Adequacy, Equity and Capital Spending in Michigan Schools

The Unfinished Business of Proposal A

CRC

The Education Policy Center
at Michigan State University

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EXECUTIVE SUMMARY

UNFINISHED BUSINESS

Despite a long tradition of local control, Michigan now has a state education system. Since the approval of Proposal A in 1994, decisions about how much to spend on educating students have been made in Lansing. 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 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. The residents of school districts where the value of taxable property is low must pay very high rates of property tax to raise relatively small amounts of capital. Citizens in wealthier school districts can raise far more capital while paying significantly lower property tax rates. As a result, students in many poor school districts must cope with aging or inadequate educational facilities.

Capital spending is the unfinished business of Proposal A. 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. 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 can no longer provide adequate school facilities for local children without state support.

CAPITAL STOCK

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. This amounts to approximately $20,000 for every pupil enrolled in Michigan's public school system.

Capital assets are not evenly distributed across Michigan school districts, however. In Michigan's central city school districts the average value of capital assets per pupil is approximately $15,000. In contrast, the value of capital assets per pupil in high-income suburbs is 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.

UNMET NEED

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. 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.

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. 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 of these 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.

TAX EFFORT

The unmet need for capital spending would be even greater in Michigan's poorest school districts if the residents of these districts were not already taxing themselves at rates nearly three times as high as rates in Michigan's richest districts. 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 of districts. Tax effort is especially high in central cities. 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.

FISCAL AND POLICY IMPLICATIONS

There are several policy alternatives that the State might adopt to increase adequacy and equity in the way school construction is financed in Michigan. The range of policy options extends from minor modifications of current policies to a complete assumption by the State of responsibility for financing school facilities. A comprehensive state response to the problem of school facilities funding will almost certainly represent a blend of multiple approaches.

The main alternatives discussed in the report include:

- Modifying the School Bond Loan Fund

The SBLF now 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 could be modified to further extend the repayment period, or enhanced to 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.

- Direct State Financing of Selected Projects

The State could issue bonds to raise the amounts necessary to finance the construction of adequate educational facilities in targeted school districts. Criteria for participation 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.

- Facility Financing Grants

The State could provide per pupil foundation grants to support capital spending, in addition to the foundation allowance provided for operations. Facility financing grants could be provided on either an equalizing or a non-equalizing basis, to both traditional school districts and public school academies.

- District Power Equalization

A power equalization program 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 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.

- State Assumption of All Facility Financing

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.

No matter which alternative is chosen, increasing the State's role in facilities financing will require additional resources. 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. By rearranging existing debt and using statewide revenue sources, 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.

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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.[1] 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.

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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

[1] This report is the product of a collaborative research project conducted by the Citizens Research Council of Michigan (CRC) and the Education Policy Center at Michigan State University (EPC). The project was directed by Tom Clay of CRC and David N. Plank of EPC. Financial support for the project was provided by the W.K. Kellogg Foundation, the Skillman Foundation, and the Frey Foundation. Publication of the project report was funded by the Education Policy Center at Michigan State University.

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.

Proposal A enhanced adequacy and increased equity in the way Michigan funds the operation of the public school system.

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.

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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

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.

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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.

Communities differ dramatically in their ability to pay for school facilities.

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

District	Number of Pupils	Taxable Value Per Pupil	Mills Required	Taxes Paid
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

The need for state intervention arises when inequalities in school facilities are a consequence of differences in ability to pay.

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.[2] 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.[3] 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.[4] The increase in capital expenditure

[2] 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.

[3] These figures include the $1.5 billion bond issue that Detroit voters approved in 1994.

[4] 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

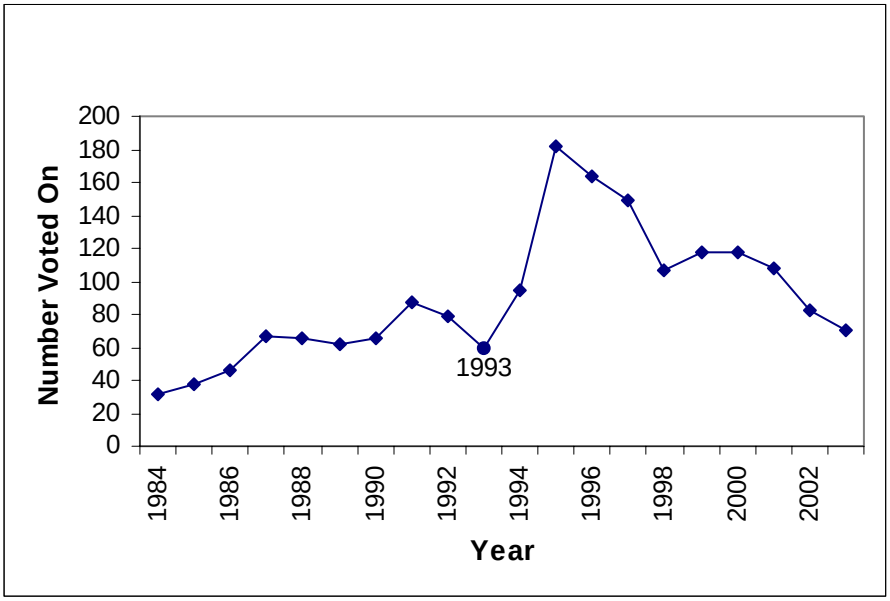
since 1994 is consequently attributable mainly to an increase in the average size of local bond issues, and also to an increase in the number of proposals put before local voters, rather than to an increase in the rate of approval in local elections.

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

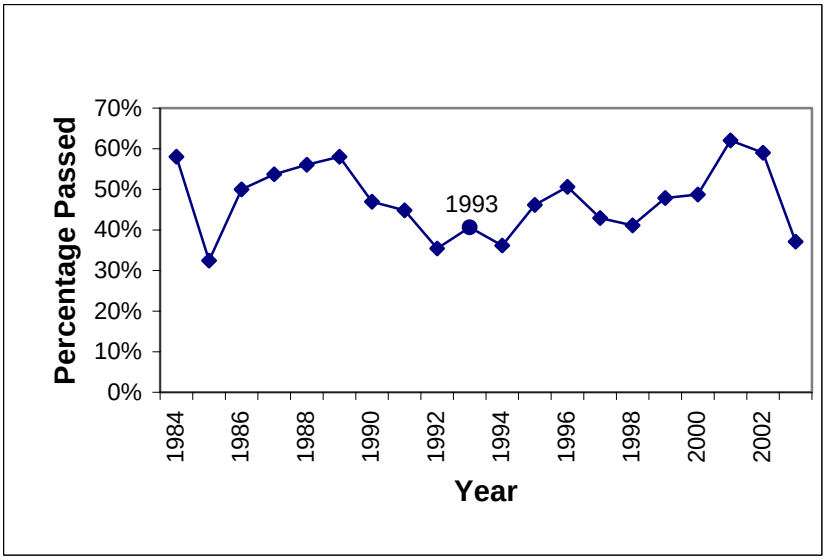
finance construction of a new high school and another, separate issue to finance renovations in local elementary schools. In districts where bond issues are rejected the local school board frequently returns to the voters within a matter of months with a similar bond issue which has been reduced in size 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.[5] 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

[5] 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:

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

Where:

i indexes the school district

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

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

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

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

$capital_i^t$ = 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.[6] 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.

[6] 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.

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.

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

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 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

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.

Tax effort is especially high in central city school districts.

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

Community Type	Number of Districts	Number of Pupils	Taxable Value Per Pupil	Capital Stock (in $M)
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

Community Type	Number of Districts	Taxable Value Per Pupil	Capital Need Per Pupil	% of Total Statewide Need
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)

Taxable Value Quintile	Central City	Low Income Suburb	Middle Income Suburb	High Income Suburb	Rural
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

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

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.

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

Community Type	Capital Need Per Pupil	Current Millage Rate	Additional Mills Required	Total Mills Required
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.

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.

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.

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.

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.

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

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.

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.

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.[7] 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.

[7] For more information, go to the Michigan Department of Treasury website: 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

	Modify School Bond Loan Program by extending maximum repayment period from five years to ten years	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
Effects on equity	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
Local control	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
Potential cost	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.
Effects on local debt	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
Effects on state debt	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.
Charter school participation	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.[8]

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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[8] 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.

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 represent an acknowledgment that the cost of maintaining and replacing capital is a necessary part of operating a school program.

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

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

		Per Pupil Yield Per Mill
Taxable Value Equalization Minimum	$200,000	
District Taxable Value Per Pupil	- 50,000	$50
Difference – State Subsidy	150,000	$150
Taxable Value Equalization Minimum	$200,000	
District Taxable Value Per Pupil	- 100,000	$100
Difference – State Subsidy	$100,000	$100
Taxable Value Equalization Minimum	$200,000	
District Taxable Value Per Pupil	-250,000	$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.

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:

- 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.

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.

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

APPENDIX A

TABLE A.1
SELECTED FINANCIAL INDICATORS
MICHIGAN SCHOOL DISTRICTS (2003)

Code	School District Name	Taxable Value per Pupil	T.V.P.P Rank	Pupil Count	P.C. Rank	Debt Millage Rate	D.M.R. Rank	Debt Levy	D.L. Rank
49020	BOIS BLANC PINES SCHOOL DISTRICT	6,835,461	1	3	553	0.00	469	0	469
42030	GRANT TOWNSHIP SCHOOLS	3,794,535	2	6	552	0.00	469	0	469
07010	ARVON TOWNSHIP SCHOOL DISTRICT	2,908,439	3	9	551	0.00	469	0	469
49110	MACKINAC ISLAND PUB SCHOOLS	1,871,401	4	81	528	1.25	451	190,415	446
02010	AUTRAIN-ONOTA PUBLIC SCHOOLS	1,150,455	5	34	536	0.00	469	0	469
31070	ELM RIVER TOWNSHIP SCHOOL DISTRICT	1,133,425	6	10	550	0.00	469	0	469
45040	NORTHPORT PUBLIC SCHOOL DISTRICT	1,116,929	7	234	514	1.60	435	417,821	385
32250	BLOOMFIELD TOWNSHIP SCHOOL DISTRICT 7F	1,048,261	8	10	549		.	0	469
15010	BEAVER ISLAND COMM SCHOOLS	897,927	9	90	525	1.45	444	117,713	458
03440	GLENN PUBLIC SCHOOL	877,201	10	27	542	0.00	469	0	469
34360	IONIA TWP SCHOOL DISTRICT #2	834,350	11	17	544	0.00	469	0	469
52160	WELLS TOWNSHIP SCHOOL DISTRICT	816,170	12	29	540	0.00	469	0	469
45020	LELAND PUBLIC SCHOOL DISTRICT	746,729	13	466	477	2.30	394	799,949	289
52100	POWELL TOWNSHIP SCHOOL DISTRICT	743,135	14	62	532	0.00	469	0	469
24020	HARBOR SPRINGS SCHOOL DISTRICT	719,380	15	1,149	366	3.74	291	3,092,654	103
11200	NEW BUFFALO AREA SCHOOL DISTRICT	708,047	16	681	447	2.55	379	1,229,993	230
11340	BRIDGMAN PUBLIC SCHOOLS	683,405	17	1,017	393	0.00	469	0	469
49070	MORAN TOWNSHIP SCHOOL DISTRICT	618,272	18	110	523	0.00	469	0	469
32030	CASEVILLE PUBLIC SCHOOLS	559,066	19	298	503	1.80	427	300,044	422
63080	BLOOMFIELD HILLS SCHOOL DISTRICT	549,333	20	5,963	57	0.67	465	2,194,735	143
17160	WHITEFISH SCHOOLS	533,701	21	83	527	0.00	469	0	469
17050	DETOUR AREA SCHOOLS	529,951	22	237	513	3.60	301	451,647	375
16070	MACKINAW CITY PUBLIC SCHOOLS	512,517	23	244	512	0.92	460	115,050	460
45010	GLEN LAKE COMMUNITY SCHOOL DISTRICT	510,133	24	931	407	1.15	454	546,144	355
63010	BIRMINGHAM CITY SCHOOL DISTRICT	503,399	25	7,866	36	1.55	438	6,137,766	44
80040	COVERT PUBLIC SCHOOLS	483,820	26	740	441	0.00	469	0	469
64070	PENTWATER PUBLIC SCHOOL DISTRICT	482,659	27	297	505	0.00	469	0	469
10025	FRANKFORT-ELBERTA AREA SCHOOLS	455,548	28	576	462	2.40	386	630,022	327
05040	BELLAIRE PUBLIC SCHOOLS	453,942	29	621	457	0.90	461	253,614	431
27080	WATERSMEET TOWNSHIP SCHOOL DISTRICT	447,695	30	225	515	4.60	238	463,199	370
03080	SAUGATUCK PUBLIC SCHOOLS	418,875	31	780	432	3.60	296	1,176,157	237
23490	ONEIDA TWP SCHOOL DISTRICT #3	418,500	32	13	548	0.00	469	0	469

