

Midwest approaches to school reform

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On October 26 and 27, 1994, researchers and policymakers met at the Federal Reserve Bank of Chicago to exchange information and research about current attempts to reform education finance and delivery. School reforms and experiments are taking place across the U.S., and the Midwest currently lays claim to diverse reform efforts. On the finance side, the states of Michigan and Wisconsin have recently voted to diminish the local property tax as the primary source of school funding and to increase the state government's role in funding. As to delivery of school services, the city of Milwaukee has the nation's only system of cash vouchers from public coffers that can be used to pay tuition at local private schools. Charter schools, a public-private hybrid, have been authorized in both Michigan and Minnesota, while programs allowing students to choose public schools across local school district boundaries are now in effect in Minnesota, Iowa, and metropolitan Milwaukee. Minneapolis schools have contracted with an outside agency for provision of some school services. The Chicago public school system has chosen a reform approach of site-based management with local communities participating in school management and budgeting. The Chicago Fed's conference addressed these diverse efforts and evaluated each of them in an attempt to help the region's policymakers as they choose among these and other models.

In an opening presentation, Michael H. Moskow, President of the Federal Reserve

Bank of Chicago, outlined a framework for the conference proceedings (see box). He noted that one of the key determinants of our economy's rate of growth is the skills and training of our work force—what economists call human capital. He stated that the Midwest has been somewhat of an incubator for finance and delivery reform experiments. For example, Michigan has made a major overhaul of its system of school financing, as a result of which the state government has become responsible for providing nearly 80 percent of educational funding. However, fiscal strains can be seen in other school districts throughout the Midwest, both urban and rural. The state of Illinois continues to wrestle with school funding problems; the Chicago public schools in particular face an impending \$300 million deficit in school year 1995-96.

Moskow then turned to the many experiments with choice among public and private schools. Such experiments introduce competition into the provision of schools services in the expectation that this will improve the quality and reduce the cost of education. However, Moskow cautioned that it is difficult to evaluate education vouchers and similar experiments in school choice. In order to measure whether such experiments improve learning and reduce

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costs, one must simulate a full-scale program for an extended period of time. The long-term benefits of choice such as opening of new private schools, improvement of existing public schools because of competition, and in-

creased research and development spending cannot reasonably be expected to occur unless the program covers a sufficient number of students for a guaranteed, extended period of time.

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October 26-27, 1994

Federal Reserve Bank of Chicago

Introductory remarks and welcome

Michael H. Moskow, President, Federal Reserve Bank of Chicago

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Michigan's recent reform of school finance

Paul Courant, Edward Gramlich, and Susanna Loeb (University of Michigan)

School finance reform: The view from Wisconsin

Andrew Reschovsky and Michael Wiseman (University of Wisconsin)

Respondents:

Illinois—Therese McGuire (University of Illinois)

Indiana—Larry DeBoer (Purdue University)

Iowa—Thomas Pogue (University of Iowa)

The South Carolina experience with incentives

Garrett K. Mandeville (University of South Carolina)

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Respondents: Joel Galloway and Dan Schooley (Governor's Office on Charter Schools, State of Michigan)

Public school choice in Minneapolis

Robert Meyer and Steven Glazerman (Harris School of Public Policy, University of Chicago)

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John F. Witte and Christopher A. Thorn (University of Wisconsin)

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Directions in management and delivery in urban school systems

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Kenneth Wong and Gail Sunderman (University of Chicago)

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Thomas A. Downes and Jacquelyn L. Horowitz (Tufts University)

Respondent: John Easton (Chicago Public Schools/Chicago Panel on School Policy)

Baltimore city public schools: Experimenting with private operation

Sammis B. White (University of Wisconsin at Milwaukee)

Respondent: Elaine Salinas (Urban Coalition)

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In closing, Moskow posed some questions that he hoped the conference would address:

1. Insofar as education is a public good that benefits our society and economy, do school financing systems in the Midwest ensure a sufficient and stable level of funding for every child? What criteria should be used to determine what this level is?

2. State and local electorates hold the purse strings to school finance, and increasingly, voters are refusing to fund schools without further evidence that their money is being well spent. Can experiments with incentives and accountability improve public school performance? And can such experiments satisfy voter concerns that public schools have become divorced from incentives to excel? If so, can programs such as these be transferred to Midwest school systems, particularly urban schools where lagging performance is most evident?

3. One longstanding alternative to tightening the incentive structures in existing schools has been to impose the discipline of the marketplace by allowing parental choice among schools. Most of these experiments have allowed choice among public schools only, including magnet schools, open enrollment, and most recently the creation of the public-private hybrid called charter schools. Can a half-step towards choice (that is, limiting choice to public institutions) achieve the market discipline and competition that is predicted to bring meaningful reform and innovation to public schools that are not working well? Or can we reach that outcome only with competition from the private sector as well? Can the private sector do a better job than our public schools, and if so, can it do that for sufficient numbers of students?

4. The reform currently underway in Chicago schools reflects the belief that it is not the publicness of our schools, but rather their organization that needs to be improved. The Chicago approach is to empower local schools and communities with the authority to make decisions regarding educational services. Can site-based management work? More important, what must all groups do to make it work in Chicago?

5. Finally, one question that has dominated educational reform movements in America from the beginning is, who should shape our schools—local government, state government,

federal government, parents, professional educators, or voters in general?

Issues and experience in school finance reform

The conference's first session addressed the issue of school finance reform, with particular attention to recent changes enacted in Michigan and Wisconsin. By nature, questions of finance relate not only to school services themselves, but also to the tax structure that affects each taxpayer and every economic sector. Michigan has dramatically restructured its school finance mechanism by sharply increasing the state government's responsibility for education. Wisconsin is also considering such a shift. An important question surrounding such measures is whether greater state participation in school funding will help or hinder the movement to improve the quality of education that public schools offer.

Michigan's recent reform of school finance

Perhaps no place in the nation has received more attention for a recent experiment in education reform than the state of Michigan. In 1993, the legislature, with bipartisan support, decided to eliminate the use of the local property tax to fund local education. When it did this, the state enacted a \$6 billion tax cut without identifying how the lost revenue would be replaced. The following year, voters approved a package of tax changes to fund the schools. But the story of Michigan's sweeping education reform goes beyond deciding which tax source should fund local schools. In their presentation, Paul Courant, Edward Gramlich, and Susanna Loeb discussed the implications of Michigan's new school financing structure.

