A Jaundiced View of "Adequacy"in School Finance Reform

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Educational Policy 1994 8: 460
DOI: 10.1177/0895904894008004009

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Discussions of school finance have been seriously hampered by an inability to relate inputs to student performance. Because spending and resources are not closely related to student performance, discussions that concentrate on the distribution of educational inputs bear little relationship to the distribution of educational outputs. This fundamental problem makes a definition of "adequacy" in funding and resources virtually impossible. Balanced against this, problems with our schools are very important, and active policy to improve the situation is called for. The types of policies that hold the largest hope involve different incentive schemes based on student performance. Such schemes are generally not compatible with policies involving adequacy or input floors.

ADEQUACY IS THE new focus of attention in school finance discussions. It is so new that its definition and implied meanings have yet to stabilize or to be agreed to by everybody employing the term. Nevertheless, there is, in my opinion, reason to be worried about the tack that much of this discussion seems to be drifting toward.

AUTHOR'S NOTE: I would like to thank Stanley Engerman and Michael Wolkoff for comments on this paper.

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EDUCATIONAL POLICY, Vol. 8 No. 4, December 1994 460-469

The invention of adequacy seems to serve a variety of purposes. One definition, built on notions of performance objectives, links traditional school finance discussions with the broader questions of overall educational reform. A different version can be employed to add new dimensions to the courtroom battles to overturn school finance statutes in different states. Yet another version provides for increased and differential spending across districts, even in the face of equity concerns.

Although these versions of adequacy have different objectives and although they are argued in different ways, I believe that they face a common problem. In each case, it is necessary to translate a stated concern about student performance into a specific notion of resources that are required. With our current knowledge, and with the existing set of overall policies toward schools, I do not believe that we can accomplish such a translation. Moreover, I believe that commonly proposed attempts to do so may have very undesirable consequences.

The current debates about educational reform in general and school finance reform more specifically could have an enormous impact on the future of our schools. I firmly believe that this is a time both of real opportunity and of significant peril. Therefore, I wish to sketch my concerns with this discussion in the hopes of moving it in a different direction.

I have three basic messages that I wish to convey.

- First, there truly are serious problems with U.S. education, and the resolution of these will have profound effects on the future well-being of all of society.
- Second, many of the current school financing proposals focus on the wrong things and could end up harming rather than helping the schools.
- Third, the chances for improving the performance of the schools are closely linked to changes in the incentive structure, and these changes are at odds with much of the recent financing discussion.

The Need for Reform

The motivation for attention to schools is found in one form or another almost daily in the popular press. Much of the recent discussion highlights the importance of education as a determinant of an individual's productivity and income. More educated people tend to work in skilled occupations and to receive higher salaries and benefits than those with less education. What is more, the economic importance of education has mushroomed in the past decade and a half. Although it is usually phrased in terms of having a college degree or not, it is clear that additional years of schooling have high pay-offs at all levels of schooling—high school, college, and postgraduate. Estimates place the rate of return to investment in college education at over 30% in the 1980s; similarly, the rate of return for an additional year of high school falls between 15% and 20%. Thus those individuals who receive more education can expect increased rewards throughout their adult lives. The importance of such school-related skills has been recognized for some time. Indeed, more than a quarter of a century ago, it moved education and training to a prominent position in the War on Poverty.

There are also other, more general motivations for improving the schooling of society. Throughout the 20th century, education has been identified as serving an important socializing role—improving the functioning of democracy, lowering crime rates, and the like. In a different vein, recent economic analyses of why some nations grow while others do not have focused on the pivotal role of the education, or human capital, of the society. In simplest terms, an individual's schooling may directly affect the well-being of others in society by contributing to increased economic development and growth.

These general motivations, which tend to concentrate simply on the amount of schooling of the population, do not, however, pinpoint the nature of the existing problem. The problem relates directly to the quality of schooling and has three elements. First, by all outcome measures, the performance of schools has been flat or declining for some two decades. This conclusion comes from scores on standardized tests, from college statistics and opinions about the trends in the quality of students enrolling, from the beliefs of businesses who hire new entrants into the labor force, and from investigations of labor market earnings and employment.

Second, enormous disparities in school outcomes exist by family income and by racial or minority background. These disparities perpetuate an obvious set of social ills, ills that will come back to haunt us in the future. Debate exists about whether or not disparities, which are often simply identified as the problem of inner-city schools, are worsening over time, but in any event the disparities are a serious and very difficult problem.

