Beyond Vouchers: Promoting Efficiency in Education.

In the past two decades choice has become a major policy proposal for promoting efficiency in schooling. This paper argues that it would be both efficient and feasible to remove government from its present roles in school finance and pupil assignment. The first part examines the revenue side of school finance and identifies four types of efficiency—technical, price, exchange, and allocative (McMahon, 1982). A conclusion is that educational vouchers fall short of meeting these types of efficiency, partly because they rely on government finance. An alternative system of school choice that relies on private finance is proposed: each family contracts with a school to provide education in exchange for a share of the student's income earned over her or his lifetime or other extended time period. This acts as a tuition deferment and gives investors in students' education an equity stake in students' future earning power. Schools will enroll students at lower costs to attract higher enrollments and compete on the basis of effective programs and choice. Because the plan is based on free-market principles, it is not appropriate for the proportion of the population that is incapable of earning a wage. Schools would enroll only those students whom they could educate at a profit. Finally, it is argued that people make better choices if they are paying for something than if government taxes gave it to them. (LMI)
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BEYOND VOUCHERS: PROMOTING EFFICIENCY IN EDUCATION

In the past two decades choice has become a major policy proposal for promoting efficiency in schooling. In nearly all discussions vouchers (or tax credits) have been the express or implied financing mechanism. Choice proponents assume that "...government will continue to support K-12 education, at least for a considerable period of time." Discussion has centered instead on the breadth of school choices that vouchers would finance: public, private, sectarian, proprietary schools, and so on.

In this paper I want to "think the unthinkable". I will argue that it would be both efficient and feasible to remove government substantially both from its present role in school finance as well as its role in assigning pupils to particular schools. At the outset I want to stress that nearly all policy attention has been devoted to the second question, government's role in pupil assignment. I argue that the concentrated policy attention given to this matter, and the consequent blanket acceptance of the voucher mechanism, has become something of a preoccupation. There are major efficiency issues which vouchers do not solve. At the same time, attention paid to issues of school choice may have indirectly inhibited broader analyses of educational efficiency.

This paper examines the revenue side of school finance. The widely discussed choice plans, while distinguishable in some contexts, all rely on government finance. The system considered here relies instead on private finance. It differs both from vouchers and from the present system for financing the public schools.

Four types of efficiency in Education

McMahon discusses four components of efficiency as they apply to the provision of Education. In this section I briefly explain McMahon's typology; then I analyze vouchers using it.

Technical efficiency has to do with alternative combinations of time and resources required to produce a given output. These include curriculum and teaching methods, instructional materials, students' learning activities and how these are deployed during the school day.
Certainly technical efficiency has been a major consideration motivating academically based Education research. Yet broad and general improvements in technical efficiency have been elusive. Try as we might to verify an educational production function, we have not done so very successfully.

At the same time we have clear and abundant evidence from the time on task literature that hard work and application to the job at hand results in learning success. Artful and creative teachers can enhance pupils' learning (even if we cannot specify law-like definitions of "artfulness" or "creativity"). Hard working students with positive attitudes do well even with mediocre teachers.

Students and teachers are likely apply themselves somewhat more completely in a school they choose than in their assigned neighborhood school. If a school's offerings are not popular, the school will reform or close. As a result school staff are less likely to be deployed at jobs that do not directly help students.

This is the argument usually presented for school choice. The argument can proceed independently of schools' revenue sources. It seems a reasonable argument, one I fully endorse. What a technically efficient finance system would do is make people happier with the educational services they're getting. Consumer satisfaction itself is important; vouchers would improve it. But vouchers tell consumers nothing specifically about which combinations of curriculum and teaching methods, instructional materials, or student activities will be effective. They assume people will "efficiency seekers" under a system of third-party, government payment for school services. This is a doubiuous assumption as we shall see.

The second efficiency type is price efficiency. Unlike technical efficiency which ignores costs, price efficiency takes into account the relative costs of resources. Given a fixed output, what combination of resources can produce that output with the fewest resources?

