

# I ADEQUACY, EQUITY AND CAPITAL SPENDING IN MICHIGAN SCHOOLS: THE UNFINISHED BUSINESS OF PROPOSAL A

## ADEQUACY, EQUITY, AND CAPITAL SPENDING

Despite a long tradition of local control, Michigan now has a state education system.<sup>1</sup> Since the approval of Proposal A in 1994, decisions about how much to spend on educating students have been made in Lansing. The Legislature has also become deeply involved in other areas of educational policy that were formerly left for decision at the local level, including curriculum, discipline, and the school calendar. The power and authority of local school boards have been correspondingly reduced.

One critical element of Michigan's public school system remains an exclusively local responsibility, however. The revenues for school construction and other capital spending come almost entirely from local property taxes, which must be approved by local voters. The State provides some support to local districts through the School Bond Loan Fund, but otherwise plays no role in funding these expenditures.

Leaving responsibility for capital spending at the local level perpetuates wide variation in the quality of educational facilities provided for students in Michigan's public school system. State action will be required to ensure that all Michigan children have equitable access to adequate educational facilities.

Capital funding for schools should be guided by the principles of **adequacy** and **equity**. The principle of adequacy requires the state to ensure that all children receive an education that prepares them for

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success in an economy that increasingly demands and rewards highly-educated workers.

Educational adequacy depends on a number of factors, including access to financial resources, teacher quality, and curriculum. Educational adequacy also requires that all children have access to school facilities that fully support their academic achievement and social development. Michigan's current policies fail to provide such facilities for many children, denying them a fair chance to succeed in school.

The principle of equity requires the state to provide similar services to all citizens, regardless of where they live. Michigan's current policies on capital funding violate this principle in two ways. First, these policies produce inequity for students, by perpetuating stark differences across school districts in the age and condition of school facilities. Some Michigan children attend school in brand-new buildings, fully equipped with the latest instructional technologies and state-of-the-art facilities for art, music, and athletics programs. Other Michigan children attend school in buildings that are more than 100 years old, with leaking roofs and a few aging computers.

In addition, Michigan's policies on capital funding violate the principle of equity for taxpayers, by perpetuating inequalities across school districts in property tax rates. Citizens who reside in school districts where the value of taxable property is low must pay very high rates of property tax to raise relatively small amounts of revenue for school construction and other capital spending. Citizens who live in wealthier school districts can raise far more capital while paying significantly lower property tax rates.

Ensuring that all Michigan children are able to attend schools that meet minimum standards of adequacy and equity will require a larger state role in financing capital expenditure. This is especially true in the poorest school districts, which will not be able to provide adequate school facilities for local children without state support.

## **THE UNFINISHED BUSINESS OF PROPOSAL A**

In a break with Michigan's long tradition of local control and local responsibility in public education, voters approved Proposal A in March 1994. Before the approval of Proposal A, local property taxes provided the largest share of operating revenues for local schools. Voters decided how much to spend on instruction and operations in regular millage elections. Local spending was determined by two key factors, the value of taxable property in each school district and the millage rate that voters chose to levy on themselves. In districts

where the value of taxable property was high, residents could tax themselves at relatively low rates and still produce large quantities of revenue for their local schools. In districts where the value of taxable property was low, residents were obliged to tax themselves at much higher rates to produce smaller quantities of revenue. The state provided supplementary revenues to districts where property wealth was low, to ensure that they were able to offer a minimal educational program for their students. Despite these supplementary revenues, the highest-spending districts spent more than three times as much per pupil as the lowest-spending districts.

Proposal A enhanced adequacy and increased equity in the way Michigan funds the operation of the public school system. It significantly increased equity for both students and taxpayers, by reducing the gap in per pupil spending between Michigan's highest and lowest spending school districts, and standardizing the tax rates that citizens pay to fund current operations in the state's public schools. It enhanced adequacy by providing large revenue increases to previously low-spending districts, significantly raising the minimum amount that school districts are able to spend on instruction for their students.

With respect to capital funding, however, Proposal A did nothing at all to ensure that all students have access to adequate educational facilities, or to reduce inequities between students and taxpayers in wealthy and poor school districts. Accomplishing these goals will require state action. Capital spending is thus the unfinished business of Proposal A.

## **HOW MICHIGAN BUILDS SCHOOLS**

Inequalities in school facilities across Michigan school districts are wide, and growing wider. In 2004, for example, the Saline school district in Washtenaw County opened a 500,000 square foot high school, at a cost to taxpayers in the district of \$89 million. The new high school offers facilities including thirteen science classroom/laboratories, eleven technology classrooms, a television studio, and five "mobile laptop labs" that can move from classroom to classroom to provide computer support for specific lessons. Students also enjoy access to two gyms and an eight-lane swimming pool, along with weight rooms and other amenities for athletes.

Students in Detroit, Hamtramck, and Benton Harbor can only imagine the kind of facilities that students in Saline now enjoy. In Benton Harbor, for example, the high school was built in 1924, and the newest elementary school was built in 1959. In Hamtramck the high school was built in 1935. The middle school and two of the

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district's elementary schools were built before 1920. In Detroit, more than half of all schools were built before 1930, and the average school is more than 60 years old.

One reason that school buildings look different in different communities is that communities differ in their **preferences**. Some communities expect their local school districts to provide educational facilities equal to those in Michigan's wealthiest districts. Residents are willing to pay additional property taxes in order to ensure that local children have access to state-of-the-art school buildings and the latest instructional technologies. Other communities have different preferences. Local residents may be satisfied with older or less elaborate educational facilities, or they may prefer to keep property taxes low rather than build fancy new schools.

To the extent that inequalities in school facilities are a consequence of differences in preferences, there is no call for state intervention. If some communities prefer fancy schools and some like plain schools the choice is rightly theirs. Similarly, if some communities prefer to pay high taxes in exchange for state-of-the-art facilities and other communities prefer to pay low taxes and avoid the expense of new construction the decision should be left up to them. As long as all school districts are able to provide school facilities that are adequate to support accomplishment of the state's increasingly ambitious goals for student learning, state authorities are right to leave choices about facilities and capital spending to local voters.

There is another reason why school buildings differ so widely, however. Communities differ dramatically in their **ability to pay** for school facilities. Capital spending in Michigan's education system depends almost entirely on local property taxes, and the value of taxable property varies dramatically across school districts. In 29 of Michigan's wealthiest districts the per pupil value of taxable property is more than \$500,000. In 75 districts, in contrast, the per pupil value of taxable property is less than \$100,000. In six districts including Detroit the per pupil value of taxable property is less than \$50,000.

In Bloomfield Hills, for example, the per pupil value of taxable property is almost \$550,000, which is nearly fifteen times larger than the per pupil value of taxable property in nearby Highland Park. Because the local property tax base is so large, the citizens of Bloomfield Hills are able to raise more money for school facilities than the citizens of Highland Park can ever aspire to do, while taxing themselves at very low rates. The residents of Highland Park can never provide the kind of educational facilities that are available to students in Bloomfield Hills, even if they tax themselves at

extremely high rates. Reducing these inequities and ensuring an adequate education for all Michigan children will therefore require state action.

### **INEQUITY FOR TAXPAYERS**

To see why this matters, consider the owners of a median-priced house in different school districts. The median-priced house in Michigan is worth about \$140,000, with a taxable value of approximately \$70,000. The value of a median-priced house varies across districts, but within most districts there are homes valued at the statewide median. To build their new high school, the owners of such a house in Saline are taxed at a rate of five mills, and they pay \$350. If the residents of Bloomfield Hills wanted to build an \$89 million high school, the owners of a median-priced house would pay less than two mills, or \$134, although the typical homeowner would pay much more because property values are so much higher. Finally, if Hamtramck and Highland Park are combined for illustrative purposes, they enroll approximately the same number of pupils as Saline and Bloomfield Hills. If they were considered as a single district, the owners of a median-priced house would have to pay more than twenty mills, or \$1,427.

### **MILLS REQUIRED AND TAXES PAID TO RAISE \$89 MILLION SELECTED DISTRICTS**

<b>District</b>	<b>Number of Pupils</b>	<b>Taxable Value Per Pupil</b>	<b>Mills Required</b>	<b>Taxes Paid</b>
Bloomfield Hills	5,963	549,333	1.92	\$134
Saline	5,330	236,277	5.00	\$350
Hamtramck & Highland Park	7,222	42,759	20.39	\$1,427

The need for state intervention arises when inequalities in school facilities are a consequence of differences in ability to pay. Some communities in Michigan may prefer to send their children to state-of-the-art school facilities, and they may be willing to pay higher taxes to accomplish this goal. Because the value of taxable property within the boundaries of their local school district is low, however, residents are unable to generate the revenue that would be required to pay for schools of the quality they prefer, except at prohibitively

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high tax rates. This is unfair to local taxpayers, and unfair to the students who attend school in these districts.

## **THE SCHOOL BOND LOAN FUND**

The only effort the State now makes to assist with capital funding is through the School Bond Loan Fund (SBLF), which was created in 1955. The SBLF does not provide any state funds to support capital expenditures in Michigan school districts. Instead, the SBLF allows school districts to take advantage of the state's high bond rating to lower the cost of new bonds, and to extend the repayment period on bonds approved by local voters. The SBLF thus reduces the cost of capital for participating school districts, but all capital expenditures must still be financed locally. Participating school districts must seek "qualification" of their proposed bonds from the Michigan Treasury, and they must levy between 7 and 13 mills on the taxable value of local property.