Code	School District Name	Taxable Value per Pupil	T.V.P.P Rank	Pupil Count	P.C. Rank	Debt Millage Rate	D.M.R. Rank	Debt Levy	D.L. Rank
15050	CHARLEVOIX PUBLIC SCHOOLS	417,880	33	1,380	320	2.34	392	1,349,283	208
05060	ELK RAPIDS SCHOOLS	399,570	34	1,535	292	2.67	376	1,637,382	183
62470	BIG JACKSON SCHOOL DISTRICT	393,178	35	37	533	0.00	469	0	469
32130	PORT HOPE COMMUNITY SCHOOLS	388,663	36	133	522	5.60	201	289,846	424
11033	RIVER VALLEY SCHOOL DISTRICT	387,503	37	1,065	382	0.00	469	0	469
69030	JOHANNESBURG-LEWISTON SCHOOLS	386,780	38	863	421	3.35	321	1,118,199	241
43040	BALDWIN COMMUNITY SCHOOLS	386,748	39	762	438	2.00	413	589,605	341
01010	ALCONA COMMUNITY SCHOOLS	386,067	40	1,022	391	1.70	433	670,647	313
49055	ENGADINE CONSOLIDATED SCHOOLS	383,374	41	297	504	2.30	394	261,838	428
05035	CENTRAL LAKE PUBLIC SCHOOLS	377,986	42	475	476	1.50	440	269,038	427
63280	LAMPHERE PUBLIC SCHOOLS	373,381	43	2,443	194	3.40	312	3,101,833	102
58080	JEFFERSON SCHOOLS-MONROE CO.	367,891	44	2,600	181	0.00	469	0	469
81010	ANN ARBOR PUBLIC SCHOOLS	357,210	45	16,634	9	1.99	419	11,836,424	15
49040	LES CHENEAUX COMMUNITY SCHOOL DISTRICT	356,673	46	427	482	2.71	374	412,500	389
27060	MARENISCO SCHOOL DISTRICT	353,389	47	85	526	0.00	469	0	469
51060	ONEKAMA CONSOLIDATED SCHOOLS	351,249	48	495	473	1.92	423	333,746	413
24070	PETOSKEY PUBLIC SCHOOLS	348,838	49	3,092	146	2.50	380	2,696,387	114
32080	NORTH HURON SCHOOL DISTRICT	343,737	50	601	459	3.05	343	629,741	328
02020	BURT TOWNSHIP SCHOOL DISTRICT	334,062	51	80	529	0.00	469	0	469
63150	TROY PUBLIC SCHOOL DISTRICT	331,492	52	12,059	16	3.14	336	12,552,454	13
63200	FARMINGTON PUBLIC SCHOOL DISTRICT	330,059	53	12,287	15	2.00	413	8,111,173	31
68030	FAIRVIEW AREA SCHOOL DISTRICT	329,509	54	413	484	2.90	359	395,026	396
66070	WHITE PINE SCHOOL DISTRICT	328,113	55	94	524	4.00	270	123,515	457
52110	REPUBLIC MICHIGAMME SCHOOLS	320,304	56	172	518	0.50	467	27,615	467
82390	NORTHVILLE PUBLIC SCHOOLS	317,653	57	6,297	50	4.75	228	9,500,824	23
53040	LUDINGTON AREA SCHOOL DISTRICT	314,240	58	2,547	183	0.97	459	776,505	293
34140	BERLIN TWP SCHOOL DISTRICT #3	313,087	59	33	537	0.00	469	0	469
63070	AVONDALE SCHOOL DISTRICT	311,850	60	3,856	104	7.00	97	8,416,632	30
63030	PONTIAC CITY SCHOOL DISTRICT	311,359	61	10,872	22	0.00	469	0	469
82055	GROSSE POINTE PUBLIC SCHOOLS	310,168	62	8,910	32	1.74	431	4,811,264	58
63060	SOUTHFIELD PUBLIC SCHOOL DISTRICT	308,866	63	10,270	26	2.26	399	7,168,758	34
63100	NOVI COMMUNITY SCHOOLS	306,999	64	6,065	55	6.81	167	12,680,158	12
69040	VANDERBILT AREA SCHOOL	306,305	65	249	510	3.40	312	259,109	429
15020	BOYNE CITY PUBLIC SCHOOL DISTRICT	304,927	66	1,311	332	4.50	244	1,798,737	171
63040	ROYAL OAK SCHOOL DISTRICT	302,511	67	6,427	48	3.40	312	6,610,709	39
21065	BIG BAY DE NOC SCHOOL DISTRICT	300,169	68	319	497	0.00	469	0	469
25200	LAKE FENTON SCHOOLS	291,711	69	1,491	302	3.98	276	1,731,482	175
72010	GERRISH HIGGINS SCHOOL DISTRICT	287,615	70	1,841	257	1.43	445	757,316	296
73190	FRANKENMUTH SCHOOL DISTRICT	286,382	71	1,300	337	3.36	320	1,251,235	225

Code	School District Name	Taxable Value per Pupil	T.V.P.P Rank	Pupil Count	P.C. Rank	Debt Millage Rate	D.M.R. Rank	Debt Levy	D.L. Rank
24040	PELLSTON PUBLIC SCHOOL DISTRICT	284,740	72	764	437	4.28	257	931,064	270
72020	HOUGHTON LAKE COMM SCHOOLS	284,619	73	2,106	220	0.00	469	0	469
82100	PLYMOUTH CANTON COMMUNITY SCHOOLS	281,585	74	17,421	7	3.15	333	15,452,013	9
74050	EAST CHINA SCHOOL DISTRICT	280,858	75	5,714	59	3.00	346	4,814,309	57
32260	COLFAX TOWNSHIP SCHOOL DISTRICT 1F	280,648	76	22	543	0.00	469	0	469
63260	ROCHESTER COMMUNITY SCHOOL DISTRICT	280,154	77	14,324	12	5.23	214	20,967,203	4
41050	CALEDONIA COMMUNITY SCHOOLS	280,144	78	3,424	121	7.00	97	6,713,726	38
82300	GROSSE ILE TOWNSHIP SCHOOLS	279,495	79	2,026	237	3.42	311	1,936,544	159
56010	MIDLAND PUBLIC SCHOOLS	278,751	80	9,677	28	0.00	469	0	469
60010	ATLANTA COMMUNITY SCHOOLS	276,740	81	490	475	5.10	215	691,969	307
32610	SIGEL TWP SCHOOL DIST #3 - ADAMS SCHOOL	275,910	82	17	544	0.00	469	0	469
70010	GRAND HAVEN CITY SCHOOL DISTRICT	272,698	83	6,054	56	3.28	326	5,414,800	51
32630	SIGEL TWP SCHOOL DISTRICT #6	272,294	84	16	547	0.00	469	0	469
06020	AU GRES SIMS SCHOOL DISTRICT	271,533	85	533	469	2.86	362	413,539	388
28010	TRAVERSE CITY SCHOOL DISTRICT	270,065	86	10,927	21	3.10	339	9,148,292	26
15030	BOYNE FALLS PUBLIC SCHOOL DISTRICT	269,004	87	329	495	6.00	185	531,336	359
63160	WEST BLOOMFIELD SCHOOL DISTRICT	266,189	88	6,819	45	6.34	177	11,507,224	18
35010	OSCODA AREA SCHOOLS	265,962	89	1,797	262	2.00	413	955,643	265
63290	WALLED LAKE CONSOLIDATED SCHOOL DISTRICT	265,879	90	15,094	11	5.10	215	20,466,865	5
41110	FOREST HILLS PUBLIC SCHOOLS	265,315	91	8,936	31	7.60	61	18,017,870	6
35020	HALE AREA SCHOOLS	264,086	92	790	430	3.30	324	688,245	309
45050	SUTTONS BAY PUBLIC SCHOOL DISTRICT	263,619	93	1,046	388	5.44	210	1,500,283	194
40040	KALKASKA PUBLIC SCHOOLS	261,252	94	1,785	264	2.10	409	979,297	262
40060	EXCELSIOR DISTRICT #1	260,556	95	35	534	0.00	469	0	469
16050	INLAND LAKES SCHOOL DISTRICT	257,259	96	1,113	371	2.70	375	771,581	295
50230	WARREN CONSOLIDATED SCHOOLS	255,689	97	15,330	10	2.35	390	9,211,369	25
82095	LIVONIA PUBLIC SCHOOLS	254,275	98	18,356	5	1.55	438	7,234,510	33
05065	ELLSWORTH COMMUNITY SCHOOLS	253,560	99	249	509	0.00	469	0	469
05010	ALBA PUBLIC SCHOOLS	251,246	100	173	517	5.50	205	239,240	432
10015	BENZIE COUNTY CENTRAL SCHOOL	248,647	101	1,989	243	1.73	432	855,747	275
35030	TAWAS AREA SCHOOLS	248,566	102	1,537	289	1.50	440	572,992	348
50200	SOUTH LAKE SCHOOLS	248,228	103	2,396	195	3.87	281	2,301,308	135
41145	KENOWA HILLS PUBLIC SCHOOLS	248,089	104	3,662	108	3.60	296	3,270,587	91
32050	LAKER SCHOOLS	247,634	105	1,133	370	2.80	366	785,317	292
33170	OKEMOS PUBLIC SCHOOLS	246,788	106	4,066	96	5.51	204	5,529,272	50
33010	EAST LANSING SCHOOL DISTRICT	245,806	107	3,560	114	7.00	97	6,126,085	45
82030	DEARBORN CITY SCHOOL DISTRICT	245,470	108	17,574	6	4.06	268	17,514,243	7
11020	ST. JOSEPH PUBLIC SCHOOLS	241,862	109	2,847	165	2.33	393	1,604,510	186
82155	TRENTON PUBLIC SCHOOLS	241,161	110	3,082	149	0.00	469	0	469