It is well accepted that LEAs are local monopolies. Monopolies do not price their services in cost efficient ways. How would vouchers change things? Assume that local public schools operate politically.
Educational offerings must be fashioned according to the tastes of the majority. The tastes of individuals and sub-groups of the population are broader than the majority. Given choices, sub-groups would want a broader range of educational services than neighborhood schools provide. Schools would arise to meet these wants. This is the rationale for the voucher.

Vouchers will broaden the range of school services offered for a fixed price, the voucher amount. They in no way entertain the possibility that the same program can be offered at a lower price, or a much better program of the same type could be offered at an only slightly higher price. Though the school program itself would no longer be a political decision, setting the voucher amount required to finance it still would be.

*Price efficiency*--in education as elsewhere--requires competition that results in a range of costs for the same or nearly equal services, then allows people to choose. That vouchers offer people a range of services for a fixed cost would *seem* to be an improvement over the present system. But vouchers are hardly a panacea.

Third in McMahon's typology is *exchange efficiency*: education's ability to meet the needs of the other social institutions such as business, civic, and religious organizations. In this connection, education's role in economic growth has certainly been one of the major topics of the past decade.

There is much social angst over how serious the problem is and what to do. But this much is clear. Educational credentials are becoming increasingly attenuated from job prospects. In a society where some graduates allegedly can't read their own high school diplomas, there are also many others overqualified for the jobs they hold. Degrees and certificates simply don't carry the same value they used to. Levin and Carnoy discuss.

"...schooling activities (often) are undertaken by students in order to obtain external rewards—grades, promotions, and educational credentials...When students seek credentials rather than knowledge and skills, the role of schooling as a producer of trained labor will actually be undermined over time. That is schools will tend to provide workers whose actual
skill levels are lower than their credentials imply. Since student effort is motivated by external payoffs such as the exchange value of those credentials in the marketplace, the content of the credentials will be further undermined by a fall in their value...

...a natural consequence of the democratic dynamic of the schools will be a tendency to produce far more people with higher educational attainments than can be absorbed by the jobs requiring those credentials.4

Meaningless credentials and overqualified workers--for Levin and Carnoy these considerations argue for a reorganization of society along socialist lines. Their observations can also be taken to reflect problems inherent in present system of public school finance from a capitalist perspective.

Will vouchers help? Vouchers should have some favorable impact on exchange efficiency, if students match their school choices to real economic and social needs. The best ones will; responsible students will calculate their potential for social contributions and economic prospects and choose their education wisely. By opening up choices vouchers would permit this to happen. But there is nothing in the voucher concept which will particularly encourage this result.

At the secondary level, vouchers are frequently mentioned in the same breath with sports academies and performing arts high schools. Presumably many teenagers would choose these specialized theme schools. Many otherwise sensible adults endorse this approach, doubtless as a way to motivate teenagers for more general learning.

This raises an obvious problem. To serve its unique job market New York City arguably needs a performing arts high school; Worcester, MA. doesn't. If the curriculum in, say, a "sports" high school is like that in every other high school, teenagers will quickly know this. They will feel that they have been conned. On the other hand, if the school is mainly sports and baby-sitting, it might be a popular choice. But it would be exchange inefficient because it would not lead to occupational success. Very few graduates could make their livings through sports. Adult taxpayers could hardly be expected to finance this choice cheerfully.
Vouchers leave taxpayers paying for schools--as always. Children and families decide what sorts of schooling they like, possibly without much thought to life after graduation. An exchange efficient financing system would encourage school choices not to satisfy immediate and transient interests, but choices that fit society's long-range needs. Though the discussion above deals with the workplace, an education system that too often fails a society's economic institutions probably is not much better in other areas.5

The final type of efficiency I want to discuss today is allocative efficiency. Allocative efficiency is what most people think of when they think simply of "efficiency." It is the maximization of satisfactions given scarce resources with competing uses. Technical efficiency essentially ignores the costs and looks only at effects of school programs. Price efficiency adds to technical efficiency consideration of the costs of producing one particular result. Exchange efficiency is sometimes conflated with allocative efficiency. McMahon's separation of these concepts is useful in the current political climate because it distinguishes the aims of schooling from the social consequences of those aims.