The elements of Michigan's new funding structure are well known. Through a referendum in the spring of 1994, voters agreed to increase the state sales tax, establish a statewide property tax (with differential rates for homeowners and businesses), and increase the tax rates for two other small revenue sources to help replace the lost property tax revenue. The motivation for largely abandoning the local property tax as a funding mechanism had less to do with education reform and more to do with the fact that Michigan's property tax rates were already above the national average and had been steadily climbing. Property taxes had risen from 4.3 percent of personal income in 1978 to 5 percent by 1991. However, because

this new group of taxes replaced the local property tax, the character of Michigan's school funding has been radically changed. To begin with, state tax revenues now account for nearly 80 percent of local school financing. Under the old system, the state's share had been 31 percent. The other elements of the Michigan plan focused on school improvement and received less attention. These included adding requirements to the academic core curriculum, establishing pupil performance standards, and authorizing the creation of charter schools.

One of the most significant changes that emerged from this reform effort was a change in the state mechanism for providing aid to local school districts. Before, the state had used a modified power equalization plan as a way to reduce spending differentials between rich and poor districts. Now, a modified foundation program would be used. As the authors pointed out, the power equalizing program aimed to lower the price of purchasing education in property-poor districts by guaranteeing these districts a minimum tax base per student. In practice, however, the program did not eliminate significant spending disparities among districts. Wealthy districts often had a tax base above the state's guaranteed level; moreover, they were often more willing to spend more on education. Since those districts were "out of formula," they received no state aid from the power equalizing formula but were still able to raise more revenue per mill of tax rate than districts receiving state aid. The lack of success of programs such as these, even among districts "in formula," has been explained by the fact that the wealth elasticity of demand for education exceeds the price elasticity for education in absolute value.

The new foundation grant system will eventually reduce the disparity in spending levels between school districts. In the 1994-95 school year, all districts have been raised to a basic foundation level that will eventually reach \$5,000 per pupil. Future increases will be determined by what the authors termed the School Aid Fund Index (SAFI). This switch to a foundation grant system will have differing effects depending on the previous expenditure habits of individual districts. The 365 districts that spent less than \$4,772 per pupil in 1993-94 will be brought up to the foundation level. The 122 districts currently spending between

\$4,772 and \$6,500 per pupil will be allowed to continue their current spending levels but will receive only small real spending increases per pupil. The 37 wealthiest districts, which spent more than \$6,500 per student in 1993-94, will receive a grant of \$6,500 in 1994-95 and will be allowed to levy an additional local tax on homestead property to restore their spending to \$160 million more than 1993-94 levels.

The authors suggested that the effect of this new formula will be to increase education spending dramatically in the lowest-spending districts, while largely freezing the nominal dollar differences in spending in middle-range districts (those currently spending between \$5,000 and \$6,500 per pupil). The authors also predicted that real spending on education in the wealthiest districts would decline over time. Greater equalization in expenditures will occur as spending levels at the bottom rise while those at the top decline.

One problem in this equalization plan is that it does not compensate for price differences in providing education across districts. It tends to cost more to operate a school in an urban area than in suburban and rural areas. As a result, some districts will be receiving significantly more resources than other districts even if all get the same numbers of dollars per pupil. But measuring the differences in the cost of providing education is not an easy matter. In an attempt to do so, the authors presented a series of models that are essentially reduced form regressions of per-pupil spending using some demand variables and some cost variables. These models yielded a truer picture of the real disparities in spending among districts.

The authors next examined how the new funding system will play itself out. Assuming that the law remains in effect as currently written, they estimated that the distribution of spending between districts would be significantly equalized by 1999-2000. The current coefficient of variation of spending is .21; by 2000 it will have dropped to .12. Real per-pupil spending in the poorest districts will increase by \$1,850, while the highest spending districts will be limited to increases of around \$250 per pupil.

In addition, the authors believe that wealthy districts will be reluctant to maintain or increase spending once voters realize the tax increase this will require. Since only

homestead property can be taxed and not all taxable property in the community, the price of these local option taxes will be very high, and voters may ultimately reject them. If this happens, the authors estimate that maximum spending per pupil in real terms will be \$8,836 by 2000. By comparison, if wealthy districts continued to levy these optional local taxes, the maximum per-pupil expenditure would be \$10,376.

A final question is what will happen if the state finds it cannot raise enough revenue and must significantly change the foundation formula. The current law permits several legislative options to address a state funding shortfall, including allowing the basic grant to grow more slowly than the formula, and permitting a rise in the millage for the state property tax. It is hard to predict how such adjustments might be made. In the short run, any pressures in this direction will be small since per-pupil expenditure levels will be roughly what districts are accustomed to. But this may not be so for long. The foundation program does change the tax price of paying for education for the local districts while not allowing much flexibility to increase or decrease funding levels. As local districts experience changes in their economic fortunes, those with growing wealth may want to spend more on education, but the current program would not allow that. In such a case, pressure may grow to revise the formula, allowing districts more flexibility to increase or decrease spending at the margin. This could unravel the foundation program.

Another aspect of the Michigan reform that bears watching is the development of charter schools. These are schools set up by private groups with a maximum grant of \$5,500 per pupil in state money, an amount that the schools may supplement with their own resources. Charter schools must meet all state curriculum requirements and may not be religiously affiliated. The existence of charter schools may change the nature of the educational debate in Michigan. For years, that debate focused on finance reform. With the development of charter schools and a new funding structure, attention may shift to the content and effectiveness of schooling.

Finally, there is the question of what effect school reform will have on economic development in the state. From a narrow perspective, the most immediate effect is to reduce signifi-

cantly the intrastate variation in taxes that businesses must pay. This should make intrastate location decisions for businesses easier, although as the authors explained, it will not necessarily make the state's business property taxes significantly less than they were before. Under the previous system, roughly 50 percent of eligible capital investments received a 50 percent property tax abatement lasting for twelve years. If under the old system the school district levied the state average 32 millage tax rate, the district might offer a 50 percent abatement in the rate to the new capital. This would bring the millage rate to 16. Under the new system, the uniform local tax rate for schools is reduced to 18 mills, which can be abated to 9. However, the state also levies a statewide tax of 6 mills that is unlikely to be abated. The total tax rate with the 50 percent abatement under the new system is 15 mills versus 16 mills under the old system. However, this will significantly limit the range of property taxes that businesses face at the intrastate level. Communities abating taxes will be at a low of 15 mills for business property, and those choosing not to abate will be at a maximum of 24 mills.

In general, Michigan's reform will reduce variance in education spending. Moreover, by substituting more slowly growing state tax sources for the property tax, the reform will likely slow the rate of growth on education spending in the state. While the district-to-district variation in per-pupil expenditures will narrow over time, the new system does initially preserve the current differences in funding levels. This may allow the plan to be more politically popular than if it had radically revised expenditure levels. The challenge is to see how this new structure continues to influence education reform at the classroom level.