All school districts are eligible to take advantage of the SBLF, but not all choose to do so. Districts with the lowest taxable value per pupil are the most likely to borrow using the SBLF. The amounts that these districts can borrow are significantly lower than the amounts borrowed by wealthier districts, however, because the property tax rates supported by the SBLF (7 – 13 mills) raise substantially less revenue in districts where the taxable value of real property is low. Only four among the wealthiest 20 percent of school districts currently borrow from the SBLF, because districts where property values are high can raise the capital they need at rates well below 7 mills. About 27 percent of Michigan school districts are currently participating in the SBLF.

Approximately 85 percent of the bonds issued to support capital spending in Michigan's public school system are "qualified" by the Michigan Treasury, but a much smaller number receive support under the SBLF. In 2004 the outstanding principal balance on bonds for districts participating in the SBLF was less than \$700 million. This is less than 5 percent of the outstanding principal balance on "qualified" bonds, and less than 4 percent of the principal balance on all bonds issued by Michigan's public school districts.

## **PROPOSAL A AND CAPITAL SPENDING**

Proposal A did not address the question of school infrastructure directly, but it has nevertheless had a number of important and sometimes unexpected consequences for capital spending in Michigan. Most significantly, some high-wealth communities have

built new, state-of-the-art schools, at least partly in order to attract non-resident students and the educational revenue that they bring with them from neighboring school districts. It has simultaneously confronted low-wealth communities, including districts in central cities and some rural areas, with a painful dilemma. These communities can either raise already-high property tax rates in an effort to keep up with their more prosperous neighbors, or they can make do with their current infrastructure and watch additional students leave.

### *Increased Capital Expenditure Since 1994*

The annual volume of capital expenditure in Michigan school districts has nearly doubled since 1994, as the data in Table 1 reveal. These data show the value of the qualified bonds that were voted and approved between 1984 and 2004, in constant 2003 dollars.<sup>2</sup> In the ten years prior to the approval of Proposal A, local voters approved bonds valued at approximately \$7 billion, or approximately \$700 million per year.<sup>3</sup> In the ten years since the approval of Proposal A, local voters have approved bonds valued at more than \$13 billion, or approximately \$1.3 billion per year. Between 1985 and 1994 the real annual value of bonds approved exceeded \$1 billion only twice, in 1991 and 1994. Between 1995 and 2004 the real annual value of bonds approved has fallen below \$1 billion only twice.

Figures 1 and 2 show the number of bond proposals that were voted on in Michigan school districts between 1984 and 2004, and the percentage of proposals that were approved by local voters. The number of proposals increased dramatically after the approval of Proposal A in 1994, when districts were no longer obliged to pass millages to support school operations. It has declined steadily in the years since.

Figures 1 and 2 also show that the share of issues approved did not change in 1994, and it has shown no consistent trend over time. Instead it has fluctuated significantly from year to year, at least partly in response to changing economic conditions. In the decade before 1994 Michigan voters voted “yes” in approximately 45.4 percent of local bond elections. In the decade after 1994 they voted “yes” in 49.9 of these elections.<sup>4</sup> The increase in capital expenditure

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<sup>2</sup> Not all of the bond issues approved by Michigan voters are “qualified” by the Michigan Treasury. Data on “non-qualified” bonds for capital spending by school districts suggest that the outstanding principal on these bonds is about 15 percent of the total amount outstanding.

<sup>3</sup> These figures include the \$1.5 billion bond issue that Detroit voters approved in 1994.

<sup>4</sup> School district bond elections are not always independent, one-time events. In many districts voters are asked to vote simultaneously on two or more bond issues to support local schools; for example, they may be presented with one issue to



since 1994 is consequently attributable mainly to an increase in the average size of local bond issues, and also to an increase in the number of proposals put before local voters, rather than to an increase in the rate of approval in local elections.

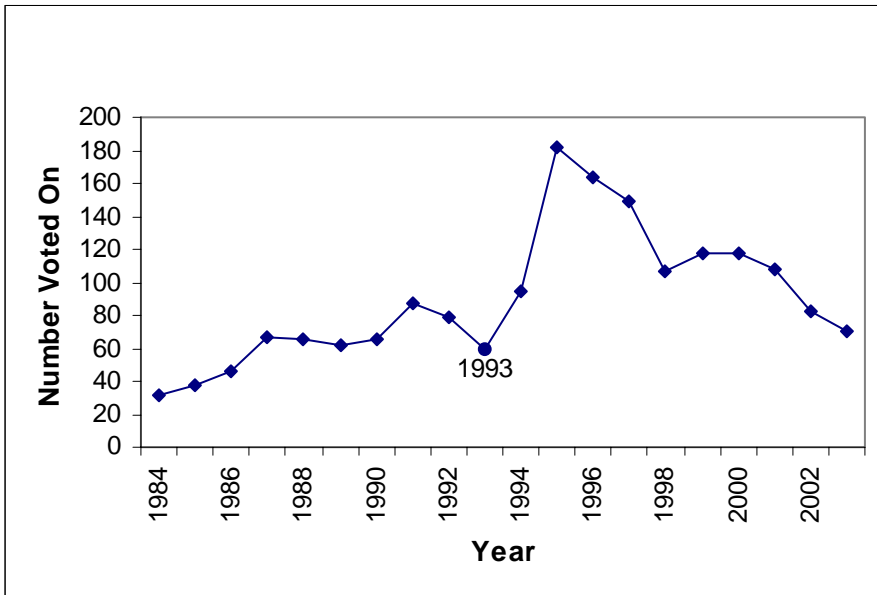
**TABLE 1**  
**QUALIFIED SCHOOL BOND ISSUES, VOTED AND PASSED**  
**CURRENT AND CONSTANT (2003) \$, 1984-2004**  
**(IN THOUSANDS)**

Year	Amount Proposed	Amount Proposed 2003 \$	Amount Passed	Amount Passed 2003 \$	% Passed
1984	133,220	237,854	82,695	147,645	62.1
1985	128,295	221,769	41,150	71,131	32.1
1986	409,935	684,708	303,215	506,455	74.0
1987	444,955	717,595	225,075	362,986	50.6
1988	551,000	856,178	252,565	392,451	45.8
1989	776,775	1,166,232	411,530	617,862	53.0
1990	934,265	1,359,072	418,520	608,820	44.8
1991	1,441,814	2,068,805	710,749	1,019,827	49.3
1992	788,735	1,125,520	309,105	441,091	39.2
1993	654,245	903,216	216,945	299,503	33.2
1994	2,832,150	3,760,534	1,999,005	2,654,283	70.6
1995	2,786,800	3,562,172	1,251,560	1,599,782	44.9
1996	2,376,910	2,970,795	1,295,165	1,618,770	54.5
1997	2,636,355	3,194,279	1,351,025	1,636,939	51.2
1998	2,232,145	2,633,649	798,860	942,554	35.8
1999	1,925,695	2,177,026	958,170	1,083,225	49.8
2000	2,477,835	2,688,451	1,399,280	1,518,219	56.5
2001	2,340,900	2,446,965	1,318,400	1,378,136	56.3
2002	1,736,530	1,767,747	1,042,285	1,061,022	60.0
2003	2,474,505	2,474,505	987,480	987,480	39.9
2004	2,448,705	2,448,705	1,632,915	1,632,915	66.7
TOTAL	31,031,769	37,474,074	15,505,694	18,589,392	50.0

finance construction of a new high school and another, separate issue to finance renovations in local elementary schools. In districts where bond issues are rejected the local school board frequently returns to the voters within a matter of months with a similar bond issue which has been reduced in size or broken up into separate components.

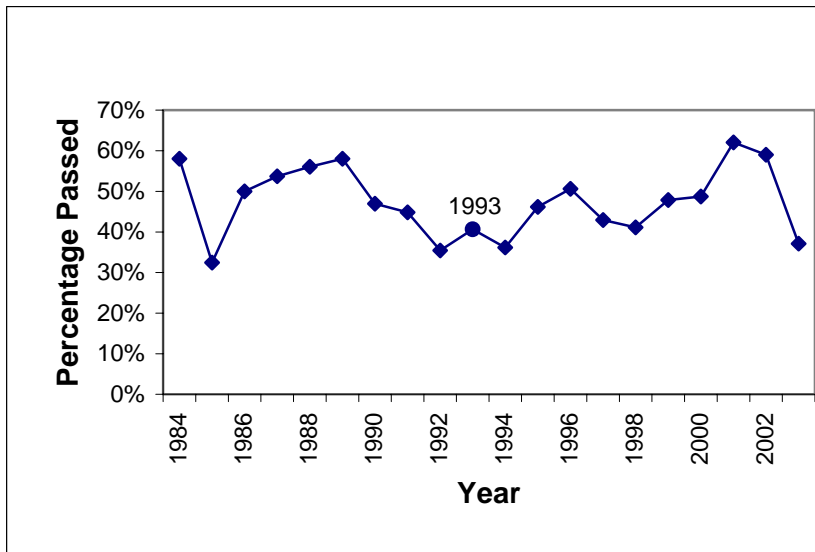


**FIGURE 1  
NUMBER OF SCHOOL BOND ISSUES PROPOSED  
1984 – 2003**



SOURCE: Michigan Department of Treasury

**FIGURE 2  
PERCENTAGE OF SCHOOL BOND  
ISSUES APPROVED 1984 – 2003**



SOURCE: Michigan Department of Treasury

*Inequalities in school facilities compound the disadvantages of struggling urban and rural districts as they seek to retain local students and turn themselves around, educationally and financially.*

Since the approval of Proposal A, school district revenues have come to depend almost entirely on the number of pupils enrolled in local schools, and the competition to attract additional students is increasingly intense. Because per pupil spending is essentially fixed by the state, differences in the quality of facilities may take on a disproportionate importance in this competition. Suburban districts in Ingham County, Calhoun County and other metropolitan areas have taken advantage of new facilities to attract additional students into their schools from nearby urban districts. Inequalities in school facilities compound the disadvantages of struggling urban and rural districts as they seek to retain local students and turn themselves around, educationally and financially.