For example, schools which aim at well rounded, moral, graduates with strong backgrounds in basic skills subjects might be judged allocatively efficient. Such people might be precisely the ones who can command good wages in the job market based on their knowledge, attitudes, habits and skills: exchange efficiency. The same people might participate in charity work, vote and occasionally run for political office: another example of exchange efficiency. Schools need not aim directly at serving business enterprise in order to be exchange efficient. They do need to have clear and realistic aims to be allocatively efficient.

Reaching allocative efficiency depends fundamentally on knowledge of technical, price and exchange efficiency which may be considered steps along the way. The previous discussion indicates our considerable state of ignorance about efficiency in education. In our absence of knowledge about how schools work or what they really need to cost, allocative efficiency becomes a debate over values purely. Should schools aim at preparing people for jobs? good citizens? Art appreciators? What mix of personal, cultural, civic, and economic goals are most desired?
Of course public schools can't win. They can never be allocatively efficient. On one hand public schools are criticized as "shopping malls" that try to do everything but do few things well. On the other hand, even in today's world of shopping mall schools, many parents and educators do not have the choices they want.

Vouchers would improve things, but only a little. It is virtually axiomatic that a voucher given by the government to each student would yield each school the same budget per pupil. Schools would have incentives to spend exactly the voucher amount -- no less and no more. Schools would compete with each other on the basis of their educational programs, but only within their uniform budget constraint.

Suppose a very different and better educational program could be offered if only a little more were spent; or suppose a substantial cost saving could occur with a different educational program that was just as satisfying as the present one. Under these conditions, which surely obtain at some times and places, vouchers get a failing grade. There is nothing in the voucher idea expressly aimed at entirely new and more satisfactory teaching methods or curricula; there is nothing in vouchers that would spur educational research. The uniform expenditure provision of vouchers is inherently inefficient.

Allocative efficiency would encourage a wide range of educational services including entirely new ones resulting from research and innovation, and would connect the school choices made by individuals as closely as possible to their cost implications. Connecting education's costs with its benefits is the only way sensible choices can be made. Vouchers, on the other hand, separate educational choices from the responsibility for financing them. Then they limit the range of choices by constraining finance.

a more efficient form of finance

Within the limits of the government financed price, vouchers would allow students to study what they want. It seems entirely plausible to suppose that this would make students and families more pleased with their schooling. Some will choose wisely, others not so well. In either case taxpayers foot the bill.
While vouchers would do a lot to improve people's satisfaction with schooling, they are not specifically directed at raising academic standards. Voucher advocates intuitively understand this and join other school reformers in calls for raising standards through various excellence and restructuring initiatives.7

The result is more government regulation and therefore less choice. It is with some justification that both proponents and opponents of vouchers can claim they are luke-warm or confused. The endless wrangle over the breadth of choice continues. Whatever the voucher amount, there will always be disagreement over whether schools are a bargain or a rip off, whether they're aiming at the right goals or the wrong ones.

This provides a rationale for private markets. In education as elsewhere people using their own money to buy goods and services decide what satisfies them; individuals decide what is a fair price and what is excessive.

An efficiency argument against private markets in education has been the nature of the income distribution.8 Wealthy people will buy adequate quantities of schooling but poor people don't have enough money to buy it in sufficient quantity. Society will suffer because an insufficient aggregate investment in human capital.

This argument against the private financing of education no longer need obtain. Financial capital markets, and our ability to keep track of individuals, have evolved to the point that this argument need no longer be a barrier to an almost fully private system of educational finance. Through a system of equity financings almost all families, regardless of wealth, can have access to private funding sources for their education.

Let each family contract with a school to provide education in exchange for a share of the student's income earned over her/his lifetime or some other extended period of years. This would act as a sort of tuition deferment. But it is much more. Students would give investors in their education an equity stake in their future earning power. The more students' future earnings, the more investors would receive. The better job a school does the greater that school's financial reward.
The plan envisioned here is quite different from student loan programs in existence today. Loans are debt instruments. They are not equity. Unlike college student loans there would be no government guarantees. Government could, however, serve as the collection agent for the lenders.