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75100	NOTTAWA COMMUNITY SCHOOL	241,088	111	148	520	0.00	469	0	469
36015	FOREST PARK SCHOOL DISTRICT	241,053	112	648	450	3.80	283	593,605	340
63270	CLAWSON CITY SCHOOL DISTRICT	240,230	113	1,445	311	5.95	189	2,065,291	151
47010	BRIGHTON AREA SCHOOLS	240,147	114	7,214	41	5.64	200	9,770,336	22
24030	LITTLEFIELD PUBLIC SCHOOL DISTRICT	239,787	115	451	479	3.00	346	324,116	416
50170	NEW HAVEN COMMUNITY SCHOOLS	238,873	116	1,155	365	7.00	97	1,931,108	161
81140	WHITMORE LAKE PUBLIC SCHOOL DISTRICT	237,989	117	1,269	346	7.25	90	2,189,175	145
50190	ROMEO COMMUNITY SCHOOLS	236,973	118	5,513	61	5.41	211	7,066,900	35
81120	SALINE AREA SCHOOL DISTRICT	236,277	119	5,330	65	7.00	97	8,816,182	28
33215	WAVERLY SCHOOLS	235,396	120	3,380	129	4.60	238	3,659,879	78
38040	COLUMBIA SCHOOL DISTRICT	235,356	121	1,819	259	1.17	453	502,992	363
32060	HARBOR BEACH COMMUNITY SCHOOLS	234,160	122	778	434	3.95	277	719,401	301
74030	ALGONAC COMMUNITY SCHOOL DISTRICT	230,755	123	2,481	189	3.25	327	1,860,669	166
69020	GAYLORD COMMUNITY SCHOOLS	230,617	124	3,513	116	2.35	390	1,903,806	164
80240	BANGOR TWP SCHOOL DISTRICT #8	230,419	125	17	546	0.00	469	0	469
46020	ADDISON COMMUNITY SCHOOLS	230,301	126	1,249	348	0.00	469	0	469
32650	VERONA TOWNSHIP SCHOOL DISTRICT 1F	229,202	127	29	539	0.00	469	0	469
63230	LAKE ORION COMMUNITY SCHOOLS	226,972	128	7,552	39	7.49	71	12,840,678	11
58010	MONROE PUBLIC SCHOOLS	226,845	129	7,144	43	0.00	469	0	469
71060	POSEN CONS SCHOOL DISTRICT	226,359	130	321	496	5.40	212	392,322	397
73040	SAGINAW TOWNSHIP COMMUNITY SCHOOLS.	224,534	131	5,088	73	2.50	380	2,855,884	109
81040	CHELSEA SCHOOL DISTRICT	223,840	132	2,922	156	7.00	97	4,578,539	60
82430	VAN BUREN PUBLIC SCHOOLS	222,680	133	6,110	52	0.00	469	0	469
81050	DEXTER COMMUNITY SCHOOL DISTRICT	222,106	134	3,456	119	8.50	27	6,524,687	40
75070	WHITE PIGEON COMMUNITY SCHOOL DISTRICT	220,014	135	991	395	0.00	469	0	469
41040	BYRON CENTER PUBLIC SCHOOLS	219,901	136	2,869	163	7.00	97	4,415,659	61
47070	HOWELL PUBLIC SCHOOLS	219,439	137	8,235	33	6.67	171	12,052,655	14
63240	SOUTH LYON COMMUNITY SCHOOLS	219,253	138	6,645	46	8.00	43	11,656,131	17
50210	UTICA COMMUNITY SCHOOLS	218,661	139	28,833	2	3.50	304	22,066,352	2
41020	GODWIN HEIGHTS PUBLIC SCHOOLS	217,081	140	2,306	203	3.00	346	1,502,011	193
63110	OXFORD AREA COMMUNITY SCHOOL DISTRICT	217,039	141	4,029	97	7.00	97	6,121,289	46
71050	ONAWAY AREA COMMUNITY SCHOOL DISTRICT	216,445	142	883	418	2.25	400	429,939	381
44050	DRYDEN COMMUNITY SCHOOLS	216,028	143	790	431	2.24	403	382,100	398
70020	HOLLAND CITY SCHOOL DISTRICT	215,840	144	5,261	67	2.85	364	3,236,005	96
60020	HILLMAN COMMUNITY SCHOOLS	215,781	145	599	460	4.75	228	614,156	334
82230	CRESTWOOD SCHOOL DISTRICT	215,490	146	3,396	124	0.00	469	0	469
50010	CENTERLINE PUBLIC SCHOOLS	213,995	147	2,921	157	2.00	413	1,249,972	226
63190	CLARKSTON COMMUNITY SCHOOL DISTRICT	213,673	148	7,911	35	7.00	97	11,832,390	16
15060	EAST JORDAN PUBLIC SCHOOL DISTRICT	213,661	149	1,283	340	3.80	283	1,041,276	253

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71080	ROGERS CITY AREA SCHOOLS	213,552	150	692	445	0.00	469	0	469
11160	GALIEN TOWNSHIP SCHOOL DISTRICT	212,095	151	312	500	3.47	310	229,475	435
81080	MANCHESTER COMMUNITY SCHOOL DISTRICT	211,322	152	1,307	334	7.00	97	1,933,965	160
82320	HARPER WOODS SCHOOL DISTRICT	209,954	153	1,136	369	3.57	302	851,831	278
54025	CHIPPEWA HILLS SCHOOL DISTRICT	209,015	154	2,618	177	4.10	264	2,243,847	141
63300	WATERFORD SCHOOL DISTRICT	208,967	155	11,823	17	3.67	294	9,067,410	27
82045	MELVINDALE ALLEN PARK SCHOOLS	207,418	156	2,573	182	0.00	469	0	469
63220	HURON VALLEY SCHOOLS	207,087	157	10,690	25	7.00	97	15,496,340	8
79010	AKRON FAIRGROVE SCHOOLS	206,598	158	439	481	4.50	244	407,689	392
25180	SWARTZ CREEK COMMUNITY SCHS	205,999	159	4,158	93	0.00	469	0	469
51070	MANISTEE AREA PUBLIC SCHOOLS	205,916	160	1,815	260	3.48	308	1,300,265	216
50080	CHIPPEWA VALLEY SCHOOLS	204,684	161	13,768	14	7.65	59	21,558,549	3
82290	GIBRALTAR SCHOOL DISTRICT	204,617	162	3,300	133	5.00	218	3,376,095	86
41160	KENTWOOD PUBLIC SCHOOLS	204,456	163	9,315	29	3.80	283	7,237,503	32
39065	GULL LAKE COMMUNITY SCHOOLS	203,927	164	3,016	152	1.34	448	824,149	286
03100	HAMILTON COMMUNITY SCHOOLS	203,834	165	2,485	188	7.40	78	3,748,625	74
82130	ROMULUS COMMUNITY SCHOOLS	203,750	166	4,238	90	7.50	67	6,475,729	41
09050	ESSEXVILLE HAMPTON SCHOOL DISTRICT	203,497	167	1,920	248	3.15	333	1,230,912	229
25030	GRAND BLANC COMM SCHOOLS	202,249	168	7,212	42	1.80	427	2,625,508	120
65045	WEST BRANCH-ROSE CITY AREA SCHOOLS	201,896	169	2,604	179	3.25	327	1,708,597	178
58110	WHITEFORD AGRICULTURAL SCHOOL DISTRICT	200,823	170	761	439	2.95	355	450,714	376
39140	PORTAGE PUBLIC SCHOOLS	200,207	171	9,034	30	2.20	405	3,979,044	70
14010	CASSOPOLIS PUBLIC SCHOOLS	199,889	172	1,322	330	2.80	366	739,680	298
05070	MANCELONA PUBLIC SCHOOLS	199,600	173	1,208	354	7.00	97	1,687,260	179
16100	WOLVERINE COMMUNITY SCHOOL DISTRICT	199,538	174	316	499	3.60	296	226,707	436
50130	LAKEVIEW PUBLIC SCHOOLS	198,195	175	2,848	164	4.68	236	2,642,104	119
18020	FARWELL AREA SCHOOLS	197,650	176	1,631	280	1.30	449	419,188	384
34340	EASTON TWP SCHOOL DISTRICT #6	197,308	177	34	535	0.00	469	0	469
82140	SOUTH REDFORD SCHOOL DISTRICT	197,007	178	3,412	123	4.86	227	3,267,054	92
39010	KALAMAZOO CITY SCHOOL DISTRICT	194,859	179	10,741	24	4.20	259	8,790,442	29
70300	SPRING LAKE PUBLIC SCHOOL DISTRICT	194,525	180	2,241	211	5.89	193	2,567,854	127
70070	WEST OTTAWA PUBLIC SCHOOL DISTRICT	194,034	181	7,928	34	6.95	165	10,686,199	19
22045	NORTH DICKINSON COUNTY SCHOOL DISTRICT	193,014	182	410	485	3.00	346	237,193	434
32090	OWENDALE GAGETOWN AREA SCHOOL DISTRICT	192,563	183	246	511	1.50	440	71,160	462
50180	RICHMOND COMMUNITY SCHOOLS	192,181	184	2,015	239	3.75	288	1,451,820	199
31140	STANTON TOWNSHIP SCHOOL DISTRICT	190,717	185	141	521	1.00	457	26,891	468
25100	FENTON AREA PUBLIC SCHOOLS	190,612	186	3,713	107	6.65	172	4,706,515	59
20015	CRAWFORD AUSABLE SCHOOLS	190,056	187	2,090	225	4.20	259	1,668,614	181
76090	DECKERVILLE COMMUNITY SCHOOL DISTRICT	189,690	188	826	425	2.30	394	360,539	408

