
A Policymaker's Guide To School Funding: Approaches to Use and Questions to Ask

This chapter examines why public and political attention has shifted from achieving equity in school finance to striving for adequacy in school performance. In 2000, the Wisconsin Supreme Court ruled that Wisconsin's school finance system was constitutional on equity grounds. Yet the court suggested that an adequacy case could be brought and even specified what the standard could be to raise all students up to adequate levels of school performance. Four approaches are reviewed that states can use to set an adequacy standard and to determine how much money would be needed to achieve it. Cost estimates are given for three approaches using data on Wisconsin spending and student performance. This chapter summarizes recent research that money can influence student achievement if it is used effectively and efficiently. For policymakers, the question turns on how to plan for effective use of school funding as much as it does on how much to allocate. To help legislators evaluate school funding formulas, this chapter concludes with a checklist of 15 questions that raise several of the issues that legislators should consider and identifies some of the trade-offs they will face.

The legacy began with the one-room country school. As early as 1647, local taxes were enacted in Massachusetts to finance a public education system to help families educate their children. Early on in the nation's history, the leaders of the new American republic recognized that ensuring the liberties guaranteed by the Constitution depended upon an educated citizenry prepared to participate in the affairs of government. Free public elementary schools, first proposed by Thomas Jefferson, were adopted in the mid-1800s.¹ Through the wisdom of its political and civic leaders, the United States provided the world's first system of universal public education, which was considered the most inclusive in the industrialized world.²

From its origins, what became immediately apparent was that different school systems developed depending upon differences in the local ability to pay. Based on beliefs that a state is best-positioned to equalize the funding capacity of local jurisdictions, statewide education systems began to emerge. By 1820, 13 of the then 23 states had constitutional provisions pertaining to public education. Today, all 50 states are required by their constitutions to provide a free public education.¹

Currently the financing of public education in American is at a crossroads. Education remains the ticket to more prestigious and better-paying employment, and the surest way to move families out of poverty.³ Government, particularly state and local governments, continues to make substantial investments in public education at the elementary and secondary schools levels, accounting for almost one-third of all state government expenditures, half of all local government

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expenditures, plus 2% of all money spent by the federal government.⁴ In the 1990s, the courts shifted the focus of the role of state government from equalizing differences in local property wealth and spending to ensuring that schools have adequate funding for all students to achieve high standards of performance.

The financing of public education in Wisconsin is also at a crossroads. In the late 1990s, a court case was brought against the state of Wisconsin arguing that wealthy school districts should not receive any state school aid as now exists in Tier 1 of the state school funding formula. In the summer of 2000, the Wisconsin Supreme Court ruled that Wisconsin's school finance system was constitutional on equity grounds. The Court wrote that the system was "as uniform as possible," but suggested that an adequacy case could be brought and even specified what that adequacy standard might be. School funding would need to be adequate for all students to achieve adequacy in core subjects (i.e. geography, history, mathematics, reading and writing, science) and to receive instruction in the arts, foreign languages, health, music, physical education, social sciences, and vocational training.¹

In 2003, Governor Doyle formed a "Task Force on Educational Excellence" to review Wisconsin's system of school finance and report on its findings in 2004. Legislative interest in school finance is high, because of the state's historic investment in elementary and secondary education, which currently accounts for 40% of the annual appropriations from the state's General Fund.

Beginning in the 1990s, state policymakers in Wisconsin and across the country were faced with several important questions:¹

1. How can state policymakers determine how much money is needed to educate students to high standards, and how can this money be distributed fairly to districts, schools, programs, and students?
2. How can legislators ensure that the investment of state resources will be used to produce better educational outcomes?
3. Who should pay to support public education, and what should the state and local share be?

This report focuses primarily on the first and second questions, given that decisions about who should pay and how much are political issues rather than research questions. This report begins with a brief historical overview of how much money is being spent on education in the U.S. and why attention has shifted recently from achieving equity in school funding to striving for adequacy in school performance. Next we review the evidence on how much money matters in school performance. Then we overview four approaches states can use to determine how much money is needed to achieve adequacy, and what three of these approaches might cost if implemented in Wisconsin. Finally, 15 questions are proposed that state legislators can use to evaluate school funding formulas.

This chapter draws upon the writing of several school finance experts: University of Wisconsin-Madison [Professors Allan Odden](#) and [Andrew Reschovsky](#); Vanderbilt Professor [James Guthrie](#); and school finance consultant [John Augenblick](#). Copies of the studies that this chapter is drawn from are available from the [Wisconsin Family Impact Seminars](#) at (608) 262-0369.

How much Money Is Being Spent on Education?

The funding of public schools has an enormous impact on the economy. In 2000, public school revenues totaled \$378.5 billion. In addition, revenues for public schools comprise 3.9% of the country's Gross Domestic Product and 4.5% of all personal income.¹

The public investment in education is substantial, totaling an average \$7,957 per pupil in the United States in 1999-2000. Expenditures vary substantially across states, from a low of \$5,370 in Utah to a high of \$11,543 in New Jersey (see the chapter by Loppnow & Merrifield in this report). In 1999-2000, Wisconsin ranked 12th in the country, with per-pupil revenues of \$8,870.