Schools would provide educational services now in expectation of a future income stream. Any organization could finance a school--banks, LEAs, churches, the Girl Scouts, etc. The size of payments would be based on the future earnings of graduates. Since there would be some risk involved, there would have to be some reward.

Since investors want profits, the school will have to say something like this: "We can enroll children at lower costs than our rival schools, and our educational program is so good that we can attract lots of children." Lower costs now mean that investors will be paying less now to educate each child than some rival school is charging for a similar program. High enrollments mean lots of future adults who will be paying a return over time to (investors in) their old school.

To parents and children schools will have to say something like this: "Compared to other schools you might consider, we can provide you with the best education at the lowest cost." "Best education" is a subjective term over which people legitimately disagree. But this much we can say: families are the customers. Since it is families (not investors) who pay the bills in the end, families and not the school investors will ultimately be decisive as far as curriculum, teaching and other decisions are concerned.

Thought of as a business, individual schools are quite risky. The curriculum and administrators might be just terrible; graduates might become beachcombers instead of solid citizens. Occasional tragedies on school busses and airplanes remind us that entire youth groups sometimes die young. These sorts of events will detract from investors' income streams! Most investors will want to spread their risks widely over a large number of students. While there would always be room for the single school with a novel approach that can attract dedicated investors and students, but most children probably would be in schools organized by large entities: private companies, religious denominations, or perhaps LEAs organized as public corporations.
The implications of such a plan are extensive. Here discussion is confined to efficiency questions with vouchers as the comparative financing method.

The system is much more efficient than vouchers. As with vouchers, parents who don't find a particular school to be effective (i.e. technically efficient) will leave that school and go to another. Beyond that, vouchers and this plan part company. Schools will be competing with each other not simply on the basis of program effectiveness but on the basis of price. Families financing schools through their child's future income are likely to comparison shop. They will have wide leeway to do so, but always with the financial incentive to weigh varying education programs against their prices. With vouchers, families have incentives to lobby governments for more money. They will join schools themselves in saying that the allotment is not enough.

Schools and families both have vested interests in graduates with employable skills, assuring some level of exchange efficiency. Students wanting to study frivolous subjects or unbalanced curricula aren't likely to find schools such choices. (There are very few jobs available in movies or professional sports, and investors will want to be repaid.) Nor are schools that offer only narrow vocational instruction likely to do well. Most parents want a varied curriculum. Most businesses want workers who possess general knowledge and skills. The study of frivolous subjects and extreme vocationalism—vouchers preclude neither of these possibilities.

Schools would compete directly with other forms of investment in capital markets. If it is more efficient, at a certain point, to invest a little less (or more) in physical capital and a little more (or less) in human capital, the rate of return will signal investors, producing a shift in funding. This would be more allocatively efficient than vouchers which depend on government to decide correct levels of educational investment.

What I have described here is a brief outline of an educational finance method based on free market principles. Therefore, the plan would not be appropriate for that small proportion of the population that is incapable of earning a wage. Schools would enroll only those students whom they thought they could educate at a profit. While
this principle doubtless will horrify some readers, its efficiency relative to vouchers I think is evident. I hope that those who favor vouchers based on efficiency considerations will look at this alternative further. In the meantime I look forward to a future paper on equity considerations of the plan to assess its over-all feasibility.

I have studiously avoided here the topic of government regulation. I will conclude simply by observing to my voucher proponent friends that there is a tradeoff between efficiency in school spending and efficiency in school revenue raising. Even if government does regulate schools with regard to their permissible range of educational service offerings, it would still be more efficient to have people—not government—finance that limited range. People make more studied, better choices if they pay for something than if government taxes give it to them. In other words, where efficiency is concerned, school revenue "choice" is as important as school selection. I will leave it there.

REFERENCES


5. op. cit. p.25.

6. For the sake of brevity I do not consider here varieties of voucher plans such as family power equalizing, nor do I consider vouchers based on pupil or other weightings. These do not markedly influence the presentation.
