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Making America's Schools Work

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No one is happy with America's schools. Students, parents, politicians all call for schools to do a better job. The news media regularly report the failures of U.S. education, whether in the poor showing of American students in international test score competition or in the deficiencies of graduates entering the workplace.

Often the blame is placed on tightfisted government officials and taxpayers. Teachers' salaries, it is said, are too low. Class sizes are too big. The school year is too short. Educational reformers emphasize the need for renewed commitment to schooling—a commitment that is often translated into an appeal for expanded resources for schools.

But in fact, the nation has been spending more and more to achieve results that are no better and perhaps worse. Between 1960 and 1990, while student performance on such tests as the SAT and the National Assessment of Educational Progress faltered, real (inflation-adjusted) public spending on elementary and secondary education in the United States rose from just over \$50 billion to almost \$190 billion. Real per-student spending more than tripled—from \$1,454 in 1960 to \$4,622 in 1990.

Surprisingly, the increased costs, combined with public dissatisfaction with school performance, have aroused few protests or demands to

stop the growth in spending. One explanation for the public's silence may be that the dramatic 1970–90 drop in the school-age population masked overall spending increases by offsetting much of the rise in per-pupil instructional costs. But if that is the case, trouble lurks on the horizon. For the population of school-age children is on the rise again, and with it, fiscal pressures.

America's lunar-landing approach to school reform—devote sufficient energy and resources to the problem and the nation will crack it—is not sustainable. Education faces stiff competition for society's limited resources. The nation will not, indeed cannot, continue to spend more and more on education to achieve flat or falling performance.

More Money, Better Schools?

Nor is there any *reason* to continue to pour ever more money into the schools, given their current organization. Over the past quarter century, researchers have made the surprising discovery that there is little systematic relationship between school resources and student performance. For every study that finds that increases in basic school resources promote higher achievement, another study shows just the opposite.

Take class size, for example. The intuitively appealing idea that smaller classes will improve student learning is a perennial cornerstone of educational reform. As a result, the pupil-teacher ratio in American schools is always on the decline. The ratio, which stood at 35–1 in 1890, fell to 28–1 in 1940, 20–1 in 1970, and less than 16–1 in 1990.

But econometric experimental evidence shows vividly that across-the-board reductions in class size are unlikely to yield discernible gains in overall student achievement. That is not to say that small classes are never useful. Some situations may lend themselves to smaller classes, while others can accommodate larger classes. For example, individual tutorial programs can substantially improve the achievement of poorly performing primary school students, while other students in various situations can be placed in larger classes without jeopardizing their achievement—so holding overall cost constant. Indeed, in Japan teachers and administrators expressly trade large class size for more time for teacher preparation. But so far, U.S. schools have made little effort to learn which uses of resources, for smaller classes or other purposes, best promote student achievement.

As the public school system is now organized, some schools appear to use money and resources effectively, but others do not. In fact, resources are spent ineffectively so often that there is simply no reason to expect overall improvement from increased resources. School administrators today are not monitoring the performance of their programs or the effectiveness of resource use. Schools have no way to know what does and does not work. What's more, few incentives push toward improved schooling and higher student performance.

Put the Money Where It Works

The highest priority for America's schools today is to use existing resources more efficiently. When economists try to interject the economic principle of efficiency into the education debate, however, they often meet with stout resistance—largely because of misunderstandings. Efficiency does not mean that educators should measure both the costs and benefits of various approaches to education—and choose the approach that maximizes the excess of benefits over costs. In simplest terms, funds devoted to schools should be put to their best possible use. If two programs are competing for limited funds, put the money into the one that achieves the best results. If a program does not improve student performance, do not fund it.

These notions are so commonsensical that resistance to them would seem out of the question. But as America's schools are now run, virtually no one in them has a serious interest in improving performance or conserving resources. And all are reluctant to face the uncertainty that change would entail.