Finally, a less obvious aspect of the current problem is the ever-increasing cost of schooling in the United States. Over the entire 20th century, real spending per pupil—that is, spending levels adjusted for general inflation—has grown at more than a 3% per year compound rate. In fact, over the past two decades, the rate of increase in real school spending rivals that for health, even though it is the pace of health care expenditure that has now captured everyone's attention.

Figure 1 provides a visual summary of the education crisis. School performance, as measured by SAT scores, plummets while real school

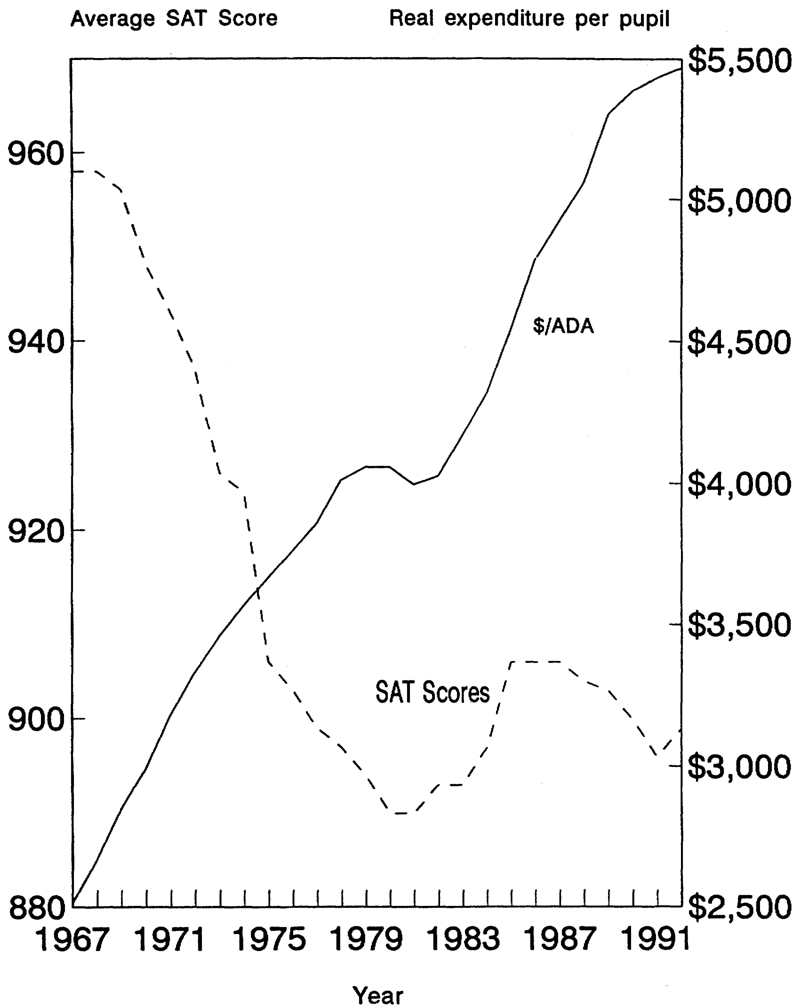

Figure 1. Real School Expenditure and Achievement 1967-1992

spending incessantly marches up over the last quarter century. Although some people quibble about whether SAT scores are the best measure of school performance (they are not) or about whether other factors like special education affect costs (they do), the main message stands up when other measures are used.

Old-Style School Finance Reform

The modern era of school finance reform was launched with the landmark *Serrano v. Priest* (1971, 1976) case in California in the late 1960s. A majority of the states have now had court challenges to their funding. In many ways the *Serrano* suit fit in with the War on Poverty. The general foundation of that suit and many similar ones that have followed appears simple:

1. Traditional school funding, relying heavily on local funds raised substantially by the property tax, leads to large disparities in the schooling available to rich (suburban) students and poor (urban or rural) students.
2. The courts and legislatures must be forced to address these inequities and to provide disadvantaged students with better schools.

This line of argument, although repeated frequently in many subsequent lawsuits and within state legislatures, is now understood to be flawed. The flaw is not in the laudable goals behind past and current school finance policy discussions. The debate properly recognizes problems with both the overall trend in school performance and the inequities that currently exist—and these problems become the motivation for the subsequent calls to action.

The flaw in the traditional school finance debate is that the entire discussion centers on funding and school spending. Spending is (often implicitly) equated to school quality or performance. The difficulty is that, despite the continual increases in the level of spending and declines in the variation of spending across districts that we have observed, the performance problems continue. It also ignores the substantial scientific evidence that shows little relationship between performance and resources employed in schools.

Figure 1 introduced the subject of the relationship between spending and student performance. Continual infusion of funds has not produced higher aggregate achievement. And, although objections about employing such aggregate data exist, the story is confirmed by very detailed scientific study of schools and classrooms.

