Limiting Learning: How School Funding Caps Erode the Quality of Education

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Briefing Paper

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The Keystone Research Center

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Overview

The Pennsylvania legislature is considering a school finance proposal, exemplified by House Bill 113 of the 2003 legislative session, that would shift some school funding away from local property taxes and toward state funds and local income taxes. The proposal would give greater proportional benefits to homeowners with lower property values. A shift toward broader-based and less regressive tax funding of the public schools would be admirable, as would the progressive nature of the proposed property tax relief. However, the proposal has two harmful features:

- It would do virtually nothing to change the total revenue available to any school district in the state, but would simply replace some revenue that each district currently raises from local property taxes with revenue from local income taxes and additional state funds. In so doing, it would perpetuate Pennsylvania's current, highly inequitable pattern of school funding.

- It would impose a limit on increases in school tax rates in each district and prevent districts from obtaining additional revenue from new taxes. A district would be able to override these limits through voter approval in a referendum.

Limits on school funding would represent a major shift in public policy, especially in an era in which school quality is pivotal to the state's economic performance and to the future opportunities of Pennsylvania's schoolchildren. Such a proposed shift calls for careful consideration of all the available evidence about its likely impact.

One source of evidence is the research literature on outcomes in other states that have imposed limits on school taxes and funding. Although the details of limits imposed vary from state to state and no separate research analyzes proposals exactly like the Pennsylvania proposal, the literature on other states that have imposed limits is the best available gauge of the impact of a similar Pennsylvania proposal. This briefing paper reviews this research literature. It finds that limits in other states have reduced the quality of schooling in the following ways:

- **Increasing class sizes.** One study compared states that imposed property tax limits in the 1970s and 1980s with states that did not. It found statistically significant evidence that schools subject to tax limits had 6.4 percent higher student-teacher ratios than schools in other states.

- **Lowering student performance.** The same study found that tax limits caused a 3.6 percent decline in 10th grade math scores, a 6.3 percent decline in science scores, and a 4.3 percent decline in social studies scores. All of these declines were statistically significant. In social studies, a tax limit resulted in the same percentage drop in achievement as a reduction in family income of $28,000.

- **Discouraging students with strong academic performance from teaching in states with tax limits.** The available research on this topic found that tax limits led to a 10 percent decline in the test scores of education majors (many of them future teachers).

- **Spending cutbacks in a wide range of areas.** In Wisconsin, caps on increases in spending per student:

    - led to cuts in curricular and extracurricular programs, computer purchases, staffing, staff development, and supplies;

    - forced districts to make do with outdated textbooks and inadequate technology;

    - induced districts to defer maintenance of school buildings;

    - made districts choose between spending money on instruction and paying for heat and transportation.

These reductions in the quality of schooling could partially or completely reverse the quality-enhancing effects of the Pennsylvania Accountability Grants recently approved by the legislature. School districts are to begin receiving grants in the 2004-2005 school year for the purpose of making specific quality improvements, such as reducing class size or improving the academic performance of specific groups of students.

The research literature also suggests that reductions in educational quality are likely to be:

- cumulative, becoming more severe the longer the tax limits are in effect, and

- most severe in poor districts, districts with increasing needs for special education, and districts with declining enrollments.

The Pennsylvania proposal has very limited provisions for mitigating the negative effects on districts that experience large declines in property values or large increases in special education enrollments. The proposal has no provisions to counteract the declines in quality that are likely to occur throughout the Commonwealth or the even greater declines that are likely to occur in poor districts.

Additional flaws in the proposal include the following:

- Tax limits and referendums can lower spending that is essential to quality schooling even in districts that vote to override the limits. The need to obtain voter approval to override a tax limit can lead school boards to propose budgets that skimp on necessary expenditures because those budgets will have a greater chance of being approved in referendum.

- School tax referendums may create a bias against school spending relative to other forms of government spending. Because school tax increases are the only tax increases on which voters would be allowed to vote directly, those who want lower taxes overall may vote against overriding the school tax limit even if they would prefer higher spending on schools.

- By giving districts no "credit" for keeping tax increases below the limit, the proposal gives them an incentive to raise taxes by the amount of the limit each year regardless of whether such increases are educationally necessary.

Instead of tax limits and referendums, a more sensible route to school budget accountability would be to condition some or all of a district's property tax reduction assistance on the district's adopting specific "best practices" or on the district's adopting and successfully carrying out a process designed to improve student achievement.

