Market-Based Education: What Can We Learn from Universities?

Richard Vedder

There is a widespread perception that American universities are the best in the world, dominating the Nobel laureate affiliations and luring foreign students from throughout the world. Yet virtually no one claims America has the best K-12 educational system in the world. Indeed, many writers, citing international test results, complain that our schools are fairly mediocre relative to overseas counterparts.

Why are American universities perceived as being of high quality compared with primary and secondary schools? Two differences between K-12 and higher education are worth noting. First, American higher education is far more privately controlled than primary and secondary education. Roughly double the proportion of college students attend private institutions compared with the K-12 level. Even "state" universities are far less completely governmentally controlled than the typical government primary or secondary school. State universities typically resemble true public charter schools operating at the K-12 level, with a much higher level of independence of central governmental authority than is typical at the lower levels of education, although there are exceptions to this generalization.

Second, and most relevant to this article, higher education has a far greater amount of market involvement than is typical in K-12 education. Virtually every college student in America, for example, at least nominally pays for some of the cost of his or her education via tuition fees. Students have a good deal of choice between alternative institutions charging varying amounts. The university environment on average is far more competitive and market-based.

These characteristics of American universities may well contribute

Cato Journal, Vol. 25, No. 2 (Spring/Summer 2005).

Richard Vedder is Professor of Economics at Ohio University.

to better learning experiences than exist at the K-12 levels. Competitive forces require universities to pay more attention to consumer (student) needs and deliver a reasonably high-quality product. Freedom from some bureaucratic strictures and regulations allows for greater innovation. This said, however, the American university system is far from a pure competitive market-based system, and the modern history of universities suggests that blindly emulating them at the K-12 levels has the real probability of creating severe problems. This article looks at higher education with the goal of identifying practices most promising for use at the K-12 level, as well as problems that would arise with simply introducing an element of market forces into the current K-12 system along the lines prevalent in universities.

American Higher Education Today: The Role of Markets[1]

All American institutions of higher education charge for admission to courses of instruction, with very few exceptions (e.g., the service academies, Berea College). In this respect, American universities differ from those in many European countries that are "free" to domestic students. Tuition fees cover only 20–30 percent of the total costs of American higher education, but those costs include a lot of contracted research and nonacademic operations (food and lodging, intercollegiate sports, etc). At a wide range of institutions, tuition fees cover roughly half of the instructional costs, sometimes even more, sometimes less.

Thus attendees of American universities pay part of the bills personally. Tuition fees of $6,000 to $8,000 are commonplace at state universities, and $30,000 or more fees are common at elite private institutions. These fees are discounted to an increasing extent through scholarship aid. Universities have learned that price discrimination can be used to increase institutional revenues, by charging those who are relatively insensitive about the price (generally, the more affluent) a higher price than those who are price-sensitive (the relatively less affluent, or students in high demand by several institutions, such as athletes, extraordinarily able students, and members of some minority groups).

This payment of fees leads to different behaviors on the part of consumers of government education (or their parents) than is the case at the K-12 level. For example, parents at the K-12 level typically

[1]This section draws heavily from Vedder (2004a).

clamor for smaller class sizes, an extremely expensive option, because their demand for educational services is virtually totally inelastic—the cost is irrelevant, since third parties (the taxpayers) are paying 100 percent of the bills. It has always been amusing to me that parents who complain when their 17-year-old high school seniors are in classes of more than 30 are largely silent when their 18-year-old college freshmen attend college lectures with 200. In the latter case, they know that class size reduction would mean higher bills for them.

Yet the sensitivity to price is highly limited even at the college level. Besides scholarships that effectively lower the tuition for many students, there are vast amounts of federal grants, work-study programs and highly subsidized loans, as well as federal tuition tax credits. If tuition goes up by $1,000, the student simply takes out a larger loan, which reduces (although does not eliminate completely) consumer responsiveness to price changes.

