60.8 percent of public school costs.

Elementary versus Secondary Enrollment Differentials

Can the private-public cost differentials be explained by private schools' higher enrollment in lower cost elementary schools? Again, taking this into account makes little difference, but it raises a few interesting facts and issues.

Note that, to the extent private schools are relatively more efficient at providing schooling in one sector, like elementary education, this is an *explanation* for the private schools' observed lower average costs, not a statistical artifact that artificially lowers their costs. This explanation is, of course, already built into observed private-public per pupil costs.

As a statistical matter, how much of the observed difference between private and public school costs that can be explained by enrollment differentials depends on two obvious factors: the amount of the cost differential and the size of the enrollment differentials. If there were neither an enrollment differential nor a cost differential, then the whole issue is moot. However, there are both. The raw facts are (a) elementary school enrollments are 71.6 percent and 77.8 percent of total enrollment, respectively, for the public and private schools (NCES 2001: Tables 37, 59) and (b) private school elementary per pupil costs are 0.485 of secondary per pupil costs; for public schools, the comparable statistic is 0.778 (Garet 1995; NCES 2002: Table 414).⁶

These data in turn suggest a couple of interesting observations. With the relatively small public-private school enrollment differentials, as a statistical matter, it would take a rather large cost differential between elementary and secondary schools to make observed relative efficiency significantly understate true efficiency. A second observation is that private schools are relatively more efficient in providing elementary education, which probably explains why they have concentrated their efforts there.

A more detailed analysis of the relative costs of private and public elementary and secondary schools is available from the author on request.⁷ The bottom line, however, is that the statistical artifact caused by different public-private, elementary-secondary enrollments accounts for about a 5 percent differential between observed relative costs and true relative costs. In short, the differing enrollment in

⁶The private school cost figures are very consistent with the tuition charged for private primary and secondary schools. For all private schools, the ratio of primary to secondary tuition was 46.5 percent; for Catholic schools, 44.7 percent; for other religious schools, 49.5 percent; for nonsectarian schools, 49.3 percent (NCES 2002: Table 61).

⁷The author will provide the calculations. Send an e-mail to jwenders@uidaho.edu.

elementary and secondary schools in the public and private sectors means that the true private-public cost percentage is about 63.8 percent when the observed relative cost is 60.8 percent—a trivial difference.⁸

School Costs Abroad

While not relevant to the public-private cost comparisons presented here, it is worth noting that the cost of public and private education abroad is also generally much less than in the United States. OECD (2001: Table B1.1) data on per pupil spending in 1998 show the United States ranking fourth highest for primary education spending and third highest for secondary education spending out of 25 developed countries. Quantitatively, these same data show that the other 24 countries had per pupil spending, in both public and private schools, of only 63.6 percent of the U.S.'s in primary education, and 66.9 percent of the U.S.'s in secondary spending. Excluding the low-spending countries of Mexico and Poland only raises the other countries' spending to 67.6 and 71.2 percent of the U.S.'s, respectively. Note that this is close to the per pupil spending of U.S. private schools relative to public schools. Apparently, the greater competition between foreign public and private schools has the effect of making all schools there almost as efficient as the private schools in the United States.

The Dissipated Waste

All things considered, the various cost comparisons between private and public schools cited above have a remarkable consistency—the most relevant ones show private school costs to be roughly between 55 to 60 percent of the costs of public schools. Special education considerations raise these only another 6 to 10 percent, to roughly 61 percent. Considering the higher proportion of elementary

⁸A word of caution is in order regarding elementary and secondary school per pupil costs. The NCES normally does not report per pupil costs separately for elementary and secondary schools, and the data above for public schools was taken by NCES from OECD data. The relative costs reported (0.778) for the United States are roughly consistent with similar data reported from other countries. However, since elementary and secondary schools are usually under the common school district administrations, and share costs in some ways, there is no way that separate costs can be calculated without undertaking some noncausal and arbitrary allocations. How important these allocations are in arriving at the cost figures used above is undetermined. On the other hand, surely this element of arbitrariness is not sufficient to upset my conclusion that the differing elementary and secondary costs cannot come anywhere near explaining the observed relative cost differential between private and public schools.

students in private schools, where costs are roughly half of secondary school per pupil costs, raises the ratio of private to public schools' per pupil costs only to about 64 percent. Using the latter figure, this means that, at a minimum, roughly 36 percent of public school expenditures are dissipated into waste. Let us put this waste in perspective.