The Pennsylvania Proposal

The final form of the proposal was not known as of the time this briefing paper was prepared. This briefing paper emphasizes House Bill 113, introduced in 2003, which is the most detailed version of the proposal that has been made public. However, it sometimes also refers to specific provisions of other versions that differ from those of House Bill 113.

Under the proposal, school districts would be allowed to enact an income tax of at least 0.1 percent if voters approved this tax in a referendum. Only districts that enacted this tax would be eligible to receive additional state funds for the purpose of property tax relief for owners of homes and owner-occupied farms. Virtually all the revenue from the local income tax would be required to be used for property tax reduction.[1] Any increases in the tax rate would require the approval of voters in a referendum. Future growth in tax revenues for reasons other than rate increases (e.g., because of growth in property values) would have to be used to maintain the amount of property tax reduction granted in the previous year before being used to improve educational programs.

The state would use revenue from legalized gambling to finance local property tax reduction. The total amount of funding available would depend on the amount the state raised from gambling proceeds. Available funding would be divided among eligible school districts based on a combination of each district's student enrollment, relative affluence (measured by personal income per student and market value-income aid ratio[2]), and tax effort (measured by equalized local property tax rate and local taxes as a share of personal income). The proposal also includes a "minimum allocation" provision that drives a substantial portion of the available state money to wealthier districts with large tax bases, greatly limiting the potential to improve equity.

School districts (other than Philadelphia[3]) that received state funds for property tax relief would be subject to strict limits on their ability to increase local school tax rates. Unless the district's voters overrode these limits in a referendum:

- The annual percentage increase in the rate of each of the district's local school taxes would be limited to the average of the percentage increase in the statewide average weekly wage and the percentage increase in an education employment cost index for the previous year.[4]

- The district would not be allowed to enact any new school taxes.

- The district would not be allowed to increase the local income tax that was established for the purpose of triggering property tax relief.

In a few special cases, the proposal would allow school tax increases in excess of the formula-limited amount without requiring a referendum. These cases include court orders that require additional spending; debt service payments on debt incurred before implementation of the new law; large, unsubsidized increases in mandated special education costs; reductions in state aid to the district; federally mandated school improvement plans with extremely high costs; large increases in required school pension contributions; large enrollment growth (greater than 5 percent in one year); and large property tax base declines (10 percent or more in one year).

This proposal substitutes state gambling revenue and local income tax revenue for some local property tax revenue as a source of school funding. The extra state revenue would not increase the amount that any district could spend on its schools; instead, it could be used only for property tax relief. With a limited exception, the same is true of local income tax revenue. To receive the extra state revenue, districts would have to accept stringent limits on their ability to raise local revenues for the schools. These limits could generally be overridden only by referendum.

The Proposal Reinforces School Funding Inequity

School funding in Pennsylvania is currently distributed in a highly inequitable manner. The state ranks:

- tenth highest among states in the gap in revenue per student between suburban and central city school districts (6.7 percent higher in suburbs than in central cities),[5]
- third lowest in the share of public school funding provided by the state (39 percent),[6] and
- third worst in *Education Week's* most recent analysis of school funding equity,[7] with a grade of D-.

In Pennsylvania, inequity in educational outcomes accompanies inequity in funding.

- The state has the fourth highest gap in National Assessment of Educational Progress eighth grade math test scores between suburban and central city students (26 point higher score in suburbs than in central cities on a scale of 0-500).[8]

The Pennsylvania tax limit proposal would do nothing to change the current funding equity situation. Indeed, the proposal could lock in existing inequities in school funding.

Tax Limits Reduce Educational Quality

Local school tax or spending limitations, including those that can be overridden by referendum, exist in other states. A number of careful statistical studies have assessed the effects of these limitations on school characteristics that are associated with educational quality. These studies compare periods before and after limits were imposed and/or compare districts subject to limits with those not subject to limits, either within a single state or across two or more states. In virtually all cases, these studies show that limits are harmful to school quality. Harmful effects on student achievement are greatest in poorer school districts.

Limits Raise Student-Teacher Ratios

School tax and expenditure limitations result in higher student-teacher ratios, potentially raising class sizes and reducing student achievement. Although student-teacher ratios do not correspond perfectly to class sizes, they are related, and because there are no data that make it possible to compare class sizes directly across districts in different states, student-teacher ratios are the best available measure of class sizes when large numbers of districts are being compared. Because smaller classes have been shown to raise student performance on standardized tests, tax and expenditure limitations could reduce student achievement by raising class sizes.

