Trends In Private School Cost and Tuition: No Immunity From the Cost Disease

F. Howard nelson
Senior Associate Director, Department of Research
American Federation of Teachers

555 New Jersey Ave. NW
Washington, DC 20001
202/879-4445
nelsonaft@aol.com
hnelson@aft.org

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I. Introduction

The escalating real costs of public K-12 education have received much more attention than the equivalent cost problems in private sector. While many policymakers view private education as a cost-effective answer to the economic pressures facing public education—based on simple comparisons of tuition with public school per-pupil spending--the cost of private education has escalated at a higher rate than the cost of public education.

The reputation of private education has surged in recent years. Catholic schools and some other religious schools have increasingly reached out to the broader public to fill empty seats and keep their schools financially viable. This has also broadened public support for private religious schools. Stories about public funding of private education almost always focus on poor black non-Catholic students attending Catholic inner city schools.

The financial burden public schools have acquired for special education and disadvantaged kids may have decreased the quality of regular education in public schools. According to Rothstein (1997) education spending on regular education adjusted for inflation has increased little over the past three decades. On the other hand, the large real increases in education spending in the private sector have been devoted to regular education, reducing class size rather than the pupil-teacher and paying teachers better than they used to.

This paper uses Baumol's cost disease model (i.e., labor intensive industries that have a limited ability to benefit from technological advances inevitably experience higher real costs) as a unifying framework for analyzing real cost increases in both public and private education. Spending trends in public K-12 education since 1964 are contrasted with private school trends. Enrollment and tuition trends in private K-12 generally since1964, and specifically with regard to Catholic schools since the mid-1980s are part of this discussion The conclusion focuses on implications of the cost disease model and private schooling for public policy and public education.

II. The Cost Disease Model and Trends in Private and Public School Costs

The analysis in this report rests heavily on the assumption that teacher costs and other labor components of education depend on the cost of labor in the economy as a whole rather than productivity in a particular sector. As a result, labor intensive industries that have a limited ability to benefit from technological advances--such as education--inevitably experience higher real costs.

Schools must compete against other employers, occupations, and sectors of the economy to secure candidates for teaching who have suitable training and skills. Productivity growth furnishes the chief source of rising inflation-adjusted income. Wage gains, however, are not confined to the jobs, occupations, or sectors of the economy experiencing the productivity growth. In the long run, wages in different sectors of the economy go up and down together regardless of which sectors are the most productive or which sector generates the most productivity gains, as articulated by macroeconomics William Baumol (1967) in his classic article on the macroeconomics of unbalanced growth. Some mobility exists in all labor markets, and while wages in one sector can lag behind those in another for a short period of time, the disparity cannot be expected to continue forever, unless the low-wage industry is in the process of disappearing altogether.

A key prediction of the cost disease model is that some sectors of the economy unable to benefit from productivity growth--those that provide price-sensitive goods or services--will drastically diminish in size or disappear. But some inelastically demanded (not price sensitive) labor-intensive sectors unable to fully take advantage of technology and productivity growth will nonetheless survive and take a larger shares of the economy. Education is one such sector.

Despite continuously rising real costs, the college degree is a necessary condition for employment in attractive occupations and parents will pay for it. At the elementary and secondary level, the most productive, technologically-advanced nations have a higher percentage of students in school and smaller class size. From a national policy perspective, education is indispensable for economic growth, which depends not only on technological advance and capital accumulation, but also on improvement in the quality of human resources.

The theory of unbalanced growth holds that, as economies develop and benefit from higher productivity, some consumption from the technologically progressive sector is transferred to obtain services from growth-limited sectors. Hence the name "cost disease model":

1) The relative prices of the technologically nonprogressive sector increase over time,

2) The employment shares of the nonprogressive sectors increase over time,

3) The nominal output share of the nonprogressive increase over time, and

4) The nominal output share of the nonprogressive sector increases over time (but does not change in constant prices. Since 1960, the fastest growing economies in the world have experienced the largest increase in the service sector.

Public and private education are in the same industry, one characterized by labor intensity and limited potential for productivity improvement through technology. While private K-12 education is more consumer oriented, even public education has to compete against other sectors for resources. In the long run, both public and private education compete in the same labor market. Although the private sector tends to employ less experienced teachers who are less likely to be certified (NCES, 1995a and NCES, 1995b)

Table l 1 Here

Table 1 shows that education costs per pupil have risen since 1964 in tandem for private and public education. After adjusting for inflation, public school spending increased from $2,339 per pupil to $5,961 per pupil, an increase of 155 percent. In private K-12 education, costs have changed by 242 percent, rising from an inflation adjusted $1,528 per pupil in 1964-65 to $4,347. Private school enrollment has been relatively steady over the 30-year period even though costs have risen substantially relative to public education. As shown later, one reason is an improvement in private education quality as class size and the pupil -eacher ratio declined more rapidly in private education than in public education. Another reason examined later in this paper could be a decrease in quality of regular education in public schools as more resources have been diverted to compensatory and special education. Extensive school desegregation also occurred over this time period propelling private school growth for segregation reasons and for many families, religious education is insensitive to price.

Over time, nations with growing productivity (generally resulting in a higher standard of living) like the United States, must spend more per pupil (measured in units of general purchasing power) just to stay even. This is clearly sown in Table 1. The theory of unbalanced growth (Baumol, 1967; Baumol, Baily Blackmun & Wolf, 1989) also suggests that technologically non-progressive sectors of the economy, such as education, should be expected to comprise a larger share of the economy as economy-wide productivity increases. This is addressed, in part, in Table 3, where education costs per pupil are indexed to per-capita GDP.