For 2000–01, NCES (Table 161) estimated total annual expenditures for public schools to be about \$333.8 billion. Assuming an additional 17 percent for capital outlays and interest, this brings total annual estimated U.S. public school expenditures to about \$391.7 billion. Applying the waste estimate of 36 percent, this shows that U.S. public education wastes about \$141 billion annually. That is about 1.4 percent of U.S. gross domestic product, or about \$501 per capita in the year 2000 (U.S. Census Bureau 2001: Tables 1, 642).

Further Waste

The waste does not end simply with this dissipation of costs in public education. Because of the failure of the public schools, both businesses and institutions of higher education now must spend considerable monies repairing this failure.

A rise in the price of one product, or a decline in that product's quality, causes buyers to turn to substitutes. The rise in the demand for remedial education in both community colleges and elsewhere in higher education is one such substitute and reflects a reaction to the decline in the performance of public schools. Further, it is not a mere coincidence that both the greatest growth in the establishment of community colleges, where remedial education is concentrated, and a surge in the formation of private elementary and secondary schools, came during the 1960–1980 period when the decline in public school performance was the greatest. This means that the economic cost of lower public education is not limited to the obvious waste there. Jay Greene (2000) found that the waste due to increased spending on remedial education alone conservatively amounted to \$16.6 billion annually for the United States. This further adds to the dissipated waste due to public education and brings the total to at least \$157.6 billion annually, about 1.58 percent of U.S. gross domestic product, or about \$560 per capita for the year 2000.

One could go on massaging the relative cost data, but there is no way that any such refinement can change the conclusion that a large fraction of public education expenditure is simply dissipated into "costs." Aside from obviously producing an inferior education for many, the waste in the U.S. public schools is a very significant drain

on the economy. Indeed, if one takes into account the large and growing state and federal education bureaucracies, and the cost of the various colleges of education, which add nothing to teacher productivity,⁹ the relative waste in public education is undoubtedly even higher than the preceding calculations show.

The Establishment's Response

To no one's surprise, the education establishment's response is one of blanket denial, lacking any detail.

Onerous Mandates

The usual response to such data illustrating public school inefficiency and waste is to bring up the subject of irrational and uneconomic mandates that fall on the public schools. "But what about . . . ?"

In assessing such issues it is important to distinguish between reasons and excuses. Reasons are factors that explain, in some systematic and potentially quantitative way, why public education is expensive relative to private education. Excuses are issues that are raised, like bogeymen, not with the intent of quantitatively explaining the cost differential between public and private education, but with the intent of simply justifying the current inflated level of funding or to justify an increase in funding. Special education and elementary-secondary enrollment differentials are reasons that can be quantified, as I have done earlier and shown that they do not make much difference. Excuses are never quantified and are intended to simply end the discussion.

Mandates offered as excuses are seldom quantified because many have no financial consequences. A mandate that, for example, says history must be taught in a certain way, may very well constrain teachers and have a bad effect on learning, but it will have little or no effect on a school's expenditures. Such mandates may be responsible for much of the sclerosis in public education, but they do not necessarily have much of an effect on the financial bottom line. Many, if not most, mandates are of this nature.

A good example of how the education establishment attempts to use mandates as excuses to justify public school inefficiency came from the Pennsylvania School Board Association. The PSBA (2003)

⁹Those interested in the evidence should consult Walsh (2001) and Ballou and Podgursky (2000a, 2000b).

issued a monograph listing some 142 unfunded mandates, including special education. Predictably, this report made no attempt to quantify the effect of these mandates on operating costs. In addition to special education, the PSBA listed prevailing wage laws and multiple prime contracts requirements as the top unfunded mandates. But the latter two relate to capital costs that are not part of the operating cost comparisons used earlier to show the huge cost differential between public and private schools.

But differential mandates are not the problem—they are one of the symptoms of the problem.

When the subject of mandates is brought up to explain the far higher costs of public education, three issues must be addressed. First, are the mandates cited really differentially applied to only the public schools? In my experience, many of the mandates offered in defense of higher public school costs are equally applicable to private schools, such as school safety requirements and labor laws. Second, is the impact of the differential mandates large enough to account for the approximate \$2,700 observed difference in national annual per pupil costs? While administrative costs may not be the only ones raised by mandates, they are certainly part of the differential. Nationally, average total school administrative costs are only about 10.8 percent of total per pupil costs (NCES 2002: Table 164).¹⁰ Thus, these administrative costs, even if somewhat inflated, cannot explain the huge gap in efficiency between private and public schools. In most cases, the subject of differential mandates is simply brought up, and then dropped, without presenting any evidence on their relative importance. The public education interests want you to think that all of the inefficiency can be explained by the mandates. For those already predisposed to this idea, this is a convenient explanation that provides cover for the inefficiencies in public education.