School finance reform: The view from Wisconsin

The system of school finance in Wisconsin is undergoing major changes. Last year the legislature restricted the annual growth of school district revenues to the rate of inflation. In spring 1994, legislation was passed committing the state to fund two-thirds of total school spending beginning with the 1996-97 school year. This commitment will require the state to distribute an additional \$1 billion in state funds to local school districts. In Wisconsin, educa-

tional funding issues have been shaped somewhat more than in other states around issues of equity. In part, this is because the state's constitution requires that the state's schools "be as nearly uniform as practicable." For decades, Wisconsin's policymakers have struggled to develop a school finance system that achieves an acceptable level of uniformity. Andrew Reschovsky and Michael Wiseman distinguished several alternative definitions of school finance equity. They evaluated the effectiveness of Wisconsin's current system of school finance in achieving these equity goals and assessed the likelihood that the newly enacted reforms will improve the fairness and overall quality of education in the state's public schools.

The predominant type of state aid system that Wisconsin now uses is generally known as district power equalizing (DPE). Approximately 80 percent of state school aid in Wisconsin is provided under this program. DPE systems distribute state grant monies in such a way that, in making decisions over the local school district property tax rate, each district raises total funds as if it were drawing from the same or "guaranteed" property tax base. The guaranteed tax base can be set equal to the tax base per pupil of the wealthiest school district in the state or, as in Wisconsin, it can be set at a lower level. For those school districts at or below the guaranteed tax base per pupil, DPE systems equalize the total of state and local funds raised per pupil for any two districts that impose the same tax rate on themselves. (In Wisconsin, school districts with property tax wealth above the guarantee also receive a small amount of "minimum" aid.)

The authors maintained that, in guaranteeing equal school funding for any given local property tax rate, DPE systems are designed to fulfill a rather narrow notion of equity which they call "taxpayer equity." Standards of equity oriented toward equal funding per pupil, equal educational outcomes, or an assured minimum level of education for all pupils are not addressed by DPE. For several reasons, and despite generously funded DPE systems, some property-poor districts do not choose to impose property tax rates on themselves as high as their property-rich counterparts, implying lower spending per pupil in some low-wealth districts. Since states do not typically require local school districts to enact any mini-

mum local tax rate, the authors believe that not every district will necessarily reach the goal of adequate school funding per pupil. Finally, a DPE funding mechanism does not account for the fact that some students, such as those from disadvantaged households, may be more costly to educate. In sum, by design, DPE formulas cannot satisfy equity notions of equal and/or adequate provision of education services across all school districts.

Wisconsin's version of DPE contains several particular features which further limit the extent to which school districts' per-pupil spending levels are equalized. To some extent, these disparities arise because a small number of districts contain property wealth in excess of the state guaranteed base; in addition, 20 percent of Wisconsin grant monies for local education are distributed outside of the DPE system.

Despite its limitations, Reschovsky and Wiseman showed that Wisconsin's DPE has been partly successful in weakening the link between school district property wealth and education funding. This has been accomplished because the state has funded the DPE program generously enough to set the guaranteed tax base per pupil at a high level. For the 1992-93 school year, 90 percent of all pupils lived in districts where the actual property tax base was below the DPE guaranteed tax base. The authors also noted that, as expected with a well-funded DPE system, low-spending districts have lower property tax rates than high-spending districts.

Despite evidence that Wisconsin has achieved a considerable amount of fiscal equalization, that it has moved toward greater equity, and that the state's equity compares favorably with that of other states, there has been widespread discontent with Wisconsin's school finance system in recent years. The major issue has been high and rising reliance on the property tax to finance government in Wisconsin, with local schools accounting for the largest draw on the property tax base. As recently as FY91, property taxes as a share of personal income were 31 percent above the national average, making Wisconsin 11th among all the states.

In an attempt to stem the rate of increase in property tax levies, the legislature has enacted a cap on year-to-year school district revenue growth, as defined by the sum of equalization aid and property taxes. The caps are slightly

less restrictive for lower-spending districts and thus should serve to enhance equalization objectives to a modest degree.¹ A second leg of revenue reform was added in spring 1994, when the legislature committed the state to fund two-thirds of total public spending on K-12 education (up from the present 48 percent) starting in 1996-97. To meet this commitment, the state must come up with \$1 billion in additional state school aid. (A bipartisan commission will determine the source of funds and the method of distribution). Together, the revenue caps and the two-thirds state revenue commitment will work to lower overall local property tax rates by 22 percent by the end of the century.

To date, discussion has centered on how these new monies will be raised and not on how school funds will be distributed. The state's Department of Public Instruction and some school districts have been pushing simply to allocate additional state monies through the existing DPE equalization aid formula. In opposition, the authors argued that the state's current system of school finance and the contemplated changes in funding fail to provide adequate resources to districts that must spend more money if they are to educate children of disadvantaged families or with special needs. If the additional state monies which are now promised to bring up the overall state share of funding are distributed through the existing equalization aid formula rather than through a modified formula reflecting varying costs of educating children across school districts, then the recent revenue reforms may provide property tax relief, but they will do little to improve equity in educational provision.

Drawing on their analysis of Wisconsin's DPE system and experience drawn from other states, Reschovsky and Wiseman advanced five characteristics of an equitable system of school finance as a guide for policymakers in Wisconsin:

1. A minimum expenditure guarantee should be established. Wisconsin's current system does not guarantee a minimum acceptable level of educational provision. The authors believe that a foundation level of spending should be mandated and funded to the extent necessary by the state. This foundation level should be adjusted over time for inflation and adjusted across districts to reflect differing costs of provision.

2. School aid formulas should take explicit account of cost differences among school districts.

3. The distribution of aid should be tied to educational performance standards. Insofar as educational quality derives from more than just dollars spent, taxpayers are demanding evidence of rising educational quality. More efforts are needed to ensure that school districts have incentives to spend educational dollars effectively.

4. State funding for public schools should be increased in order to provide taxpayers with property tax relief.

5. Consistent with other goals, school districts should retain maximum possible local control over educational and budgetary decisions. Evidence from other states, notably California, suggest that if schools do not provide the education that parents want for their children, public commitment to education will deteriorate rapidly. Flight to private schools has been to the outcome under such conditions.

The authors concluded that the recent revenue reforms in Wisconsin do not fully or wholly address the aforementioned concerns. So-called foundation-type grant schemes are used in a number of other states. Such plans require a minimum tax rate, while at the same time, the state government assures a level of state aid at the foundation tax rate to provide a minimum adequate level of school funding.² Critics of foundation-type systems allege that significant spending disparities can arise under foundation plans because wealthy communities can raise spending above the foundation level using lower tax rates than would be required in poorer districts. However, the authors believe that this may be an acceptable trade-off for Wisconsin. In contrast to a well-structured and well-funded foundation system, the current DPE system in Wisconsin fails to ensure an adequate education for all students; neither does it eliminate spending disparities.

