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Back to the Future: An Update on Michigan School Finance Reform

Michael F. Addonizio

State aid for school districts in Michigan dates back to statehood in 1837.¹ Prior to 1973-74, Michigan distributed unrestricted aid to local schools through a foundation aid system that guaranteed a minimum expenditure per pupil in every district. However, by 1973 Michigan's highest-spending district tripled the per pupil expenditures of the state's lowest spender. Facing disparities of this magnitude, along with a court challenge of the constitutionality of Michigan's aid system,² the legislature replaced the foundation formula with a district power equalizing (DPE) formula, effective for the 1973-74 fiscal year. In that first year, more than 90 percent of Michigan's school districts received equalization aid. By 1993-94, however, this percentage had fallen to approximately two-thirds and the ratio of per student spending between the highest and lowest spending districts had risen to the levels of the early 1970s.³ Further, school property tax rates had risen to unacceptably high levels for many, and 122 districts were within four mills of the state's constitutional 50-mill limit.⁴

Michigan's Recent School Finance Reforms

Voter ambivalence toward Michigan's property tax and school funding systems was reflected in a string of 12 consecutive failed ballot proposals spanning more than a decade in the 1980s and early 1990s. Then, in late July 1993, in a stunning development, the Michigan legislature eliminated the local property tax as a source of operating revenue for the public schools. In mid-August, Governor John Engler signed SB1 into law, becoming P.A. 145 of 1993. The Act reduced K-12 operating revenue by \$6.018 billion for local districts and \$508 for intermediate (generally county-wide) districts. On March 15, 1994, Michigan voters approved a constitutional amendment (Proposal A of 1994) increasing the state sales tax from 4 to 6 percent. In addition to the sales tax increase, the state's flat rate income tax was lowered from 4.6 to 4.4 percent, the cigarette tax was raised from 25 to 75 cents per pack, and a per-parcel cap on assessment growth was set at the lesser of inflation or 5 percent (reassessed at 50 percent of market value on sale). Property taxes were reduced in most districts to 6 mills on homestead property and 24 mills on non-homestead property.⁵

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On the allocation side, new legislation returned Michigan from a power-equalizing approach to a foundation plan as the core of state school funding. A district's 1993-94 combined state and local revenue for operations (primarily local ad valorem property taxes, DPE state aid and most state categorical aid) provided the basis for determining its 1994-95 foundation allowance. The legislature provided that every district have a foundation of at least \$4,200 per pupil.⁶ In addition to establishing a minimum (local) foundation allowance, the legislature set a statewide basic foundation allowance at \$5,000 per pupil for 1994-95. This spending level changes annually through application of revenue and pupil membership indices.⁷ Districts spending more than the state foundation will receive per-pupil revenue increases equal to the annual increase in the basic foundation allowance, while districts spending less than the basic allowance will receive increases up to double that amount. Thus, this basic allowance, which rose to \$5,153 in 1995-96, \$5,308 in 1996-97, and \$5,462 in 1997-98, will constrain per pupil spending growth in more districts each year and exert a "range preserving" effect on interdistrict spending disparities. This effect is illustrated in Figure 1, which compares the per pupil foundation grants for four local districts.

As districts with local foundation allowances in excess of the state basic allowance, Grand Rapids, Ypsilanti, and Bloomfield Hills receive annual revenue increases per pupil equal to the dollar increase in the state basic allowance. On the other hand, Onaway, with a local foundation allowance below the state basic level, has enjoyed annual dollar increases per pupil equal to twice the increase in the state basic allowance. Onaway's large relative annual increases will continue until the district's local allowance equals the state basic level. At that point, Onaway's subsequent annual dollar increases in per pupil revenue will be the same as their higher-revenue counterparts — hence, the "range-preserving" effect.