These explanations may mollify the entrenched bureaucracy and an ignorant electorate that is already very favorably disposed toward public education, but it misses the third, and most important, point: *the differential mandates are themselves an example of how rent dissipation works in public education.* In the framework of Olson, mandates are the way in which special interests entrench their hold on the monopoly rents in public education.

As Peltzman (1993, 1996), Hoxby (1996, 2000), and others¹¹ have pointed out, the strongest explanations for the decline in student

¹⁰See also Fischer and Sterba (2002).

¹¹See Marlow (2000), Chubb and Moe (1990), and Toma (1996).

performance in the decades of the '60s and '70s were the consolidation of schools and school districts, the rise of unionism, and the influence of the unions at the state level, where the power of the states was captured and used to impose mandates (and funding) on the schools and districts below. The mandates that emanate from the state capitals, and Washington, are a consequence of this consolidation of power where special interests could get their hands on it. In almost every instance these mandates are the result of intense lobbying by some establishment special interest group. All of the silly and uneconomic mandates that are embodied in teacher certification, school accreditation, and so on are the brainchild of some special interest group trying to feather its own self-interest nest by getting governments to mandate them from on high for the schools below. Many of these are concocted by bureaucrats in the various state departments of education under authorization of either state or federal laws—laws which special interest groups had a role in passing. Recently, Florida has followed California in mandating lower class size, something that will require a huge increase in (unionized) teachers and school funding. This mandate was almost entirely supported by the public education establishment. Unfortunately, as we shall see below, it will also have little, if any, discernable positive effect on student performance, as evidenced by California (Jepsen and Rivkin 2002).

At the bottom of the education pyramid, the schools love these mandates because they can be used to justify increased funding and staffing. They become a convenient excuse: "The mandates made me do it." For this reason, when mandates are under consideration, the schools, school boards, and teachers unions, if not active proponents, often simply sit on their hands. The mandates are brought up and disavowed only when the inflated cost of public education is pointed out.

As mentioned earlier, charter schools often operate without many of these mandates and, as shown earlier, do so at about 60–65 percent of the cost of public schools. Why not dump the mandates by converting all the public schools to mandate-free charter schools?

Open Admissions in Public Education

Perhaps the most frequent excuse offered to justify public school inefficiency is the claim that public schools must take all students—whether they are dolts or geniuses, criminals or saints—whereas private schools take only the geniuses and saints. The public schools are, allegedly, not selective, whereas private schools are cream-skimmers. The first thing to be asked about this excuse is, What does it really

mean? And what is the character of these nonselective students that makes them more costly to educate? Are they diverse in socioeconomic status, disruptive, or of low ability? In short, what is the connection between open admissions and the public schools' costs?

The diversity excuse flies in the face of the public education establishment's worship of diversity and multiculturalism. If the latter are so important to education, as the establishment claims, then the diverse and multicultural nature of public school students that results from open admissions is a factor that should produce superior, not inferior results in public education. Clearly, it does not.

Could it be that the very large public schools and school districts produce too much diversity, in both schools and classes, for effective education? If so, then the open admissions argument can be used, not as an excuse for public school inefficiency, but as a reason for reducing the consolidation of disparate students, prevalent in public education. Could it also be that the permissiveness of progressive, learner-centered education fosters disruptive behavior that affects learning?

But, contrary to what is claimed, open admissions in public education is not as open as this excuse suggests. As I have shown earlier, those with learning disabilities, real or imagined, are increasingly shunted into special education, and this program explains only about 10 percent of the gross 43 percent cost differential between public and private education. Further, 25–30 percent of all students drop out and do not graduate with their class (Greene and Winters 2002). Those who fail to complete high school are now concentrated among those on the lower end of the cognitive ability scale. Once dropped out, nonstudents are hardly a problem imposing increased costs on the public schools. The open admissions excuse for public school inefficiency is not very credible, and where it may be, it is an argument for reducing the consolidation and monopoly nature of the public school system. The public schools simply do not educate a large fraction of the nonselective students, and others are carried along by grade inflation and social promotion.