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50140	L'ANSE CREUSE PUBLIC SCHOOLS	189,681	189	11,440	20	6.69	170	14,516,538	10
80010	SOUTH HAVEN PUBLIC SCHOOLS	189,592	190	2,445	193	4.43	250	2,053,915	152
59020	CARSON CITY CRYSTAL AREA SCHOOL DISTRICT	189,429	191	1,318	331	1.65	434	412,061	390
76070	CARSONVILLE-PORT SANILAC SCHOOL DISTRICT	188,907	192	623	454	6.02	184	708,488	302
12010	COLDWATER COMM SCHOOLS	188,812	193	3,246	137	2.95	355	1,807,997	170
52170	MARQUETTE CITY SCHOOL DISTRICT	188,783	194	3,657	109	1.60	435	1,104,728	242
23060	GRAND LEDGE PUBLIC SCHOOLS	188,513	195	5,352	63	4.08	267	4,116,607	68
16015	CHEBOYGAN AREA SCHOOLS	187,799	196	2,274	205	3.00	346	1,281,050	219
73210	HEMLOCK PUBLIC SCHOOL DISTRICT	187,576	197	1,434	313	4.97	225	1,337,196	211
41130	GRANDVILLE PUBLIC SCHOOLS	187,119	198	6,120	51	4.65	237	5,324,624	52
50100	FRASER PUBLIC SCHOOLS	186,518	199	4,915	79	3.75	288	3,437,674	85
26040	GLADWIN COMMUNITY SCHOOLS	186,128	200	2,043	233	2.25	400	855,422	276
81100	MILAN AREA SCHOOLS	185,536	201	2,180	214	8.04	42	3,251,725	95
63050	BERKLEY SCHOOL DISTRICT	185,020	202	4,468	86	4.37	254	3,612,376	80
21060	RAPID RIVER PUBLIC SCHOOLS	184,827	203	463	478	7.00	97	599,101	339
11030	LAKESHORE SCHOOL DISTRICT	184,196	204	2,831	167	4.70	233	2,450,796	131
50240	WARREN WOODS PUBLIC SCHOOLS	183,042	205	3,201	141	6.60	175	3,867,324	72
66045	EWEN-TROUT CREEK CONSOLIDATED SCHOOLS	182,380	206	370	493	10.50	7	707,706	303
25130	ATHERTON COMMUNITY SCHOOL DISTRICT	181,179	207	1,047	386	3.48	308	659,916	320
47080	PINCKNEY COMMUNITY SCHOOLS	181,105	208	5,087	74	7.55	65	6,956,276	36
50090	FITZGERALD PUBLIC SCHOOLS	179,339	209	3,238	139	4.60	238	2,670,943	117
70350	ZEELAND PUBLIC SCHOOLS	178,814	210	5,026	76	6.63	174	5,958,726	47
13090	LAKEVIEW SCHOOL DISTRICT	177,801	211	3,288	134	4.90	226	2,864,981	108
77010	MANISTIQUE AREA SCHOOLS	176,518	212	1,179	362	0.75	463	156,021	454
46110	ONSTED COMMUNITY SCHOOLS	176,408	213	1,852	254	2.50	380	816,660	287
82340	HURON SCHOOL DISTRICT	175,893	214	2,116	219	6.00	185	2,232,836	142
47060	HARTLAND CONSOLIDATED SCHOOLS	174,459	215	5,226	69	7.60	61	6,929,522	37
57020	LAKE CITY AREA SCHOOL DISTRICT	174,258	216	1,235	351	2.90	359	624,098	331
63210	HOLLY AREA SCHOOL DISTRICT	173,423	217	4,308	89	7.00	97	5,229,554	53
82365	WOODHAVEN PUBLIC SCHOOLS	173,348	218	5,122	72	7.00	97	6,214,817	43
70190	HUDSONVILLE PUBLIC SCHOOL DISTRICT	173,304	219	4,861	81	7.00	97	5,897,065	48
74100	MARYSVILLE PUBLIC SCHOOL DISTRICT	172,780	220	2,747	171	2.13	408	1,010,844	257
61060	MONA SHORES SCHOOL DISTRICT	172,367	221	4,207	92	4.50	244	3,263,350	93
50120	LAKESHORE PUBLIC SCHOOLS	171,249	222	3,239	138	3.95	277	2,190,701	144
25080	CARMAN-AINSWORTH SCHOOLS	170,957	223	5,331	64	3.51	303	3,199,098	98
51020	BEAR LAKE SCHOOL DISTRICT	170,926	224	384	490	5.01	217	328,757	415
50030	ROSEVILLE COMMUNITY SCHOOLS	170,775	225	6,403	49	3.30	324	3,608,625	81
81020	YPSILANTI SCHOOL DISTRICT	170,060	226	4,717	84	7.00	97	5,615,604	49
79145	UNIONVILLE SEBEWAING AREA SCHOOLS	169,884	227	905	411	7.00	97	1,076,680	250

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04010	ALPENA PUBLIC SCHOOLS	169,520	228	5,033	75	2.30	394	1,962,419	156
68010	MIO AU SABLE SCHOOLS	169,322	229	836	424	3.00	346	424,528	382
58050	DUNDEE COMMUNITY SCHOOLS	169,290	230	1,624	282	7.70	57	2,116,966	150
32620	SIGEL TWP SCHOOL DISTRICT #4	167,914	231	28	541	0.00	469	0	469
48040	TAHQUAMENON AREA SCHOOLS	167,680	232	1,180	361	1.76	430	348,308	410
22030	BREITUNG TWP SCHOOL DISTRICT	167,500	233	2,039	234	6.20	180	2,117,781	148
25050	GOODRICH AREA SCHOOLS	166,908	234	2,068	229	7.75	53	2,674,509	116
73080	BUENA VISTA SCHOOL DISTRICT	166,109	235	1,273	344	3.10	339	655,526	321
64040	HART PUBLIC SCHOOL DISTRICT	165,601	236	1,358	324	4.29	256	964,598	263
25250	LINDEN COMMUNITY SCHOOL DISTRICT	164,966	237	2,969	154	2.39	389	1,172,337	238
11240	BERRIEN SPRINGS PUBLIC SCHOOL DISTRICT	164,740	238	1,583	286	1.60	437	416,228	386
38170	JACKSON PUBLIC SCHOOLS	164,714	239	7,047	44	1.95	421	2,263,298	138
63090	CLARENCEVILLE SCHOOL DISTRICT	164,562	240	1,987	244	2.00	413	654,110	322
39050	GALESBURG AUGUSTA COMMUNITY SCHOOLS	163,908	241	1,223	353	7.00	97	1,403,599	202
09030	BANGOR TOWNSHIP SCHOOLS	163,825	242	2,473	190	0.00	469	0	469
58090	MASON CONSOLIDATED SCHOOL DISTRICT	163,071	243	1,514	296	0.00	469	0	469
38050	GRASS LAKE COMMUNITY SCHOOLS	162,968	244	1,100	373	7.00	97	1,254,857	224
32040	CHURCH SCHOOL DISTRICT	162,759	245	30	538	0.00	469	0	469
21135	MID PENINSULA SCHOOL DISTRICT	162,605	246	310	502	8.10	41	408,564	391
37010	MT. PLEASANT CITY SCHOOL DISTRICT	162,445	247	3,927	100	7.94	49	5,064,566	54
21010	ESCANABA AREA PUBLIC SCHOOLS	161,538	248	3,100	145	3.11	337	1,557,430	189
03050	FENNVILLE PUBLIC SCHOOLS	161,318	249	1,462	307	0.00	469	0	469
33230	WILLIAMSTON COMMUNITY SCHOOLS	161,039	250	2,077	227	7.30	86	2,441,465	132
41140	KELLOGGSVILLE PUBLIC SCHOOLS	160,838	251	2,127	216	5.50	205	1,881,806	165
82160	WAYNE-WESTLAND COMMUNITY SCHOOL DISTRICT	160,334	252	14,139	13	4.13	262	9,362,312	24
51045	KALEVA NORMAN - DICKSON SCHOOLS	160,059	253	954	405	4.42	251	675,256	312
46060	CLINTON COMMUNITY SCHOOLS	159,755	254	1,191	358	2.95	355	561,460	351
11670	HAGAR TWP SCHOOL DISTRICT #6	159,604	255	70	530	0.00	469	0	469
61180	MONTAGUE AREA PUBLIC SCHOOLS	159,438	256	1,488	303	7.27	89	1,724,282	176
19100	BATH COMMUNITY SCHOOLS	159,359	257	973	402	8.00	43	1,239,937	228
56050	MERIDIAN PUBLIC SCHOOLS	159,117	258	1,535	290	2.86	363	698,024	305
82250	ECORSE PUBLIC SCHOOL DISTRICT	159,042	259	1,299	338	8.50	27	1,756,499	174
27070	WAKEFIELD TOWNSHIP SCHOOL DISTRICT	158,449	260	278	506	2.62	377	115,341	459
63020	FERNDALE PUBLIC SCHOOLS	158,176	261	3,879	103	7.00	97	4,294,978	63
44010	LAPEER COMMUNITY SCHOOLS	157,045	262	7,452	40	0.00	469	0	469
30040	LITCHFIELD COMMUNITY SCHOOLS	156,866	263	542	468	3.00	346	254,872	430
76080	CROSWELL LEXINGTON COMMUNITY SCHOOLS	156,527	264	2,508	186	2.80	366	1,099,197	243
58030	BEDFORD PUBLIC SCHOOL DISTRICT	156,096	265	5,395	62	2.16	406	1,818,903	169
82405	SOUTHGATE COMMUNITY SCHOOL DISTRICT	156,036	266	5,129	71	3.99	275	3,193,257	99

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13110	MARSHALL PUBLIC SCHOOLS	156,022	267	2,538	185	4.60	238	1,821,400	168
83010	CADILLAC AREA PUBLIC SCHOOLS	155,928	268	3,385	127	3.75	288	1,979,034	155
73200	FREELAND COMMUNITY SCHOOL DISTRICT	155,869	269	1,685	275	4.50	244	1,181,667	236
33200	STOCKBRIDGE COMMUNITY SCHOOLS	155,658	270	1,753	268	7.00	97	1,909,704	163
46010	ADRIAN CITY SCHOOL DISTRICT	155,242	271	3,964	99	0.00	469	0	469
08010	DELTON-KELLOGG SCHOOL DISTRICT	154,992	272	2,031	235	3.35	321	1,054,332	252
54010	BIG RAPIDS PUBLIC SCHOOLS	153,972	273	2,173	215	7.00	97	2,342,285	134
50040	ANCHOR BAY SCHOOL DISTRICT	153,374	274	6,561	47	10.00	10	10,063,335	20
41090	EAST GRAND RAPIDS PUBLIC SCHOOLS	153,078	275	2,878	162	7.95	47	3,502,931	84
30020	HILLSDALE COMMUNITY PUBLIC SCHOOLS	152,702	276	1,888	251	1.85	425	533,430	357
33130	MASON PUBLIC SCHOOLS	152,452	277	3,182	143	5.00	218	2,425,610	133
41210	ROCKFORD PUBLIC SCHOOLS	152,199	278	7,718	37	8.50	27	9,984,790	21
03020	OTSEGO PUBLIC SCHOOLS	151,990	279	2,271	206	1.40	447	483,253	366
33060	HASLETT PUBLIC SCHOOLS	151,843	280	2,934	155	8.33	32	3,710,534	76
09010	BAY CITY SCHOOL DISTRICT	151,531	281	9,820	27	1.10	456	1,636,842	184
46040	BLISSFIELD COMMUNITY SCHOOLS	150,818	282	1,370	321	0.00	469	0	469
41026	WYOMING PUBLIC SCHOOLS	150,099	283	5,720	58	4.70	233	4,034,946	69
53030	FREESOIL COMMUNITY SCHOOL DISTRICT	149,682	284	182	516	0.00	469	0	469
44020	ALMONT COMMUNITY SCHOOLS	149,549	285	1,787	263	8.45	30	2,257,606	139
59045	MONTABELLA COMMUNITY SCHOOL DISTRICT	149,458	286	1,054	384	6.75	168	1,063,033	251
25120	FLUSHING COMMUNITY SCHOOLS	148,642	287	4,421	87	2.25	400	1,478,428	198
26010	BEAVERTON RURAL SCHOOLS	147,958	288	1,673	276	3.80	283	940,790	267
53020	MASON COUNTY EASTERN SCHOOL DISTRICT	147,381	289	621	456	4.00	270	366,213	404
46140	TECUMSEH PUBLIC SCHOOLS	146,355	290	3,439	120	7.20	94	3,624,371	79
63180	BRANDON SCHOOL DISTRICT	146,038	291	3,631	111	8.24	35	4,369,031	62
50050	ARMADA AREA SCHOOLS	145,862	292	2,073	228	7.00	97	2,117,106	149
14020	DOWAGIAC UNION SCHOOLS	145,655	293	2,736	172	3.77	287	1,503,452	192
41010	GRAND RAPIDS CITY SCHOOL DISTRICT	145,196	294	23,474	3	0.80	462	2,726,650	112
74130	YALE PUBLIC SCHOOLS	144,903	295	2,264	208	7.00	97	2,296,585	136
50160	MT. CLEMENS COMMUNITY SCHOOLS	144,778	296	3,048	150	9.42	13	4,156,575	66
61240	WHITEHALL SCHOOL DISTRICT	144,628	297	2,220	213	7.00	97	2,247,817	140
33220	WEBBERVILLE COMMUNITY SCHOOLS	143,338	298	622	455	7.45	75	664,234	318
74120	MEMPHIS COMMUNITY SCHOOLS	143,245	299	1,075	379	7.00	97	1,078,343	248
39030	COMSTOCK PUBLIC SCHOOLS	143,023	300	2,884	160	3.20	330	1,319,786	213
19125	PEWAMO WESTPHALIA COMM SCHS	143,012	301	684	446	7.00	97	685,152	310
82400	RIVERVIEW COMMUNITY SCHOOL DISTRICT	142,699	302	2,601	180	4.00	270	1,484,600	195
03060	MARTIN PUBLIC SCHOOLS	142,504	303	694	444	6.25	178	618,315	332
55120	STEPHENSON AREA PUBLIC SCHOOLS	142,470	304	900	413	3.60	296	461,571	372
73255	SWAN VALLEY SCHOOL DISTRICT	140,968	305	1,698	273	7.00	97	1,675,254	180