On average, revenues for the K-12 public school system have more than doubled during each decade from 1940 to 1990, although increases in the 1990s were the smallest of the century.¹ In the past 25 years, every state (with the exception of California) has increased school spending and some have increased dramatically.⁵ "These facts are at odds with public perceptions that schools do not get much more money each year" (p. 5)¹ Even if budgets only increase 1% to 3% each year, this amounts to about a one-third increase across a decade.

In addition to the level of expenditures, state legislatures have traditionally considered whether students in different school districts in the state have equal access to educational revenues. For example, many court cases earlier in the 20th century ruled that it was inequitable if property-poor districts had to tax themselves at high rates to provide a basic education, whereas property-rich districts could tax themselves at low rates and still produce enough revenue to provide a superior education.⁶ For example, in 2000-01 in Wisconsin, when the 10% of students in the most property-poor districts were compared with the 10% in the most property-rich districts, the students in the poorest districts had 18% of the wealth of those in the richest districts.⁷

Wisconsin's school funding formula offsets most of these inequities by guaranteeing the school districts that choose the same property tax rate will have approximately the same amount of money available to spend on education.^{8,9} For example, in property-poor districts, Wisconsin makes up the difference between what is raised locally and a tax base guaranteed by the state, which is set at about the 93rd percentile for wealth. Spending is guaranteed at about the 60th percentile of per pupil expenditures, which was about \$6,533 in Wisconsin in the 2000-01 school year.^{1,7} Achieving equity is an important goal in school finance, yet recent court cases have moved beyond equity to whether funding is sufficient for achieving an adequate education for all students.

Why This Interest in Achieving an Adequate Education for All Students?

Providing an adequate education, which attempts to raise all students to high standards, has generated public and political interest for a number of reasons, four of which are detailed here. First, state legislators are interested in adequacy because, in a growing number of court cases, adequacy has become the new fairness standard to which state school funding formulas are likely to be held accountable. Courts have ruled that the education clause in state constitutions guaranteed students an adequate level of education in states such as Alabama, Massachusetts, New Hampshire, New Jersey, New York, North Carolina, Ohio,

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Tennessee, and Wyoming.¹⁰ Second, providing an adequate education shifts school finance debate from a focus on inputs (such as per pupil spending) to outcomes (such as student educational performance). This interest in student performance is driven, in part, by research that children with a range of natural talents can learn to write good essays, conduct science experiments, and solve difficult math problems.¹¹

Third, school spending has increased in virtually every state, and state legislatures want to know if the new money has produced better student outcomes.⁵ Because adequacy explicitly links education funding to the quality of education, it is consistent with the accountability required by the 2002 No Child Left Behind Act: every child must meet state student performance standards by 2013-14 or risk the loss of federal funding. In a recent report by the National Research Council, “Never before has the nation set for itself the goal of educating all children to high standards (p. 1).¹⁰

Fourth, some economists believe that striving for adequacy has the potential to remedy problems that equity has failed to overcome.¹⁰ For example, equal spending per pupil doesn’t necessarily guarantee equal student performance, given that the cost of achieving a certain level of performance varies across school districts.^{8,9} Focusing on adequacy forces state legislatures to consider how much costs may vary depending upon characteristics such as the size and location of different school districts and the numbers of students needing special services.

How Much Does Money Matter to Student Achievement?

At the heart of many discussions of school finance is the question of whether or not increases in funding lead to increases in student performance. Whereas many educators would not hesitate to say that more money in the schools yields better results, there has been considerable debate in the policy and research communities as to how strong a link can be established between student outcomes and school funding. Some researchers argue that there is no systematic connection between funding level and student outcomes, whereas others argue that money does make a difference.

Perhaps more informative than the issue of whether money matters is the related issue of how that money is used. If the resources are used to lower class size, there is strong evidence that students can benefit, at least at the elementary level. Yet lowering class size is an expensive reform and there is no consensus on whether it is more effective than other reforms that could be undertaken with the same amount of money (Janet Hansen, personal communication, Jan. 8, 2004). On the other hand, spending on facility construction and maintenance, school-level administration, and teacher education levels were not systematically related to increased achievement.

Researchers Richard Murnane and Frank Levy¹² conducted a study of low-performing schools in Texas that demonstrates how scholars on both sides of the fence may be right about the influence of money on student performance. In 1989, 15 schools serving low income, minority children in Austin, Texas were given an additional \$300,000 annually for five years to address low achievement. Four years later, 13 of these schools still showed poor student attendance and achievement. Yet two of the schools had raised test scores to the city’s average and had some of the best attendance records in the city.

To understand how this supports the findings of researchers in both camps, it is necessary to look at how the schools spent the additional money. In the 13 schools where there was no change in student outcomes, the money was spent almost entirely on reducing class size by hiring more teachers. Yet, while the teachers in these low-performing schools had fewer students in the classroom, they still used the same curriculum and instructional methods.