Where Is Most of the Waste in U.S. Public Schools?

I have briefly touched on special education, mandates, and elementary/secondary school cost differences and concluded that they cannot account for much of the observed cost differences between public and private schools. Because of the much reduced incentive to operate efficiently in a nonmarket environment, public school inefficiency and rent dissipation are undoubtedly ubiquitous and endemic.

However, the evidence suggests that most of the waste goes into labor costs. Given the 80+ percent teacher unionization rate in the public schools, and the fact that spending on labor creates a powerful political constituency favoring public school funding, this result is not surprising.

Salaries and benefits are the largest operating costs in K-12 education. Labor costs usually make up about 75 to 80 percent of total operating costs, so inefficiency there falls heavily on the bottom line. Instructional labor costs are about 65–70 percent of these. The evidence is that, aside from bloated individual compensation, there has been an explosion of hiring in U.S. public schools.

Massive School Employee Growth

The number of employees in the education establishment has been growing rapidly—at over twice the rate of student growth—especially at the school level. Nationally, over the period 1980–2000, student enrollment grew by 15.52 percent, but total school employees grew by 37.39 percent, and teachers grew by 35.2 percent. Using my home state of Idaho as an example, over the same period, student enrollment grew by 20.88 percent and total school employees grew by 45.15 percent. From 1992 to 2002, Idaho's total public school employees grew by 33.7 percent, while students grew by only 7.3 percent. Non-certified staff grew by 49.3 percent.¹²

Nationally, public schools now have about one employee for every 6.2 students. Nationally, teachers make up only 40 percent of total school employees and in Idaho only 42 percent.

Our public schools have become vast jobs programs, reminiscent of the Depression era WPA, rather than educational institutions. School employee numbers and dollars dominate the political process.¹³

Comparative Teacher Compensation

Spending for teachers makes up 50–60 percent of total current public school labor costs. Using data from the 1987–88 National Center for Educational Statistics Schools and Staffing Survey (SASS), Ballou and Podgursky (1997: 131, Table 6.1) found *average* private school teacher salaries to be 65.9 percent of public school

¹²These data on school employee growth relative to student growth were obtained from the various annual issues of NCES, Digest of Education Statistics. Spreadsheets are available from the author upon request: jvenders@uidaho.edu.

¹³For an analysis of the direct clout of school employees on local school bond and levy elections, see Wenders (2004b). Leveling the election playing field undoubtedly requires a super-majority voting rule in the 70–80 percent range.

salaries—\$17,434 vs. \$26,458, respectively. In these data, an adjustment was made for teachers who were members of religious orders by excluding all Catholic teachers who were never married. NCES (2001: Table 76) data for the SASS survey in 1993–94 showed base salaries for *all* private schools to be 64.3 percent of those in public schools. In 1993–94, another study (McLaughlin and Broughman 1997: 93, Table 3.12) found salaries in private schools to be 64 percent of those in public schools. The most recent SASS (1999–2000) showed all private teacher salaries to be 68.4 percent of public school salaries, but secular private school teacher salaries were 81 percent of those in public schools (NCES 2002: Table 76).¹⁴

Both these data sets ignore benefits, such as health insurance and retirement contributions, which are much higher in the public school sector. Benefits are about 31.3 percent of salary in the public sector as a whole and 15.8 percent in the private sector (U.S. Census Bureau 2000: 435, Table 691). A study for Pennsylvania found that teachers' benefits as a percentage of total salary were 36.1 percent, and for comparable employees in the private sector, benefits were 23 percent (Wynne and Watters 1991: 39, Table 2). Benefits averaged 26.2 percent of salary for U.S. public school teachers from 1994–99.¹⁵ As several studies indicate (McLaughlin and Broughman 1997: 94, Table 3.13; Ballou and Soler 1998, Boaz and Barrett 1996, Ballou and Podgursky 1997, and Moore 1986), public school teachers' benefits are much higher than in private schools.