The South Carolina experience with incentives

The second session explored one state's experience with an incentive program designed to reward schools that demonstrate improvements in student test scores. Incentives are

often viewed as a mechanism for encouraging performance gains without making sweeping system-wide changes in the status quo. South Carolina has used a system of centrally administered incentives for ten years, which makes this almost the longest-standing incentive program in the country. How has this program performed? Is it a model that other states would do well to emulate?

As Garrett K. Mandeville described it, the program began in the 1985-86 school year with the straightforward objective of rewarding schools and school districts that demonstrated measurable gains in student achievement levels compared with prior years. This apparently simple objective required the extremely complex tasks of choosing appropriate measures of achievement, establishing an incentive system, and designing a methodology for judging which schools were producing achievement gains. Mandeville helped design much of this methodology.

The state decided to restrict the achievement criteria to improvements in standardized reading and math tests. Clearly, skills in these subjects are critical to student success, and both areas were seen as needing improvement. In addition, math and reading were selected because standardized tests in those areas were already being given at more than one grade level. Since student performance within the same school varied across different grade levels, it was decided to evaluate improvement in test scores at multiple grade levels. In regard to assessing achievement gains, two options seemed to be available. Gains could be assessed at the individual student level or aggregated for all students within the school. Data availability and time constraints led policymakers to choose school-level data as the appropriate measure for the first year.

By the end of the first program year, the state Department of Education had some concerns about the initial method and decided to judge performance gains on the basis of differences between actual and predicted performance in longitudinally matched student data. This approach, while requiring significant data preparation and analysis, was seen as yielding a more accurate picture of the performance of students and schools. This process was enhanced with additional information that made it possible to categorize schools according to their students' socioeconomic status.

Schools whose students had higher socioeconomic status were required to show larger gains in student improvement than were low-resource schools in order to qualify for incentive grants. Eventually, a similar approach was developed that allowed for different standards to be applied to elementary, middle, and high schools. This alternate approach was introduced because initial experience showed that elementary schools could more easily demonstrate student achievement gains than schools with older students.

In addition to the methodological hurdles South Carolina faced in setting up its incentive program, Mandeville also discussed the characteristics of successful school incentive programs. They must be fair; understandable by school administrators, faculty, and the public; technically defensible; equitable in outcome; and productive of useful diagnostic feedback. Unless school personnel feel the performance criteria are within their control, and that the information that extensive testing yields is useful in improving their performance, the incentives are not likely to serve as much of a motivator. There is also the question of how big an award must be in order to work as a motivating influence. With a School Incentive Reward budget of \$5 million, the typical award works out to about \$25 per student. The state tries to augment this by providing nonmonetary recognition to add prestige value to incentive grants. In the ten years of the awards history only 18 percent of the schools in the states have failed to win an incentive grant; the percentage of repeat winners from one year to the next is only about 10 to 12 percent. Mandeville suggested that this wide distribution in incentive grant winners is beneficial since it encourages all schools to continue to strive to win an award.

Mandeville reviewed several other approaches that have been used to identify school factors that promote achievement. Primary among these is the "effective schools" research movement. These studies were in part a response to the controversial Coleman report (1966) that suggested that schools had little influence on student achievement once a student's home background was taken into account. Dissatisfied with this conclusion, the effective schools researchers paired schools with students of similar socioeconomic background but different levels of aggregate student

achievement, then searched for factors that seemed to account for the differences. These efforts have given way to more sophisticated modeling approaches as researchers have begun to question what the appropriate level of analysis is for judging where differentials in student performance are produced. The analysis has moved from looking at factors specific to individual schools to two-level modeling where influences are examined with a recognition that students may share a school but not share the same classes. Still other researchers have argued for three-level analysis on the grounds that the school is not the basic unit of instruction, but rather the classrooms and teachers that are directly responsible for learning. Such a three-level analysis might produce a more accurate picture of the roots of variation in student performance but obviously requires significantly more data.

Mandeville concluded that while the more sophisticated approaches to analyzing student achievement will lead to a better understanding of the factors that influence performance, in the current environment such an approach could not have been used to award incentive grants in South Carolina. While it is hard to demonstrate that the grants have had a systematic effect on student and school performance, they do provide a starting point for examining the necessary components of a statewide incentive program.

Experiments and experience with choice

One highly visible avenue of school reform has been to allow the primary customers of education to choose their local schools. Public school choice, it has been argued, can promote such diverse goals as school desegregation, increased school productivity, and improved educational outcomes. Such improvements are expected because, first, in exercising the option to purchase or enroll in a school program, parents and students may be able to customize school services to fit their own needs and preferences. Second, proponents of choice suggest that competition among schools will produce greater accountability. Finally, magnet school programs and urban-suburban transfer programs have been designed to achieve greater racial balance within the nation's metropolitan areas. Magnet schools are now the most common form of

school choice, but there are also other options, including charter schools, interdistrict transfer plans, controlled choice programs, and voucher plans that allow parents to choose between public and private schools. How do parents and students choose the "right" school? Do choice programs improve public education?

Charter public schools: A brief history and preliminary lessons

Among the various models for expanding school choice, the use of charter public schools appears to be gaining acceptance. Colorado, California, Michigan, Minnesota, and Massachusetts either have established or plan to establish such schools in the next year. Joseph Nathan expressed his belief that school choice is much like electricity. Handled carefully, it has many benefits; handled badly, it can cause many problems. The charter school is designed to increase educational opportunity for students, expand options for educators, and encourage public school systems to be more responsive.

In his presentation, Nathan discussed the elements needed to create charter schools as well as the experience of the state of Minnesota, where the state legislature authorized 35 charter schools. The movement started in California in 1985, when public school educators suggested that the state authorize educators to create new public schools. Legislators turned them down. The first charter school law was adopted in Minnesota in 1991, when the legislature passed legislation to set up eight charter schools. Charter schools in Minnesota now include a school for the deaf, a variety of inner-city schools designed to work with low-income students, several rural schools that stress greater parental involvement and the more extensive use of technology in the classroom, and a Montessori school.

One encouraging response to charter schools is that in a number of places, the idea has encouraged districts to establish other new programs. For example, after several groups in Minnesota proposed charter schools, the school board receiving the proposal agreed to establish a new school similar to the charter school. In Massachusetts, Boston public schools and the local school board agreed to establish at least six new pilot schools themselves, with many similarities to charter schools. Philadelphia and New York City school districts have

newly developed policies in place encouraging educators and community members to start new kinds of schools.

The concept behind a charter public school is simple. It involved a shift from accountability for process to accountability for results. The idea is that a group of individuals can come together and establish a school with a special curriculum without being subject to the usual administrative constraints that ordinary public schools face, being accountable instead for increased student achievement. If achievement does not improve over the period of the contract, the contract can be terminated. Enrollment is voluntary. Students will still receive the same basic education as students attending traditional schools, but through its charter, the school can define a special purpose for itself. Many charter schools serve special needs students or use innovative teaching methods.