Equity Effects

One stated long-run objective of Michigan's new school finance system is to raise all districts to the level of the basic foundation allowance and reduce interdistrict disparities in per pupil spending. This leveling up approach achieved measurable first year equalization effects. The coefficient of variation (standard deviation divided by the mean) and the ratio of the median to the mean in per pupil expenditure respectively for Michigan's 557 school districts equaled 0.23 and 1.20 prior to reform. In the year following the reform, these statistics equaled 0.21 and 1.17 respectively, indicating relatively minor equalization.⁸

The effects of leveling up are reflected in Table 1, which presents mean foundation revenue for each quintile of pupils in 1993-94 (the last year of the power-equalizing formula) and 1996-97. The quintiles were formed after rank-ordering pupils by the foundation allowance levels of their respective districts.

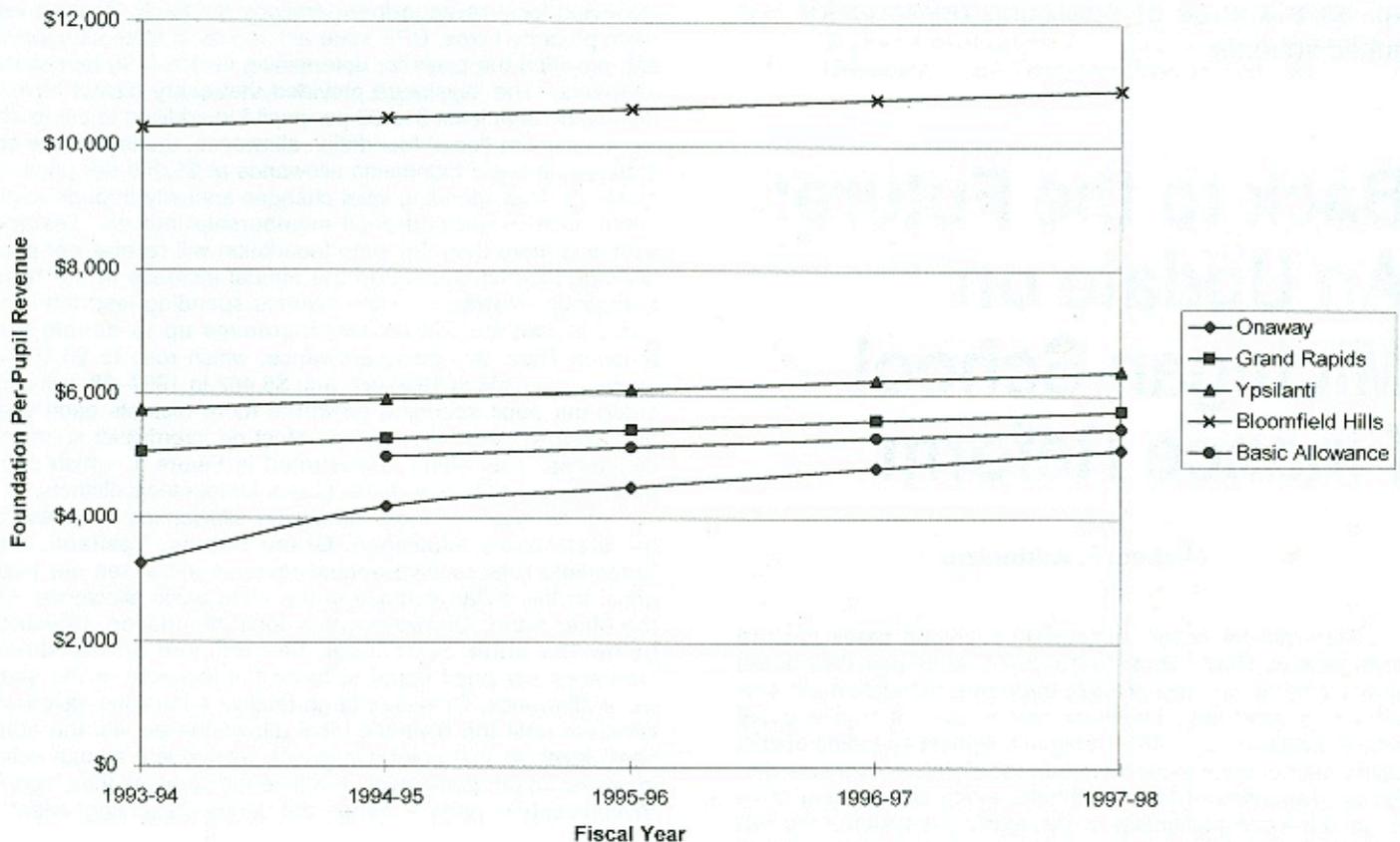
Table 1
Quintiles of Foundation Allowances (1997 dollars)