There are other differences in teachers and teaching between public and private schools that may make their teachers' pay not strictly comparable. Since a large fraction of the private schools have a religious affiliation and practice selective admissions, private school lay teachers may be willing to work for less because of the attraction of this religious affiliation and compatible students. The same holds because of the greater independence and less bureaucratic control in private schools. On the other hand, private schools tend to hire higher quality teachers, teachers from more selective colleges, and fewer from colleges rated below average. Private schools have proportionately more secondary teachers who have an academic major but about the same who major in math and science. Because of this, combined with greater pay flexibility, private schools hire and keep teachers of higher quality. Unionization is much lower in private schools, and

¹⁴Secular private school data computed by Michael Podgurski from unpublished source data.

¹⁵Data computed from tables labeled "Expenditures for Instruction in Public Elementary and Secondary Schools, by Subfunction and State" (NCES 1998, 1999, 2000).

private schools may have to pay more because few grant tenure. Tenure is virtually universal in public schools after two to three years (Ballou and Podgursky 1997: 145). These elements of non-comparability go both ways as they affect public and private teacher pay comparisons, but it is highly unlikely that the large difference between public and private school compensation is completely explained by these differences in teachers and teaching.

On the whole, these data are in clear agreement that average private school teachers' *salaries* are in the range of 60 percent to 80 percent of those in public schools, depending on the character of the schools being compared. When benefits are taken into account, the best estimate of comparable total *compensation* is undoubtedly well down in this range. Clearly, a large portion of the cost dissipation and waste in public school education is in teacher compensation. In economic terms, a lot of the rent in public school costs has been dissipated into labor costs.

As discussed in more detail below, comparable, *individual*, private school teachers are usually paid more than 80 percent of their public school counterparts, despite the fact that their *average* pay is lower. This indicates that the public schools employ a much more expensive mix of teachers. Thus, it is not so much that comparable individual teachers are paid more in the public schools, it is also because public schools do not manage their mix of teachers in a cost minimizing way.

Fixing the Teacher Cost Bloat

This leads to the intriguing possibility that, by altering the mix of teachers, public schools might, at the same time, increase the quality of their teachers, reduce average teacher compensation cost, and reduce total per pupil costs. This is apparently exactly what the private schools have done. Of course, the problem is effecting some public choice mechanism by which this could be accomplished. The logic goes the following way.

Do Public Schools Hire the Best Teachers?

There is considerable evidence that public school administrators do not hire the best teaching candidates even when given the choice. The tendency is to rely heavily on interviews, and other subjective factors, in hiring teachers, rather than on the candidates' innate cognitive ability as evidenced by, say, GPA or test scores, which are about

the only qualifications that are systematically related to teacher quality.¹⁶ Ballou and Podgursky (1997: chap. 3) found that in the 1980s, when average real salaries rose by some 20 percent, school administrators did not improve the quality of teachers hired. One can conjecture that with little competition for students in their retail market, administrators simply do not have much of an incentive to hire those teachers that possess the qualifications that lead to better student performance.

Public School Teacher Retention Rates are Very High

Contrary to recent assertions, the public school teaching profession has generally very *low* total faculty attrition rates relative to both private schools and private-sector business (NCTAF 2003). While new public school teachers have higher attrition rates, they make up only about 6–7 percent of the total teaching population (Ingersoll 2001). In any state, 92 to 96 percent of the teachers are retained each year. The U-shaped relationship between the attrition rate and age means that generally teachers only leave their jobs early or late in their careers. Once past the first few years, they generally stay and ride the automatic salary grid escalator upward until, often early, retirement (Barro 1992). The public school teacher attrition rate is about half that of private schools where about 13 percent leave teaching each year and another 4.7 percent leave for public schools (Ballou and Podgursky 1997: 142). The average “separation” rate in the private sector is three times what it is in public school teaching.

About 75 percent of teachers are women, and the percentage is higher in elementary education. A typical pattern of employment is to teach for a few years out of college, drop out to raise a family, and then, possibly, return at a later date once children are in school. Having children in school makes teaching jobs very attractive because of the almost exact correspondence between the parents’ and the child’s work/school schedules. In economic terms, this advantage lowers the supply price of teachers. About 40 percent of new hires in any year are returning teachers from the vast reservoir of previous education college graduates. Further, those who stay or return after their children go to school generally get tenure after one to two years, and then ride the salary grids upward until retirement. Since benefits for teachers are generally much higher than in the private sector, including private schools, and back-loaded, teachers find it attractive to retire early, often to become double dippers.