Nathan reported that there are common elements for establishing a charter public school. Since charter schools are allowed to bypass many of the rules and constraints faced by traditional schools, they are held accountable for improved student performance and enter into a performance contract with the state. The state may specify the expected student outcomes, but how the school achieves those outcomes is left up to those who operate the school. Charter schools should be nonsectarian and open to all kinds of students. They should not be allowed to charge tuition.

When states decide to allow charter schools, Nathan believes it is important that a broad range of groups be allowed to propose differing types of schools so that public school boards no longer have the only say in what kind of public education is available. Such groups may include parents, teachers, community members, or a combination of all three. Once the organizers have a model for their school, they can approach a public body for sponsorship, such as the local school board, a college or university, or some nonprofit nonsectarian group. Once the state approves the charter, the school must admit any student who wishes to attend without administering admissions tests or charging tuition. The state provides the school's funding. Each student may be funded at either the state-wide average per-pupil allocation or the average funding level that the student would have received in his or

her former school district. Finally, the participation of students, faculty, and administration in a charter school must be voluntary. While these schools may provide an alternative for many students, many other students, teachers, and parents will prefer traditional schools.

Nathan suggested that during the planning stage, it is important that a charter school establish its core beliefs about learning along with a clear understanding of the skills and knowledge that students will be expected to learn by the time they graduate. These are key elements in enabling a system of accountability. It is also important to recruit broad community support for the school. This means involving not only parents, teachers, and students, but also community members and businesspeople. It is also important to include experienced educators in the planning process so that process is not dominated by well-meaning but inexperienced school reformers.

Two final elements that Nathan discussed were recruiting students and faculty for the new school. Recruiting students requires a well-defined public information campaign. The school's objectives and philosophy must be well articulated and the charter school should be presented as an option to traditional education. Expected student outcomes should be highlighted so that potential clients can decide whether the charter school provides a suitable alternative to their current school. In selecting a faculty, it is helpful to include some of the people who were involved in the planning process so that at least some of the faculty will feel a sense of ownership from the start. A motivated faculty comprised of teachers with specific ideas about working with students is a key to the school's success. The faculty must understand the goals of the school and have the teaching skills to bring them into the classroom.

Charter public schools are still in their infancy, and given their variety and differing objectives, it is likely that some will prove successful while others will fail. However, they provide an opportunity for those who are dissatisfied with traditional public schools to organize their own alternative, and in doing so, to increase the options available for educating children. They also appear to be stimulating some districts to improve their existing schools and open new ones.

Public school choice in Minneapolis

Public school choice programs often are designed to do more than just improve student achievement. In Minneapolis, desegregation has also been part of the city's evolving choice program since the early 1970s. Robert Meyer and Steven Glazerman explored a choice program that attempts to address multiple goals of reform while satisfying the preferences of students for a particular school. While the Minneapolis program requires students and their parents to choose among differing schools, the authors refer to this as a controlled choice system since racial desegregation targets must also be met when students are assigned to schools.

Meyer and Glazerman addressed two questions. First, how successful is the Minneapolis program at matching students with diverse preferences to schools with differing characteristics? Second, has the program reduced or eliminated the racial segregation that would have occurred if students had simply attended their neighborhood school? Many school choice programs reflect a desire to improve schools by forcing them to compete for students. But the Minneapolis program de-emphasizes competition among schools, so the authors did not evaluate it according to the criteria of school improvement.

School choice in Minneapolis can be traced back to two efforts in the early 1970s. The first was spurred when the state of Minnesota issued mandatory minority enrollment ceilings for schools in 1970. In the next year, Minneapolis was found to be out of compliance, and in 1972 it instituted a mixed-strategy desegregation program to meet state standards. The program included enlarging district attendance boundaries, creating magnet schools to attract white students into predominantly minority neighborhoods, and introducing limited busing. At the same time, the Minneapolis school district launched the Southeast Alternative (SEA), which created six federally funded schools, each with its own educational philosophy and instructional strategy. The SEA program was not part of the school desegregation plan, but it provided the city with a group of alternative school models that became the basis for the categorization of schools that is now part of the city's choice program. In 1982, this effort was broadened, and every school in the city was classified either as a magnet school

with a special theme (math/science, urban environment, language immersion, etc.) or as an alternative school such as Montessori, open school, fundamentals school, or continuous progress school.

Beginning in 1989, all students in the Minneapolis school district were required to choose a school. The system currently requires parents of every kindergartner to submit their top three school preferences from a menu of 12 or 13 schools that are available given the student's home address. This menu includes both magnet schools and alternative schools but does not permit parents to select any school within the city. For the most part, each school in Minneapolis has a localized attendance area. In some cases the attendance area is city-wide, but usually it is more narrowly drawn, reflecting individual schools' space limitations and transportation costs. Still, the menu of schools does allow parents a choice of schools with differing structures and educational philosophies.

The choice system is also constrained by other factors. First is the continuing goal of system-wide racial desegregation. Students' race is a factor that helps determine which school choice they are given. Second, siblings are given preference in school assignment so that family members can attend the same school. Finally, children with special needs are assigned according to which school can best meet those needs.

Despite these limitations, the Minneapolis program does a reasonably good job of giving students either their first or second choice of school. Anecdotal evidence suggests that the safety of the neighborhood where the school is located is the most important factor in determining how parents choose the schools they want their children to attend.

The authors expressed the judgment that the Minneapolis program has succeeded in furthering school desegregation. The city's schools are now significantly more racially integrated than the city's neighborhoods. The controlled choice program helps promote desegregation for two reasons. First, in Minneapolis, neighborhoods dominated by one racial group tend to be adjacent to neighborhoods dominated by another racial group. Families seem to be willing to choose schools located in an adjacent neighborhood. Second, since the system offers such a diverse array of school

types, students may even be willing to travel a considerable distance to attend a school that is particularly well matched to their interests.

In sum, the Minneapolis program seems to be succeeding in allowing school choice and in meeting desegregation targets. Elsewhere, however, most experiments with school choice are intended to improve the schools and students' performance. Whether a controlled choice program can promote these objective still needs to be examined.

The authors concluded with a model for evaluating controlled choice programs with potentially conflicting objectives such as allowing students to choose their school and promoting racial integration. The authors present a model that examines an individual student's utility for a specific school as a function of the school's characteristics, neighborhood characteristics, academic quality, distance from the student's home, and some unmeasured determinants of utility. The authors assume that students rank alternative schools by comparing utility with all of the schools in their choice set. The advantage of such a modeling approach is that it allows one to measure whether controlled choice programs do better than neighborhood schools, busing, uncontrolled choice, or random assignment in enabling a school system to reach desegregation targets.