#### *Urban Decline and Suburban Sprawl*

In many parts of the state, school districts in central cities and older suburbs are closing schools, while districts in new and growing suburbs are building them. In Genesee County, for example, Flint Community Schools have closed ten buildings in the past three years, and the school board has plans to close another ten. Meanwhile neighboring suburban districts including Carman Ainsworth, Flushing and Grand Blanc are building new schools, at least in part to accommodate children who are leaving Flint. The Detroit Public Schools expect to close nearly 100 schools in the next two years, while some suburban districts in Oakland and Macomb Counties can barely keep pace with growth in enrollments. The deteriorating state of school infrastructure in Michigan's central cities may be one among many reasons why enrollments are declining in urban districts and growing in suburban and formerly rural districts.

## **DATA AND METHODS**

Because capital spending remains an exclusively local responsibility, the State of Michigan does not compile data on school infrastructure. State government has virtually no information on the facilities in which Michigan students attend school. The State does not collect data on the age or condition of Michigan schools, and as a result there is no way for state officials or policy analysts to evaluate current facilities or to identify capital needs in the education system. These responsibilities are left entirely to local school districts.

This report presents the first comprehensive assessment of capital stock and capital need in Michigan's public school system. The estimates are based on data from a variety of sources that have been incorporated into a state-wide database on educational facilities,

which includes data from every Michigan school district. The database that has been compiled is the fullest and most accurate that has ever been assembled in Michigan, and it is among the best that are available for any state.

The data used to estimate capital stock and capital need come from three main sources. First, we obtained insurance data on the replacement cost of school buildings in 458 Michigan school districts from the state's main casualty insurance groups. Second, we obtained data on the historical cost and depreciation of school buildings for more than 300 districts from Governmental Accounting Standards Board (GASB) filings with the Michigan Department of Education. At the time we began collecting data, school districts with annual revenue over \$10 million were required to submit reports to the State under the new standards. Third, we conducted our own survey of school districts, with the cooperation of the Michigan Department of Education. We received responses from 407 of the 553 school districts in Michigan.

Most of the analyses presented in this report are based on data from the Capital Assets tables included in the financial reports filed by 298 school districts in Michigan to comply with GASB requirements.<sup>5</sup> The 298 districts that submitted GASB filings enrolled 1,406,688 students, or about 86 percent of all students in Michigan. The 255 districts that did not submit GASB filings enrolled 235,561 students, or about 14 percent of the total.

In addition to the GASB data, the Michigan Department of Education provided pupil counts for all Michigan school districts. The Michigan Department of Treasury provided the taxable value of real property and the millage rate, for all districts.

The main goal of the analyses that follow is to provide a solid empirical estimate of the total value of unmet need for capital spending in Michigan's public school system. To obtain this estimate, we first determine the cost of providing adequate educational facilities for all students in Michigan schools and the current value of existing capital stock in Michigan school districts. Our estimate of unmet need is the difference between the cost of adequate educational facilities and the value of existing capital stock.

We define the cost of "adequate educational facilities" as the cost of building schools for all Michigan students that meet state norms on cost and space per pupil. These norms are specified in the School

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<sup>5</sup> More than 300 districts provided GASB filings, but some of their reports did not distinguish buildings from other capital assets, so these districts were omitted in some of our analyses.

Bond Loan Fund (SBLF) guidelines provided by the Michigan Department of Treasury.

According to the SBLF guidelines, building costs per square foot in Michigan are \$143 in Wayne, Oakland, Macomb, Washtenaw, Monroe, St. Clair and Livingston counties, and \$133 in all other counties. The guidelines do not differentiate between the costs of elementary versus middle and high school facilities. GASB filings similarly do not separate capital assets by type of school. We therefore calculated an average of the recommended square footage per pupil for elementary, middle, or high school students, based on the recommendations of the Council of Educational Facility Planners International (CEFPI). The average value is 136.5 square feet per pupil. (See Appendix B.1.)

We define the current value of “capital stock” as the aggregate book value of existing school buildings in all Michigan school districts. GASB filings include historic expenditure for buildings and all accumulated depreciation. Buildings are depreciated down to 20 percent of their original value on a straight-line depreciation schedule, in most cases over a 50-year period. We subtracted accumulated depreciation from historic expenditure and adjusted the difference for inflation to obtain the book value of the school buildings in constant 2003 dollars. For a fuller explanation of the equation we used to define need, see the text box on the following page.

#### *Imputed Values*

Michigan school districts with annual revenues under \$10 million were not required to submit GASB filings when we collected our data. To produce a state-wide estimate of unmet need we were therefore obliged to impute the value of capital stock for these districts, which serve about 14 percent of the state’s student population. To calculate this value we sorted the 298 districts with GASB filings into a 25-cell matrix. The five columns of the matrix sort the districts into quintiles based on the per pupil value of taxable property in each district as provided by the Michigan Department of Treasury. The five rows of the matrix sort the districts according to community type (central city, low-income suburb, middle-income suburb, high-income suburb, rural) based on census definitions and average household income. (See Appendix B.2 and Appendix Table A.2).

## CALCULATING UNMET NEED

Our definition of need is based on the following equation:

$$need = \sum_i \left\{ (136.5 \times pupils_i \times cost_j) - \left[ capital_i^t \times \left( \frac{bldg\_index^{2003}}{bldg\_index^t} \right) - dep_i^t \times \left( \frac{bldg\_index^{2003}}{bldg\_index^t} \right) \right] \right\}$$

Where:

$i$  indexes the school district

$$j = \begin{cases} 1 & \text{Wayne, Oakland, Macomb, Washtenaw, Monroe, St. Clair, Livingston} \\ 0 & \text{others} \end{cases}$$

$$t = 2003 - \left[ \left( \frac{50}{0.8} \right) \times \left( \frac{dep_i^t}{dep_i^t + CA_i^t} \right) \right]$$

$pupils_i$  = The number of pupils in district  $i$  in 2003

$$cost_j = \begin{cases} \$143 & j = 1 \\ \$133 & j = 0 \end{cases}$$

$capital_i^t$  = The sum of depreciation and capital assets for district  $i$  in year  $t$

$bldg\_index^{2003}$  = The building cost index for 2003

$bldg\_index^t$  = The building cost index for year  $t$

$dep_i^t$  = The depreciation for district  $i$  in year  $t$  from the GASB filings

A fuller discussion of our data and methods is presented in Appendix B.

For the districts in each cell of the matrix, we calculated the average current value of capital stock per pupil and the average unmet need per pupil, and used the cell averages to impute values for districts with similar taxable value per pupil and community type that were not required to submit a GASB filing.<sup>6</sup> Some cells in the matrix contain no districts; for example, there are no high-income suburban districts in the lowest taxable-value-per-pupil quintile. This is equally true of the districts for which we lack data, however, so all imputed values are based on average values for similar districts with GASB filings.

<sup>6</sup> We tried alternative approaches to impute these values, including linear regression analysis. Because only large districts were required to submit a GASB filing, however, the sample of districts for which we had data was not random. Cell averages therefore provide more reliable results.

These calculations allowed us to define adequate facilities and calculate unmet need for each district. We defined adequacy as the product of the number of pupils enrolled in the district, the average recommended square footage per pupil, and the cost per square foot to build, in 2003 dollars. We defined need as adequacy minus the book value of the school buildings in the district. In cases where this number was negative, we set the value of need at zero. (See Appendix B.4.) We regard these as conservative cost estimates.

To estimate the local resources necessary to provide adequate educational facilities in all Michigan school districts, we amortized our estimate of need over 30 years at an annual interest rate of 5 percent. For districts where the need for capital spending is greater than zero, we calculated the local millage rate that would be required to pay off this debt, based on the total taxable value of property in those districts. (See Appendix B.5).

## **ORGANIZATION OF THE REPORT**

In the following chapter we seek to provide an accurate estimate of the scale of the capital funding problem in Michigan's public school system. We also analyze the distribution of unmet need among Michigan's school districts, and identify those districts where the need for state intervention is the greatest. In the concluding chapter we review a wide range of policy options that Michigan might adopt to ensure adequate and equitable financing for school infrastructure for all public school students, and provide some recommendations on the policy choices facing the Michigan Legislature.