Quintile*	1993-94 Mean	1996-97 Mean	Difference
1	\$4,536	\$5,004	\$468
2	5,063	5,304	241
3	5,605	5,684	79
4	5,929	5,967	38
5	7,528	7,426	(102)

* Each quintile represents 316,910 pupils in 1993-94 and 325,688 pupils in 1996-97.

Source: Prince (1997)

Figure 1: Foundation Growth



The ratio of the fifth quintile to first quintile mean fell from 1.66 in 1993-94 to 1.48 in 1996-97, suggesting greater horizontal equity in the distribution of per pupil spending. An improvement in horizontal equity is also indicated by the equity measures presented in Table 2 below.

Taken individually, each measure reveals greater horizontal pupil equity in Michigan as a result of school finance reform. The range and restricted range have been reduced by 20.7 percent and 18.4 percent, respectively, while the federal range ratio (a restricted range in which the top and bottom 5 percent of pupils are dropped and the remaining span is then divided by per-pupil expenditure at the 5th percentile) was reduced by 26.8 percent. The lower values of the coefficient of variation and the Gini coefficient also indicate greater horizontal equity.

Table 2
Horizontal Equity in Michigan's Foundation Grant Program (1997 dollars)

Equity Measure	1993-94*	1996-97
Range	\$7,495	\$5,946
Restricted Range	3,646	2,974
Federal Range Ratio	0.8343	0.6103
Coefficient of Variation	0.2089	0.1665
Gini Coefficient	0.1089	0.0842
McLoone Index	0.8819	0.9226

* The foundation program was initiated in 1994-95. Figures for 1993-94 were calculated for comparability.

Source: Prince (1997)

Although the equity measures discussed above differ in construction and focus (for example, the range, restricted range, and federal range ratio are concerned only with the total span of distribution and ignore all data between their respective extremes, while the coefficient of variation and Gini coefficient are concerned with the distribution of all data), each measure is appropriate when the policy goal is equal educational resources for all.

In contrast to these measures, the McLoone index measures equality in the bottom half of the distribution, with the implication that the state's responsibility is to assure minimally adequate, rather than equal, spending in every district. Specifically, the McLoone index is a ratio of the actual expenditure in all districts below or at the median expenditure to what the expenditures would be if all of those districts spent at exactly the median level. As such, perfect equity (i.e., exact equality of expenditures for all districts below the median) requires a McLoone index of 1.0, its maximum value. (All of the other equity measures have a value of zero with perfect equity.) For Michigan, the increase in the McLoone index from 0.8819 to 0.9226 indicates improved equity. This improvement is not unexpected in view of the "leveling up" effect of Michigan's foundation formula.

Revenue Adequacy and Stability

Now in its fourth year, Michigan's foundation formula has accelerated revenue growth for local districts with per pupil revenue below the state basic foundation level and slowed revenue growth for those at or above that level. Further, following a substantial increase in aggregate K-12 revenue in the first year of reform, overall revenue growth for Michigan public schools has been constrained by reform. From 1994-95 to FY

1997-98, the benchmark state basic foundation allowance rose at an annual rate of only 3 percent, only slightly higher than the estimated inflation rate of 2.8 percent over this period. Had local property tax assessments not been capped by Proposal A, these assessments would have risen at an annual rate of 7 percent over this period.⁹ In addition to these constraints on district foundation revenues, the finance reforms also placed tight limits on local revenue supplementation. When Proposal A was approved by voters, enabling legislation allowed for a local, unequalized enrichment millage, whereby local voters could approve up to three additional mills for up to three years. Such enhancements, however, are quite small. Moreover, beginning in 1997, such millage must be approved, and such revenue shared, at the intermediate school district level (county or multicounty).¹⁰ The cumulative effect of these reforms has been a slowing of per pupil revenue growth, particularly for districts with exceptionally high tax bases and per pupil revenue.