David Figlio found that student-teacher ratios were higher in states that imposed property tax limitations in the 1970s and early 1980s than in states that did not.[9] With survey data from 1987-88, he used multiple regression analysis to compare student-teacher ratios in a representative sample of about 10 percent of all public schools in all states except Hawaii, taking into account whether or not the school was located in a state with a property tax limit in the 1987-88 school year as well as other factors that could influence student-teacher ratios. He found statistically significant evidence that schools subject to tax limits had 6.4 percent higher student-teacher ratios than schools in other states.

Comparing data from the 1987-88 and 1990-91 school years, Figlio also found that the gap in student-teacher ratios between schools in states with limits and those in other states widened over time, suggesting that a property tax limit imposes a class-size penalty that grows the longer the limit has been in effect. He obtained similar results when he estimated only the effect of tax limits that were likely to have constrained revenues or expenditures in a school's district rather than the effect of a school's simply being located in a state with a tax limit.

In another study of the effects of Oregon's tax-limiting Measure 5, Figlio showed that student-teacher ratios increased as a result of the limit.[10] The Oregon law, enacted in 1990, limited property tax rates to a specified percentage of market value. Because nearly all Oregon school districts had property tax rates above those required under Measure 5, the law required most districts to reduce tax rates. The limit cannot be overridden by referendum.

Figlio found that the average student-teacher ratio in Washington (which had no property tax limit at any time covered by his analysis) was more than 6 percent higher than in Oregon in the four school years before Measure 5 went into effect but that the average student-teacher ratio in Oregon was 2.5 percent higher than in Washington in the first two school years after it went into effect.

In a more detailed analysis, Figlio used multiple regression analysis to compare student-teacher ratios in all school districts in Oregon and Washington for all school years beginning with 1987-88, three years before the tax limit was enacted, and ending with 1992-93, two years after it was enacted. Taking into account other factors that could affect student-teacher ratios, he found statistically significant evidence that the Oregon tax limit increased student-teacher ratios by about 5 percent. Districts that received high percentages of their funding from local sources before the limit was imposed experienced greater increases in student-teacher ratios as a result of the limit than did districts that were initially less dependent on local revenue sources.

Limits Reduce Student Achievement, Especially In Poorer Districts

Most studies of the direct effects of school tax and expenditure limits on student achievement show that limits reduce achievement in at least some subjects.

The earliest of these studies, by Thomas Downes, is an exception that does not find a reduction in achievement. Downes examined the impact of California's Proposition 13 on the California Assessment Program test scores of 6th grade students in 170 kindergarten-through-12th-grade school districts throughout the state.[11] (Proposition 13, enacted by voter initiative in 1978, reduced property tax revenues and then imposed a strict limit on them. This limit cannot be overridden by referendum.) Downes compared test scores in the 1976-77 school year with those in 1985-86. He found that test scores increased by an average of five points and that the distribution of test scores across districts was unchanged.

There are several reasons why Downes' work cannot be used to infer that the tax limit improved student achievement or had no effect on its distribution. First, the California Assessment Program test changed between 1976-77 and 1985-86, and it is uncertain whether scores from the two years are comparable. Second, California implemented court-ordered school finance reforms in the 1970s shortly before Proposition 13 went into effect, and Downes' data do not enable him to separate the effects of the tax limit from those of the reforms. The reforms, rather than the tax limitation, could have been responsible for the increase in average achievement. Third, Downes found evidence that wealthier school districts increased their reliance on non-public revenues, such as parental donations, fees, facility rents, and foundation grants after Proposition 13 and the reforms went into effect. These extra sources of revenue, which were unavailable or less available to poorer districts, could have been used to improve student achievement in the wealthier districts, thereby offsetting any negative effect that the tax limit would have had on average test scores and counteracting any equalizing effect that the reforms may have had on test scores.

In a later study, Downes, Richard Dye, and Therese McGuire studied the effect of property tax limitations on 3^{rd-} and 8th-graders' scores on state-administered standardized tests of reading and math in suburban Chicago school districts.[12] A 1991 Illinois law limited the growth of property tax revenues in five suburban Chicago counties (and required referendums if the limits were to be overridden) but did not affect suburban Cook County.

Downes, Dye, and McGuire compared Illinois Goals Assessment test scores in districts subject to the limit with those in districts not subject to the limit. They used data for the school years 1987-88 through 1994-95, so that they were able to compare the same districts for several years before and several years after the tax limit went into effect.