The issue of capital funding for Michigan's charter schools is not addressed in the main body of this report, for two reasons. First, meeting the infrastructure needs of charter schools poses policy challenges that are quite different from those to be addressed in the traditional public school system. In addition, there is no reliable source of data on the diverse arrangements that Michigan charter schools have made to finance capital spending for their students. Appendix C presents a brief discussion of some of the leading issues that will have to be addressed if the state seeks to ensure that students in charter schools have equitable access to adequate educational facilities.

## II HOW BIG IS THE PROBLEM?

In this chapter we estimate the magnitude of unmet capital need in Michigan’s public school system, based on comprehensive data on the current value of school buildings and related capital infrastructure in our state’s 553 school districts. As explained in the previous chapter, our estimate of need is the difference between our calculation of the cost of adequate infrastructure and the current value of capital infrastructure in all Michigan school districts. This estimate is in turn based on state norms for space (e.g., square feet per pupil) and construction cost. Our estimate can be interpreted as the minimum cost of fulfilling the state’s obligation to ensure that children in all districts have the opportunity to attend schools that provide adequate educational facilities.

It is important to note that in some districts our measure of capital need produces a negative number. This can occur for two reasons. First, in communities where enrollment is expected to grow or where citizens prefer state-of-the-art schools, districts have built schools that exceed state norms, either in terms of space or in terms of cost. Many of Michigan’s wealthiest school districts have in the past decade constructed magnificent new schools for local students, providing facilities that far surpass the state’s relatively modest standard of adequacy. In these districts the value of capital stock significantly exceeds our measure of “adequate” educational infrastructure, and the district’s need for capital is consequently negative.

Second, the number of students in many Michigan school districts is declining, because of demographic shifts and increased participation in school choice. As enrollment falls, a growing number of these districts are closing schools, which leaves them with excess space and unused capacity. Though they are no longer used (or sometimes usable), these buildings remain as assets on the books of declining-enrollment school districts. In our analyses all buildings are assigned a positive asset value equivalent to at least 20 percent of the historical cost of construction. Our measure of the current value of capital assets may therefore be exaggerated in some districts, and our estimates of unmet need may consequently be negative.

Because infrastructure is generally not portable or transferable (those with “too much” cannot shift their excess to those with “too little”), we have set the value of need at zero for districts where our calculations yield a negative number.

*Our estimate can be interpreted as the minimum cost of fulfilling the state’s obligation to ensure that children in all districts have the opportunity to attend schools that provide adequate educational facilities.*



*Students in the richest 20 percent of school districts have access to more than 50 percent more capital assets in their schools than students in the poorest 20 percent of districts.*

## THE VALUE OF CAPITAL STOCK IN MICHIGAN'S PUBLIC SCHOOL SYSTEM

The current value of capital stock in Michigan's public school system is approximately \$32.6 billion. This number includes the value of all school buildings and related infrastructure including athletic facilities. It excludes some other capital assets including school buses and other vehicles. This amounts to approximately \$20,000 for every pupil enrolled in Michigan's public school system. On average, in other words, the education of every student is supported by about \$20,000 in educational facilities.

## THE DISTRIBUTION OF CAPITAL STOCK IN MICHIGAN'S PUBLIC SCHOOL SYSTEM

In fact, of course, every student is **not** supported by \$20,000 in educational facilities, because capital assets are not evenly distributed across Michigan school districts. Table 2 shows the distribution of capital assets across school districts, stratified according to the taxable value of real property per pupil in each district.

**TABLE 2  
DISTRIBUTION OF CAPITAL STOCK BY SCHOOL DISTRICT TAXABLE VALUE PER PUPIL QUINTILES**

Quintiles	Number of Districts	Number of Pupils	Taxable Value per Pupil	Capital Stock (in \$M)	Capital Stock Per Pupil
1	110	361,631	69,172	5,563	15,384
2	110	227,365	121,088	4,310	18,958
3	111	327,818	150,540	6,728	20,523
4	111	394,329	204,317	8,255	20,934
5	111	331,108	308,284	7,750	23,406

The data in Table 2 reveal dramatic inequalities in wealth across Michigan school districts. The taxable value of real property per pupil is more than four times greater in the richest 20 percent of school districts than in the poorest 20 percent. Not surprisingly, the current value of school district capital assets per pupil varies directly with the taxable value of real property. The per pupil value of buildings and other educational facilities

is larger in districts with greater ability to pay. Students in the richest 20 percent of school districts have access to more than 50 percent more capital assets in their schools than students in the poorest 20 percent of districts.

Table 3 shows that the distribution of capital assets across school districts also varies systematically by type of community. The average per pupil value of taxable property is relatively low in Michigan’s central city school districts, and even lower in the state’s low-income suburbs. The average per pupil value of taxable property is more than three times larger in the high-income suburbs than in the low-income suburbs. In Michigan’s rural school districts the average per pupil value of taxable property is lower than in the middle and high income suburban districts, but still twice as high as in the low-income suburbs.

*The average per pupil value of taxable property is more than three times larger in the high-income suburbs than in the low-income suburbs.*

**TABLE 3  
DISTRIBUTION OF CAPITAL STOCK  
BY COMMUNITY TYPE**

Community Type	Number of Districts	Number of Pupils	Taxable Value Per Pupil	Capital Stock (in \$M)	Capital Stock Per Pupil
Central City	15	307,304	98,957	4,613	15,010
Low Income Suburb	21	44,662	82,954	934	20,917
Middle Income Suburb	186	676,348	178,472	13,607	20,119
High Income Suburb	35	265,631	272,082	6,712	25,269
Rural	296	348,304	164,917	6,739	19,349

In Michigan’s 15 central city school districts the average value of capital assets per pupil is approximately \$15,000. In the 35 high-income suburbs, in contrast, the value of capital assets per pupil is more than two-thirds higher, at approximately \$25,000. The value of capital assets per pupil in Michigan’s other suburban and rural districts falls roughly midway between the state’s central cities and high-income suburbs.

The numbers in Tables 2 and 3 represent average values, which conceal a great deal of variation within categories. In very poor school districts including Detroit, Hamtramck and Muskegon Heights, the taxable value of

*Tax effort is especially high in central city school districts.*

real property is less than \$50,000 per pupil. In Beecher and Highland Park taxable value is less than \$40,000 per pupil. In wealthy school districts including Bloomfield Hills and Birmingham, in contrast, the taxable value of real property is more than \$500,000 per pupil. Inequalities in the distribution of capital assets are thus even greater than the average values in Tables 2 and 3 suggest.

**DIFFERENCES IN TAX EFFORT**

The differences in capital stock per pupil revealed in Tables 2 and 3 would be even larger if the residents of Michigan’s poorest school districts did not tax themselves at significantly higher rates than their more prosperous neighbors. The average millage rate in the poorest 20 percent of school districts is nearly three times higher than the average rate in the richest 20 percent, as Table 4 shows. Tax effort is especially high in central city school districts, as can be seen in Table 5. Residents of these districts tax themselves at rates that are on average more than 50 percent higher than the residents of other school districts in Michigan.

**TABLE 4  
MILLAGE RATES BY SCHOOL DISTRICT TAXABLE VALUE PER PUPIL QUINTILES**

Quintiles	Number of Districts	Number of Pupils	Taxable Value per Pupil	Average Mills
1	110	361,631	69,172	8.344
2	110	227,365	121,088	4.864
3	111	327,818	150,540	4.171
4	111	394,329	204,317	4.675
5	111	331,108	308,284	3.068

*The citizens of some of Michigan’s poorest school districts are taxing themselves at exceptionally high rates in an effort to support investment in school infrastructure.*

As in the analyses of capital stock, the average millage rates in Tables 4 and 5 conceal significant internal differences. The residents of some of Michigan’s poorest school districts are taxing themselves at exceptionally high rates in an effort to support investment in school infrastructure. In Muskegon Heights, for example, residents levy more than twelve mills on local property. The residents of Detroit levy nearly fourteen mills, the highest rate in Michigan. With very low values of taxable property per pupil, however, even these very high millage rates produce relatively small amounts of revenue for capital investment.

**TABLE 5  
MILLAGE RATES BY COMMUNITY TYPE**

<b>Community Type</b>	<b>Number of Districts</b>	<b>Number of Pupils</b>	<b>Taxable Value Per Pupil</b>	<b>Capital Stock (in \$M)</b>
Central City	15	307,304	98,957	7.407
Low Income Suburb	21	44,662	82,954	4.429
Middle Income Suburb	186	676,348	178,472	4.563
High Income Suburb	35	265,631	272,082	4.753
Rural	296	348,304	164,917	4.297

In wealthier communities, in contrast, school districts can easily raise the revenue necessary to build state-of-the-art schools for local students, at property tax rates far lower than those levied in communities with lower property values. The citizens of Ann Arbor, for example, recently approved a bond issue to construct a new \$84 million high school while actually reducing their local millage rate, by taking advantage of an opportunity to pay off bonds for previous projects.