Code	School District Name	Taxable Value per Pupil	T.V.P.P Rank	Pupil Count	P.C. Rank	Debt Millage Rate	D.M.R. Rank	Debt Levy	D.L. Rank
30010	CAMDEN FRONTIER SCHOOLS	140,083	306	643	452	0.75	463	67,554	463
70175	JENISON PUBLIC SCHOOLS	139,958	307	4,833	83	7.20	94	4,869,981	56
75080	THREE RIVERS COMMUNITY SCHOOLS.	139,485	308	3,084	148	4.75	228	2,043,399	153
41025	NORTHVIEW PUBLIC SCHOOL DISTRICT	139,464	309	3,333	132	7.00	97	3,254,098	94
82020	ALLEN PARK PUBLIC SCHOOLS	139,259	310	3,603	112	7.00	97	3,512,442	82
30080	WALDRON AREA SCHOOLS	139,250	311	385	489	0.67	466	35,722	466
13070	HARPER CREEK COMM SCHOOLS	139,086	312	2,661	176	7.00	97	2,590,383	123
81070	LINCOLN CONSOLIDATED SCHOOL DISTRICT	138,982	313	4,897	80	7.35	82	5,001,885	55
19140	ST. JOHNS PUBLIC SCHOOLS	138,907	314	3,382	128	7.00	97	3,288,337	90
44060	IMLAY CITY COMMUNITY SCHOOLS	138,721	315	2,315	202	6.06	182	1,946,849	158
63140	MADISON PUBLIC SCHOOLS	138,327	316	2,049	232	6.20	180	1,757,291	173
41170	LOWELL AREA SCHOOL DISTRICT	138,226	317	3,926	101	7.00	97	3,798,614	73
58020	AIRPORT COMMUNITY SCHOOL DISTRICT	138,049	318	3,390	126	1.30	449	608,337	336
18060	HARRISON COMMUNITY SCHOOLS	137,923	319	2,118	218	3.40	312	993,348	261
28035	BUCKLEY COMMUNITY SCHOOL DISTRICT	136,204	320	409	486	8.00	43	445,375	379
74010	PORT HURON AREA SCHOOL DISTRICT	136,022	321	11,802	18	2.00	413	3,210,684	97
41080	COMSTOCK PARK PUBLIC SCHOOLS	135,944	322	2,320	201	8.16	38	2,574,562	125
75040	COLON COMMUNITY SCHOOL DISTRICT	135,812	323	872	419	0.00	469	0	469
67050	MARION PUBLIC SCHOOLS	135,799	324	756	440	2.85	364	292,419	423
58100	SUMMERFIELD SCHOOL DISTRICT	135,585	325	845	423	0.00	469	0	469
38140	NORTHWEST SCHOOL DISTRICT	135,043	326	3,557	115	0.38	468	180,904	448
30050	NORTH ADAMS-JEROME PUBLIC SCHOOLS	134,897	327	551	464	3.20	330	238,058	433
38100	HANOVER HORTON SCHOOLS	134,793	328	1,414	316	3.50	304	667,041	314
39170	VICKSBURG COMMUNITY SCHOOLS	134,622	329	2,725	173	5.50	205	2,017,418	154
08050	THORNAPPLE-KELLOGG SCHOOL DISTRICT	134,495	330	2,882	161	7.00	97	2,713,741	113
33020	LANSING PUBLIC SCHOOL DISTRICT	134,228	331	16,874	8	1.14	455	2,571,842	126
36025	WEST IRON COUNTY SCHOOL DISTRICT	134,078	332	1,230	352	2.80	366	461,826	371
70120	COOPERSVILLE PUBLIC SCHOOL DISTRICT	133,964	333	2,370	197	8.15	39	2,587,596	124
67020	EVART PUBLIC SCHOOLS	133,821	334	1,255	347	2.80	366	470,404	367
03040	WAYLAND UNION SCHOOLS	133,753	335	3,202	140	7.00	97	2,997,984	104
17140	BRIMLEY AREA SCHOOLS	133,275	336	519	470	7.56	64	523,314	360
49010	ST. IGNACE CITY SCHOOL DISTRICT	132,913	337	800	428	5.50	205	585,043	343
61230	NORTH MUSKEGON PUBLIC SCHOOLS	132,681	338	909	410	7.73	55	932,764	269
38130	NAPOLEON COMMUNITY SCHOOLS	132,665	339	1,666	277	0.00	469	0	469
08030	HASTINGS AREA SCHOOL DISTRICT	131,808	340	3,282	135	5.75	197	2,487,586	129
80160	PAW PAW PUBLIC SCHOOL DISTRICT	131,729	341	2,359	198	8.20	37	2,548,417	128
03010	PLAINWELL COMMUNITY SCHOOLS	131,510	342	2,833	166	7.00	97	2,607,604	121
66050	ONTONAGON AREA SCHOOLS	130,576	343	646	451	3.60	296	303,683	420
33040	DANSVILLE AGRICULTURAL SCHOOL	130,544	344	897	414	3.00	346	351,438	409

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75050	CONSTANTINE PUBLIC SCHOOL DISTRICT	130,210	345	1,540	288	6.70	169	1,343,285	209
17010	SAULT STE MARIE AREA SCHOOLS	129,988	346	2,917	158	2.62	377	993,470	260
82150	TAYLOR SCHOOL DISTRICT	129,790	347	10,835	23	0.00	469	0	469
25280	LAKEVILLE COMMUNITY SCHOOL DISTRICT	129,528	348	2,100	222	5.95	189	1,618,821	185
80150	MATTAWAN CONSOLIDATED SCHOOL DISTRICT	129,485	349	3,506	117	7.73	54	3,509,977	83
32170	UBLY COMMUNITY SCHOOLS	129,451	350	902	412	3.25	327	379,363	399
58070	IDA PUBLIC SCHOOL DISTRICT	129,304	351	1,706	272	0.00	469	0	469
79110	REESE PUBLIC SCHOOLS	129,143	352	1,082	377	4.13	262	577,353	346
80140	LAWTON COMMUNITY SCHOOL DISTRICT	129,080	353	1,088	375	9.10	14	1,277,752	220
39160	SCHOOLCRAFT COMMUNITY SCHOOLS	128,825	354	1,186	360	9.05	16	1,383,114	203
25140	DAVISON COMMUNITY SCHOOLS	128,604	355	5,312	66	1.99	420	1,359,530	207
03030	ALLEGAN PUBLIC SCHOOLS	128,504	356	3,003	153	7.55	65	2,913,110	107
19010	DEWITT PUBLIC SCHOOLS	128,338	357	2,770	170	11.12	6	3,952,506	71
47030	FOWLERVILLE COMMUNITY SCHOOLS	127,818	358	3,156	144	7.34	85	2,961,012	105
82170	WYANDOTTE CITY SCHOOL DISTRICT	126,854	359	4,919	78	5.95	189	3,713,099	75
25230	BENTLEY COMMUNITY SCHOOL DISTRICT	126,746	360	1,058	383	0.00	469	0	469
46080	HUDSON AREA SCHOOLS	126,415	361	1,085	376	2.90	359	397,845	395
67060	REED CITY AREA PUBLIC SCHOOLS	125,864	362	1,963	245	2.10	409	518,886	361
13095	MAR LEE SCHOOL DISTRICT	125,760	363	311	501	1.00	457	39,111	465
09090	PINCONNING AREA SCHOOLS	125,753	364	1,959	246	0.00	469	0	469
63250	OAK PARK CITY SCHOOL DISTRICT	125,726	365	4,136	94	4.38	253	2,276,497	137
57030	MCBAIN AGRICULTURAL SCHOOL DISTRICT	125,370	366	1,097	374	5.40	212	742,432	297
32010	BAD AXE PUBLIC SCHOOLS	125,199	367	1,354	325	3.83	282	649,244	324
59070	GREENVILLE PUBLIC SCHOOLS	124,501	368	3,826	105	7.00	97	3,334,351	89
59090	LAKEVIEW COMMUNITY SCHOOLS	123,697	369	1,842	255	6.86	166	1,563,252	188
82090	LINCOLN PARK PUBLIC SCHOOLS	123,653	370	5,242	68	6.50	176	4,213,098	64
82120	RIVER ROUGE CITY SCHOOLS	123,610	371	2,378	196	8.83	22	2,595,970	122
23030	CHARLOTTE PUBLIC SCHOOLS	123,208	372	3,359	130	7.59	63	3,141,232	101
46050	BRITTON MACON AREA SCHOOL DISTRICT	122,603	373	549	465	2.50	380	168,356	451
61080	FRUITPORT COMMUNITY SCHOOLS	122,554	374	3,280	136	3.40	312	1,366,851	206
11210	BRANDYWINE PUBLIC SCHOOL DISTRICT	122,290	375	1,535	291	1.95	421	366,060	405
11310	BUCHANAN COMMUNITY SCHOOL DISTRICT	122,178	376	1,663	278	4.20	259	853,214	277
73240	ST. CHARLES COMMUNITY SCHOOLS	121,569	377	1,203	355	0.00	469	0	469
76210	SANDUSKY COMMUNITY SCHOOL DISTRICT	121,430	378	1,391	318	7.46	73	1,260,346	222
02070	MUNISING PUBLIC SCHOOLS	120,873	379	963	404	4.60	238	535,250	356
79030	CASS CITY PUBLIC SCHOOLS	120,692	380	1,531	293	4.50	244	831,517	282
75060	MENDON COMMUNITY SCHOOL DISTRICT	120,380	381	769	435	7.00	97	647,837	325
67055	PINE RIVER AREA SCHOOLS	120,266	382	1,360	323	3.50	304	572,297	350
81150	WILLOW RUN COMMUNITY SCHOOLS	120,101	383	2,706	174	10.30	8	3,347,701	88