Long-Run Implications.

The substitution of sales tax revenue for property tax revenue is likely to impair the long-run stability of school revenue in Michigan. It is well-established that sales tax revenue is more income-elastic than property tax revenue and thus more volatile over the economic cycle (see, for example, Fisher 1996). As an illustration, during the 20 years from 1972 to 1992, property tax assessments in Michigan grew at an annual rate of 7.1 percent, while the replacement revenue sources, consisting largely of sales tax revenue, grew 6.6 percent annually. Moreover, during the economic downturn from 1989 to 1992, property taxes rose 8 percent annually, while the replacement revenues increased a mere 3.6 percent annually.¹¹

Capital Outlay

Michigan does not provide state aid for capital outlay financing.¹² Under the provisions of Article IX, Section 16, of the Michigan Constitution, a local district may qualify its bonds according to statutory requirements, set the debt retirement tax rate, and participate in the Michigan School Bond Loan Program.¹³ Qualified bonds are guaranteed 100 percent by the state. A district may issue unlimited qualified bonds for up to 30 years upon approval by the voters and the Superintendent of Public Instruction. The local board has the authority to set annually the necessary tax rate for debt retirement, up to a limit of 13 mills. However, the local board has the option of setting the basic tax rate at seven mills and borrowing 90 percent of the remaining funds needed to meet the annual payment from the Michigan School Bond Loan Fund. In addition, a local school board, by resolution and without a vote of the electorate, may issue bonds that, with the district's outstanding bonded indebtedness, do not exceed five percent of the district's state equalized valuation. These bonds, however, must be retired from existing tax revenues. Finally, the local electorate may approve unqualified bonds, with a debt-to-valuation ratio not to exceed 15 percent, for up to 30 years.

It is worth noting that, while the Proposal A finance reforms did not address capital outlay issues, local districts have enjoyed measurably greater success in passing bond issues since those reforms were adopted. In the 31 months following passage of the reform proposal, voters approved 45.4 percent of school bond issues, a 16.7 percent increase over the 38.9 percent approval rate in the 31 months prior to Proposal A. Moreover, this increased approval rate was achieved as the number of bond proposals on the ballot more than doubled in this post-Proposal A period. While it is difficult to precisely identify the reasons for the improved passage rate, the substantial reductions in school operating millage rates and

frequency of those millage elections is quite likely a contributing factor.

Charter Schools and Interdistrict School Choice

Since the school finance reforms of 1994, the Michigan legislature has passed two additional measures designed to expand parental choice among public schools. The first measure, P.A. 416 of 1994, established a system of charter schools or "public school academies" (PSAs) in Michigan, while the second reform, passed into law as a part of P.A. 300 of 1996, the FY 1996-97 school aid appropriation, provided for interdistrict public school choice. Since funding follows the student to the PSA or the school district of choice, both school choice initiatives have important implications for public school finance.

Public School Academies.

Under the 1994 Michigan statute, a public school academy may be authorized (i.e., granted a charter) by the governing board of a state public university, community college, intermediate school district, or local school district that offers grades kindergarten through 12. A total of 104 academies were authorized as of September 1997: 88 by public universities, 11 by intermediate school districts, four by local school districts, and one by a community college. Collectively, these public school academies enroll approximately 20,000 students. In 1996, the legislature restricted the number of academies which public universities may authorize. That limit is set at 125 for the 1998 calendar year. No limit exists on the number of academies that may be authorized by the remaining authorizing bodies.