### **UNMET CAPITAL NEED IN MICHIGAN'S PUBLIC SCHOOL SYSTEM**

As we explained in the previous chapter, we define need as the difference between our estimate of the value of adequate infrastructure and the book value of a district's current capital stock. In the absence of a generally accepted definition of "adequacy" with respect to school infrastructure, we base our estimate on state norms for space as defined by the School Building Association (i.e., square feet per pupil) and construction cost (i.e., cost per square foot). Reliance on state norms yields relatively conservative estimates of need.

We estimate that the value of unmet capital need in Michigan's public school system is approximately \$8.7 billion. This amounts to about \$5,000 for every pupil enrolled in Michigan's public schools, or approximately 25 percent of the current value of the capital stock in the system.

*Financing bonds at 5 percent interest to satisfy all of Michigan's unmet capital need would add less than 5 percent to the amount that taxpayers now spend annually to support the operation of Michigan's public school system.*

On the very conservative assumption that capital investments have a useful life of 30 years, financing bonds at 5 percent interest to satisfy all of Michigan's unmet capital need would cost the state's taxpayers approximately \$540 million per year. This would add less than 5 percent to the amount that taxpayers now spend annually to support the operation of Michigan's public school system. Moreover, as we discuss in the concluding chapter, policies that share this cost with local school districts with sufficient ability to pay for local capital spending could reduce the size of the state's contribution even further.

**THE DISTRIBUTION OF CAPITAL NEED IN MICHIGAN'S PUBLIC SCHOOL SYSTEM**

As with capital assets, the unmet need for capital spending is not evenly distributed across Michigan school districts, as can be seen in Tables 6 and 7. Table 6 shows the distribution of capital need across school districts, stratified according to the taxable value of real property per pupil in each district.

**TABLE 6  
DISTRIBUTION OF CAPITAL NEED ACROSS SCHOOL DISTRICTS BY TAXABLE VALUE PER PUPIL QUINTILES**

Quintiles	Number of Districts	Taxable Value Per Pupil	Capital Need Per Pupil	% of Total Statewide Need
1	110	69,172	8,172	33.9
2	110	121,088	5,587	14.6
3	111	150,540	4,979	18.7
4	111	204,317	4,166	18.8
5	111	308,284	3,677	14.0

As the data in Table 6 indicate, the average value of unmet need for capital spending per pupil in a school district is inversely related to its taxable value per pupil. The average need in the poorest districts is more than twice as large as the average need in the richest districts, but there is unmet need for capital spending in all categories of school districts, from the poorest to the richest.

**TABLE 7  
DISTRIBUTION OF CAPITAL NEED BY  
COMMUNITY TYPE**

<b>Community Type</b>	<b>Number of Districts</b>	<b>Taxable Value Per Pupil</b>	<b>Capital Need Per Pupil</b>	<b>% of Total Statewide Need</b>
Central City	15	98,957	9,127	32.2
Low Income Suburb	21	82,954	6,158	3.2
Middle Income Suburb	186	178,472	4,962	38.5
High Income Suburb	35	272,082	2,469	7.5
Rural	296	164,917	4,671	18.7

Table 7 shows the distribution of unmet capital need across different types of communities. The data in Table 7 make it clear that the per pupil need for capital spending is greatest in Michigan’s fifteen urban school districts. Approximately one-third of the total need for capital spending is found in these districts.

The per pupil need for additional capital spending is also relatively large in Michigan’s low-income suburbs. School districts in these communities enroll relatively few students, so their share of total statewide need is small.

More than half of the unmet need for capital spending is found in middle-income suburbs and in rural school districts. The per pupil value of need is lower in these districts than in central cities or low-income suburbs, but the number of affected pupils is substantially larger.

There is also some unmet need for capital spending in Michigan’s high-income suburbs, but the share is relatively small. The persistence of unmet need in these relatively wealthy districts may be attributable in part to failure to keep pace with rising enrollments.

*... the per pupil need for capital spending is greatest in Michigan’s fifteen urban school districts. Approximately one-third of the total need for capital spending is found in these districts.*

## WHERE IS THE NEED GREATEST?

*... nearly 25 percent of the total need in Michigan is found in five low-income central city school districts, including Detroit.*

Table 8 displays the distribution of need across Michigan school districts simultaneously classified according to taxable value per pupil and community type. (Appendix Table A.2 shows the number of districts and the number of pupils in each cell.). This table identifies those groups of school districts where the need for capital spending is greatest. The most striking finding from Table 8 is that nearly 25 percent of the total need in Michigan is found in five low-income central city school districts: Battle Creek, Detroit, Flint, Muskegon, and Saginaw. Substantial unmet need is also found in middle-income suburbs, and in low-income rural districts, but in both cases the number of districts involved is many times larger. In the case of the middle-income suburbs the number of students involved is substantially larger as well.

**TABLE 8  
DISTRIBUTION OF CAPITAL NEED BY TAXABLE VALUE PER  
PUPIL QUINTILES AND COMMUNITY TYPE  
(IN \$ MILLIONS)**

<b>Taxable Value Quintile</b>	<b>Central City</b>	<b>Low Income Suburb</b>	<b>Middle Income Suburb</b>	<b>High Income Suburb</b>	<b>Rural</b>
1	1,955	227	273	0	500
2	57	48	729	0	436
3	525	0	850	0	257
4	92	0	946	345	260
5	176	0	558	311	173

## THE DISTRIBUTION OF CAPITAL NEED AND TAX EFFORT

Tables 9 and 10 display the property tax rates (mills) that citizens in different groups of districts levy on local property to pay for capital facilities. They also provide estimates of the additional millage that would be required to satisfy unmet need for capital in these districts, assuming that capital spending remains an entirely local responsibility. To calculate the number of additional mills that school districts would have to levy to satisfy their need for additional capital expenditure locally, we amortized the total value of unmet need in each set of districts over 30 years at an annual interest rate of 5 percent. (See Appendix B.5.) State action could



significantly reduce the rate of property tax that local school districts would have to levy in order to provide adequate educational facilities for all local children.

As Table 9 shows, the value of unmet need would be even greater in Michigan’s poorest school districts if citizens in these districts were not already taxing themselves at rates nearly three times as high as rates in Michigan’s richest districts. Very high levels of current tax effort do not begin to provide the quantity of resources that would be required to satisfy the need for additional capital expenditure in these districts, however. Meeting the need for new capital spending in Michigan’s poorest school districts would require voters to more than double their already high millage rates, to nearly 16 mills.

**TABLE 9  
MILLAGE RATES REQUIRED TO SATISFY CAPITAL  
NEED IN MICHIGAN SCHOOL DISTRICTS BY  
CAPITAL VALUE PER PUPIL QUINTILES**

Quintiles	Capital Need Per Pupil	Current Millage Rate	Additional Mills Required	Total Mills Required
1	8,172	8.344	7.230	15.574
2	5,587	4.864	2.859	7.723
3	4,979	4.171	2.049	6.220
4	4,166	4.675	1.263	5.938
5	3,677	3.068	0.739	3.807

*Despite their already exceptional tax effort, millage rates would nevertheless have to increase by nearly 80 percent for Michigan’s central city school districts to meet the need for capital spending at the local level.*

In the wealthiest 20 percent of districts, in contrast, the need for additional capital spending could be met relatively easily, with an average increase in local property tax rates of less than one mill. Leaving the responsibility for financing unmet need at the local level would require citizens in Michigan’s poorest school districts to pay property tax rates four times higher than those paid by citizens in Michigan’s wealthiest districts in order to provide adequate facilities for local students.

As the data in Table 10 reveal, citizens in Michigan’s central cities already tax themselves at rates substantially higher than citizens elsewhere to support capital spending on local schools. Despite their already exceptional tax effort, millage rates would nevertheless have to increase

by nearly 80 percent for Michigan’s central city school districts to meet the need for capital spending at the local level.

**TABLE 10  
MILLAGE RATES REQUIRED TO SATISFY  
CAPITAL NEED IN MICHIGAN SCHOOL  
DISTRICTS BY COMMUNITY TYPE**

<b>Community Type</b>	<b>Capital Need Per Pupil</b>	<b>Current Millage Rate</b>	<b>Additional Mills Required</b>	<b>Total Mills Required</b>
Central City	9,127	7.407	5.714	13.121
Low Income Suburb	6,158	4.429	4.599	9.028
Middle Income Suburb	4,962	4.563	1.722	6.285
High Income Suburb	2,469	4.753	0.562	5.316
Rural	4,671	4.297	1.755	6.051

On average, residents in school districts outside Michigan’s central cities now tax themselves at approximately similar rates to support investment in educational infrastructure. They differ dramatically in the tax effort that would be required to meet the need for additional investment, however. In the low-income suburbs, for example, the value of taxable property per pupil is so low that school districts would have to more than double their local millage rates to produce the capital necessary to meet their need for additional capital spending. In contrast, meeting the need for capital spending locally in middle-income suburbs would require an average increase of less than 40 percent in local millage rates.

Residents in high-income suburban school districts already tax themselves at rates comparable to those in other communities, and provide local students with levels of capital per pupil that are substantially higher than those available elsewhere in the state. Unmet need in these districts could be satisfied with an average increase in local millage rates of only 0.56 mills, less than one-tenth of the increase that would be required in Michigan’s central cities.