Who chooses? Voucher and interdistrict choice programs in Milwaukee

John F. Witte and Christopher A. Thorn analyzed the types of students and families now participating in two specific choice programs in metropolitan Milwaukee. Such information is needed because critics argue that choice programs may leave certain groups of students behind in weak public schools, perhaps because their families are unable to make optimal school choices. Conversely, the critics contend, better-informed and generally wealthier families tend to benefit disproportionately from choice programs by leaving the lower-quality public and private schools. Meanwhile, the students who remain in those schools may be ill-served because higher-achieving peers are now absent, or because those parents who tend to act as agents of school change are no longer involved there. Information about the participants in choice programs can be helpful in assessing how evenly the benefits of choice

programs are distributed across the range of the student population. Moreover, information gathered within specific contexts can help policymakers design choice programs to ensure that targeted groups of students will benefit.

Witte and Thorn analyzed the participants in two choice programs now operating in the Milwaukee area: the Milwaukee Parental Choice Program and the Milwaukee Suburban Transfer Program, the latter of which is widely known as the Chapter 220 program. The Choice Program, now in its fifth year of operation, is a small program that provides cash vouchers to students of low-income families in the Milwaukee public school (MPS) system. Vouchers can be applied toward several private nonsectarian schools in the city. Chapter 220 has been operating since 1976 in response to court orders concerning racial imbalance in the metropolitan area's public schools. Chapter 220 allows Milwaukee-area minority students (largely from Milwaukee public schools) to attend other public schools in the metropolitan area (chiefly in the suburbs). During the 1994-95 school year, approximately 6,500 students participated in Chapter 220. The Choice Program does not allow schools to use prior behavioral or achievement data in selecting students. If more students apply than there are positions available, students must be randomly selected. In Chapter 220, poor attendance or serious behavioral problems can lead to rejection of students. Academic achievement can also be taken into account.

Witte and Thorn compared students in the Choice Program between 1990 and 1993, participants in Chapter 220 in 1990-91, and a randomly selected control group of students who stayed in the MPS during 1990-91. In addition, they surveyed a sample of parents drawn from each of these student groups. Descriptive statistics were compiled describing who participates in the two programs and why. Beyond the descriptive statistics, the authors estimated logistic regressions to ascertain whether some of the individual characteristics remain as significant indicators in the simultaneous presence of other characteristics. The regressions allowed the authors to estimate the likelihood of a characteristic affecting a choice decision within a particular school program.

Several findings emerged. As of spring 1991, in comparison to the MPS, Chapter 220 students were more likely to come from

two-parent families and families with higher income. Parents had higher educational expectations for their children and were much less satisfied with their children's prior school than the average MPS parent. Students in the program had been scoring higher on standardized achievement tests than the average MPS student.

Families involved in the Choice Program are opposites of Chapter 220 families in economic and family status; the average income of Choice families is lower (they are more likely to be receiving income assistance), and they are far less likely to be two-parent families. Choice Program students are likely to be performing less well than the typical MPS student before they enter the Choice Program. However, there are some similarities between Choice and Chapter 220 clients. Choice parents, like Chapter 220 parents, are likely to be more highly educated than MPS parents. In addition, the educational expectations that Choice parents have for their children are as high as those of Chapter 220 parents, and Choice parents were equally dissatisfied with their children's prior school. Finally, Choice parents participate much more in their children's education than do any other parents.

Why the differences in characteristics of the clientele of these two choice programs and the Milwaukee public schools? Some of the differences reflect program design, such as the income ceiling constraint in the Choice program. Others, such as the higher education of Choice parents, probably is due to self-selection. The reasons for the Chapter 220 outcomes are less clear because it is impossible to discern the extent to which suburban districts are screening applicants. The authors clearly believe that both programs are providing alternatives to the families involved. The strength of the desire for such alternatives is indicated by the fact that thousands more families have applied for Chapter 220 than can be accommodated, and by the strong dissatisfaction that Choice parents felt for their children's previous schools.

In assessing the impact of these two programs, proponents of school choice will note that the programs are allowing families choice and that specific features of program design, such as the Choice Program ceiling on family income, are ensuring that benefits are targeted as intended. By contrast, others will point out that because of the Choice Program, some

public schools may be losing parents who could be effective agents of change.

Directions in management and delivery in urban school systems

The final session explored the steps that urban school systems are taking to change their structure and delivery systems to improve performance in some of the most besieged school systems. In Chicago, this has led to the creation of local school councils in an attempt to increase local participation in the schools and to move more responsibility for decision-making to individual schools. Will decentralized decisionmaking improve the schools?

A different form of administrative reform is to allow the private sector to take over the day-to-day management of the schools. Baltimore has done this, with a consortium of private firms banding together to run some of the city's weakest schools. Can such an approach bring meaningful reform to urban systems in which public efforts have failed?

Redesigning accountability at the system-wide level: The politics of school reform in Chicago

Kenneth Wong and Gail Sunderman examined the problem of district-wide governance in a decentralized system. The authors argued that the current governance structure of the Chicago public schools is fragmented as various institutional actors, from both inside and outside the school system, compete for influence. Currently, the structure of governance of the schools has moved from centralized authority to fragmentation as local institutions compete for influence and higher levels of government expand their programmatic demands.

The authors noted that recent school reforms place a premium on increasing accountability and control at the local school level. Efforts such as site-based management, parent empowerment, school choice, and professional development programs all favor reducing the role of the central bureaucracy in determining education policy. This focus on decentralization has ignored the role of electoral, policy, and administrative institutions, as well as special interest groups, that shape education policy and resource allocation. Despite this move to decentralization, key institutional actors remain instrumental in the governance of the schools. The school board, the state legislature, the mayor, the governor, and unions all influence the resources that are available for

local school use. The authors argued that to understand education policy and practice, one must consider the system-wide institutional arrangements that make up the structure of school governance.

Chicago provides an excellent case study of the issues involved in the governance of an increasingly decentralized school system. The Chicago public schools have been decentralizing authority since the passage of the Chicago School Reform Act in 1988. Among the notable features of the act was the creation of local school councils (LSC) to serve as the primary policymakers at the individual school level. These councils are composed of six parents, two community members, two teachers, and the school principal. LSCs are responsible for making budget and policy decisions for their schools and can even hire or fire the principal. Under this structure, the principal is also given greater authority in staff hiring decisions, and both principal and teachers have more input into the selection of subdistrict school superintendents. Individual school budgets are provided largely in a lump sum, and it is up to the LSC to establish spending priorities.