Thus third-party (especially governmental, but also private philanthropic) involvement works to mute on the demand side the role that the price system plays in efficiently allocating resources compared with the unhampered market economy. Yet an even bigger deviation from competitive free market allocation comes on the supply side. More than 95 percent of American higher education is nonprofit in nature. The usual assumption of having a profit-maximizing entrepreneur does not apply. There are no profits, indeed no "bottom line" as conventionally defined in higher education. Did Stanford have a good year in 2004? Who knows? There are no universally accepted ways of calculating or measuring success or failure. That is clearly not true, however, for the small but rapidly growing for-profit sector, discussed later.

In higher education, as in K-12 schools, there are few incentives to economize, to seek efficiencies. There are no stock price appreciations, no profit-sharing, no bonuses granted for saving money. The difference between private enterprise and universities with respect to technology is interesting. In private business, technology and capital formation are used to substitute cheap capital for expensive labor, reducing costs. In the universities, adoption of new technology has brought about new "technology fees" and a claim that the new technology raises costs, since it is simply largely superimposed on existing ways of teaching rather than substituting for them.

Moreover, not only is there only limited market discipline in universities, but there is often even a lack of substantive accountability from the political process or the board of trustees that nominally governs universities. State governments have given public universities a much higher degree of independence than most government

agencies, which is good in so many ways (allowing, for example, for different curricular choices), but which reduces oversight of obvious spending abuses. Boards of trustees tend to be part-time volunteers who are generally cheerfully co-opted by the university administration they are supposed to oversee. To be sure, there is a good deal of variation in interuniversity and interstate governance patterns, with some schools coming under a relatively high level of governmental or trustee scrutiny, while others show near complete independence of outside controls.

A significant proportion of American higher education is under private control. About one-fourth of all higher education students are in private schools, and if two-year schools are excluded, the proportion rises above one-third. By contrast, only about one-eighth of K-12 education is private. Moreover, in recent years, private higher education enrollments have risen more than that at traditional public institutions, particularly when the rapidly growing for-profit institutions are taken into account.

How different are the private schools from the public ones? While in some particulars (e.g., tuition charges, amount of government support) there are major differences, in terms of efficiency issues, the similarities outweigh the differences, except for the for-profit schools. Both private and public institutions that are nonprofit (enrolling more than 95 percent of all students) depend on large amounts of third-party support, the public ones mainly from governments and the private ones to a larger extent from private contributions and endowments. A significant portion of the budgets of the prestigious private research universities comes from government grants, making them in some instances almost as much government-dependent entities as the so-called public universities.

The average spending per student at private colleges and universities is actually somewhat higher than at public institutions. Staff levels per student are also higher. In large part, this may reflect the fact that federal and other research funding goes disproportionately to private research universities, and in part because the private schools on average eschew low-cost means of instruction (large lecture-based courses, online learning, etc.) to a greater extent than the public schools do.

Whereas in many areas of government activity—for example, garbage collection, prison operation, road maintenance—it is generally true private providers can on average operate at a lower cost than government ones, this is not obviously the case with most higher education. The reason, I believe, goes to the fact that private higher education is nonprofit, less purely market disciplined than most

private business activities, and heavily subsidized by third-party payments, including government. The advantage that private providers have over public ones in most areas of activity comes because of the market-based, competitive, profit-oriented nature of private business relative to public ones. Private companies have a very distinct bottom line that is measurable even on an hourly basis in the case of publicly traded enterprises, and on at least a quarterly basis for even non-traded firms. Success is measured by profits. That is largely absent in American higher education.

There is an important and rapidly growing exception to the above generalization. For-profit institutions of higher education are growing by leaps and bounds. At this writing, there are nine publicly traded companies operating universities or other postsecondary schools that have market capitalizations exceeding one billion dollars. For-profit universities have excelled in terms of making large rates of return on investments and increasing stock prices.

Why? For years, for-profit universities were of minor interest, as the public subsidies or private endowments of traditional institutions gave them enormous financial advantages that made it difficult for the profit-maximizing universities to succeed. That has changed largely because the cost of traditional higher education is soaring, and the efficiency gap between the not-for-profits and for-profit universities is similarly growing. For-profit institutions are now increasingly affordable relative to the not-for-profit alternatives.