## SUMMARY

The data presented in this chapter suggest that variation in need across Michigan school districts depends mainly on differences in ability to pay, and not on differences in local preferences. As the data make clear, the current distribution of capital assets and need for additional capital spending is closely associated with the distribution of local property wealth. The need for capital spending is greatest in school districts where taxable value per pupil is low. In addition, citizens in low-wealth districts are taxing themselves at much higher rates on average than their wealthier neighbors. This suggests that they are willing to pay higher taxes to provide the kinds of schools that they prefer for local students, but that the weakness of the local tax base prevents them from doing so. As a result, many students in school districts where property values are low attend schools that fall short of reasonable standards of adequacy, in spite of exceptional local tax effort.

The disadvantage that students in low-wealth communities face in the capital support provided for their education will persist as long as capital funding remains a local responsibility. State action will be required to ensure that all Michigan children have equitable access to adequate educational facilities. In the following chapter we discuss the range of policy alternatives that Michigan might consider to address the need for additional capital spending in the state's education system.

*Citizens in low-wealth districts ... are willing to pay higher taxes to provide the kinds of schools that they prefer for local students, but... the weakness of the local tax base prevents them from doing so.*



### III

## WHAT ARE MICHIGAN'S CHOICES?

In the preceding chapters we have discussed the reasons why the State should play a larger role in financing capital spending in Michigan's public school system, and we have presented data that reveal the size of the problem that needs to be addressed. In this chapter we discuss a variety of policy alternatives that the State might adopt to increase adequacy and equity in the way school construction is financed in Michigan.

### CREATING A POLICY THAT WORKS

A successful policy framework for financing capital expenditure in Michigan schools must satisfy three criteria. First, it must ensure that all communities are able to provide adequate educational facilities for their children, regardless of their ability to pay. Second, it must be responsive to community preferences with respect to the quality of school facilities. Third, it must include mechanisms to discourage extravagance and restrain the costs borne by state taxpayers. Leaving the responsibility for capital spending at the local level, as Michigan does now, satisfies the second and third of these criteria but violates the first.

Designing a policy framework that satisfies all three criteria simultaneously poses a complex policy challenge. To see why, imagine two simple alternatives to Michigan's current policy.

On the one hand, the State might pay the full cost of all projects proposed by local school districts, without exercising any control over the expression of local preferences. Under this policy many if not most communities would seek to build new, state-of-the-art schools, because there would be no incentive to do anything less. Without an effective mechanism to restrain costs, however, state taxpayers would be unlikely to support the level of expenditure needed to build state-of-the-art schools for all students. Full state funding of local projects would thus satisfy the first and second criteria, but violate the third.

On the other hand, the State might build local schools itself, according to uniform standards of cost and quality. Under this policy all new schools in Michigan would look similar and provide similar facilities. This might be attractive in communities where state-provided schools

*A successful policy framework for financing capital expenditure in Michigan schools...must ensure that all communities are able to provide adequate educational facilities for their children, regardless of their ability to pay.*

represent an improvement over current facilities, but in other communities state standards may fall well short of local preferences. State construction of schools under uniform standards would satisfy the first and third criteria, but violate the second.

*State action to ensure equitable access to adequate educational facilities for all public school students should not punish districts that have taken action to meet their needs locally, nor should it reward districts that have failed to do so.*

The challenge of designing an effective policy framework is complicated further by two additional problems. The first is the question of what to do about the outstanding debt and existing tax obligations of school districts that have approved increases in local property taxes to support capital spending for their local schools. Some of these districts are taxing themselves at very high rates. In Muskegon Heights, for example, residents now pay more than twelve mills to finance spending on educational facilities. Citizens in other districts have rejected tax increases to support capital spending. The local need for capital spending may be as large as the need in Muskegon Heights, but their local property tax rates are much lower. State action to ensure equitable access to adequate educational facilities for all public school students should not punish districts that have taken action to meet their needs locally, nor should it reward districts that have failed to do so.

The second problem is the question of what to do about capital spending in Michigan's public school academies, or charter schools. Providing adequate facilities for charter schools poses unique challenges, because these schools do not have local taxing authority. Some of the policy alternatives identified below can be readily adapted to accommodate the needs of charter schools, but others cannot.

## **POLICY ALTERNATIVES**

The range of policy options described in this chapter extends from minor modifications of current policies to a complete assumption by the State of responsibility for financing school facilities. We discuss the following five alternatives.

- Modification of School Bond Loan Fund
- Direct State Financing of Selected Projects
- Facility Financing Grants
- District Power Equalization
- State Assumption of All Facility Financing

In this chapter we provide a brief overview of the main policy options available to the State, and evaluate each one against the criteria identified above. It is essential to recognize at the outset that choosing one of the policy alternatives described in this chapter would require

further choices about the balance of state and local responsibility and the authority to make decisions affecting specific projects.

Furthermore, the policy options identified here are not mutually exclusive. A comprehensive state response to the problem of school facilities funding would almost certainly represent a blend of multiple approaches. In the discussion that follows we include some examples that combine two or more of these approaches.

Any change in current state policies will have cost implications. Our estimates of the costs of several of the alternatives below are expressed in terms of statewide mills on the property tax, because this is the revenue source most often used to finance capital projects. Other taxes including the income tax or the sales and use taxes could also serve as the source of revenues for state financing of capital spending. New revenues could be obtained either by increasing the tax rate or by expanding the tax base.

Table 11 provides summary information about how each of the six alternatives measures up to these criteria for policy choice.

## **MODIFYING THE SCHOOL BOND LOAN FUND**

The School Bond Loan Fund (SBLF) Program is briefly described in the first chapter of this report.<sup>7</sup> The program provides assistance for school districts that are unable to finance adequate facility programs on their own, mainly because their taxable value per pupil does not yield sufficient revenues to repay bonds within a financially-feasible bond maturity period. The SBLF mechanism enables eligible districts to extend the loan repayment period on their bonds five years beyond the standard maturity date by using loans from the SBLF Fund to supplement local debt service payments in the early years of a bond issue.

Extending the repayment period on capital construction bonds (e.g., from 35 to 40 years) could help some districts to finance capital spending by reducing their annual debt service payments. Extending the repayment period by more than the current five years would require an increase in the amount of state money available for loans under the SBLF.

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<sup>7</sup> For more information, go to the Michigan Department of Treasury website: [www.michigan.gov/treasury](http://www.michigan.gov/treasury). A description of the SBLF is located in the section of the website that addresses Local Government, under the heading of Loans and Bonds.



**TABLE 11  
EVALUATING THE POLICY OPTIONS**

	<b>Modify School Bond Loan Program by extending maximum repayment period from five years to ten years</b>	State financing of selected projects based on established criteria for selection	Non-Equalizing per pupil facility grants based on flat percentage of foundation allowance	Equalizing per pupil facility grants based on a flat percentage of minimum foundation allowance	Yield equalization- provide state subsidies to equalize the total revenues per pupil per mill at or below the guaranteed minimum	State assumption of school facility financing responsibilities
<b>Effects on equity</b>	Minimal improvement. Tax rates required to finance needs would continue to vary widely	Minimal to marginal improvement. Existing debt and resulting inequities would be maintained.	Marginal improvement. Inequities in the distribution of operating funds would be mirrored in capital grants.	Marginal improvement. Flat grants would provide relatively larger subsidies to low-wealth districts.	Significant improvement. Fund-raising capability would be fully equalized for all districts at or below the taxable value per pupil guarantee.	Significant improvement for facilities complying with state criteria defining adequacy. All effects of differences in local tax base would be eliminated
<b>Local control</b>	Current level maintained	Current level maintained.	Current level maintained if state permits local control of projects.	Current level maintained if State permits local control of projects.	High level maintained if State permits local choice of projects and allows local financing option for project enhancements.	Current level reduced, possibly significantly, if state approval is required for local projects
<b>Potential cost</b>	Unknown, but probably low	Varies, depending on size of program.	Varies with grant amounts. Each \$100 per pupil would cost about \$170 million. At 10% of current foundation allowances, annual cost is about \$1.3 billion.	Varies with grant amounts. Each \$100 per pupil would cost about \$170 million. At 10% of minimum foundation allowance, annual cost is about \$1.1 billion	Varies from \$94 million at a \$125,000 TV per pupil guarantee for new projects only to \$665 million at a \$275,000 guarantee for new projects and existing debt.	If the state assumed and re-financed all existing debt and financed current estimated need, Annual debt service costs would be about \$1.5 billion. Current local debt service totals about \$1.5 billion.
<b>Effects on local debt</b>	Likely increase in some districts because of extended repayment period	Likely increase in some districts because of increased borrowing capacity.	Likely increase in some districts because of increased borrowing capacity.	Likely increase in some districts because of increased borrowing capacity	Likely increase in some districts because of increased borrowing capacity.	Local debt financing projects falling within the state's definition of adequacy would be eliminated
<b>Effects on state debt</b>	Increase in SBLF borrowing	Increase if funds needed for projects are borrowed.	Increase if funds needed for grants are borrowed.	Increase if funds needed for grants are borrowed.	Increase if funds needed to equalize yield are borrowed.	Significant increase.
<b>Charter school participation</b>	No - Charter schools cannot levy taxes	Participation possible.	Participation possible.	Participation possible.	No - charter schools cannot levy taxes.	Participation possible.