The authors cited a number of reasons for the erosion of the central authority of the Chicago school system. Court rulings, state laws, and federal mandates have limited the decision-making role of the central bureaucracy. In addition, the trend towards site-based school governance has made the system more responsive to political concerns of local constituents. Even in those areas in which central administration has been retained, as for example, with categorical programs, accountability is often to state and federal agencies. As a result, the Chicago school system is increasingly governed by a complex set of institutions and actors that often are motivated by different policy goals. For example, the mayor, governor, and state legislature are primarily interested in electoral outcomes, while the school board and central office are interested in managerial and administrative outcomes. Likewise, local interest groups are primarily interested in gaining policy influence. All of these actors are generally accountable to differing constituencies.

Wong and Sunderman suggested that in such a situation, three types of fragmentation are likely to arise. First is vertical fragmentation, in which higher levels of government impose regulations and mandates on the

schools. Second is horizontal fragmentation, in which diverse and often competing sources of authority have overlapping jurisdiction over the same policy area. This occurs, for example, when different institutions such as the School Finance Authority, the school board, and central bureaucracy all are responsible for the school budget. Third is organizational fragmentation, or fragmentation within the central office. This is particularly the case when categorical programs, responding to mandates from higher levels of government, operate as largely autonomous units within the central office. Additionally, central office policy decisions that are driven by fiscal and budgetary concerns are often disconnected from instructional and curriculum tasks at the classroom level.

An additional force that has eroded the central authority of the school system is the district's dependence on appropriations from the state legislature and its vulnerability to the politics of state aid. Jurisdictional contention between Chicago and the suburbs, as well as between the metropolitan area and downstate, has made it increasingly difficult to address Chicago's budgetary problems. Efforts to arrive at a new funding structure to alleviate chronic funding problems in the system have failed. Instead, political impasse has led to a series of patchwork funding schemes that still leave the system with a projected deficit of \$290 million in FY96. Another consequence of decentralization is the politics of shared decisionmaking. As decisionmaking has become increasingly shared among teachers, community groups, parents, and principals, competition for a voice in the system has developed. This has produced, for example, a school board nominating process that is driven by opposing political and constituency concerns, with competition between the mayor and the nominating commission to appoint school board members. There are also operational inconsistencies such that the authority for spending funds is lodged with the local schools, but accountability for how the funds are spent remains at the board level. If money is misused at the school level, it is still the board that is legally obligated to repay improperly spent funds.

To help correct some of these governance problems, Wong and Sunderman suggested that efforts should focus on the appropriate

division of functions among policy actors and that reform strategies should be designed to promote policy coherence. They suggested three initial strategies to help achieve these objectives. First, in order to secure the additional funding needed for the Chicago system, a state-wide coalition could help defuse the policy impasse among city, suburban, and downstate interests. The primary task of this coalition would be to promote the understanding that educational problems in Chicago are a collective challenge and that solving them will advance the state's long-term economic competitiveness.

Second, they argued that new types of performance indicators, in addition to those reflecting student achievement, are needed to judge school success. These could include indicators measuring the effectiveness of institutional leaders in addressing educational problems. Such indicators would extend accountability beyond the schools and students themselves to include policy actors. Finally, the central office needs to be better connected to the classroom. Particularly important is to focus on basic instruction as it applies to all students, rather than specific categories of students, and to provide the instructional support needed at the school level.

Analysis of the effect of the Chicago school reform on student performance

As in many other large urban school systems across the country, test scores and dropout rates for students of Chicago's public school system have been sub-par and getting worse. Moreover, by the end of the 1980s the Chicago public school system had been through political and financial chaos with intermittent funding crises and delayed school openings. Chicago's answer to its travails was to pass the Chicago School Reform Act in December 1988. Aided by state legislative action, this act significantly changed the governance and organization of the Chicago public school system by shifting budgetary, personnel, and educational planning functions away from central administration and toward the schools themselves.

Decentralization and site-based management plans have been tried, to varying degrees and in various forms, in many U.S. school districts in recent decades, including New York City and Miami. The Chicago effort will un-

doubtedly be a useful example for others to study. The plight of Chicago's school system had been widely reported, and its reform has been extensive.

The potential benefits of decentralization are varied. Service providers may be better able to customize their services to fit the needs of their clientele, and they become directly accountable to those served, at the point of delivery—the local school. At the same time, site-based management is said by some to create a greater sense of involvement and community. In addition, decentralized governance is said to promote competition among schools, with attendant gains in cost efficiency and output productivity. Conversely, a centralized system may be less costly if there are scale economies in the provision of educational services. So too, some critics argue that some forms of decentralization only serve to create another bureaucratic layer in the system of educational provision. Still others believe that centralization ensures that school services will be more equitably distributed.

The Chicago School Reform Act had three main components: the formulation of a set of goals to be met by each school by 1994, a reallocation of resources to the individual schools, and the creation of local school councils at every school. The primary goals for schools were raising student achievement levels, attendance rates, and graduation rates to national norms.

While significant resources have been shifted to the school level, it is questionable whether local schools have been given sufficient funds and autonomy. At the same time, however, the school system's finances in general continue to be severely constrained. Other research has found that decentralization is ineffective unless accompanied by increased funding to enable organizational change.

The Chicago School Reform Act created LSCs to be the budgetary, administrative, and educational planning vehicle at each school. The LSCs are composed of six parents, two community members, two teachers, and the principal, all of whom except the principal are elected every two years by the groups they represent. Chicago's site-based management differs from others around the country by including more input from parents and community representatives, and somewhat less from

professional staff. Among other things, LSCs were given the task of producing a school improvement plan and an operating budget.

Thomas A. Downes and Jacquelyn L. Horowitz evaluated the reform's success in reaching some of its primary goals: raising student achievement levels, attendance rates, and graduation rates to the national norm. They also investigated whether any particular features of individual schools or neighborhoods seemed to be associated with differential effects on those student outcomes.

Data from 524 Chicago elementary and high schools and 893 school districts elsewhere in Illinois were assembled for the pre-reform school years 1987-88 and 1988-89 and the post-reform years 1990-91, 1991-92, and 1992-93. These data included student outcome measures such as graduation rates, attendance rates, and standardized test scores such as the Illinois Goal Assessment Program (IGAP). Test scores are only one measure of school and student outcomes and may fail to measure important effects of reform such as increased self-esteem or greater family satisfaction with school. In addition, any changes in test scores may not be attributable to reform. Accordingly, the authors also gathered data on student and school characteristics such as racial and ethnic composition, enrollment, percentage of students with limited English proficiency, percentage eligible for subsidized school lunches, and population mobility between communities. Community data included racial and ethnic composition and the level of educational attainment of adults.

Analyses were performed at the school level rather than the individual student level. Because interpretation of such results may be difficult if a school's student body is changing because of household relocation over time, the population mobility of the surrounding community was used to control for varying student mobility.