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34110	PORTLAND PUBLIC SCHOOL DISTRICT	120,093	384	2,080	226	7.35	82	1,835,832	167
41240	SPARTA AREA SCHOOLS	119,946	385	2,907	159	3.40	312	1,185,353	233
82180	FLAT ROCK COMMUNITY SCHOOLS	119,888	386	1,767	265	7.00	97	1,482,895	196
78060	MORRICE AREA SCHOOLS	119,864	387	707	442	2.02	412	171,115	450
23050	EATON RAPIDS PUBLIC SCHOOLS	119,862	388	3,197	142	7.00	97	2,682,499	115
78020	BYRON AREA SCHOOLS	119,750	389	1,311	333	1.42	446	222,298	439
83070	MESICK CONSOLIDATED SCHOOL DISTRICT	119,631	390	932	406	5.00	218	557,540	354
50020	EAST DETROIT PUBLIC SCHOOLS	119,358	391	6,093	54	3.40	312	2,472,750	130
11330	COLOMA COMMUNITY SCHOOLS	119,279	392	2,103	221	1.85	425	464,014	369
25150	CLIO AREA SCHOOL DISTRICT	119,190	393	3,595	113	0.00	469	0	469
73230	MERRILL COMMUNITY SCHOOL DISTRICT	119,102	394	893	415	7.83	50	832,408	281
73110	CHESANING UNION SCHOOLS	118,826	395	2,058	231	5.65	198	1,381,717	204
74040	CAPAC COMMUNITY SCHOOL DISTRICT	118,774	396	1,833	258	3.90	280	848,855	279
59080	TRI COUNTY AREA SCHOOLS	118,565	397	2,347	199	3.15	335	875,613	274
13130	TEKONSHA COMMUNITY SCHOOLS	118,326	398	384	491	2.30	394	104,451	461
13050	ATHENS AREA SCHOOLS	118,250	399	845	422	4.04	269	403,290	394
25210	WESTWOOD HEIGHTS SCHOOL DISTRICT	118,165	400	1,278	341	0.00	469	0	469
46070	DEERFIELD PUBLIC SCHOOLS	118,036	401	419	483	2.80	366	138,388	455
64080	SHELBY PUBLIC SCHOOLS	117,263	402	1,842	256	7.25	90	1,565,893	187
41070	CEDAR SPRINGS PUBLIC SCHOOLS	117,245	403	3,393	125	7.00	97	2,784,868	110
03070	HOPKINS PUBLIC SCHOOLS	117,225	404	1,460	308	8.00	43	1,369,240	205
07040	L'ANSE AREA SCHOOLS	117,058	405	802	427	6.25	178	586,448	342
62040	FREMONT PUBLIC SCHOOL DISTRICT	116,670	406	2,616	178	7.00	97	2,136,769	147
19070	FOWLER PUBLIC SCHOOLS	116,555	407	543	467	2.80	366	177,334	449
34090	LAKEWOOD PUBLIC SCHOOLS	116,395	408	2,541	184	5.00	218	1,478,620	197
75010	STURGIS PUBLIC SCHOOL DISTRICT	115,873	409	3,085	147	8.91	20	3,185,043	100
82050	GARDEN CITY SCHOOL DISTRICT	115,619	410	5,211	70	5.58	203	3,362,391	87
31130	LAKE LINDEN HUBBELL SCHOOL DISTRICT	115,209	411	555	463	7.00	97	447,708	378
53010	MASON COUNTY CENTRAL SCHOOL DISTRICT	115,205	412	1,656	279	3.04	345	579,933	344
06050	STANDISH STERLING SCHOOL DISTRICT	114,758	413	1,910	249	7.00	97	1,534,648	190
22025	NORWAY VULCAN AREA SCHOOLS	114,710	414	970	403	7.43	76	826,734	284
12020	BRONSON COMMUNITY SCHOOL DISTRICT	114,380	415	1,301	336	0.00	469	0	469
78110	OWOSSO PUBLIC SCHOOLS	114,334	416	4,076	95	0.00	469	0	469
30070	READING COMMUNITY SCHOOLS	114,301	417	975	401	4.10	264	456,872	373
11300	NILES COMMUNITY SCHOOL DISTRICT	114,285	418	4,022	98	1.25	451	574,495	347
14050	MARCELLUS COMMUNITY SCHOOLS	114,207	419	1,010	394	5.99	188	690,655	308
02080	SUPERIOR CENTRAL SCHOOL DISTRICT	114,170	420	397	488	8.11	40	367,201	403
14030	EDWARDSBURG PUBLIC SCHOOLS	113,781	421	2,269	207	5.00	218	1,291,008	217
61220	REETHS PUFFER SCHOOLS	113,331	422	4,360	88	8.37	31	4,135,600	67

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39020	CLIMAX SCOTTS COMMUNITY SCHOOLS	113,155	423	766	436	7.20	94	624,455	330
62070	NEWAYGO PUBLIC SCHOOL DISTRICT	113,113	424	2,092	224	7.00	97	1,656,138	182
80110	GOBLES PUBLIC SCHOOL DISTRICT	113,113	424	1,050	385	7.00	97	831,189	283
50220	VAN DYKE PUBLIC SCHOOLS	113,010	426	4,223	91	5.77	196	2,751,146	111
38150	SPRINGPORT PUBLIC SCHOOLS	112,643	427	1,082	378	8.95	19	1,090,366	244
55010	CARNEY NADEAU PUBLIC SCHOOLS	112,410	428	256	508	5.80	194	167,005	452
52040	GWINN AREA COMMUNITY SCHOOLS	112,234	429	1,441	312	0.00	469	0	469
31050	CHASSELL TOWNSHIP SCHOOL DISTRICT	112,151	430	316	498	7.65	59	270,951	426
29040	BRECKENRIDGE COMMUNITY SCHOOLS	111,745	431	1,067	381	4.70	233	560,128	352
23010	Bellevue Community Schools	111,570	432	914	409	8.23	36	838,857	280
78070	NEW LOTHROP AREA PUBLIC SCHOOL DISTRICT	111,524	433	791	429	7.40	78	652,384	323
73170	BIRCH RUN AREA SCHOOL DISTRICT	111,445	434	1,895	250	5.90	192	1,245,881	227
75030	CENTREVILLE PUBLIC SCHOOLS	111,255	435	980	397	5.65	198	616,134	333
35040	WHITTEMORE PRESCOTT AREA SCHOOL DISTRICT	111,171	436	1,400	317	4.75	228	739,389	299
33070	HOLT PUBLIC SCHOOLS	111,145	437	5,705	60	10.00	10	6,340,997	42
34120	SARANAC COMMUNITY SCHOOLS	110,811	438	1,275	343	9.00	18	1,271,548	221
82240	WESTWOOD COMMUNITY SCHOOLS	110,745	439	2,289	204	0.00	469	0	469
55100	MENOMINEE AREA PUBLIC SCHOOLS	110,743	440	1,992	242	3.50	304	772,151	294
11320	WATERVLIET SCHOOL DISTRICT	110,476	441	1,360	322	1.90	424	285,542	425
80130	LAWRENCE PUBLIC SCHOOL DISTRICT	110,207	442	812	426	7.00	97	626,086	329
11010	BENTON HARBOR AREA SCHOOLS	109,296	443	4,967	77	0.00	469	0	469
82110	REDFORD UNION SCHOOL DISTRICT	109,151	444	4,614	85	5.80	194	2,920,889	106
27020	IRONWOOD AREA SCHOOLS	108,642	445	1,148	367	0.00	469	0	469
30030	JONESVILLE COMMUNITY SCHOOLS	108,601	446	1,334	327	7.47	72	1,082,027	247
38090	EAST JACKSON PUBLIC SCHOOLS	108,392	447	1,607	283	7.40	78	1,288,764	218
61210	RAVENNA PUBLIC SCHOOLS	108,335	448	1,193	356	7.00	97	904,558	273
19120	OVID ELSIE AREA SCHOOLS	108,201	449	1,797	261	7.80	52	1,516,411	191
78030	DURAND AREA SCHOOLS	108,100	450	2,025	238	5.60	201	1,225,868	232
79090	MAYVILLE COMMUNITY SCHOOL DISTRICT	106,977	451	1,159	364	0.00	469	0	469
38120	MICHIGAN CENTER SCHOOL DISTRICT	106,731	452	1,514	295	0.00	469	0	469
76140	MARLETTE COMMUNITY SCHOOLS	106,712	453	1,381	319	0.00	469	0	469
78040	LAINGSBURG COMMUNITY SCHOOL DISTRICT	106,565	454	1,325	329	8.70	23	1,228,055	231
40020	FOREST AREA COMMUNITY SCHOOL DISTRICT	106,410	455	884	417	2.10	409	197,551	444
78080	PERRY PUBLIC SCHOOL DISTRICT	105,772	456	1,956	247	7.00	97	1,448,499	200
12040	QUINCY COMMUNITY SCHOOL DISTRICT	105,291	457	1,497	301	3.11	337	490,048	365
52015	N.I.C.E. COMMUNITY SCHOOLS	104,947	458	1,332	328	4.00	270	559,160	353
30060	PITTSFORD AREA SCHOOLS	104,935	459	705	443	2.92	358	216,123	441
18010	CLARE PUBLIC SCHOOLS	104,135	460	1,590	284	4.27	258	707,228	304
54040	MORLEY STANWOOD COMM SCHOOLS	103,941	461	1,627	281	7.00	97	1,183,878	234