For every single year over the past two decades, tuition costs at American institutions of higher education have risen faster than the overall consumer price index, usually by a factor of two or more. (Vedder 2004a: 5) In recent years, the tuition inflation has intensified. In the 2003–04 academic year, the College Board indicated average tuition increases at public universities were 14 percent, while for 2004–05 the figure exceeds 10 percent. In 2 years, the average tuition has risen about 26 percent (allowing for compounding), compared with a 6 percent or so rise in overall prices. For-profit institutions have raised their tuitions far less than 26 percent (perhaps 10 per cent, although the exact number is difficult to compute), so that the cost advantage of the traditional universities is rapidly disappearing.

A simple numerical example makes this point clear. Suppose in the 2002–03 academic year, public university X charged tuition of $5,000 a year, while for profit university Y in the same town charged $8,000. Suppose university X raised its fees by 26 percent over 2 years, to $6,300 for the 2004–05 year, while university Y raised its fees by 10 percent to $8,800. In 2002, the for-profit option was 60 percent more expensive than the not-for-profit public one; by 2004, that differential

had declined to under 40 percent. In absolute dollars, the differential fell by $500, 17 percent of the gap between the two types of institutions. With student loans readily available, increasing numbers are selecting the for-profit alternative. At one time, the for-profit universities avoided direct competition in the prime 18-to-24-year-age market, aiming instead at older students who work. That is now changing, and increasing direct competition can be expected in years ahead.

From 1998 to 2003, enrollments at Apollo Group schools (primarily the University of Phoenix, hereafter UOP) nearly tripled, moving past 200,000 (Vedder 2004a: 153). Taking advantage of the falling price differential, it opened new campuses in literally dozens of new locations. Several other providers are growing even faster than UOP, the market leader. Taking advantage of its own rising tuition and efficiencies derived from economies of scale, UOP now makes about 30 cents pretax profit on each dollar of sales, a profit margin virtually unheard of in American industry.

How do they do it? UOP probably spends perhaps $6,000 or so to educate a full-time equivalent student for a year, roughly one-third the cost of the typical state university, and even less than the cost at the typical public community college. They do it by watching costs and single-mindedly emphasizing instruction. There are no recreational centers, art galleries, or football teams. The administrative staff is lean and mean. Classroom buildings are typically clean and comfortable but not luxurious. Facilities are used heavily 12 months a year, unlike in traditional higher education, where many classrooms are empty literally a majority of days of the year. Professors teach double or more the teaching load at the typical state university for any given amount of compensation.

Why are tuition costs rising so rapidly at traditional universities? Conventional wisdom as emanating from the universities themselves would have you believe it is because of two phenomena: a decline in governmental support (and some decline in investment income for private schools), and qualitative improvements in the services provided. It is true that from 2000 to 2004, there was a sharp decline in the growth in governmental support for higher education. Yet the real level of tuition charges has risen even in periods when governmental support was growing as well, such as during most of the 1980s and 1990s.

As to qualitative improvements, it is true that universities have engaged in constructing luxury recreational and living facilities to try to lure students. The typical competitive university today has a recreational center and student union that are luxurious compared with facilities used a generation ago. There are more classrooms, and

living facilities are nicer, less crowded, and better air-conditioned. As to learning, however, the evidence is mixed. The average score on the Graduate Record Examination today, for example, is lower than it was in 1965. One highly publicized national survey found that even students at prestigious private universities are abysmally ignorant of our past—40 percent, for example, did not know which half-century the American Civil War occurred (American Council of Trustees and Alumni 2000). Students attend class fewer hours a week than 30 or 40 years ago, on average. In short, the evidence is pretty mixed as to whether students today are getting a better product than a generation ago.