Using graduation rates, IGAP scores, and ACT³ scores as outcomes to be explained, the authors estimated multiple regression equations to identify the effects of student and community characteristics, the effects of Chicago school reform (using binary variables for time), and the effects of specific community and student demographic characteristics on school reform efficacy. The latter included characteristics

such as percentage of students with limited English proficiency and percentage eligible for subsidized lunches.

Observations of schools were also added from Illinois school districts comprised of a single school. By doing so, the authors hoped to account for general unobserved influences on outcomes, such as changes in the test itself. Such influences are assumed to affect city schools and control group schools alike, and to exert their influences via community/school characteristics in equal magnitude as well.

Since Chicago's school reform was launched, student performance on standardized tests and graduation rates have fallen. Nonetheless, after accounting for the effects of other influences on test scores in Chicago, the authors concluded that reform has produced some benefits in the city's public schools. Community and student population characteristics appear to be significant determinants of measurable achievement, and changes in Chicago's demographics have tended to obscure real performance gains by students. Similarly, when single-school districts in Illinois were used as a control group, statistical results show that reform acted to mitigate a downward trend in raw mean test scores in Chicago schools. For example, the authors found that Chicago's third-grade IGAP reading scores in 1992-93 were 1.80 points higher than they would have been in the absence of reform.

Other results are less encouraging, however. Schools with high proportions of students with limited English proficiency and students eligible for subsidized lunch programs actually have fared worse during the reform era. Some observers may find these results disheartening since the reforms were intended to allow such schools additional flexibility by giving them greater discretion over the use of so-called Chapter 1 funds. The authors note that the disappointing results may reflect the fact that discretionary income has actually been restricted recently because of the severe fiscal crunch within which the schools are operating. Findings elsewhere indicate that decentralization of school governance is less likely to succeed in the absence of funding increases and under conditions of fiscal austerity. The authors suggest that, if possible, greater efforts should be directed to those types of schools where reform may not be succeeding.

Evaluation of these and other questions is still in its infancy, yet it already seems clear that Chicago's reform efforts offer lessons for the future, here and in other urban school systems.

Baltimore city public schools: Experimenting with private operation

Can student achievement be enhanced by allowing private firms to operate public schools? That is the question examined by Sammis B. White. The city of Baltimore, facing increased frustration in operating the public schools, embarked on a two-track approach to improving the school system. First, the city moved toward site-based management in an effort to increase local participation and management of the schools. Second, in 1992 the city decided to turn over the daily operations of nine public schools to a consortium of private firms called the Alliance for Schools that Work. The nine schools selected were among the weakest in the system. The hope was that private management would improve the efficiency of day-to-day operations of the schools and ultimately improve student achievement. After only two years of experience, it is still difficult to judge whether achievement has been enhanced, but the consortium is claiming a number of successes, and it appears that many key elements needed to improve achievement have been put in place.

The Alliance for Schools that Work has a five-year contract with the school system and is paid \$5,918 per student per year, which represents the average cost per pupil system-wide. The Alliance is a consortium of four companies: Education Alternatives, Inc. (EAI), Johnson Controls, KMPG Peat Marwick, and Computer Curriculum Corporation. Each company has expertise in a particular aspect of school management, but EAI is the lead partner. It manages the operations and resources of the schools and promotes the Tesseract model of education for reforming the schools. This model tries to weave together various "best practice" techniques for enhancing student achievement: having an individualized education plan for each student, enhancing staff development, using instructional interns in the classroom as aides to teachers, improving access to technology, and increasing parental involvement. Johnson Controls is responsi-

ble for the physical operation of the school buildings, including maintenance and repair. It also runs noninstructional operations such as the cafeteria, security, and transportation, which the school system does not provide directly. KMPG Peat Marwick is working to improve financial control so that a better accounting system can be created and more accurate financial statements generated. Computer Curriculum Corporation is designing software that will enable the use of more technology in the classroom.

If the methods of the Alliance are to work, it must change the way funds are distributed. EAI in particular argues that too many resources are being channeled into noninstructional activities. The Alliance seeks to reverse this trend and to increase the efficiency of instructional delivery by improving technology and using instructional interns. Increasing parental involvement in the education process is also key; individual education plans are developed for each student and require parental approval.

While the Alliance may make many decisions about employees and operations, it may not select teachers or principals; these are drawn from the existing city school system. However, the Alliance does hire classroom aides, called instructional interns. These are college-educated adults paid \$7 per hour to work in the classroom and assist the teacher. Previously classroom aides were mostly non-college-educated paraprofessionals who were paid \$10 per hour. The Alliance believes that the presence of college-educated adults, many of whom aspire to become teachers, will enhance learning. Other noninstructional employees such as custodians, security guards, and cafeteria workers are hired directly by the Alliance and usually work at lower wage rates than their predecessors did.

The Alliance's efforts to date have been promising. Gains have been particularly noticeable in the physical condition of the school buildings. All of the school buildings have been physically rehabilitated and are now maintained in an impressive condition. Building systems have been updated and operations are vastly more efficient than previously. Similarly, accounting procedures have been improved. Through better tracking of resources, the Alliance has been able to redeploy spending levels and increase the number of

computers in the classrooms. At the elementary school level, computers are used extensively to supplement classroom instruction. Experience at the middle school level has been less promising, but White suggested this may have more to do with providing teachers with more appropriate ways of integrating computers into class work. The new accounting system also makes it easier to keep track of the student body. Finally, the Alliance reports that by reallocating spending priorities, it has been able to devote \$1 million more to direct expenditures in the nine schools by reallocating spending priorities than the city of Baltimore would have under traditional management.

White reported that it is harder to measure whether the Alliance has had any effect on student performance. In the two years the Alliance has been in charge, test scores have moved little in either direction. White suggested this may be due to two reasons. First, improvement in student performance should be

cumulative, and after only two years, it is simply too early to expect much change in test scores. Second, test scores have been reported on an aggregate basis rather than longitudinally by individual student. White suggested that given the high turnover in the school population, tracking the performance of individual students will produce a more accurate picture of the effects the reforms are having. Another aspect that is showing only limited success is the effort to increase parental involvement. Parents have not shown as much interest in individualized education plans as had been hoped, but perhaps as they become more familiar with them, this will change.

White concluded that while it is too early to judge the effect of the Baltimore experiment on student achievement, the efforts to date do seem to have significantly improved the quality of the educational inputs that research suggests will improve student performance.

NOTES

¹ As part of the same legislative package, the apparent strength of local districts in collective bargaining situations was effectively strengthened. Note also that spending caps can be circumvented through local referenda. However, nation-wide experience suggests that voter approval of local spending referenda is far from automatic.

²In a few states with foundation plans, local school districts are not required to levy a minimum property tax rate.

³ A test widely taken and used for college admissions.