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38080	CONCORD COMMUNITY SCHOOLS	103,829	462	976	400	3.18	332	322,352	417
29060	ITHACA PUBLIC SCHOOLS	103,576	463	1,486	304	2.23	404	343,242	411
17090	PICKFORD PUBLIC SCHOOLS	102,821	464	511	472	7.00	97	367,705	402
78100	CORUNNA PUBLIC SCHOOL DISTRICT	102,794	465	2,228	212	2.50	380	572,614	349
13120	PENNFIELD SCHOOL DISTRICT	102,640	466	1,884	252	3.74	293	722,317	300
33100	LESLIE PUBLIC SCHOOLS	102,603	467	1,428	314	7.39	81	1,082,887	246
79020	CARO COMMUNITY SCHOOLS	102,214	468	2,263	209	2.14	407	495,040	364
79100	MILLINGTON COMMUNITY SCHOOLS	101,893	469	1,738	270	3.74	291	662,201	319
29010	ALMA PUBLIC SCHOOLS	101,432	470	2,486	187	2.40	386	605,276	337
31100	DOLLAR BAY-TAMARACK CITY AREA SCHOOLS	101,307	471	276	507	7.83	50	218,783	440
06010	ARENAC EASTERN SCHOOL DISTRICT	100,862	472	405	487	7.50	67	306,368	419
61190	ORCHARD VIEW SCHOOLS	100,192	473	2,792	169	7.00	97	1,958,484	157
13010	ALBION PUBLIC SCHOOLS	100,091	474	1,758	267	4.48	249	787,654	291
34080	BELDING AREA SCHOOL DISTRICT	98,964	475	2,470	191	7.00	97	1,710,893	177
79080	KINGSTON COMMUNITY SCHOOL DISTRICT	98,940	476	675	448	6.64	173	443,554	380
41150	KENT CITY COMMUNITY SCHOOLS	98,929	477	1,450	310	8.25	33	1,183,214	235
59125	CENTRAL MONTCALM PUBLIC SCHOOLS	98,872	478	2,067	230	7.00	97	1,430,628	201
56030	COLEMAN COMMUNITY SCHOOL DISTRICT	98,870	479	1,036	390	3.65	295	373,716	401
44090	NORTH BRANCH AREA SCHOOLS	98,815	480	2,668	175	7.30	86	1,924,793	162
73180	BRIDGEPORT-SPAULDING COMMUNITY SCHOOLS	98,595	481	2,325	200	4.38	252	1,003,839	259
23080	OLIVET COMMUNITY SCHOOLS	97,073	482	1,305	335	9.05	16	1,146,317	239
46100	MORENCI AREA SCHOOLS	96,889	483	890	416	7.00	97	603,841	338
31110	HOUGHTON-PORTAGE TOWNSHIP SCHOOLS	96,420	484	1,271	345	8.89	21	1,089,039	245
29100	ST. LOUIS PUBLIC SCHOOLS	96,265	485	1,244	349	8.52	26	1,020,547	255
28090	KINGSLEY AREA SCHOOL	96,189	486	1,456	309	4.75	228	665,093	316
61120	HOLTON PUBLIC SCHOOLS	95,382	487	1,165	363	7.24	93	804,422	288
29050	FULTON SCHOOLS	95,017	488	1,046	388	3.40	312	337,982	412
76180	PECK COMMUNITY SCHOOL DISTRICT	94,915	489	609	458	5.50	205	318,122	418
64090	WALKERVILLE PUBLIC SCHOOLS	93,808	490	443	480	3.10	339	128,811	456
79150	VASSAR PUBLIC SCHOOLS	93,646	491	1,867	253	3.05	343	533,197	358
80050	DECATUR PUBLIC SCHOOLS	93,513	492	1,143	368	7.43	76	793,951	290
46090	MADISON SCHOOL DISTRICT	93,221	493	1,337	326	1.80	427	224,412	437
52090	NEGAUNEE PUBLIC SCHOOLS	93,212	494	1,475	305	2.75	373	378,043	400
76060	BROWN CITY COMMUNITY SCHOOL DISTRICT	93,044	495	1,192	357	6.00	187	665,354	315
37040	BEAL CITY SCHOOL	93,035	496	624	453	7.00	97	406,076	393
55115	NORTH CENTRAL AREA SCHOOLS	92,269	497	519	471	3.35	321	160,457	453
46130	SAND CREEK COMMUNITY SCHOOLS	91,512	498	977	399	2.40	386	214,476	442
11250	EAU CLAIRE PUBLIC SCHOOLS	91,224	499	871	420	4.60	238	365,391	406
38010	WESTERN SCHOOL DISTRICT	91,133	500	2,794	168	7.00	97	1,782,668	172

Code	School District Name	Taxable Value per Pupil	T.V.P.P Rank	Pupil Count	P.C. Rank	Debt Millage Rate	D.M.R. Rank	Debt Levy	D.L. Rank
50070	CLINTONDALE COMM SCHOOLS	90,889	501	3,652	110	12.65	2	4,198,277	65
34040	PALO COMMUNITY SCHOOL DISTRICT	90,491	502	167	519	3.00	346	45,445	464
56020	BULLOCK CREEK SCHOOL DISTRICT	90,095	503	2,092	223	7.00	97	1,319,502	214
22010	IRON MOUNTAIN CITY SCHOOL DISTRICT	89,734	504	1,497	300	7.50	67	1,007,556	258
21025	GLADSTONE AREA SCHOOLS	89,510	505	1,746	269	8.56	25	1,337,852	210
39130	PARCHMENT SCHOOL DISTRICT	89,395	506	1,993	241	7.30	86	1,300,309	215
25110	KEARSLEY COMMUNITY SCHOOLS	88,200	507	3,892	102	0.00	469	0	469
83060	MANTON CONSOLIDATED SCHOOLS	88,017	508	1,046	387	7.00	97	644,760	326
27010	BESSEMER CITY SCHOOL DISTRICT	87,579	509	548	466	4.30	255	206,383	443
13080	HOMER COMMUNITY SCHOOLS	86,924	510	1,071	380	0.00	469	0	469
61010	MUSKEGON CITY SCHOOL DISTRICT	85,747	511	6,101	53	7.00	97	3,662,254	77
37060	SHEPHERD PUBLIC SCHOOL DISTRICT	85,346	512	1,760	266	3.10	339	465,764	368
23090	POTTERVILLE PUBLIC SCHOOLS	85,298	513	922	408	7.35	82	578,116	345
31010	HANCOCK PUBLIC SCHOOLS	85,172	514	977	398	11.33	5	943,182	266
80090	BLOOMINGDALE PUBLIC SCHOOL DISTRICT	84,260	515	1,423	315	7.70	57	923,445	271
80020	BANGOR PUBLIC SCHOOLS	84,148	516	1,500	298	0.00	469	0	469
13135	UNION CITY COMMUNITY SCHOOL DISTRICT	83,631	517	1,241	350	0.00	469	0	469
29020	ASHLEY COMMUNITY SCHOOLS	83,529	518	383	492	7.00	97	223,824	438
82080	INKSTER CITY SCHOOL DISTRICT	83,471	519	1,275	342	9.50	12	1,011,413	256
34010	IONIA PUBLIC SCHOOLS	82,759	520	3,351	131	7.72	56	2,140,798	146
62090	WHITE CLOUD PUBLIC SCHOOLS	81,850	521	1,521	294	8.25	33	1,027,121	254
23065	MAPLE VALLEY SCHOOL DISTRICT	81,811	522	1,697	274	5.00	218	694,140	306
62060	HESPERIA COMMUNITY SCHOOL DISTRICT	81,125	523	1,189	359	7.00	97	675,298	311
13020	BATTLE CREEK PUBLIC SCHOOLS	79,353	524	7,567	38	0.00	469	0	469
07020	BARAGA TOWNSHIP SCHOOL DISTRICT	78,665	525	579	461	7.95	47	362,062	407
82040	DEARBORN HEIGHTS SCHOOL DISTRICT #7	78,458	526	3,029	151	3.93	279	934,031	268
63130	HAZEL PARK CITY SCHOOL DISTRICT	78,027	527	4,860	82	7.00	97	2,654,749	118
59150	VESTABURG COMMUNITY SCHOOLS	77,438	528	778	433	7.00	97	421,770	383
75020	BURR OAK COMMUNITY SCHOOL DISTRICT	76,411	529	352	494	0.00	469	0	469
25260	MONTROSE COMMUNITY SCHOOLS	76,114	530	1,725	271	7.00	97	919,000	272
17110	RUDYARD AREA SCHOOLS	75,936	531	1,112	372	6.05	183	510,979	362
31030	CALUMET PUBLIC SCHOOLS	74,567	532	1,583	285	7.00	97	826,475	285
11830	SODUS TWP SCHOOL DISTRICT #5	74,314	533	63	531	0.00	469	0	469
73010	SAGINAW CITY SCHOOL DISTRICT	72,483	534	11,725	19	0.00	469	0	469
52180	ISHPEMING PUBLIC SCHOOL DISTRICT	72,447	535	1,018	392	4.10	264	302,499	421
41120	GODFREY LEE PUBLIC SCHOOL DISTRICT	71,742	536	1,566	287	10.05	9	1,129,159	240
25010	FLINT CITY SCHOOL DISTRICT	71,301	537	20,124	4	0.00	469	0	469
21090	BARK RIVER HARRIS SCHOOL DISTRICT	70,313	538	650	449	4.00	270	182,731	447
62050	GRANT PUBLIC SCHOOL DISTRICT	68,757	539	2,449	192	7.46	73	1,256,070	223

Code	School District Name	Taxable Value per Pupil	T.V.P.P Rank	Pupil Count	P.C. Rank	Debt Millage Rate	D.M.R. Rank	Debt Levy	D.L. Rank
61065	OAKRIDGE PUBLIC SCHOOLS	68,542	540	1,996	240	7.00	97	957,515	264
38020	VANDERCOOK LAKE PUBLIC SCHOOLS	63,954	541	1,297	339	5.00	218	414,820	387
25040	MT. MORRIS CONSOLIDATED SCHOOLS	63,511	542	3,460	118	0.00	469	0	469
80120	HARTFORD PUBLIC SCHOOL DISTRICT	62,595	543	1,465	306	7.25	90	664,852	317
70040	ALLENDALE PUBLIC SCHOOL DISTRICT	61,930	544	2,027	236	8.59	24	1,078,112	249
25060	BENDLE PUBLIC SCHOOLS	59,127	545	1,499	299	0.00	469	0	469
31020	ADAMS TOWNSHIP SCHOOL DISTRICT	58,653	546	492	474	11.45	4	330,548	414
73030	CARROLLTON SCHOOL DISTRICT	54,045	547	1,509	297	7.50	67	611,616	335
25070	GENESEE SCHOOL DISTRICT	49,863	548	987	396	9.10	14	447,761	377
82060	HAMTRAMCK PUBLIC SCHOOLS	47,772	549	3,805	106	2.50	380	454,422	374
82010	DETROIT CITY SCHOOL DISTRICT	47,736	550	151,252	1	13.80	1	99,639,051	1
61020	MUSKEGON HEIGHTS SCHOOL DISTRICT	47,189	551	2,243	210	12.50	3	1,323,281	212
25240	BEECHER COMMUNITY SCHOOL DISTRICT	39,322	552	2,119	217	0.00	469	0	469
82070	HIGHLAND PARK CITY SCHOOLS	37,175	553	3,417	122	1.50	440	190,533	445

TABLE A.2
DISTRICT AND PUPIL COUNTS, BY TAXABLE VALUE PER PUPIL QUINTILES AND COMMUNITY TYPE

Taxable Value Quintile	Central City	Lower Income Suburb	Middle Income Suburb	High Income Suburb	Rural
1	(5) 196769	(15) 31922	(21) 45561	0	(69) 87379
2	(1) 4967	(4) 10168	(38) 118861	0	(67) 93368
3	(5) 69016	(2) 2572	(55) 180039	(4) 10650	(45) 65540
4	(2) 16001	0	(53) 221103	(15) 109434	(41) 47790
5	(2) 20550	0	(19) 110784	(16) 145547	(74) 54227

APPENDIX B

DATA, VARIABLES, AND RESEARCH METHODS

B.1 Construction Recommendations

We used the Council of Educational Facility Planners International recommended square footage per pupil in our definition of adequacy. Because we did not have student counts by grade level, we calculated an aggregate measure of recommended square footage per pupil.

CEFPI recommends 111.5 square feet per elementary student, 154.4 per middle school student, and 160.7 per high school student. For the purposes of this study, we defined elementary school as grades K-5, middle school as grades 6-8, and high school as grades 9-12. Converting these to percentages, elementary schools are approximately 46.2% of the total grades, middle schools 23.1%, and high schools 30.7%.

Multiplying the weights by the square footage recommendations gives the following:

111.5*(0.462) + 154.4*(0.231) + 160.7*(0.307) = 136.5 square feet per pupil

This is the value we used to measure state norms for per-pupil facility space in calculating adequate capital assets.

B.2 Grouping The Data

Quintiles

We determined the taxable value per pupil for the 553 school districts in Michigan based on data provided by the School Bond Loan Fund and the Michigan Department of Treasury. Districts were ranked by this value and then divided into quintiles of approximately 110 districts each.

MSAs

The districts were also sorted by Metropolitan Statistical Areas (MSAs) defined by the U.S. Office of Management and Budget.

MSA One represents central cities and includes school districts that the National Center for Education Statistics (NCES) classifies as primarily serving "Large Cities" and "Mid-size Cities."