In reality, I think the real explanation for rising tuition lies elsewhere. One way to explain it is in terms of productivity. While productivity of university staff is extremely difficult to measure owing to the difficulty in defining the "output" of higher education, by almost any reasonable set of assumptions workers in universities today are less productive than a generation ago. For example, in the category "other professional" (nonfaculty) employees (including university administrators, lab technicians, librarians, computer specialists, etc.) there are now roughly 6 persons for each 100 students at a typical university, compared with 3 in 1970. Since salaries of faculty and others have also risen, even adjusted for inflation, this has contributed to sharply higher costs. The fall in productivity is striking since overall productivity in the whole economy has nearly doubled since 1970. On the other hand, the fall in productivity is almost certainly modest relative to that in K-12 education, where one respected researcher has estimated it has fallen by more than 60 percent (Hoxby 2003).

Why has productivity fallen? First, the demand for higher education has risen sharply—at any given price (tuition fee), the quantity of students wanting to go to college has grown. By itself, that leads both to higher prices and higher quantities of students attending college, both factors raising total university revenues. Expanded programs for student loans and scholarships, new tuition tax credits, and so on, all serve to increase the demand for higher education.

As revenues have risen with increased demand, universities have had to make choices on how to use those increased funds. The evidence from financial statistics reported to the federal government suggests that only about 21 cents of each new inflation and enrollment adjusted dollar since 1976 has actually gone for instruction (Vedder 2004a: chap. 3). The remainder has gone for things unrelated or only indirectly related to student learning: research activities, food, lodging, entertainment operations, and so forth. The evidence also seems to suggest that universities have taken good care of their staff, with

real total average compensation of faculty members from 1980 to 2000, for example, rising about 45 percent. More and more, universities are paying top administrators and superstar faculty amounts well into the six digits.

The remarkable thing about this trend is that it occurred less as a result of deliberate public policy than as a result of institutional decisionmaking that received little or no public scrutiny. For example, average teaching loads have fallen over time, ostensibly to support increased research.[2] Who ordained that teaching loads should fall, or that universities should reallocate resources to research? To some extent, government and even private business have explicitly supported some of this trend, but much of it was simply a decision of universities to lower teaching loads, often without even the approval of the institutional governing board. I can remember the department meeting where my faculty colleagues and I simply voted to lower our weekly classroom contact hours with students by more than 10 percent, without even much scrutiny from the higher administration, much less our board of trustees or the state legislature. While there are numerous exceptions, by and large universities do what they want to, subject only to the very broadest and loosest of constraints from above.

What Can K-12 Education Gain from the American University Model?

While much evidence suggests American universities are inefficient and relatively unaccountable, that does not mean that K-12 education has nothing to gain from the universities. Remember, productivity is falling even faster in K-12 education than in the universities, and higher education has a much better reputation internationally than its counterpart at the primary and secondary levels.

I suspect the politically most feasible way of starting to adopt some of the better features of higher education funding is for states to simply permit local school districts to charge tuition, perhaps ostensibly to fund activities beyond those that are part of the core learning required to obtain a high school diploma. In addition, states should also allow students to attend school outside of their current district boundaries (something done already in some states). State subsidies

[2]The precise extent of this is difficult to ascertain, since teaching load data are not systematically collected by the federal government. An extensive body of anecdotal evidence, however, supports this assertion.

to school districts would be contingent on their accepting the principle of public school choice.

The move to tuition-based schools ideally would be part of a system in which there was some gradual de-funding of school districts and a shift toward vouchers to students. However, this is not an absolute necessity, and may not be politically feasible in most states in the short run. A less radical alternative would be to allow existing state and local subsidies to school districts to remain fixed at current levels, but if they want increased funding in the future, they would have the option of imposing tuition in addition to asking taxpayers for local voter approval of higher taxes. My guess is that it would be much harder to get voter approval of tax increases when tuition funding is an option. Districts wanting to remain low cost and accessible to all could use efficiencies to avoid initiating tuition fees, while others wanting to offer special educational options (small courses, more advance placement classes) could charge tuition. Over time, the system might evolve into something resembling the current funding of higher education, with the typical student, particularly at the secondary level, paying a good proportion of the total cost of his or her education. As student funding passed some threshold amount (say 10 or 20 percent of total costs), the school would be effectively partially privatized, and ideally would become automatically eligible for charter status, relieving it from some of the regulations imposed upon government schools, such as restrictions on class size and collective bargaining rules.