Interdistrict School Choice.

Michigan's new school choice law requires all school districts to determine whether or not they will accept nonresident students within their intermediate school district (generally coterminous with county) into their schools. Districts are responsible for publishing the schools, grades, and programs which are available for nonresident students. In cases where the number of applicants exceeds the spaces available, student selections are made by lottery.¹⁴ In the 1996-97 school year, 210 local districts (38 percent of the total) elected to participate in the interdistrict choice plan, while 162 districts (29 percent) participated in an intermediate district plan. This left 182 local districts (33 percent) opting not to participate in interdistrict choice.¹⁵

Court-Ordered Aid for State School Mandates: Durant v State of Michigan

On June 10, 1997, the Michigan Supreme Court ruled that the state must reimburse local school districts for special education services mandated by state law.¹⁶ Plaintiffs in this long-running case, which was filed in 1980, were 83 local districts and one intermediate district. On July 31, the supreme court set damages at \$211 million for the plaintiffs, explicitly limiting the damages to the 1991-92, 1992-93, and 1993-94 fiscal years. Some policymakers expressed concerns over the equity impacts of this decision, since most of the payments are owed to relatively affluent, suburban districts whose special education aid in past years had been reduced by the state in order to increase state equalization aid to property-poor school districts. Further concerns arose from the likely "zero-sum" character of the settlement. That is, most observers expected that the plaintiffs' damages would be paid by means of reductions in other school aid payments, principally foundation formula payments or state compensatory aid. Districts with large concentrations of low-income children would be particularly burdened by the latter strategy. The legislature adjourned for the summer without addressing the issue, but the governor, in an effort to both

force legislative action in the fall and preserve funds for the court order, vetoed some \$300 million from the FY 1997-98 school aid appropriation, including \$252 million in state compensatory aid.

At the time of this writing, the matter of reimbursement remains unresolved. Moreover, the governor and legislative leaders have agreed to pay additional compensation to an estimated 470 districts that were not a party to the suit but were nevertheless adversely affected by the state's underfunding of special education costs. This additional liability is estimated at approximately \$768 million. Reimbursement proposals under consideration include the governor's plan to pay plaintiff districts approximately \$70 million annually for the next three years from interest on the state's \$1.1 billion budget stabilization fund and to issue bonds for the larger payments to non-litigant districts. The bonds would be paid off over 15 years at some \$70 million to \$80 million annually. An alternative legislative proposal would reimburse litigant districts in full in FY 1997-98 from the budget stabilization fund and reimburse non-litigant districts over a ten-year period from interest earnings of the fund. Each proposal would include restoration of the \$252 million in state compensatory aid vetoed by the governor.

Concluding Observations

Michigan's school finance reforms were intended to accomplish four objectives: 1) substantially reduce property taxes; 2) increase the state share of total K-12 revenue; 3) reduce interdistrict disparities in per-pupil revenue; and 4) assure all local districts a minimum level of per-pupil revenue with which to meet state and local education standards, including outcomes-based school accreditation standards and new assessments of student achievement.

It appears that the first two objectives have been accomplished. Proposal A reduced total property taxes by about 26 percent. For homeowners, the reduction is about 32 percent (somewhat smaller for the approximately 30 percent of Michigan taxpayers who itemize for federal income tax purposes), while the cut for businesses is about 13 percent (Kleine, 1997). Further, the state share of K-12 revenue has risen from 45 to 79 percent, placing Michigan second among states in the state-financed portion of school funding. Measurable progress has also been made toward objective three, as indicated by the equity measures presented above.