In some districts, extending the repayment period by itself may not make a project feasible. Under these circumstances, the State could provide additional support by forgiving SBLF interest payments, subsidizing the revenue yield of locally-levied mills or providing direct grants to local school districts for capital projects. A combination of state subsidies and an extended repayment period would make it possible for all Michigan school districts to repay bonds and SBLF loans in a maximum period of 40 years, which is still within the useful life of new facilities.

Some modifications in the SBLF Program can be made at relatively low cost. These modifications could be designed to respect local preferences and to restrain costs. In the end, however, the capacity of local school districts to finance capital spending would still depend on local ability to pay. Thus, there is no assurance that modifications in the SBLF Program would ensure that adequate facilities are available for all students.

### **DIRECT STATE FINANCING OF SELECTED PROJECTS**

In some Michigan school districts the per pupil value of taxable property is so low that the construction of adequate school facilities can never be financed entirely from local tax revenues, even with an extended repayment period through the SBLF Program. In such cases, the State could issue bonds to raise the amounts necessary to finance directly the construction of adequate educational facilities in targeted school districts. Approval of the voters in a statewide election would be needed to authorize these bonds.<sup>8</sup>

A school construction program funded directly by the State would need to establish criteria to govern the distribution of state resources. The criteria might include a combination of existing facility conditions, compliance with state standards for school construction, local tax effort, and the ability of a district to finance capital spending needs locally.

Raising an amount of \$1 billion or more would go a long way toward redressing needs in districts unable to raise sufficient funds locally.

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<sup>8</sup> As recently as 2002, legislators considered a state bond issue of \$1 billion to address critical school facility needs. The proposal would have been a companion to the \$1 billion water quality bond proposal that was approved by voters in the November election that year, but it failed to receive sufficient legislative support to appear on the ballot.

*Raising an amount of \$1 billion or more would go a long way toward redressing needs in districts unable to raise sufficient funds locally.*

The creation of such a fund could raise serious equity issues, however, because some school districts with very low taxable value per pupil have already extended themselves beyond a reasonable and fair level of tax effort to finance facilities improvements. A targeted school construction program would have to provide assistance for these districts, as well as for those that have not approved local bond issues.

A state-funded school construction program for targeted school districts has two key advantages. It would be relatively simple to design and administer, and a program large enough to address the most urgent facility needs in Michigan school districts could be financed with existing state revenues. The disadvantages of such a program include its failure to address the school facility problem as a whole, or to provide a state program that addresses the needs of all school districts, as Proposal A did for school operations. There is no assurance that direct state financing would ensure access to adequate facilities for all students.

## **FACILITY FINANCING GRANTS**

Since the approval of Proposal A, the State has funded the operation of local schools by providing school districts and charter schools with a fixed foundation allowance for each pupil that they enroll. The State could also provide per pupil foundation grants to support capital spending, in addition to the foundation allowance provided for operations. Facility financing grants would directly link capital spending to operations support. They could be provided on either an equalizing or a non-equalizing basis, to both traditional school districts and public school academies.

On the one hand, the State could provide flat grants based on a percentage of each district's basic foundation allowance. Making the facility financing grant a constant fraction of each individual district's operating support would be non-equalizing, because it would produce larger capital grants for higher spending districts.

The cost of this alternative would vary, depending on the size of the facility financing grants relative to the foundation allowance. The State's obligation would increase by approximately \$125 million for each percentage point increase in the size of the grant. For example, a facility financing grant equivalent to 5 percent of the foundation allowance would cost about \$650 million per year. A grant equivalent to 10 percent of the foundation allowance would cost about \$1.3 billion per year.

On the other hand, a program of facilities financing grants could be designed to be equalizing, which would steer state resources toward school districts where the need for capital investment is greatest. Providing the same per pupil facility financing grant to all districts, rather than basing the value on each district's foundation allowance, would mean that higher spending districts received smaller grants relative to their operating expenditures than districts at the minimum foundation allowance.

The statewide average value of depreciation in educational facilities is roughly \$500 per pupil per year. If the value of an annual facilities financing grant were set at this level, and grants were provided to all school districts, the annual cost to the State would be approximately \$850 million. Raising this amount of revenue would require an increase of about 3 mills in the state property tax.

School districts could use facilities financing grants to pay the debt service on bonds, or to support the issue of new debt. Assuming that funds can be borrowed at 5 percent over 30 years, an annual grant of \$500 would make it possible for districts to borrow approximately \$8,000 per pupil. This amount would meet or exceed unmet capital needs in approximately 87 percent of Michigan school districts. Districts where the value of the grant exceeded current needs could use the excess funds to pay off existing debt levies or deposit them in sinking funds for future projects.

A program of facilities financing grants would offer two main advantages. First, it would represent an acknowledgment that the cost of maintaining and replacing capital is a necessary part of operating a school program. In addition, like Proposal A, it could be designed to bring benefits to virtually all Michigan school districts. The disadvantages of such a program include failure to take full account of large differences in existing debt service payments, and the provision of state financial support to districts that are able to finance local capital needs at modest local millage rates. A program could be designed to minimize these disadvantages, but this would significantly reduce benefits for many school districts.

## **DISTRICT POWER EQUALIZATION**

The amount of funding districts can raise for capital outlay through local bond issues depends on the taxable value of the property in the community. The lower the taxable value, the higher the millage rate must be to raise the funds necessary for a particular construction project. A fourth alternative to address the inequities that result from large differences in taxable value per student would be a power

*A program of facilities financing grants ... would represent an acknowledgment that the cost of maintaining and replacing capital is a necessary part of operating a school program.*

***Providing a state supplement to each local mill levied could significantly reduce current inequities for both students and taxpayers.***

equalization program, under which the State would subsidize the per pupil yield of each mill on the local property tax at a minimum guaranteed level. Under a power equalization program, districts with taxable value per pupil below the minimum guarantee would receive a state subsidy to make up the difference between the guaranteed yield and the district's actual yield per mill of tax. (The State would likely set a maximum millage rate that would be subject to equalization, such as the present 7 mill threshold for School Bond Loan Fund participation). Districts with taxable value per pupil above the guaranteed level would receive no subsidies. The subsidy would be calculated as the millage rate times the difference between the taxable value per student guarantee and the actual taxable value per student times the number of pupils.

Table 12 displays hypothetical examples of how power equalization would work, assuming that the equalized taxable value per pupil minimum is set at \$200,000. In districts where the average taxable value per pupil is \$50,000, for example, each additional mill on the local property tax yields \$50 per pupil. A state subsidy of \$150 per pupil would be required to increase the yield for each additional mill to the state-guaranteed minimum of \$200 per pupil. In districts where the average taxable value per pupil is \$250,000, in contrast, each additional mill on the local property tax yields \$250 per pupil, which exceeds the state-guaranteed minimum. These districts are able to provide adequate capital resources locally, and they receive no state subsidy.

Providing a state supplement to each local mill levied for facilities improvements could significantly reduce current inequities for both students and taxpayers. If the State were to guarantee a minimum yield per pupil for each mill levied locally, districts with low taxable values per pupil would be able to finance their projects with lower local millage rates. This would remove a major impediment for districts that have not been able to finance adequate facilities on their own.

**TABLE 12  
DISTRICT POWER EQUALIZATION  
ILLUSTRATIVE VALUES**

		<b>Per Pupil Yield Per Mill</b>
Taxable Value Equalization Minimum	\$200,000	
District Taxable Value Per Pupil	<u>- 50,000</u>	\$50
Difference – State Subsidy	150,000	\$150
Taxable Value Equalization Minimum	\$200,000	
District Taxable Value Per Pupil	<u>- 100,000</u>	\$100
Difference – State Subsidy	\$100,000	\$100
Taxable Value Equalization Minimum	\$200,000	
District Taxable Value Per Pupil	<u>-250,000</u>	\$250
No State Subsidy		

The following factors must be considered in deciding on the state-guaranteed minimum level for yield equalization:

- The average taxable value per student statewide and the distribution of values by district, in order to assess the effects of various guarantee levels in meeting district needs;
- The local millage rates required to finance needed projects at various equalization levels; and
- The costs to the State of subsidies at various equalization levels.

Table 13 illustrates how these factors interact across a range of average taxable values per student. The range from \$125,000 to \$250,000 spans the statewide average value of \$173,000. The table shows how the choice of different equalization levels would affect the number of districts receiving subsidies and the cost to the State. Our analysis assumes that all capital needs would be financed over 30 years at an interest rate of 5 percent. It further assumes that the cost of the state subsidy would be financed by a statewide millage on all property. Support for such a program could also come from many other revenue sources, however.