In the two schools that showed success with the new money, the funds had also been spent on lowering class size. But in addition to adding more teachers to their staff, the schools changed what happened in the classroom and a variety of other factors as well. Now that teachers had fewer students per classroom, the schools' administrators could move special education students into mainstream classes, thereby freeing up a good deal of money for other purposes. Additionally, the schools changed curriculum and brought in health services to immunize and care for children who might otherwise miss school to spend all day at the hospital emergency room. Finally, the schools used a large portion of their new funds to get parents involved in their children's education. These efforts included encouraging parents to participate in school governance issues such as hiring and budget committees.

As the example above shows, money can have a strong influence on student achievement if it is used effectively and efficiently. For policymakers, the question turns as much on how to plan for effective use of school finances as it does on how much to allocate.

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What Approaches Are States Using to Decide What an Adequate Education Is and How Much It Costs to Achieve?

Defining an adequate education and determining what it costs are the thorny questions that state legislators face when reforming school finance policy. This question is challenging because no straightforward relationship exists between school finance and student performance. If researchers knew how much money it would take to produce a specific level of achievement, then state legislators could simply determine what level of achievement they wanted and provide the funds necessary to attain it.

Unfortunately, only a few states have attempted to determine whether they have enough money to meet state and federal student performance standards. Without data on what an adequate education costs, decisions on how much revenue is needed for public education must be made based on such considerations as prior year revenues, comparisons with other states, marginal changes driven by newly-required programs, or emerging budget pressures such as rising health insurance costs. In many states, an adequate level of school funding is determined, not by careful analysis of how much money is needed to educate children to state performance standards, but rather by political considerations such as how much money state and local policymakers determine is available or can be raised.

Over the last few years, four alternative approaches have emerged as ways to determine what adequacy is and how much it would cost: 1) the successful school district approach, 2) the statistical approach (also known as the economic cost function approach), 3) the professional judgement approach, and 4) the whole-school reform approach (and a related approach developed by University

The successful school district approach identifies successful districts and then determines how much they spend to reach state standards.

of Wisconsin-Madison Professor Allan Odden called the evidence-based approach). Each of these approaches defines an adequate education differently and each uses a different method to calculate the dollar figure needed to achieve adequacy.

Because this is a relatively new field of study, the science is not yet exact enough to conclude which of these approaches provides the most precise estimate of the cost of meeting a state's adequacy standard. In fact, the best approach may vary from state to state, and several legislatures have actually decided to use more than one approach to see how similar or different the cost estimates are.¹³ Each approach is described below along with its potential consequences.

The Successful School District Approach. The successful school district approach identifies districts that have been successful in reaching state achievement standards and then determines how much these districts spend. This approach is based on the simple premise that any district in the state should be able to meet the standards if given the same level of funding as those districts who have met the standards.¹⁰ This approach has been adapted for use in several states including Illinois, Maryland, Mississippi, Missouri, New Hampshire, and Ohio.

This approach requires three steps. First, the state must define what an adequate education is and specify which school districts have been successful in reaching this standard. Using this approach, Missouri defined adequacy using the Missouri Assessment Program which includes both outcomes on student performance in five content areas, as well as inputs such as requirements for class size, library/media staff, and administrative staff. Schools were considered successful if they scored 100 points on the Missouri Assessment Program. Using this criterion, 102 school districts were classified as successful and, in these schools, 69.3% of students were rated as nearing proficiency or better on Missouri's state tests.¹³

Second, the basic expenditures of these successful districts were examined. The basic expenditures were those that reflected the cost of serving a student with no special needs and a district with no other characteristics that are taken into account in the state aid formula. Therefore, these basic expenditures do not include spending for capital purposes, transportation, special education, other special programs, and any service funded by federal dollars. Third, a base cost figure per student was calculated for these successful districts. Theoretically, the successful school district approach could be used to determine how much the base cost could be adjusted for differences across school districts such as special education or disadvantaged students, but the data for such analysis are not available in most states.¹³

This approach is most appropriate when the state has specific standards and is able to identify districts that have been successful in meeting these standards. One strength of this approach is that it is state-specific, because it is based on state standards and actual evidence that school districts in the state have been successful with this level of resources. Moreover, this approach is appropriate for state education systems with a tradition of local control because it determines only how much is spent, but not in what ways the resources are used.

Because atypical districts are usually removed from the analysis, successful school districts tend to be nonmetropolitan districts that are of average size and are relatively homogeneous geographically. Critics charge that it is difficult to

make adjustments to the base cost for districts that may differ from those that have been successful. In particular, it is difficult to make adjustments to meet the needs of large urban districts, small rural districts, or districts with high number of students needing special services.⁷

The Statistical Approach. This approach, also known as the economic cost function approach, uses cutting-edge statistical techniques to estimate the cost of achieving a specific level of educational performance. In the statistical approach, an adequate education is commonly, but not always, defined as average scores on achievement tests administered to all students.¹⁴ This approach, still in its infancy, may eventually be the best one after the methodology improves and the cost estimates become more stable.^{10, 11}

The statistical approach estimates how much more or less it costs a district to achieve an adequate education.