The evidence is that once hired in public schools, it is the better,

¹⁶See Ballou and Podgursky (1997: chap. 2) for a discussion of the evidence.

smarter teachers who leave. Attrition rates are positively related to measures of cognitive ability.¹⁷ This is partly because of the inflexible salary grid that fails to reward good teachers better than bad ones—they all get paid the same no matter how well they perform.¹⁸ Thus, there is an insidious combination that keeps public school teacher quality down: because of legal certification and licensing requirements, new teachers are almost universally drawn from education college graduates, where the poorest university students are; there is no evidence that the best of these are preferred in the hiring process; and once on the job, it is the better ones who leave. The rest hang on and ride the salary grid upward until retirement, with little fear of termination for poor performance. Analysis of the recent Schools and Staffing Survey (1999–2000) found that private schools dismiss teachers for poor performance at a rate four times that of public schools (Podgursky 2003).

Thus, ironically, the problem is not the amount of attrition, which is already very low, but the character of the attrition—the quality of those who stay versus those who enter and leave. This process insidiously wrings the best teachers out of public school teaching. This suggests that if one really wanted to improve retention of the best teachers, the way to do this would be to scrap the empty certification and licensing requirements that require teachers to be hired from the colleges of education, somehow encourage administrators to hire teachers with better cognitive qualifications, and scrap the inflexible, steep and top-heavy salary grid, or, at least adopt one that had more flexibility in rewarding the better teachers and those who are much flatter in the age-experience dimension.

Teacher Quality and Experience

Teacher quality is positively related to experience, but only for the first few years of teaching (Hanushek 1981). Thus, a pay structure that rewards experience heavily beyond this point results in large expenditure on teachers that has little payoff in student performance. It also suggests that awarding tenure after one or two years, as is common in public schools, is a much too short public school probationary period to judge competence. In contrast, in higher education, tenure for regular faculty is usually granted only after a seven-year probationary period. Further, there are many college positions that

¹⁷The evidence is discussed in Ballou and Podgursky (1997: 77).

¹⁸A recent paper by Caroline Hoxby and Andrew Leigh (2004) shows that most of the decline in teacher quality in recent decades can be traced to salary compression on inflexible grids that fails to reward teacher quality.

are not tenure-track, or are part-time, where year-to-year contracts prevail. The percentage of part-time faculty in all higher education is about 40 percent. It is particularly high in community colleges and nonresearch-oriented colleges and universities that concentrate on undergraduate teaching (Ehrenberg 2002). It is also worth noting that tenure is relatively rare in private schools in lower education.

What is the Optimal Mix of Teachers?

These observations raise the issue of the optimal, cost-minimizing mix of teachers. Apparently, because private schools are under competitive pressure in their retail markets, they do a better job of choosing the optimal mix of teachers, thus producing an average salary well below those of public schools. Michael Podgursky (2003b) has addressed the issue of pay comparability between public and private school teachers. He found that the average salary of teachers in nonsectarian private schools is about 81 percent of salaries in all public schools. Using a sample of nonsectarian private schools, and controlling for sex, experience, education level, region, and rural-urban status, he found that “pay in private schools begins at 78 percent of public schools, rises to 92 percent of public school pay by a teacher’s twelfth year, and declines thereafter” (Podgurski 2003b: 75).¹⁹

Private school salary grids are lower and flatter in the experience dimension than in their public school counterparts. The fact that private schools have a teacher turnover and attrition rate about twice that of the public schools indicates that private schools use both teacher “churn” and a much flatter experience salary structure to keep average pay down.

In contrast, early tenure and a steep salary grid virtually guarantee that the public schools will have low turnover and attrition and a much higher concentration of faculty at the top of their higher salary grid. The SASS for 1993–94 showed that public schools had 63.8 percent of faculty with 10 or more years experience. For private schools, the comparable figure was 45.2 percent. In 1999–2000, the comparable figures were 58.1 percent and 45.02 (NCES 2001, 2002: Table 68). (In my local public school district, 45 percent of the teachers have topped-out on the salary grid, and 75 percent have topped out in the experience dimension.) Aside from the fact that public schools pay comparable faculty more, this structural difference alone

¹⁹When Podgurski examined only suburban public schools, which are more comparable to private schools, he found that “private schools teachers now start at 76 percent of their public school counterparts. This rises to 87 percent by their twelfth year and declines thereafter” (Podgurski 2003b: 75).

results in higher average pay in public schools. Simply put, private schools have an intertemporal, cost-minimizing experience mix of teachers and the public schools do not. And while private schools have fewer teachers with high experience, they are of higher quality, indicating that private schools do a better job of weeding out the lesser quality teachers (Ballou and Podgursky 1997: 132–33).