The best way to improve performance is to establish mechanisms that directly reward improvement. In general, school systems can be run in two ways: through regulation and through performance incentives. Regulation is a centralized command and control system. Central management creates a system of rules. Results can be satisfactory if the rules are appropriate and useful, if the schools can be adequately monitored, and if punishments for violating rules are sufficient to ensure that rules are obeyed. Performance incentives, on the other hand, rely more on rewards within a centralized system of decisionmaking. Central management specifies its goals and rewards those who achieve them. Typically, incentive systems specify what is to be achieved and

leave it up to the agent to decide how, while regulatory regimes attempt to specify both what and how.

Today's schools rely far more heavily on regulation than on incentives, even though education is inherently a highly decentralized activity. Almost all productive work is done in classrooms. It is next to impossible to create a single set of regulations capable of identifying, hiring, and mobilizing America's almost 3 million teachers. Still, despite the evident difficulty of applying strong regulatory regimes to education, schools today make little use of performance incentives—with results that are all too evident.

People respond to incentives, be they financial, emotional, or some other form. When rewarded for an action, people do it. Students, teachers, and other school personnel are no different. Moreover, every organization, either implicitly or explicitly, sets up incentives for action. Unfortunately, few incentives within today's schools relate to student performance. If school reform is to work, that must change.

Learning about Incentives

It is not enough simply to exhort schools to “use performance incentives.” Performance incentives come in many forms, and incentives that work in one school system may not work in another. If there is a single, glaring lesson to be learned from past attempts at school reform, it is that no single overarching reform can solve the problems of every school. Policymakers must decentralize school systems to allow local decisionmakers to devise programs appropriate for their situations. They must also help provide the discipline to ensure that those programs are effective.

The school reform landscape is dotted with proposals for new programs of educational incentives. The ideas behind them are conceptually appealing, but so far we have little experience with the programs in practice. Somewhat hesitantly, schools have begun to experiment with a variety of new programs that differ both in how they define “good” performance and how they reward it. For example, charter schools enable teachers to set up new schools to try out new educational ideas in exchange for performance commitments. School choice and educational vouchers give students and their parents an important voice in determining whether schools are good by allowing them to decide which to attend. Merit pay for teachers and principals, together with at-

tempts to contract educational services to private firms, provide still other performance definitions and incentives.

Applications of these new programs have, nonetheless, been very limited. All will need to be tested far more widely, and much greater effort will have to go into evaluating their performance and disseminating information about their results. The field of medicine has made great strides by wide and systematic experiments to test the efficacy of new treatments and publicize their success or failure. Schools should do likewise.

In some ways the discussion about performance incentives has become confused with notions of decentralized decisionmaking. Considerable legislation and local change has been devoted to promoting decentralized decisions through such means as site-based management or semi-autonomous subdistricts. But decentralization alone is not enough—for it has been tried widely and has frequently failed to lead to general improvement. Decentralization must be combined with well-crafted performance initiatives based on clear definitions of good performance. These definitions, in turn, require agreement on the goals and objectives of the schools.

Measurement and Evaluation

An essential ingredient of reform will therefore be clear measurement of student performance—a subject that is itself controversial. Naturally, people differ on what they think schools should accomplish, on how those things are best evaluated, and, ultimately, on what part of student performance should be attributed to schools.

The starting point must be a plain delineation of goals and objectives. While defining a good education is politically difficult, performance in core academic areas should be paramount. If schools fail to prepare students properly with basic literacy, numeracy, and analytical skills, they will never be judged successful.

One aspect of performance measurement that is being hotly debated is the appropriateness of currently available standardized tests. Many participants in that debate, however, can agree on three points. First, good measures of student performance are essential to educational improvement. Second, while the appropriate testing instrument depends considerably on the purpose of measurement, existing tests, though far

from perfect, do provide useful information in assessing schools' performance. Third, although test measurements can and should be improved, evaluation of schools should not await development of the perfect instrument.