The statistical approach originated when economists were asked to use data on school spending and student performance to estimate the costs of achieving an adequate education. Using state-specific data, economists tried to estimate how much more or less it would cost in any given district to educate students to a specific level of performance. Economists believe that one of the reasons why equal spending doesn't result in equal educational performance is that the cost of education may well differ across school districts due to factors beyond their control.

In discussions of school finance, the term costs often is used to mean the same thing as spending. According to Reschovsky,^{8,9} when business people and economists talk about cost, they mean the value of the resources needed to produce a given amount of a particular good or service. To illustrate this, when farmers talk about the cost of producing a hundred-weight of milk, we realize that costs may differ over time and among farmers for reasons that may be largely out of their control. For example, milk costs can increase because of a rise in the price of feed grains or a drought.

Similarly, the cost of educating students to reach a particular educational outcome may also vary. Some school districts may have to spend more money than others to reach this goal. For example, school districts that have more children who are disabled or who come from low-income families may need specialized programs to achieve the same educational outcome. Also, very small or very large school districts, or districts with a high cost of living may have to spend more per pupil than other districts to achieve the same level of student achievement.^{8,9}

The statistical approach typically entails a three-step process which is illustrated here with a study by Imazeki and Reschovsky¹⁴ using Wisconsin data. First, researchers determine the standard of educational adequacy that they are striving to estimate. For example, Imazeki and Reschovsky¹⁴ decided not to use an average achievement score such as 10th grade achievement levels as the adequacy standard because this may reflect achievement experience before school and up to the 10th grade. Instead, they defined adequacy as an outcome that is more apt to capture the schools' contribution to adequacy—the change in test scores between 8th and 10th grade, and the number of advanced courses a school district offers. Second, the researchers quantified a number of different factors that are outside the control of the school district and may affect what it costs to achieve educational goals: children who are disabled, have limited English, or come from

single-parent, low-income families; cost of living, which affects teacher salaries; school size; and the proportion of the students in high school, which requires more resources than the lower grades. Third, the researchers calculated a cost index for each school district, which isolated how much costs varied due to factors outside the district's control. For example, a cost index of 1.27 meant that a school district needed to spend 27% more than the average district to achieve the same adequacy standards.

Not surprisingly, the statistical approach has proven particularly useful in determining how average school costs could be adjusted for differences in the nature of the student body. For example, other approaches have relied on the per pupil weightings developed by the statistical approach to account for the extra cost of educating students with special needs or districts with special characteristics. According to Duncombe and Yinger, "Without such an accounting, some schools get credit for favorable conditions that were not of their making and other schools get blamed for unfavorable conditions over which they have no control" (p. 1).¹⁵

The statistical approach was used in Massachusetts in the mid-1980s to the mid-1990s (Reschovsky, personal conversation, January 8, 2004) and is currently under consideration in Texas. States have been slow to adopt this approach for a number of reasons, four which are detailed here. First, because of its complexity, this approach has proven difficult for policymakers to understand and explain to their constituents.^{5, 10} Second, of all the approaches, the statistical approach pays the least attention to curriculum or educational practices, which are important components of ensuring that resources are used wisely to achieve intended outcomes.⁵

Third, in states where cost estimates have been calculated including Illinois, New York, Texas, and Wisconsin, the cost estimates across districts have been so large that they are difficult to achieve in a real political context.⁷ For example, using Wisconsin data, the average expenditure levels varied from districts that needed 40% less than the average expenditures to districts which needed three times more than the average.¹⁴ Also, city school districts typically need two to three times the average expenditure levels—a cost difference which makes political consensus challenging. Fourth, the statistical analyses take into account teacher salaries, which reflect the cost of living, but do not acknowledge that districts with higher costs of living may also be more desirable places to live.

The Professional Judgement Approach. In this approach, professionals are asked for their best judgement on how to build high-quality schools. In Missouri, where the model was used recently, the goal was to provide all students with an adequate education.¹³ Some of the best educators in the state and sometimes the nation identify what it takes to achieve adequacy, specifically which instructional components are necessary—such as the number and kinds of teachers, programs, professional development, support services, and technology. Once these components are identified, they are costed out to produce a per pupil base cost and adjustments for students with special needs.

Typically, panels of teachers, administrators, and other experts are asked to identify what educational components are necessary in the state for prototypic school sizes (e.g., small, moderate, and large) or types (e.g., elementary, middle,

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and high schools). These panels have been organized differently across states, but they often tap into the views of people who are actually delivering education, as well as researchers familiar with current evidence on best practices.¹³ In some states, panel members come from within the state and in others, they come from outside the state. Sometimes a single panel is used, and other times multiple panels are used with one panel reviewing the work of another. In Missouri, a total of nine panels were created: four schools panels to specify the education components of small and very small schools, moderate-size schools, large schools, and very large schools; four district panels to specify the educational components of small and very small districts, moderate-size districts, large districts, and very large districts; and one systemwide panel to review the work of all the district panels and the consultant's preliminary cost estimates.