Using multiple regression analysis to take into account other school district characteristics that may influence test scores, they found that the limit reduced 3rd grade math scores by a statistically significant 1.5 percent on average. Districts with large percentages of economically disadvantaged students suffered greater losses in student achievement than did richer districts. The tax limit had no statistically significant effect, on average, on student performance in 3rd grade reading, 8th grade reading, or 8th grade math.

The Downes-Dye-McGuire study probably understates the true impact of the tax limit. The study covered only a few years after the limit went into effect. The reductions in instruction-related school resources that come about as a result of limits on the growth of tax revenues are cumulative, and those reductions are likely to have greater effects on student achievement the longer the students have been exposed to them. Therefore, only relatively small declines in student achievement would be expected during the first few years after a tax limit is enacted. Greater declines would be expected the longer the limit is in effect.

Nationwide studies that cover a longer period of time after the enactment of tax and spending limits do not suffer from this drawback. In the same study in which he examined the effect of 1970s- and early 1980s-era tax limits on student-teacher ratios in 49 states, David Figlio studied the effect of these limits on 10^{th} grade test scores in math, reading, science, and social studies.[13]

Figlio used survey data on approximately 5600 public school students for whom scores on national, standardized tests designed by the Educational Testing Service were available during the 1988-1990 period. Because the tests were, in most cases, administered several years (and sometimes as long as a decade) after the tax limits went into effect, Figlio was able to study the long-term effects of tax limits on test scores.

Using multiple regression analysis to take into account other factors that may influence test scores, Figlio found that tax limits caused a 3.6 percent decline in math scores, a 6.3 percent decline in science scores, and a 4.3 percent decline in social studies scores. All of these declines were statistically significant. Tax limits also caused a statistically significant decline in math scores in schools where the limits were likely to have constrained revenues or expenditures in the school's district. Figlio's findings show that tax limitations cause large declines in student achievement. In social studies, for example, a tax limit results in the same percentage drop in achievement as a reduction in family income of $28,000 or a 49 percent increase in a school's minority population.

A nationwide study by Thomas Downes and David Figlio examined the effects of tax limits on student achievement by comparing high school seniors' scores on nationwide, standardized tests of math and reading in 1972 (before any state had enacted a local tax limit) and 1992 (after many states had done so) in states that had tax limits in 1992 and those that did not.[14] They used data on individual students along with information about the students' families and school districts.

Multiple regression analysis enabled Downes and Figlio to take into account, in addition to the presence or absence of tax limits, characteristics of students, families, and school districts that could affect student performance. These characteristics included whether or not the state in which the district was located had implemented school finance reforms that used state revenue to make school funding more equal across districts. Tax-limit states often adopted such reforms around the same time they imposed tax limits.

Downes and Figlio found that that tax limits reduced math test scores by a statistically significant 5.5 to 6 percent on average, but had no significant impact on reading scores. Limits reduced math scores by higher percentages in districts whose 1972 spending per student was lower. Since districts with lower per-student expenditures are generally poorer districts, this finding suggests that tax limits reduce the academic performance of poor students the most.

Limits Reduce the Academic Quality of New Teachers

The available research indicates that tax limits also reduce the academic quality of new teachers in a state. David Figlio and Kim Rueben examined the test scores of high school seniors, including those who subsequently majored in education in college.[15] These students took a national, standardized test of math and verbal ability. One group took the test in 1972, when no state had a local tax limitation, the other in 1982, after many states had enacted limitations. Although the students took the tests as high school seniors, the test scores measure general academic abilities that were not likely to have changed much between the time the tests were taken and the time the students entered the workforce.

Figlio and Rueben compared the test scores of students who attended college in states with and without tax limits, using multiple regression analysis to take into account the year when the student took the test, whether or not the student majored in education in college, and other factors that influence test scores. Because tax limits could have affected the test scores of all students, not just education majors, Figlio and Rueben estimated the impact of the limits on the test scores of education majors relative to those of non-education majors. They found that education majors who attended college in states with tax limits had test scores that were 10 percent lower than those of education majors who attended college in states without tax limits.

In a separate analysis of employed teachers in 1987-88 and 1993-94, Figlio and Rueben used nationwide school-level survey data to estimate the effect of tax limits on the percentage of a school's newly hired teachers who attended selective colleges. Once again using multiple regression analysis to take into account other things that may influence this percentage, they found that tax limits led to a 14 percentage point reduction in the percentage of new teachers who graduated from selective colleges.