MSAs Two through Four are suburban districts. The NCES classifies a few suburban districts with extensive employment as "Mid-sized Cities" (e.g., East Lansing, Dearborn, and Kearsley), but we classified these districts as suburban. Suburban district classifications are based on two criteria:

(1) The NCES classifies them as "serving an MSA but not primarily its central city."
(2) They have population density of at least 20 people per square mile.

The second condition is necessary because MSAs follow county boundaries, which may include outlying rural areas.

MSA Two consisted of low-income suburbs containing suburban districts with median home values in the year 2000 between $32,500 and $75,000. MSA Three contained suburban districts with median home values between $75,000 and $170,000 and MSA Four contained suburban districts with median home values above $170,000.

MSA Five contains rural districts and includes those classified by the NCES as "outside an MSA," plus those within an MSA with population density of less than 20 people per square mile.

B.3 Adjusting Capital Assets For Inflation

The building capital used in the analysis had to be adjusted for inflation and depreciation. The GASB filings contain only aggregate capital assets and depreciation. As each building in a district was constructed, its cost of construction was listed as a capital asset and a small percentage was then deducted from the capital assets each year and called depreciation. Since all buildings in a district were not constructed at the same time, building assets and depreciation in the filings were actually an amalgam of different projects at various points in their depreciation schedules. The value of building assets was the sum of historic cost, and the value of associated depreciation was the

sum of historic depreciation. There were no adjustments for inflation in these data.

To adjust for inflation, for each district we calculated an aggregate value that allowed us to treat building assets as if all construction occurred at one point in time. We surveyed the accounting firms involved in the GASB filings for school districts and confirmed that straight-line depreciation was used in preparing the filings, and that the common practice is to depreciate each building's value by 1.6 percent each year for 50 years until the residual value of 20% of the original cost remains.

Within this framework, we were able to use each building's depreciation divided by its historic expenditure to allocate a district's combined building capital somewhere along the 50-year depreciation schedule. Districts with older buildings were treated as if their combined capital investment occurred longer ago, and their capital assets and depreciation would therefore receive a larger adjustment for inflation.

Once we had assigned a district's building capital to a specific point in the past, we used a price index to adjust both capital and depreciation for inflation. We used the State and Local Government-New-Buildings-Education cost indexes from the U.S. Department of Commerce, Bureau of Economic Analysis to adjust these values.

Two examples may help demonstrate the soundness of this approach.

Example 1: Consider a district that had three capital outlays—$10,000,000 in 1952, $2,000,000 in 1954, and $500,000 in 1970.

Applying the 50-year straight-line depreciation down to 20% of book value would, for the purposes of a GASB filing, give the following in 2003:

YEAR	AMOUNT	CAPITAL ASSETS	DEPRECIATION
1952	$10,000,000	$2,000,000	$8,000,000
1954	$2,000,000	$432,000	$1,568,000
1970	$500,000	$236,000	$264,000
TOTAL	$12,500,000	$2,668,000	$9,832,000

Adjusting the capital assets and depreciation for inflation gives:

YEAR	ADJ. CAPITAL ASSETS	ADJ. DEPRECIATION
1952	$16,630,901	$66,523,901
1954	$3,485,944	$3,485,944
1970	$1,205,385	$1,205,385
TOTAL	$21,322,230	$80,524,687

The first step is to divide depreciation by historic expenditure:

$$\frac{\$9{,}832{,}000}{\$12{,}500{,}000} = 0.787$$

This case is well into its depreciation schedule, as would be expected given the timing of the expenditures. The maximum possible value of this ratio is 0.8 by rule, so this method treats the aggregate capital as though it had been spend just over 49 years ago. This calculation is given by:

$$0.787 * \frac{50}{0.8} = 49.2$$

The method used in this study would treat all of the capital as if it had been spent in the latter part of 1953.

To adjust the aggregate for inflation from 1953 to 2003, the $2,668,000 of capital assets is multiplied by the building cost index for 2003 and divided by the building cost index for 1953 (due to rounding):

$$\$2{,}668{,}000 * \frac{CostIndex_{2003}}{CostIndex_{1953}} = \$2{,}668{,}000 * \frac{108.5}{13.38} = \$21{,}635{,}127$$

Dividing the projected value for capital assets by the explicit value calculated line-by-line for this example gives:

$$\frac{\$21{,}635{,}127}{\$21{,}322{,}230} = 101.5\%$$

In this example, the aggregate method is within 1.5% of the true figure, the details of which would not be available in the GASB filings.

Example 2: Consider a district that has made three different capital outlays—$10,000,000 in 1979, $5,000,000 in 1980, and $12,000,000 in 1981. Omitting all of the line-by-line calculations, the net result in this case is that the aggregate method gives capital assets of $59,881,035 and the true figure is $60,175,818. The ratio of these two is:

$$\frac{\$59{,}881{,}035}{\$60{,}175{,}818} = 99.5\%$$

Once again, the aggregate method is quite close to the true figure. Note that in one example the aggregate method is greater than and in the other less than the true value. In summing capital assets across districts, many of these over- and under-estimates will cancel each other out giving a fairly accurate estimate of total capital stock.

B.4 Need Calculation

The following examples show how we calculated need. These cases do not correspond to any particular school district and use round numbers to simplify the arithmetic.

Case 1: District A has $12,000,000 in capital assets for buildings with a corresponding $8,000,000 of depreciation. The district has 2,000 students and is located in one of the lower-cost counties.

First, we must adjust capital assets for inflation:

$$\left(\frac{50}{0.8}\right) * \left(\frac{\$8{,}000{,}000}{\$8{,}000{,}000 + \$12{,}000{,}000}\right) = 25.0 \text{ years ago.}$$

This case would have had historic expenditure of $20,000,000, which is shown in the GASB filing as $12 million in capital assets and $8 million in depreciation. Here we will treat the historical expenditure as "capital." We need to bring the capital and depreciation forward from 1978 to 2003:

$$capital^{2003} = capital^{1978} * \left(\frac{building\_index^{2003}}{building\_index^{1978}} \right) = \$20{,}000{,}000 * \left(\frac{108.5}{39.615} \right) = \$54{,}777{,}231$$

$$dep^{2003} = dep^{1978} * \left(\frac{building\_index^{2003}}{building\_index^{1978}} \right) = \$8{,}000{,}000 * \left(\frac{108.5}{39.615} \right) = \$21{,}910{,}892$$

Pure capital is the difference between total capital and depreciation (in 2003 dollars):

Pure capital = $54,777,231 - $21,910,892 = $32,866,339

Adequacy is defined as:

Pupils*recommended square footage*building costs per square foot

Adequacy = 2,000*136.5*$133 = $36,309,000

Finally, Need is defined as Adequacy – Pure Capital:

Need = $36,309,000 - $32,866,339 = $3,442,661

This amounts to $1,721 per pupil.

Case 2: Suppose the above case had only 1,000 students:

Adequacy = 1,000*136.5*$133 = $18,154,500

Now need is negative:

Need = $18,154,500 - $32,866,339 = -$14,711,839

In this case, need would be set to zero, even though the average age of the buildings is 25 years.

B.5 Millage Rate Calculations

To illustrate how millage rates were calculated for this report, continue with the example of Case 1 in Appendix A.4. Further assume the district has a total taxable value of $120,000,000.

Amortizing the unmet need of $3,442,661 over 30 years at 5 percent requires an annual payment of $223,950.

The necessary millage rate to make that payment is:

$$mills = \frac{\$223{,}950}{\$120{,}000{,}000} * 1{,}000 = 1.87$$

APPENDIX C

FACILITIES FUNDING FOR MICHIGAN'S CHARTER SCHOOLS

Our report focuses on Michigan's traditional school districts, but the State's roughly 200 charter schools also face significant facility financing challenges. Charter schools lack the authority to levy taxes and thus have limited access to capital. They may borrow funds or issue their own bonds to support capital expenditures, but many lenders and bond issuers view charter schools as poor credit risks, typically because of their small student populations, short credit histories, weak income streams, and revocable charters. Unlike traditional public schools, charters may spend as much as 20 or even 25 percent of their instructional budgets on facilities.

A number of states have initiated efforts to provide facilities assistance to charter schools, including direct funding for facilities, state-sponsored bond issues, and access to vacant school and other public buildings. Of the 40 states with charter school laws, thirteen (including Michigan) provide no dedicated facilities aid.

In addition to state action, the federal government, private lenders and other financial institutions have taken steps to improve charter school access to capital for facility costs. The No Child Left Behind Act (NCLB) of 2001 includes a competitive per-pupil facilities aid program available to states that already offer dedicated (per-pupil) facilities aid. Because Michigan does not currently provide per-pupil facility aid to charter schools, however, the State is not eligible to apply for or receive Federal per-pupil facility funds.

In addition to policy initiatives at the federal and state levels, private lenders, bond underwriters and various other financial organizations have developed a range of strategies and new debt instruments to enhance the creditworthiness of charter schools and streamline their access to capital funds. Examples of these instruments include various credit enhancements (such as loan and bond pools, letters of credit and loan guarantees), creative leasing arrangements (including lease-purchase and sale-leaseback agreements), and bond financing through taxable and tax-exempt bonds. They also include emerging mechanisms such as Qualified Public Education Facility Bonds (QPEFs).[1]

[1] According to the Michigan Department of the Treasury, QPEFs are "private activity bonds" in which "bond proceeds are loaned to a private, for-profit corporation (developer) who owns the school facility and leases it to a public school. A public-private partnership agreement needs to be entered into between the

Michigan is one of the first states to take advantage of the Qualified Public Education Facilities Bond (QPEF) program established under the Economic Growth and Tax Reconciliation Act of 2001. In 2002 the State established the Michigan Public Educational Facilities Authority (www.mpefa.org) to provide low-cost financing and technical assistance for charter schools. During FY 2003 MPEFA completed two bond issues for approximately $17.5 million. The first bond issue (for $2.6 million) was used to finance a new building for the West Michigan Academy of Environmental Sciences. The second bond issue (for approximately $15 million) was used to fund short-term operating expenses in 14 Michigan charter schools.

Michigan will face increasing pressure to reduce the capital funding disparities that currently exist between traditional and charter schools. The State's responsibility to provide an equitable and adequate education applies equally to charter and traditional public school students.

Developing an effective policy framework for accomplishing this goal will require additional research, for three main reasons. First, the sheer diversity of Michigan's charter schools precludes a simple policy approach. Some charter schools are run by for-profit corporations, some by local educational authorities, and still others by "mom and pop" management teams. Different schools consequently face a wide range of capital needs, operational challenges, and attitudes toward governmental aid.

Second, the prospect of public financing of charter school facilities raises a number of murky questions about taxpayers' risk and property rights. For example, if a for-profit charter school in a publicly-financed building loses its charter, it is at best uncertain whether the management company, the local taxing authority, or the State would retain control of the property.

Finally, there is very little public information about the current state of capital facilities or capital financing in Michigan's charter schools. In the absence of transparent and comparable data from Michigan's charter schools it is impossible to know whether state intervention to provide additional support for capital spending is needed, or whether it would be welcomed.

Research to address these issues will be the subject of future reports from the Education Policy Center at Michigan State University.

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developer and the public school. The public school leases the school facility from the developer and at the end of the lease term, the school facility is transferred to the public school for no additional consideration."

APPENDIX D

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