Following the meetings of the school and district panels, the consultants made some preliminary decisions about the price tag of each educational component and the cost of services for students with special needs. These cost estimates, the educational components, and the prices of each component were then reviewed by the systemwide panel.¹³

The professional judgement approach has been used most recently in Kansas, Maryland, Missouri, Oregon, and Wyoming. This approach has been easier for policymakers to understand than the statistical approach because the reasons for the cost estimates are obvious (e.g., recommended class size, number of personnel, and technology). This approach has also proven popular with states that have a tradition of local control. The approach is designed to develop prototypic models of how best to deliver education services, yet the per pupil costs are distributed as block grants. This gives local school districts the flexibility of adapting the expert recommendations to local needs and circumstances.⁵

Critics worry that this approach is based on current practice, and there may be no evidence that the educational components developed by the expert panels actually increase student performance.⁷ Even for those educational components that do have scientific evidence of effectiveness, there is no guarantee that school districts will deploy them, given that the aid is distributed as block grants. Critics also question whether different expert panels, even within the same state, could arrive at different base costs. This did not happen in Wyoming, however, where two panels operating six months apart arrived at similar conclusions.¹⁰

The Whole-School Approach and the Related Evidence-Based Approach.

The whole-school approach specifies the cost of an adequate education for all students based on the price of packaged school improvement programs that are thought to reflect the best thinking about how schools can ensure student success. Typically these programs, known as whole-school or comprehensive models, focus on improving the school success of all students, but particularly the most high-risk and disadvantaged students who might be better served by schoolwide reforms.¹⁶ The cost of an adequate education then depends upon the cost of purchasing these model programs and of implementing them in a local school district. The costs of these programs vary, but the programs designers are sensitive to price given that it will be difficult to market these programs to school districts if they are too expensive.¹⁰

The whole-school approach specifies the cost of an adequate education based on packaged reform programs that reflect the best thinking about how schools can ensure success.

These model programs differ in regard to which educational strategies they employ, how comprehensive they are, in what ways they are implemented, and how prescriptive they are.¹⁷ To ensure that the program is implemented in ways that maintain its integrity, most insist on providing training to the school district and sometimes oversight to the implementation process.¹⁰

These whole-school reform models, intended to be adopted as an entire package by schools, include such programs as the Roots and Wings/Success for All program developed by Robert Slavin at Johns Hopkins University; the School Development Program developed by James Comer; the Modern Red Schoolhouse program designed by the Hudson Institute; and the Direction Instruction Program developed at the University of Oregon.¹⁰ These programs can be implemented relatively quickly and without the cost of conducting an adequacy study. To date, Arkansas, Arizona, Kentucky, and New Jersey have used the whole-school approach or a variation of it.

Clearly, the components of these models are based on research, yet only a few of these programs have been rigorously evaluated to show that they actually cause improvements in students' school performance.¹⁰ In a recent review of 29 of these model programs by University of Wisconsin-Madison Professor Geoffrey Borman, three were found to have positive benefits on achievement across a number of U.S. schools: Direct Instruction, the School Development Program, and Success for All. Four other model programs had benefits for achievement, but have not been studied in as many schools: Expeditionary Learning, Outward Bound, Modern Red Schoolhouse, and Roots and Wings.¹⁶

Of the four approaches to adequacy, whole-school reform probably provides the least opportunity for local adaptation. These packaged school reform programs would need a review panel of leading educators and policymakers to tailor them to the state and local contexts.⁷ Critics are concerned about the political ramifications of requiring that all schools incorporate one of these reform programs. For example, if legislatures mandate that schools use one of these whole-school designs and they are not successful, who will be held responsible?

Professor Allan Odden of the University of Wisconsin-Madison has adapted the whole-school approach into what he calls the evidence-based approach. Using the comprehensive, schoolwide model programs, he has developed a list of components for achieving educational adequacy and a price tag is assigned to each. According to Odden,⁷ his approach incorporates just about every strategy that research shows benefits school success, so it helps guide schools in the most effective use of their dollars.

Do These Different Adequacy Approaches Yield Different Dollar Amounts?

The short answer is yes. Typically, the successful school district and the whole-school approaches produce lower costs than the professional judgement or the statistical approaches.¹³ These different dollar estimates are not surprising because determining the cost of educating students to high performance standards is not yet an exact science. What's more, these four approaches to achieving adequacy derive from different philosophies and each sets different student performance standards.⁷

Typically, the successful school district and whole-school approaches produce lower costs than the professional judgement or statistical approaches.