As at the university level, there might be some scholarship aid (tuition discounting) offered in the form of vouchers for lower income students. What would keep school districts from rapidly increasing tuition charges, especially for students from higher income families? If the federal and state governments did not step in with loans, broad-based scholarships, and tax credit programs modeled after existing higher education financial aid programs, I think there is a fair chance that price competition (via tuition fees) would be greater than at the college level. The lack of substantial government assistance would make parents feel the pain of tuition increases. The close geographic proximity (typically) of several alternative schools would make switching schools a real option. Having elected school boards instead of rather anonymous appointed trustees would provide a bit more accountability internally. The system, while not perfect, would be an improvement over the existing model. It would be a move in the direction of decentralization and less governmental control over the destiny of public K-12 schools.

Perhaps the greatest advantage of moving to charging tuition in

K-12 schools, however, is that it would finally make for-profit education a viable option at that level. The market capitalization of for-profit universities is literally dozens of times that of for-profit schools in the K-12 market such as Nobel Learning Communities or privately held Edison Schools. While for-profit universities are often extremely profitable, the financial history of the for-profit K-12 ventures is far worse, with many of them in bankruptcy or limping along financially. Edison Schools was losing money before going private, and Tesseract (formerly Education Alternatives) went bankrupt. Nobel Learning Communities, with annual revenues of $155 million and serving about 27,000 students, is still viable, but lost money in both fiscal years 2003 and 2004. Meanwhile there are several highly profitable post-secondary and university providers with capitalizations of a billion dollars of more: Apollo Group (and affiliated University of Phoenix Online), Career Education Corp., Corinthian Colleges, DeVry Inc., ITT Education Services, Laureate Education, and Strayer Education.

Why the difference in financial performance? Essentially, the marginal cost to the user of public K-12 schools is zero, compared with tuition at for-profit schools of $6,000 or more. Unless the quality of the public school is abysmal, the public school price advantage is overwhelming. At the university level, many public schools charge tuition of $5,000 or more, compared with perhaps $8,000 for the for-profits. The tuition differential is infinitely less in a percentage sense and a good deal smaller often in an absolute sense as well, particularly considering that there are private not-for-profits charging even higher tuitions. If public high schools started charging $2,000 or $3,000 in tuition, more kids would migrate to the for-profit or not-for-profit private alternatives as the tuition differential narrowed, greatly expanding that option and perhaps permitting them some economies of scale.

Why Not Privatize Public Education?

The case for public support of education at all levels is based on a variety of arguments, but two predominate. First, it is argued that education has positive spillover effects, or what economists call positive externalities. The argument suggests that a population that is literate in reading, writing, and mathematics, with some common knowledge of history and politics, contributes to better communications and a greater sense of national identity. Economically, better communications lower the cost of carrying out transactions, making

markets more efficient and allowing for greater division of labor and specialization. In short, education provides a better informed and productive citizenry, benefiting all, including those less educated.

Second, America has a strong egalitarian tradition, subscribing generally to the view that all Americans, rich and poor, should be able to use education as a means of attaining vocational and financial success. The high level of income mobility in the United States reflects the national belief that merit should be rewarded, regardless of one's initial station in life.