There is no consistent relationship between the resources applied to schools and student performance. This conclusion comes from an analysis of over 25 years of study into the determinants of student performance.[1] The evidence is very clear that the major determinants of instructional expenditure—class size, education of the teachers, and experience of the teachers—are not systematically related to student achievement.

Between 1970 and 1990, real expenditures per pupil on schools rose by almost 3.5% per year (see Hanushek & Rivkin, 1994). Three things led to this increase. First, noninstructional expenditure rose dramatically. This includes administration at the school building along with retirement and health benefits for educational personnel. Second, pupil-teacher ratios fell by a quarter. Third, real teacher salaries rose by 15%.[2]

But none of these things are systematically related to student performance. In other words, the spending that schools undertake when they have additional funds generally does not go toward things that enhance student outcomes.

This finding, although difficult to accept at first, is becoming more accepted as people begin asking the tough questions about schools. In general, discussions about programs and policies have tended to concentrate on a series of small, somewhat marginal, programs—programs whose impact on expenditure growth is very limited. On the other hand, a few major factors drive the overall expenditure growth, and these are the important things to consider. Unfortunately, the factors that are important for overall expenditure growth are not directly related to student outcomes.

Disparities in school funding, the subject of traditional school finance reform, are simply not a good measure of differences in school quality. There are good schools that spend a lot and good schools that spend relatively little. There are bad schools that spend relatively little and bad schools that spend a lot. Looking at spending does not give much indication of the quality of any given school. And, there is little reason to expect the pattern of spending and its effectiveness to improve dramatically in the future.

"Adequacy" of Funding

The newest variant of school finance discussion is "adequacy." A number of the most recent court cases have addressed the question of whether or not funding for districts is adequate, in addition to being equal across districts. This approach has gained popularity because of its success in some of the most recent court cases.

This approach has also filtered into other, related discussions. The most recent use has been to link questions of funding adequacy to performance standards for schools. Can one really expect a school that cannot provide basic instructional resources to meet high standards of student achievement?

As indicated previously, there appear to be several different versions of adequacy. One version, which is probably easiest to deal with and to meet, involves defining some minimal set of resource needs. The list of needs presumably derives from some notion of what schools should be doing—in terms of facilities, curriculum, or whatever. More difficult versions begin with notions of outcome goals (e.g., minimal competency, equity in achievement, etc.) and then attempt to define the resources needed. This latter approach, representing the majority of the adequacy discussion, fits into the finance debate in several different ways. For one, it is possible to have a very equitable system that is "inadequate" because the overall resources are insufficient to meet some desired outcomes (Alabama is the example frequently given). For another, historically school finance debates have led to significant tension between rural districts (which often have low tax bases and spend little) and urban districts (which often have average to above average tax bases and spend a lot). Both kinds of districts would like to be on the same side in toppling many state finance suits, and adequacy provides a means because urban resources may still be inadequate to educate urban students appropriately.

At the true minimal level, notions of adequacy are straightforward and need little discussion. If a school district cannot provide safe and sanitary conditions, if it cannot provide adequate textbooks, and if it cannot provide qualified teachers for basic subjects, everyone would agree that the funding is inadequate. Indeed, court cases and popular discussions of funding adequacy typically begin by scouring a state for school buildings that do not meet minimal construction and maintenance standards and using these to make the case for increased funding. Yet the vast majority of all schools, even schools in low-spending states, meet the minimal standards that we can all agree upon. It is the very broad midrange of schools where the majority of spending goes and where there are no obvious defects that is important.

The adequacy approach in my opinion founders on the same issues as the more traditional disparity discussions. Within the current organization of schools, spending is not closely related to performance. Therefore, it is impossible to define what adequate resources might mean. Advocates of an adequacy standard frequently begin with a laundry list of school resources and set about pricing them by some rough notion of market prices. The problem is simply that we do not currently know how much a top teacher costs as compared to, say, an average teacher. Therefore, we cannot reliably develop prices for quality teachers even if we know the basic organization that would be effective.

In simplest terms, the real crisis in education revolves around producing better student performance. We have ample evidence that this involves much more than just adding further resources to schools. We have tried that, and it has not worked. Indeed, we have tried that with a vengeance in urban schools, which in many states are near the top of the distribution of spending, and few believe that it has worked there.

The Problems With School Finance Reform

Research into school performance has demonstrated clearly that there are enormous differences among teachers and schools. Some teachers elicit significantly greater performance gains from their students than do others, and some schools as a whole appear to outperform others. It is just that the good teachers are not systematically the ones with the most education, with the most experience, or with the highest pay. Neither are they the ones teaching the smallest classes. Good teachers are found in unusual places, as Jonathan Kozol (1991) has documented in his research into disparities.