As an example, Augenblick and Myers¹³ recently used both the successful school district and professional judgement approaches to estimate the cost of providing an adequate education in Missouri. The two approaches produced different cost figures and, consistent with estimates in other states, the professional judgement approach yielded a higher dollar amount than the successful school district approach. One explanation is that the two approaches have different goals. The professional judgement approach estimates the cost of teaching *all* students to proficient standards, whereas the successful school district approach reflects the extent to which that goal is currently being met. For example, in the 102 successful school districts in Missouri, 69.3% of students were being rated as proficient or better. Calculating 69.3% of the figure arrived at from the professional judgement approach arrived at a figure similar to that from the successful school district approach.

Can States Provide an Adequate Education With Existing Resources or Will Additional Resources Be Needed?

It depends on the approach to achieving adequacy and it depends on the state. Because of their sensitivity to geographic considerations and the nature of the student body, the cost figures for achieving adequacy typically vary from state to state. Studies have been conducted in Wisconsin using three of these approaches: the statistical approach by San Diego State Professor Jennifer Imazeki and University of Wisconsin-Madison Professor Andrew Reschovsky; a modified professional judgement model by the Wisconsin Alliance for Excellent Schools; and the whole-school reform model by Professor Allan Odden and colleagues.

As a word of caution, these estimates are each based on a single study by one set of authors using data from a specific school year. Clearly, other studies of these approaches could arrive at different dollar estimates than are reported here. These examples are included here to illustrate three of the four approaches described in this paper and are not intended as an endorsement of any particular approach or plan.

The Estimated Costs of Adequacy in Wisconsin Using the Statistical Approach. Professors Imazeki and Reschovsky used the statistical model to calculate the cost of an adequate education in Wisconsin using 1994-95 spending data for 368 K-12 school districts. The analyses predicted the cost of producing two educational outcomes: the number of advanced courses a school district offers, and the change between 8th test scores in 1993-94 and 10th grade test scores two years later.

Based on their analysis, the costs of providing an adequate education were found to vary tremendously across school districts in Wisconsin. School districts with the lowest costs could achieve an average level of achievement by spending nearly 40% less per pupil than the district with average costs. With the exception of two districts, the districts with the highest costs must spend 90% more than average for the same educational outcomes.

Costs tended to be highest in rural districts due to their small size and high concentrations of low-income students. Costs also tended to be higher in both the

Using the statistical model, costs tended to be higher in both the property-poor and property-rich districts.

property-poor and property-rich districts. Property-poor districts tended to have more students with special needs and more students from economically-disadvantaged families. Property-rich districts had higher costs because of the higher costs of living in those districts.

Reschovsky⁸ produced a cost index for each district that isolated how much costs varied due to factors outside the school district's control. As an example, Madison's cost index was 1.27, which meant that Madison would have to spend 27% more than the district with average costs to provide an adequate education. Madison's higher costs were due primarily to the fact that the cost of living in Madison is relatively high and because of a higher proportion of students from low-income families. In contrast, the cost index for Stevens Point was 0.89, which means that the costs were 11% below average. Stevens Point has relatively lower costs because of a lower cost of living and a below-average proportion of special needs and poor children.

Of interest to Wisconsin policymakers is how these cost adjustments will affect the level of state aid in Wisconsin school districts. Adjusting the school aid formula for these cost differences increased aid for districts with above-average costs and decreased aid for districts with below-average costs. Using the cost-adjusted formula with 1994-95 spending data, 132 of the 368 K-12 districts with higher costs saw an increase in per pupil aid. Over three-fourths of the smallest districts saw an increase in their aid, and per pupil aid remained substantially higher in low-property wealth districts. However, the largest percentage increases in aid went to some wealthy districts because they were receiving less aid at the time. Using their cost-adjusted foundation formula and 1994-95 spending data, Imazeki and Reschovsky¹⁴ concluded that the State of Wisconsin could finance adequacy for all students by increasing state aid to local districts by approximately 16%.

Imazeki and Reschovsky¹⁴ also calculated a cost-adjusted foundation formula that required no additional state revenues. What happened is that school districts with below-average costs lost aid, as aid increased among those districts with the highest costs. As a result, districts with both high costs and high wealth received the largest increases in state aid. With no additional state revenues, only 90 of the 368 school districts received an increase in aid, compared to 132 districts if the state invested more money as described above.

If the goal of state legislators is to achieve educational adequacy, Reschovsky⁸ recommends turning to another type of formula—a cost-adjusted foundation formula. First, the state would set a standard of what an adequate education is. Then a dollar amount would be set equal to the amount of spending necessary to achieve this standard in a district with average costs. Each district would have its own foundation level of spending depending upon whether its costs were above or below average. Thus, the foundation level would be 10% above average in districts with costs 10% above the average costs. Districts with below average costs would have a below-average foundation level.

Reschovsky⁸ also recommends that the state determine a property tax rate that all districts are required to levy. Then the state aid would be the difference between the district's foundation level and the amount of revenue the district could raise using the state-imposed rate.

It is possible to use the statistical approach with no additional state revenues, although school districts with below-average costs would lose aid.