Progress toward objective four, however, is more problematic. While the reforms established minimum funding levels for local districts and substantially increased aggregate K-12 revenue in 1994-95, including proportionately large increases for low-spending districts, aggregate revenue growth has slowed since then. With new constraints on local revenue growth and a greater reliance on more income-elastic revenue sources, overall real spending levels could fall during a recession. Centralization and equalization of public school funding along the lines of the Michigan reforms have led to slower revenue growth in other states.¹⁷ Should Michigan experience a similar trend, residents of traditionally high-spending districts may turn to booster clubs, local education foundations, private spending or other means to supplement public revenue sources.¹⁸ Alternatively, residents of such local districts could exert political pressure for the relaxation of legislative constraints on local school revenue, thereby sacrificing some measure of distributional equity for revenue enhancement and the exercise of local school spending preferences.

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Endnotes

1. Thomas (1968), p. 8.
2. *Milliken v. Green*, 389 Mich. 1, 203 N.W. 2d 457 (1972); 232 N.W. 2d 711 (1973).
3. Wassmer and Fisher (1996), p. 92.
4. Citizen's Research Council of Michigan (1992). A mill in Michigan is equivalent to a dollar in tax paid per \$2,000 of market value.
5. For a more complete account of Michigan's school finance reforms, see Michael F. Addonizio, C. Philip Kearney and Henry J. Prince (1995).
6. The linear formula for each district's 1994-95 foundation is: 1994-95 revenue per pupil = 1993-94 revenue per pupil + (\$250 - (\$90 * (1993-94 revenue per pupil - \$4,200) ÷ \$2,300)).

- 7 The revenue and pupil membership indices are combined into a "final index," which may be written as follows:

$$I = (Rt / Rt-1) (Mt-1 / Mt)$$

where I = final index

Rt = total school aid fund revenue in current year

Rt-1 = total school aid fund revenue in prior year

Mt-1 = total pupil membership in prior year

Mt = total pupil membership in current year

The annual basic foundation allowance is determined by:

$$BFt = BFt-1 * I$$

where Bft = current year basic foundation

BFt-1 = prior year basic foundation

- 8 Wassmer and Fisher (1996), p. 94.
- 9 Kleine (1997), p. 2.
- 10 The Michigan reforms, in effect, remove the school spending decision from local voters and give it to the state. For an economic analysis of this divergence between local spending preferences and state mandates, see Addonizio (1997a).
- 11 Kleine (1997), pp. 2-3.
- 12 The state of Michigan provided aid to partially equalize local district debt millage until 1980, but has provided no such aid since then. The Proposal A reforms left this policy unchanged.
- 13 The information presented in this section follows Kearney (1995).
- 14 Exceptions to this rule of random student selection include nonresident students who were already enrolled in the school of choice. Further, students who have been suspended or expelled from another school may be excluded from the choice program.
- 15 Participation in interdistrict choice is expected to increase in 1997-98, as local districts have more time

to plan their choice programs. The choice bill was signed on June 19, 1996 and districts needed to determine by July 1 whether or not they would accept choice applications. In future years, districts must decide by June 1. Of the 182 local districts opting not to participate in the choice program in 1996-97, 107 cited insufficient planning time as the reason for their decision, and 92 said they are working on a plan for 1997-98.

- 16 Michigan is one of the few states that impose special education mandates in excess of those established by federal law. While federal law mandates services for disabled persons ages 3 to 21, Michigan law extends the mandate to all such persons from birth through age 26. A key issue in the case was whether the contested services and associated costs resulted from state or federal requirements. Plaintiff districts argued that the state requires certain programs and therefore must pay its share of the associated costs under Section 29 of the voter-approved constitutional amendment (popularly known as the "Headlee amendment," after its author, businessman Richard Headlee) which provides, in part:

The state is hereby prohibited from reducing the state financed proportion of the necessary costs of any existing activity or service required of units of Local Government by state law.

The plaintiffs contended that the state violated this section by reducing the state financed proportion of the necessary costs incurred by the plaintiffs in providing special education services required by state law.

- 17 See, for example, Downes (1992) and Silva and Sonstelie (1995).
- 18 At the time of this writing, 144 local districts in Michigan had local education foundations. For a discussion of the scope and equity effects of these local foundations, see Addonizio (1997).