In my exploration of universities, however, I found little evidence in support of these arguments justifying public funding. For example, if a university education has positive economic externalities, it would be expected that states where governments spend a lot on universities would have higher economic growth, given the alleged positive spillover effects. In fact, the evidence is the opposite: controlling for other factors, the higher the spending on higher education (as a percent of personal income), the *lower* the rate of economic growth—and the results are statistically significant and fairly large in magnitude. (Vedder 2004a: chap. 7)

Another measure of the quality of life comes via migration statistics. Where a locale is growing from net in-migration, the presumption is that people are moving into the community because it is perceived to offer better prospects for a good life than the communities from which the migrants came. I used multiple regression analysis to observe the relationship between net migration and state and local spending on public universities, and also between the percent of a state's adult residents that were college graduates and net migration. The observed relationships were consistently negative, although not strongly so. People do not flock to university-intensive areas because of a perceived better quality of life.

In short, there is little evidence that universities actually have the "positive externalities" attributed to them by researchers, most of them paid by universities. The indicators I have picked, while not perfect, are good proxies for attributes associated with the good life. And, if anything, they suggest universities have more negative externalities than positive ones. As Milton Friedman has suggested to me, "a full analysis . . . might lead you to conclude that higher education should be taxed to offset its negative externalities" (Friedman 2003).

My interpretation of the growth-university relationship is that public university funding involves taking funds from a private sector that is relatively efficient with rising productivity and reallocating them to universities that are relatively inefficient with falling productivity. The taxes necessary to fund higher education have a more adverse impact

on income creation than any human capital or technological advance arising from enhanced instructional or research resources.[3]

Similarly, the argument that state funding of universities is necessary to promote college access among the poor is suspect. The correlation between university attendance or graduation rates, on the one hand, and state effort to fund universities is positive, but extremely weak and not significant in a statistical sense. States funding universities generously, such as Michigan, have little or no higher college participation rates than states with much less generous funding, such as Illinois. The incremental funds dispersed in generously funded states seem not to significantly support lower tuition fees or more scholarships, but rather other things unrelated to access—perhaps more research efforts, higher faculty and staff salaries, and greater administrative bureaucracies.

I would conclude, then, that the standard arguments for public funding of universities are weak, and that a strong case can be made for de-funding them. Does the same conclusion hold for K-12 education? I have done less extensive research on this, but my preliminary observation is that the positive externality argument is debatable even at the primary and secondary level. For example, I estimated several regression models relating variations in the rate of economic growth (real per capita personal income) between the states from 1990 to 2002 to K-12 education expenditures in 1980 and 1990, with several additional variables introduced for control purposes. The 1980 data were used because presumably there is a lag between when students are educated and when they have an impact on productivity and output growth as members of the labor force.

In a variety of different model specifications using data for the 50 states and the District of Columbia, I observed negative or weakly positive relationships between spending on education and economic growth, although the relationships were not significant statistically. I would interpret the results as saying "there is no systematic relationship between public educational spending and economic growth." One such specification is shown in Table 1. Other things equal, economic growth was higher the greater the number of heating degree days in a state (the colder the state was), and the smaller union membership, with other noneducational variables being somewhat weaker. The K-12 spending/economic growth variable was negative, although not strongly so.

[3]For more analysis of the economic growth-university relationship, see Vedder (2004a, 2004b).

TABLE 1

STATE AND LOCAL K-12 SPENDING AND ECONOMIC GROWTH, 1990–2002: OLS REGRESSION RESULTS

Variable or Statistic	Coefficient or Value	T-Statistic
Constant	35.356	8.122
Av. K-12 Spending[a]	–0.094	0.913
Inc. per Cap. in 1990	–0.000	1.394
S and L Tax Burden[b]	–0.548	1.075
Union Members, 1994	–0.328	2.856
"Age" of State[c]	–0.008	0.634
Heating Degree Days	0.001	3.840
Pop. Change, 1990–2000	–0.109	1.711
R^2	0.553	

[a]Dollars per $1,000 personal income, average of 1980 and 1990.
[b]State and Local Taxes per $1,000 Personal Income, fiscal year 1990.
[c]Years from statehood to 1990.
SOURCES: U.S. Bureau of the Census data; author's calculations.