The Estimated Costs of Adequacy in Wisconsin Using the Modified Professional Judgement Approach. The Wisconsin Alliance for Excellent Schools (a statewide network of individuals and organizations) used a modification of the professional judgement model developed by Professors James Guthrie and Richard Rothstein to determine the cost of an adequate education in Wisconsin. The Alliance plan was developed by a core group including district superintendents and business officers, school board members, parent activists, teachers, clergy, community leaders, policy analysts, and business persons.

First, a three-step process was used to develop recommendations for the key staffing, programming, and equipment for schools in Wisconsin to provide an adequate education. Panels of educational experts built prototypic quality schools and identified the staff, programs, and materials needed to operate these schools. Second, a survey was sent to principals and teachers statewide as a reality check on the recommendations of the expert panel. Third, the results of this survey and the recommendations of the first expert panel were brought to a second expert panel.

To finance adequacy in Wisconsin, the Wisconsin Alliance for Excellent Schools recommended that the 2003-05 budget include a foundation plan or base amount of \$8,500, which would be guaranteed to all children in the state, regardless of where they live. Also, districts are guaranteed reimbursement for students in three additional categories targeted by the State Supreme Court decision in 2000: students with disabilities, students in poverty, and students with limited English skills. Finally, the Wisconsin Adequacy Plan adds a fourth special adjustment to cover the cost of student transportation and inefficiencies of many small, rural districts.

The Wisconsin Adequacy Plan places dollar figures on each of these elements. Districts would receive 80% of the additional costs of educating students with disabilities, 90% of the cost of students whose disabilities result in exceptionally high costs; and 90% of the additional costs of teaching to children with limited English proficiency. For students eligible for free or reduced-price lunch, the Plan calls for an additional \$3,200 for all students up through third grade and \$700 for students in grades four through twelve. Per-pupil adjustments would be made based on a district's student density (i.e., students per square mile). Per-pupil amounts range from \$1,260 in the most rural districts to \$70 in the most urban districts. In addition, districts can spend more by assessing an additional two-mill local property tax, which would also be supplemented with state aid.

According to its developers, the Wisconsin Adequacy Plan would require spending that exceeds current levels. Over and above the adjustment in the revenue cap of \$230 per student, an additional \$176 million, an increase of about 2%, would be needed in the first year of the plan and an additional \$184 million, a further increase of about 2%, in the second year. The discretionary local levy could cost an additional \$100 million in state aid each year.

The bulk of funds for the plan would come from state government. School districts would be required to maintain a local school property tax of six mills, which would provide immediate property tax relief given that the state average is presently about ten mills. The plan proposes that this reduction in local property tax and all state costs would be funded by an increase in the state sales tax from 5.0% to 6.2%.

Details are available on the web at: <http://www.excellentschools.org/Adequacy.htm>.

One way to fund the plan of the Wisconsin Alliance for Excellent Schools is with an increase in the sales tax from 5% to 6.2%.

The Estimated Costs of Adequacy in Wisconsin Using the Whole-School Design Approach. Professor Allan Odden and his colleagues examined whether schools in Wisconsin could implement a comprehensive reform using one of the whole-school design models using existing resources.¹⁷ For this analysis, the researchers used the Modern Red Schoolhouse (MRS) design for several reasons. First, the MRS is a comprehensive whole-school design which has been evaluated and shown to boost student achievement in those schools in which it has been tested. Second, MRS is one of the most expensive school designs, so school districts that could afford to implement this program could also afford to implement almost any comprehensive school design. Finally, the MRS emphasizes content areas which are similar to the Wisconsin standards and emphasizes computer technology which is a priority in almost all Wisconsin schools.

To assess whether Wisconsin schools could afford to implement the Modern Red Schoolhouse design, Odden and his colleagues¹⁷ collected data from 17 school districts (57% of the sample) including low and high spending schools in five regions of Wisconsin: the Northeast, Northwest, Southeast, Southwest, and Milwaukee. The researchers calculated the costs of items that would typically vary with a new school design—instruction, instructional support, and site administration—but omitted other school expenditures such as transportation, food, maintenance, and operations.

Of 12 elementary schools in the urban and suburban categories, two schools could not afford the design. All three rural schools in the sample had enough money to finance the MRS design. In fact, one of these rural schools demonstrated that a school in the 10th percentile of spending for the state could afford a whole-school design. Adopting the MRS design would cut the classroom teachers from 17 in the traditional school to 14 multi-functional teachers in MRS. Four regular education specialists are reduced to two, and 16 teacher aides are potentially eliminated. Fewer teachers are needed because of the multiple age grouping of the students. If the school chooses the MRS, the spending for professional development would increase 200 times. Yet, the school would still have \$539,743 leftover in the budget that the school and community could use as desired.

To date, the MRS has been implemented in a few middle schools, but no high school. In this study, a middle school and a high school in Milwaukee could each afford MRS with existing resources. Thus, Odden and colleagues¹⁷ conclude that most schools in Wisconsin have sufficient resources to engage in comprehensive, whole-school reform if they choose to do so.

Evaluating School Funding Formulas: What Questions Should Legislators Ask?