Insert Table 2

Table 2 contrasts an index based on the CPI, which measures the ability to purchase goods and services, with one based on GDP per capita. The latter measure indicates the general wealth or standard of living in the economy. Indirectly and imperfectly, it also measures the price of labor. Gross Domestic Product per capita has increased at a faster rate than the CPI with the difference roughly measuring productivity growth. The Economic Policy Institute developed an index for a similar purpose based on a "services index" rather than a market basket of both goods and services. Further development of this index deserves attention.

Insert Table 3

The GDP per capita index is applied to public and private K-12 education in Table 3. Over the 30-year period, costs still rose--67 percent faster than GDP per capita for public education and 124 percent faster for private education. The cost disease model predicts this

result. Unlike the CPI-indexed costs, which showed only a leveling off in cost increases, the GDP-indexed costs actually declined from higher levels in 1990. The cost disease model would predict that such a decline is only temporary. A temporary decline in GDP-adjusted growth could be due to stingy state legislatures that stopped the expansion of special education and the decline in the pupil teacher ratio (see Tables 4 and 5 and accompanying discussion below). However, a better explanation could be the depressed college labor market and general pressure on wages from corporate downsizing in the early 1990s. Just as the college job market has sharply accelerated in spring 1996 and 1997, it can be expected that in the next few years, education spending will resume its inevitable growth.

Insert Table 4

The cost disease model has no clear explanation of why private K-12 education costs would increase faster than public costs. The major explanation, however, is clear. The pupil-teacher ratio declined from 29 to 15 in the private sector while it declined from 25 to 17 in the public sector. In Table 4, education costs are indexed to the CPI and the cost of reducing the pupil-teacher ratio is subtracted (standardized to a class of 17 in public schools and 15 in private schools). It is assumed that the coast of reducing class size by one pupil is the same as the average cost per pupil, an assumption that probably overestimates the cost of reducing class size because fixed costs, administrative costs and captial costs are also assumed to rise at the same rate.

Factoring out the increase in education quality reflected in the reduced pupil-teeter ratio results in a 30-year cost increase of only 75 percent in public education (down from 155 percent, see Table 1). In the private sector, costs rose just 75 percent after factoring out costs of reducing class size to 15. Most class size reduction occurred by the mid-eighties. In private education, class size reduction occurred most dramatically in the 1960s.

Figuring out why class size dropped much more in private schools than public schools is not readily explained by the cost disease model. It provides further evidence that education is not only labor intensive--perhaps increasingly labor intensive--but also inelastically demanded. Some families used gains in their standard of living produced by economic growth to purchase better education reached in non-technological ways--through class size reeducation. In other words, private education changed from competing with public schools through low tuition and large class size to a more costly but higher quality product. The focus of private education shifted subtly from affordable religious education to a niche market in high quality education. For a variety of reasons, private school enrollment shifted from Catholic schools to Christian schools. Catholic schools, which have more highly paid and certified teachers than other religious schools still teach larger classes. When enrollments fell in both private and public schools in the 1870s, one response of both private and public schools may have been simply to reduce class size.

Insert Table 5

Lowered class size in public education, however, may not indicate higher quality regular education. Richard Rothstein's study (1997) of trends in public education spending since 1967 clearly show that special education, desegregation and compensatory education have grown from 8 percent to 28 percent of public school budgets from 1967 to 1997. These programs tend to lower the pupil-teacher ratio without lowering class size. From 1966 to 1996, public school class size decreased from 28 to 24. In the last 20 years its has fallen from 25 to 24. On the other hand, private schools still do not provide much special education or compensatory education and, while there is no good data on actual class sizes, the large drop in pupil-teacher ratio probably reflects significant decreases in class size as well.

Tuition cost increases have been much greater than cost increases for the period in which good data exist. From 1987-88 to 1993-94, private school tuition escalated at rates double the increase in public school expenditures. The average private school tuition will be nearly $4,000 in 1997-98. Private school tuition increases have outstripped public school cost increases, and tuition tax credits would probably fuel even more rapid tuition increases.

Private Elementary and Secondary School Tuition

						Projected	
	1987-88	1990-91	Change	1993-94	Change	1997-98	Change
Total Private	1,915	2,595	36%	3,116	20%	3,895	25%
catholic	1,327	1,776	34%	2,178	23%	2,723	25%
Religious	1,941	2,633	36%	2,915	11%	3,644	25%
Nonsectarian	3,839	5,727	49%	6,631	16%	8,289	25%
CPI	121	138	14%	150	9%		
Public $/Pupil	3,682	4,626	26%	5,170	12%	6,235	21%

Source: NCES, Schools and Staffing Survey.

In Catholic schools, the growth in tuition overestimates the growth in costs because of shifts in revenue sources from parish subsidies to tuition and fund raising. While rising tuition correlates with declining enrollments in the 1980s, private school enrollment stabilized in the 1990s, even as tuition has continued to increase at a rate faster than inflation and faster than public schools. Tuition rose primarily because private school teacher salaries rose at rates exceeding the public sector. The average class size in private schools changed little since the early 1980s. No doubt that the reduction in inexpensive teachers from religious orders contributed to rising tuition cots.

V. Conclusion

In part, this study seeks to frame the seemingly endless real cost increases in education as a function of the economic characteristics of the education industry—circumstances that affect the private (usually non-profit) provision of education as well as public education.

The growing interest of policymakers and citizens in tuition tax credits, vouchers, and some aspects of charter schools is widely viewed as a product of the educational failure of public education. In the 1990s, however, evidence indicates that public schools are improving student achievement, and becoming more cost efficient. An explanation deserving more attention is that private education is also suffering from the effects of the cost disease, thus motivating political pressure to divert public funds to private education.

Reverences

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