The lack of any meaningful positive relationship between educational spending and economic growth is hardly surprising to readers of the literature on educational performance. Scores of studies show little or no relationship between the use of educational resources in public schools and the performance of students (Hanushek 1997). If incremental spending has little impact on learning, why should it positively impact income growth?

Similarly, using the 50 states and D.C., I tried to explain variation in net domestic in-migration, 1990–99, as it relates to K-12 spending in 1990 and a host of other control variables. Again, I did not observe a statistically significant relationship between migration and educational spending; certainly there is no evidence that high spending on education increases in-migration, reflecting an improved quality of life. In short, this evidence simply does not support the view that there are measurable positive externalities from education, the most important single argument for public funding. If verified by further analysis, I would think there would be a good case to remove government subsidies to public schools, perhaps over a 10-year period, allowing them to make up the revenue difference through tuition charges.

There still is the educational access issue, which would certainly rise quickly in political discourse during any attempt to move

toward market-based funding. The use of progressive vouchers, as originally proposed by Robert Reich (2000), however, could deal with this issue. Lower income persons would receive large government vouchers; more affluent persons would receive smaller or no vouchers.

Let us illustrate how a voucher program would work in a way that would assure access to lower income children but introduce market incentives into K-12 education. Suppose that families with incomes of under $70,000 a year would be given vouchers equal to 12 percent of the difference between their income and $70,000 for each child attending public schools, subject to a maximum payment per child of $6,000. A family with one child in school would pay $6,000 tuition out-of-pocket if its income was $70,000 or more. A family with a $50,000 income would receive a $2,400 voucher—0.12 × ($70,000 – $50,000)—and pay $3,600 out-of-pocket. A family with $20,000 income, just above the poverty line, would pay zero. It would be my guess that roughly 20 percent of families would pay no tuition, close to 40 percent would pay full tuition, and 40 percent would pay partial tuition. Obviously, the numbers can be manipulated to change those proportions. Special provisions would probably be needed for families with more than, say, three children in school simultaneously (a family with four in school with a $70,000 income would have about $24,000 in tuition costs). Perhaps a rule would state that no family would have to pay more than 20 percent of its income to schools charging tuition of $6,000 or less annually. Under such a rule, even a family with a $100,000 income and four school children would get some small voucher support ($4,000) a year. Under such a scheme, parents would very much feel the cost of education, but governmental subsidies would prevent anyone from being denied an education for financial reasons.

Critical to avoiding the problems that colleges face is that the size of the voucher should only be adjusted upward with the rate of general inflation. Under current university operating behavior, the institution determines the tuition level and the government (or other third party) adjusts aid accordingly. A far better scheme to control costs would be for government to exercise its monopsony power and increase aid only with the rate of inflation. Institutions could raise their tuition more than that, but the extra tuition would be paid 100 percent by the parents of users, who then would be become quite sensitive to cost, considering as a schooling alternative, aside from other schools, home schooling with a strong Internet base.

Ideally, the scholarships (vouchers) should be usable at any school, private or public, sectarian or nonsectarian. That would enormously

expand student choice. In fact, in time, if state subsidies to schools were to disappear, all schools would become private in any case. Whether the state should maintain any regulatory power whatsoever over schools is highly debatable, but certainly mindless rules and regulation, for example those relating to teacher certification, should cease to exist. Bad schools will simply not attract students in the long run.

There is some historical evidence in favor of a move to privatize education.[4] Writing in the very year America declared its independence from Great Britain, Adam Smith said, "Those parts of education, it is to be observed, for the teaching of which there are no public institutions, are generally the best taught." (Smith 1976: 764). The Industrial Revolution and high rates of literacy (probably around 80 percent) had already occurred in Great Britain long before public education became firmly established (West 1994). There is little evidence that moving to public schools after 1870 improved learning—indeed the opposite appears to be the case (Mitch 1992). In the United States, the rise of public schooling did not bring about dramatic increases in school attendance in Massachusetts (Kaestle and Vinovskis 1980). Some preliminary regressions I have run on mid-19th American education show little or no relationship between student educational participation and public funding (Vedder 2000: 18). In short, it is a myth that public education in Britain and the United States turned a population with high rates of illiteracy into literate ones, or that economic growth did not begin until universal public education was established.