One confusion about performance measurement involves judging the contribution of schools. When student test scores are made public, many people immediately judge the performance of schools solely on the basis of these scores, implicitly ignoring the fact that student performance is the result of much more than just the schools. Inevitably it involves a mixture of schooling, education in the home, innate abilities, and the like. Thus for example, a teacher or school that must deal with students unprepared for their current grade level should not be penalized for poor student preparation. Instead, attention should be focused on what the teacher or school contributes—on their “value added” to learning. This focus is particularly appropriate when student performance is incorporated in incentive systems. Concentrating on value-added is also essential to program evaluations that attempt to uncover effective approaches to schooling. Indeed, when value-added is appropriately measured, we may well find that some schools with high average scores are really contributing little to students' performance and vice versa.

Altered Roles

Moving toward a school system that uses resources effectively, emphasizes incentives, and recognizes the importance of evaluation will require all participants to take on new roles and responsibilities, which will, of course, vary across states and districts.

Teachers, perhaps the most important element of our schooling system, must take an active part in improving schools. Yet teaching under a new system based on performance incentives and decentralized decision-making promises different challenges—and requires new experience, training, and expectations—than teaching today. One way to introduce changes into teaching without completely alienating current teachers is two-tier employment contracts. New teachers' contracts would offer fewer tenure guarantees, more risks, and greater flexibility and rewards. Existing teachers could either continue under existing employment rules for tenure, pay, and work conditions or opt for the new-style contract. The expectations that today's teachers had when they entered the profession cannot be arbitrarily revoked if we expect schools to improve.

State governments should put aside many of their old tasks—laying down school curricula and procedures—and instead promote local experimentation with new incentive systems and then help produce and disseminate evaluation results. States should define performance standards and explicit student goals. Finally, states share with the federal government a role in ensuring equality of opportunity. Disadvantaged students may well require additional resources, even when all schools are using resources effectively. Moreover, states must monitor the performance of local districts. When performance is unacceptably low, states must intervene through school choice programs or voucher systems that will enable students in poorly performing districts to move to better schools elsewhere.

The federal government should join states in setting goals and standards, developing performance information, supporting evaluation, and disseminating results. It should also take the lead in supporting supplemental programs for disadvantaged and minority students. (Programs for the disadvantaged should themselves follow the same guidelines as all other programs but may also involve expansions of earlier childhood education, integrated health and nutrition programs, and other supplemental interventions.)

Local school districts' responsibilities—making curricular choices and managing teacher and administrative personnel—would remain nominally the same but would actually change significantly if states removed many of their restrictions on instruction and organization. Moreover, if major decisions devolved to local schools, new emphasis would be placed on management and leadership.

Businesses too could take on a new role. While businesses frequently lament the quality of workers being turned out by the schools, they have never worked closely with schools in defining the skills and abilities they want. Closer consultation with schools, perhaps coupled with long-term hiring relationships, could aid both schools and businesses. Moreover, businesses could give students valuable incentives to perform well in school by making it clear that hiring decisions are based on school transcripts. And experienced business managers might have much to teach schools about how to manage performance incentives.

Finally, parents, who often have few opportunities to play an active part in schools today, would have a crucial role in many incentive-based systems of school management. Systems of choice require parents to decide which school offers the best opportunities for their children.

Systems of decentralized management give parents a chance to become more actively involved in running schools, and indeed may require it.

An Overriding Perspective

Reforming America's schools does not require more money. On the contrary, the cause of reform will best be advanced by holding overall real spending constant. Schools must acquire the discipline imposed by economic efficiency. They must learn to consider tradeoffs among programs and operations. They must learn to evaluate performance and eliminate programs that are not working. They must learn to seek out and expand on productive incentive structures and organizational approaches. In short, they must make better use of existing resources.

Inefficiencies in the current structure of schools are widespread, but there is little interest or pressure to eliminate them. Where such interest exists, it is often thwarted by regulations or contract restrictions that do not permit reasonable adjustments in personnel, classroom organization, the use of new technologies or other approaches that might improve performance for existing spending. If America's schools are to improve, they must embrace the basic principles of economics, with its attention to effectiveness of expenditures and to establishing appropriate incentives.

In the long run, the nation may find it inappropriate to increase school spending. It is simply hard to tell at this point. But it is clear that expanding resources first and looking for reform second is likely to lead only to a more expensive system, not a better one.