This suggests a very attractive policy for managing the mix of teachers in public schools. Recall that the evidence shows that teacher attrition rates are higher for more qualified teachers. Thus, if more qualified teachers were hired, and the experience structure of pay were much flatter, over time the experience mix concentration of public school teachers would move downward from the upper end of the flatter salary grid, and lower average teacher pay. This could be augmented by lengthening the time before tenure was granted, enforcing a more strict up-or-out policy at the end of probation, and employing more part-time and nontenure track faculty on yearly contracts as done in higher education. Such a policy would, at the same time, lower *average* public school teachers' pay, lower public school per pupil costs, and raise teacher quality, just as it has in private schools.

Of course, as already indicated, it is one thing to note this possibility, and quite another to specify a real-world, institutional, public choice mechanism by which this might happen. In the marketplace, there is a competitive mechanism by which efficiency is enforced. For political institutions with the power to raise revenues through the public treasury, there is none.

This suggests that a large fraction of the 25 to 35 percent excess costs of public schools is due to excessive teacher wage payments. Of these, perhaps half is the result of paying more for comparable teachers, and the rest is due to the failure to employ the optimal mix of teachers. Further, there is massive dissipation of costs into the hiring of noninstructional personnel. The ultimate cause of all this is, of course, the dearth of market incentives everywhere in the public schools, and the capture of the resulting monopoly power by the unions and other special interests.

Conclusion

It is worth asking: what do we get for all of the excessive costs and rent dissipation in public education? Certainly, there has been no payoff in productivity—that is, in student performance per dollar of expenditure. Caroline Hoxby (2002: 3) looked at the decline in school productivity between 1970 and 1999 and found

If one simply calculates NAEP points per thousand real dollars spent per pupil, . . . between the 1970–71 and 1998–99 school years, productivity fell by between 54.9 percent (based on math tests for 9-year-olds) and 73.4 percent (based on reading tests for 17-year-olds). . . . For all of the tests, [if schools had the same productivity they had in the early 1970s] the *average* American student would have a score that fewer than 10 percent of American students currently attain. In fact, the *average* 17-year-old would have a score that fewer than 5 percent of American 17-year-olds currently attain. The mean American student would be classified by the NAEP as an “advanced” student.

Hoxby (2002: 5) then adjusts these results for changes that may have occurred between 1970 and 1999 and finds that “the facts suggest that school conduct, and not changing student characteristics or female career opportunities, is the main source of the decline in productivity.”

In fact, due to data limitations, Hoxby’s results significantly understate the decline in school productivity. By the time of her starting point in the early 1970s, both SAT and Iowa scores had been declining for several years (Herrnstein and Murray 1994: chap. 8). Had data been available and had Hoxby used, say, 1965–66 as the base year for productivity comparisons—when real per pupil spending was lower and test scores undoubtedly higher—the decline in productivity she calculates would have been much greater.

Internationally, students in developed countries regularly display superior performance than their U.S. counterparts, especially at the secondary level. Bishop (1994) found that, in France and the Netherlands, U.S. elementary students compared just as well, if not better than their counterparts. However, by the time they graduate from secondary school, they have fallen well behind. Other studies also show that achievement levels in U.S. secondary schools compare particularly unfavorably with schools abroad at the secondary level (Peak 1997, Elley 1972, Medrich and Griffith 1992).

No matter how you cut it, the only conclusions that one can draw from these data is that the United States spends a lot more and receives a lot less academic achievement than other countries in the world.

The conclusion is inescapable: U.S. public education is much more expensive than both native private education and public and private education abroad. Aside from producing an inferior education, the waste is a very significant drain on the U.S. economy. Reduced effective competition is clearly the reason for the inferior performance of public education. Wherever competition with or among U.S. public schools is found, the evidence shows better and cheaper public school

performance (Hoxby 2000, Marlow 2000). Abroad, both direct competition and the presence of surrogate competition in the form of curriculum-based external exit exams produce better and cheaper performance.

In the large, socialist methods of economic organization have clearly failed. But in the small, where such socialist institutions have a host from which to draw sustenance, they prosper. Marx predicted that socialism would replace capitalism. It is ironic that socialist institutions, such as the U.S. public school system, survive only as parasites in capitalist systems.

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