Indeed, it can be argued that American public education grew rapidly in the first half of the 19th century because of two impulses. The first was concerns about the rise of Catholic immigration, and the impact that would have on diluting America's predominantly Protestant values (Kaestle 1983). The second was that the common school movement was "a coalition of the social leaders, status-anxious parents, and status-hungry educators to impose educational innovation, each for their own reasons, upon a reluctant community"(Katz 1968). In this view, the common school movement was more about rent-seeking and acquiring power and prestige, rather than the orthodox view (Cubberley 1934, Curti 1959) that common schools were a continuation of the American political egalitarian tradition of promoting equal opportunity for all.

[4]This analysis draws heavily on earlier reported research (Vedder 2000).

Conclusion

America's primary and secondary education can learn something from the university experience. Making the customers pay some of the bills is key to reversing the decline in productivity that is the central economic fact of American public education in recent decades. Allowing individuals free choice of tuition-charging schools would improve the educational milieu. At the same time, however, we should avoid the generous student loan/scholarship dimension of higher education that has pushed tuition levels up. Any voucher (scholarship) aid given should be limited to a maximum amount, rather than an amount effectively determined by the institution through its tuition charge.

A reasonably good case can be made for government to reduce its funding role in education. At the higher education level, the case is particularly compelling, as the negative externalities of university attendance may well outweigh the positive ones. Even at the K-12 level, however, some empirical evidence raises grave doubts as to the appropriateness of massive public subsidization. Perhaps a reasonable approach would be to gradually reduce public subsidization of schools, allow them to charge tuition, and provide some financial assistance for the truly needy for whom the tuition charge would pose an extremely onerous burden.

References

American Council of Trustees and Alumni (2000) *Losing America's Memory: Historical Illiteracy in the 21st Century*. Washington: ACTA.

Cubberley, E. (1934) *Public Education in the United States: A Study and Interpretation of American Educational History*. Boston: Houghton Mifflin.

Curti, M. (1959) *The Social Ideas of American Educators*. Patterson, N.J.: Pageant Books.

Friedman, M. (2003) E-mail to author, 12 September.

Hanushek, E. (1997) "Assessing the Effects of School Resources on Student Performance: An Update." *Educational Evaluation and Policy Analysis* 19 (2): 141–64.

Hoxby, C. (2003) "School Choice and School Productivity (Or, Could School Choice be a Rising Tide that Lifts All Boats?)." In C. Hoxby (ed.) *The Economics of School Choice*. Chicago: University of Chicago Press.

Kaestle, C. (1983) *Pillars of the Republic: Common Schools and American Society, 1780–1860*. New York: Hill and Wang.

Kaestle, C., and Vinovskis, M. (1980) *Education and Social Change In Nineteenth-Century America*. Cambridge, Mass.: Harvard University Press.

Katz, M. (1968) *The Irony of Early School Reform*. Cambridge, Mass.: Harvard University Press.

Mitch, D. (1992) *The Rise in Popular Literacy in Victory England: The Influence of Private Choice and Public Policy*. Philadelphia: University of Pennsylvania Press.
Reich, R. (2000) "The Case for Progressive Vouchers." *Wall Street Journal* (6 September).
Smith, A. (1976) *An Inquiry into the Causes of the Wealth of Nations*. Oxford: Oxford University Press.
Vedder, R. (2000) *Can Teachers Own Their Own Schools?* Oakland, Calif.: Independent Institute.
_____ (2004a) *Going Broke by Degree: Why College Costs Too Much*. Washington: American Enterprise Institute.
_____ (2004b) "Private vs. Social Returns to Higher Education: Some New Cross-Sectional Evidence." *Journal of Labor Research* 25 (4): 677–87.
West, E. G. (1994) *Education and the State: A Study in Political Economy*. Indianapolis: Liberty Fund.