**TABLE 13  
EQUALIZATION COSTS OF FINANCING EXISTING DEBT  
AND UNMET FACILITY NEEDS**

Taxable Value Equalization Minimum	Annual Costs (Millions)			Tax Rate (Statewide Mills)			Districts Affected
	Existing Debt	Unmet Needs	Total	Existing Debt	Unmet Needs	Total	
\$125,000	\$89.5	\$93.8	\$183.4	0.31	0.33	0.64	185
150,000	131.2	123.6	254.7	0.46	0.43	0.90	269
175,000	180.9	154.4	335.3	0.64	0.54	1.18	338
200,000	234.0	182.7	416.7	0.82	0.64	1.46	381
225,000	291.9	209.3	501.2	1.03	0.74	1.76	422
250,000	350.7	234.6	585.3	1.23	0.82	2.06	451
275,000	407.1	258.0	665.1	1.43	0.91	2.34	469

As Table 13 shows, as the taxable value per pupil subject to yield equalization rises, so does the number of districts that qualify for the subsidy. At \$125,000, 185 districts would potentially benefit, or approximately one third of all Michigan school districts. At \$275,000, 469 districts would benefit, or 85 percent of districts statewide. The cost of the state subsidy correspondingly increases, as financial responsibility shifts away from local districts. The cost of equalization subsidies for unmet need expressed in statewide mills ranges from 0.33 mills at the \$125,000 equalization level to 0.91 mills at \$275,000.

A power equalization program that applied only to new projects would penalize school districts where residents have already shouldered large debt loads to finance capital spending. In 2003, for example, nearly 100 Michigan school districts were levying more than 7 mills to support facilities improvements in local schools. We therefore conducted a similar analysis to determine how subsidizing existing debt payments for districts below the state-guaranteed minimum would affect state costs and local millage rates.

Table 13 shows that the cost of subsidizing existing debts for districts where the average taxable value per pupil is \$150,000 or greater is potentially greater than the cost of subsidizing new projects that address unmet needs. This is true in part because the annual cost of servicing existing debt levy is about \$1.5 billion, nearly three times the amount that would be needed to finance all current unmet needs. It is also true because districts with lower taxable values per pupil



generally have less existing debt. In these districts the cost of subsidizing existing debt generally would be less than subsidizing new debt. In wealthier districts, in contrast, the cost of servicing current debt would be greater than the cost of subsidizing new debt. The cost of equalization subsidies for existing debt ranges from 0.31 statewide mills at the \$125,000 equalization level to 1.43 mills at \$275,000.

Combining the cost of subsidizing unmet needs with the cost of subsidizing existing debt allows us to estimate the distribution of costs and the resulting statewide millage rates that would be required across the range of possible yield equalization levels. Table 13 summarizes the results of these calculations. The Table presents the annual cost to the State of subsidizing both unmet needs and outstanding debt at each equalization level, on the assumption that new debt is financed over a 30 year period at five percent interest. The total cost of equalization subsidies ranges from 0.64 statewide mills at the \$125,000 level to 2.34 statewide mills at \$275,000.

The figures for unmet need are based on the further assumption that all districts would approve local millages at the property tax rate needed to finance all of their needs at each level of equalization. In fact, of course, some districts are likely to vote against local millages, even in the presence of state subsidies, which would reduce the cost to the State. The figures on existing debt are computed on the assumption that every school district will continue to tax local property at the current rate. In districts that have already approved local millages, in other words, we assume that state subsidies will augment rather than replace the flow of resources from local property taxes.

The estimates in Table 13 thus present the theoretical maximum cost at each level of equalization. They make no allowance for reductions in local millages that might result from the state subsidies for current debts. The statewide millage rates shown are the rates that would be necessary to finance both existing debt and unmet needs.

District power equalization has several advantages over the alternatives described above. It shifts the main determinant of facilities financing from the local ability to pay to the preferences of local voters. If the yield guarantee is set high enough, every Michigan school district could provide adequate facilities based on our calculations of need. The decision to undertake new projects would still be made by local voters, who would have the option of levying additional mills to build schools that exceed state norms of adequacy. In addition, current inequities for taxpayers could be dramatically reduced if the equalization process applied to existing as well as new debt.

District power equalization would require some state oversight to ensure that existing or proposed projects that might be regarded as extravagant would not receive state subsidies. In addition, the effectiveness of power equalization to ensure adequate educational facilities for all students continues to depend on the willingness of local voters to approve property tax increases. In districts where voters are resistant to paying higher taxes, state subsidies would not be provided, and capital spending could continue to fall short of state standards of adequacy.

## **STATE ASSUMPTION OF ALL FACILITY FINANCING**

A final policy alternative would be for the State to assume full responsibility for facilities financing as well. Under this alternative, the State could pay off the existing debt of local school districts and issue state bonds to finance future projects. Full state assumption of the responsibility for financing facilities would be the most direct and effective way to complete the unfinished business of Proposal A.

The assumption by the State of responsibility for facilities funding would raise many complex issues, including the following:

*Full state assumption of the responsibility for financing facilities would be the most direct and effective way to complete the unfinished business of Proposal A.*

- What would happen to existing debt? The outstanding debt for school facilities exceeds \$15 billion. The annual cost of servicing this debt is about \$1.5 billion. To wipe the slate clean for the start of a new program, the State could pay off existing debt with the proceeds of a bond issue used to consolidate the old debt.
- Would the State's obligation to support capital spending be limited to the portion of the project conforming to criteria defining adequate facilities? How would the State treat local debts recently incurred to construct facilities that exceed state standards of adequacy?
- Would any element of local control or choice be permitted? For example, if local voters were willing to tax themselves to pay for enhancements to an adequate facility (e.g., diving pools, food courts), would they be permitted to do so without state interference? Could they propose alternatives to state standards to satisfy local preferences if the costs were similar?
- If local districts were permitted to finance enhancements, would the State set a limit on the maximum local property tax rate allowed for such purposes?

- Could the local debts assumed by the State be refinanced over a longer period of time than the current average for existing debts? This might make it possible for the State to finance new projects without increasing the statewide average millage rate.
- What would be the source of revenue to finance the State's obligation? One possible revenue source would be a statewide property tax earmarked for this purpose. Other possible sources might include an increase in the personal income tax, or increases in revenues from sales and use taxes.
- What provision would be made for the depreciation of Michigan's current capital stock? The value of existing K-12 school buildings in Michigan is approximately \$32 billion. The annual cost of depreciation is \$850 million, assuming school buildings with a normal useful life. If the cost of depreciation were to be financed through additional bonding, debt service costs would rise by about \$60 million per year.

To illustrate how such a proposal might work, suppose that the State assumed full financial responsibility for the \$15 billion of existing debt incurred by local school districts, and full responsibility for financing an additional \$8.7 billion to satisfy the unmet need for capital spending in Michigan's public school system. The State's total initial indebtedness would thus be \$23.7 billion. The increase in total state indebtedness would clearly be significant, but roughly two-thirds of the increase would be offset by a reduction in local indebtedness.

At five percent over 30 years, the annual debt service payments on \$23.7 billion would be approximately \$1.5 billion, which is not significantly different from the current annual debt service now paid by local school districts. Extending the terms of existing debt to thirty years would greatly reduce the annual cost of debt service. If financed by a statewide property tax, the \$1.5 billion cost of servicing this debt could be raised with a statewide 5 mill levy.

Prior to the implementation of Proposal A, property tax rates for school operations averaged about 38 mills statewide. Since the approval of Proposal A, property tax rates for homesteads and certain agricultural property have been limited to 6 mills, and most other property has been taxed at approximately 24 mills. Before Proposal A the average tax rate for school facilities in Michigan school districts was 2.7 mills. By 2003, the average rate had risen to 4.2 mills. Full assumption by the State would increase the statewide rate to 5 mills. This would mean an increase in property tax rates for some citizens,

and a reduction in rates for others, but the net increase for the state as a whole would be less than one mill.

*Significant improvements in the equity and adequacy of Michigan's facilities financing policies can be accomplished with relatively small changes in the overall level of taxes.*

*As long as capital spending remains an exclusively local responsibility, it will be virtually impossible for some districts to finance new investments in educational infrastructure.*

## **CONCLUSION**

The five approaches to solving the capital needs of Michigan's schools outlined in this report are not mutually exclusive. Devising a more equitable and effective means to finance investment in school facilities will almost certainly include elements of two or more of these alternatives. No matter which alternative is chosen, increasing the State's role in facilities financing will require additional resources. By rearranging existing debt and using statewide revenue sources, however, significant improvements in the equity and adequacy of Michigan's facilities financing policies can be accomplished with relatively small changes in the overall level of taxes.

Capital needs in Michigan's public school system are not randomly distributed. Many of Michigan's school districts can finance capital expenditures that satisfy local preferences with relatively low rates on their local property taxes. Many school districts have approved bond issues to fund the construction of new educational facilities in the years since Proposal A was approved.

In a relatively small number of school districts, however, the value of taxable property is exceptionally low. In these districts the revenues needed to invest in new school facilities can only be generated with prohibitively high property tax rates. As long as capital spending remains an exclusively local responsibility, it will be virtually impossible for some districts to finance new investments in educational infrastructure.

In a larger number of school districts low property wealth and low incomes make it difficult to win approval for new capital spending from voters. Because property values are relatively low, residents in these districts must tax themselves at significantly higher rates than the residents of wealthy districts if they wish to generate the same quantity of revenue. Low-income citizens may consequently resist the tax increases that would be required to support investment in new school facilities.

All Michigan school districts may welcome state assistance with capital spending, but the need is urgent in districts where the value of taxable property is low. These districts are unlikely to be able to provide adequate educational facilities for their students without a significant increase in state support for capital spendin