Where this report ends is where the work of state legislators begins. Developing school funding formulas that equitably and adequately distribute school aids is no easy task. School finance experts have identified a number of questions that legislators can ask to evaluate school funding formulas (See the checklist on the following page).

Most schools in Wisconsin have sufficient resources to engage in comprehensive, whole-school reform if they choose to do so.

Evaluating School Funding Formulas Checklist: What Questions Should Legislators Ask?

This checklist raises important issues that can help legislators sort out how well legislative proposals meet the goals of education in Wisconsin; how compatible they are with Wisconsin's history of funding elementary and secondary schools; how responsive they are to the demographic characteristics of Wisconsin students, families, and communities; and how appropriate they are given the state's available resources. These questions are not rank-ordered and sometimes conflict with each other, forcing legislators to make trade-offs about which deserve the highest priority. Because these questions are not designed to lead to a particular policy solution, they can be useful to policymakers across the political spectrum. Unless otherwise noted, these questions derive primarily from the work of Augenblick, Van de Water and Myers.¹⁸

- 1. What does the proposal want the educational system to accomplish and what kind of educational opportunities must be provided for students to meet these objectives?¹⁰
- 2. Does the proposal invest in nonschool influences on student achievement such as early childhood education, summer school, out-of-school time, and parent involvement?^{19, 20}
- 3. Does the proposal explicitly fund the formation of family/school/community partnerships which, according to recent national estimates, cost \$20 to \$30 per pupil per year for all school, district, and state expenses?^{21, 22}
- 4. How sensitive is the proposal to the allocation of state aid to the needs of school districts (e.g., number of low-income families, concentration of disadvantaged students, number of students requiring special education, number of children needing instruction in English, transportation needs, enrollment levels, and school size)?
- 5. How sensitive is the proposal to the wealth of school districts (e.g., property tax base, nonproperty revenues, or income level of the district)?
- 6. Is state aid that is not sensitive to the wealth of the school district limited (e.g., incentive or hold harmless funds)?
- 7. How sensitive is the allocation of state aid to the tax rates of school districts (e.g., to avoid situations in which higher tax rates are associated with lower spending levels)?
- 8. Is the variation among school districts' spending explained primarily by differences in their local costs and tax effort?
- 9. Do school districts have a reasonable amount of flexibility to determine how much they want to spend, and to generate revenues at the levels they select?
- 10. Do school districts have reasonable flexibility to spend funds?
- 11. Are all types of expenditures considered by the school finance system (e.g., operation, capital/debt, and personnel benefits)?
- 12. Are taxpayers treated equitably (e.g., property is assessed uniformly, low income taxpayers are relieved of some of the obligation to pay property tax, and the burden of paying for schools is shared equitably among homeowners and businesses)?
- 13. Does the state define and measure equity and periodically assess how equitable the school finance system is?
- 14. Does the state define and measure adequacy and periodically determine whether adequate funding is being provided in all school districts?
- 15. Does the proposal include features that will position Wisconsin as a leader on school finance?²³

Conclusion

Since 1647, government has played a role in helping families educate their children. Policy decisions about how to finance public school have evolved over the years, but what has remained constant is this: the need for a democracy to have an educated citizenry fully prepared to participate in governmental affairs.

Since the 1990s, four approaches have emerged to help policymakers calculate the cost of educating all students to high standards: (1) the successful school district approach; (2) the statistical approach; (3) the professional judgement approach; and (4) the whole-school approach and the similar evidence-based approach. Each of these approaches is based on a different philosophy of how to achieve educational adequacy and, not surprisingly, each produces a different dollar estimate of the cost of doing so. Current research is not advanced enough to endorse one approach over another, so selecting the best school funding formula for Wisconsin will be determined by state policymakers elected by the citizenry to make these tough decisions.

In developing a school funding formula, state legislators face other equally challenging questions: who pays and what the state and local share should be. To date, there is no research on whether the funding source—local, state, or federal dollars—affects the quality of education. Because the research is inconclusive, this report includes a checklist of 15 questions that raise several of the issues that legislators should consider when evaluating school funding formulas. This checklist underscores the trade-offs that state legislators will face when one of the goals of developing a school funding formula conflicts with another. For example, calls for lower costs conflict with calls to increase spending to meet the costs of educating students with special needs.

Yet decisions made at the State Capitol to establish an equitable and adequate school funding formula is only the beginning.²³ Money is clearly important, especially when school funding is connected to effective educational strategies for engaging and teaching students in the classroom. Policymakers can maximize the public's involvement in education by deliberately taking steps to mobilize two powerful forces beyond the school door—the families and communities in which students reside.

Public officials at all levels should take steps to encourage parents to make parental involvement in schooling a personal priority, and to develop policies that create the conditions that make it easier for families to act on these priorities. For more on the importance of family and community involvement in education, see Chapters 2 and 3 of this report.

Policymakers can maximize the public's investment in education by mobilizing two powerful forces beyond the school door—families and communities.

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