The policy question is how to expand on the number of good teachers and good schools while cutting down on the number of poor teachers and poor schools. We in the United States have pursued two interrelated approaches in the past. We have provided more funds for local school districts in the hope that they will spend them productively, and we have tried to define centrally (generally from the state capital) what is good educational practice. Unfortunately, there is little evidence that this has moved us toward better school performance, even though there is substantial evidence that it has made education much more costly.

Much of the current move toward school reform is simply an extension of the experiment that we have been running nationally for a long period of time. The idea is that we can improve the education in low-spending districts by providing them with more funds. Along with this is the general notion that school finance reform will lift the entire level of spending. Indeed this latter notion is quite explicit in adequacy discussions and in some versions of the more recent discussions of opportunity-to-learn standards.

One explanation for the apparent ineffectiveness of policies based simply on increased resources is the lack of incentives to improve student performance (see Hanushek, 1994). The current structure of schools does not directly reward teachers or schools that perform well anymore that it punishes those that do not. And, although many teachers and schools are self-motivated to do a good job and in fact do a good job, the system is not geared toward promoting that more generally. Coupled with the lack of incentives to perform well are a series of incentives that point in other directions. Issues of job security, of lightened workload, and of social norms create incentives for school personnel that may conflict with goals of improved student performance.

Without more direct performance incentives than currently exist, it is difficult to imagine that schools will improve very much. We simply do not now know how to specify exactly what a teacher should do or how we can provide appropriate leadership in the schools. Such lack of knowledge rules out central direction in how to spend money. On the other hand, if we directly reward those who are doing what we want, the chances for improvement increase significantly.

We do not have much experience with developing performance incentives. There are many alternatives that have been suggested, including charter schools, merit pay for teachers, merit schools, magnet schools, school choice, and educational vouchers. There is little available evidence on how to design such programs or what their ultimate effects might be, although there are strongly held ideological positions on each of these possible policies.

We can, however, tie the discussion back to possible school finance reform. Efforts to raise and to equalize spending across districts (or even across states) do not relate to the performance of the schools. Because additional funding to any given district may or may not be used effectively (at least if we can go by past behavior), an altered funding scheme will probably just increase the amount of inefficiency in the system. It is unlikely to lead to improved performance either in the aggregate or for specific students, say the disadvantaged.

Is it fairer? Some argue that "low-spending districts should have the same chance to waste money as high-spending districts." This does not appear to me to be a principle that we should subscribe to when the problem of school performance is serious and when pressures continue to mount for the efficient use of public monies. Moreover, all of the existing evidence suggests that this is simply an ineffective and unproductive way to improve the economic status of the disadvantaged.

CONCLUSIONS

The position I have outlined is simple. I believe that it is extremely important to improve the quality of the nation's schools. I also believe that inequities in the provision of education are a real embarrassment to us. This is, I believe, the position of a majority of the American people. The only issue is how to deal with the problems.

Extensive scientific evidence indicates quite clearly that there is little if any relationship between the resources devoted to schools and their performance—at least as schools are currently organized. This fact raises serious question about the efficacy of traditional school finance proposals for improving public education. Moreover, it underscores the impossibility of developing adequacy standards that cover anything but the most obvious deficiencies of schools.

More recently, school finance reformers typically indicate that of course they are not talking about the current structure of schools. Finance changes must be linked to organizational changes or must require concomitant introduction of programs known to work. The problem remains, nonetheless, that most school finance reform still is based largely on an input, or resource-based, model of educational policy; the key element is providing sufficient resources. This approach generally sets up entirely the wrong incentives.

The peril I see at the current time is that we cannot afford to make further mistakes. There is enormous public sentiment for improvement of the schools, but the public is also growing wary of pure spending plans. The public is looking for evidence of performance. If even more is spent on schools and performance does not follow rather quickly, a powerful backlash could occur.

NOTES

1. A compilation of the results of 187 separate estimates of the effects of specific school resources on achievement is found in Hanushek (1989). Subsequent studies have not altered the conclusions in that article.

2. The rise in teacher salaries over the entire period actually incorporates a decline during the 1970s and rapid growth in the 1980s. The increases in real salaries have, however, almost exactly matched salary growth for college-educated workers in other occupations. Therefore, relative salaries have remained essentially constant. The analyses of educational performance discussed earlier indicate that variations in salaries across teachers are not closely related to teaching performance. It may be, however, that changing the salaries of teachers relative to other professions would yield different effects. We simply do not have evidence one way or the other.

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