The findings of Figlio and Rueben show that states that enact tax limitations harm their ability to attract new teachers with strong academic ability, thereby potentially reducing the quality of education. The best-qualified college students may decide not to major in education in those states and the best-qualified education majors may avoid those states when looking for jobs.

Limits Reduce Public School Enrollment

School tax and spending limitations could also reduce public school enrollments by causing an increase in public school dropout rates, a shift of students away from the public schools and into private schools, and/or a movement of families away from tax-limited districts and into non-limited districts. Under the Pennsylvania proposal, this movement of families could be from districts that did not override tax limits to those that did override them. It could also be from Pennsylvania to neighboring states that have no school tax limits (such as Delaware) or that have less stringent limits or referendum requirements (such as New Jersey).

Katharine Bradbury, Karl Case, and Christopher Mayer found evidence suggestive of these changes in their study of the impact of Massachusetts Proposition 2½ on enrollment in Massachusetts school districts.[16] Proposition 2½, enacted in a ballot initiative in 1980, required local governments to reduce their property taxes until they were no more than 2½ percent of market value and then generally limited tax increases to 2½ percent per year unless voters overrode the limit in a referendum.

Both in the initial period of tax rollbacks and in the subsequent period of limits on tax increases, the law did not affect all Massachusetts communities equally. Because wealthy communities can support the same level of per-student spending with lower property tax rates than communities with low property values, tax revenues were less likely to be constrained by the law in wealthy communities.

Bradbury, Case, and Mayer compared the changes in 1st through 8th grade public school enrollment in all school districts in the state from 1980-1985, adjusting each district's enrollment change for changes in the number of 1st through 8th grade school-age students in the district. They performed a similar comparison in for the period 1990-1995. Using multiple regression analysis to take into account other factors that could have caused enrollment changes in school districts, they found that communities that were required to cut their budgets for two or three years after the enactment of Proposition 2½ experienced public school enrollment losses from 1980-1985 almost 6 percentage points greater than those that did not have to cut their budgets.

From 1990-1995, when most districts saw rising enrollments, enrollment growth was about 3 percentage points slower in districts that had bumped up against their tax limits (regardless of whether they voted to override the limits through referendums) than in districts that had not yet reached their tax limits.

Because the authors adjusted the enrollment changes for changes in the age composition of the district's school-age population, these results mean that districts whose revenues were constrained by the tax limit saw declines in the share of school-age children who attended public school in the district. These declines could have happened because dropout rates increased, because some students left the public schools for private schools, and/or because some families moved from districts that were constrained by the tax limit (generally poorer districts) to districts that were not constrained (generally wealthier districts).

Other Ways Limits Reduce Quality: Evidence from Wisconsin

A report by the nonprofit Institute for Wisconsin's Future provides qualitative evidence on the consequences of Wisconsin's property tax limit.[18] That limit was enacted in 1994 following a one-year property tax freeze and has been in effect since then. It increased the state's share of education funding from 45 percent to two-thirds, limited base school district revenues per student to those in effect in the 1992-93 school year (thereby locking in existing inter-district inequities in revenue), allowed for a small annual increase in per-student revenues, and required referendums for any additional revenue increases.[18]

Results of forums held around Wisconsin in 2000 by a consortium of school board members, school administrators, teacher groups, parent organizations, and policy advocates are consistent with the findings of statistical studies and also point out other problems with school tax limits that cannot easily be measured statistically.

The consequences of the Wisconsin per-student revenue limits, according to forum participants, included the following.

- School characteristics that are strongly related to educational quality declined after the revenue limits went into effect. Forum participants reported cuts in both curricular and extracurricular programs, computer purchases, staffing, staff development, and supplies; increased class sizes; outdated textbooks; and inadequate technology.

- School districts deferred maintenance of school buildings.

- School districts faced increasing difficulty in covering fixed costs, i.e., costs that do not vary with the student enrollment. Transportation and heating costs were the major costs in this category. Because the state's funding formula makes no allowance for these costs, rapid increases in these costs can cause a district to choose between exceeding its revenue limit (thereby triggering a referendum), reducing transportation or heating, and reducing instructional expenditures.

The proposed Pennsylvania tax limit could have the same effect. The index on which allowable tax increases under the Pennsylvania proposal would be based does not include fixed non-employment costs. If costs such as those for heating and transportation increase more rapidly than the average of statewide wages and educational employment costs, then Pennsylvania districts could face the same unfortunate choice as Wisconsin districts do.

- Districts with declining enrollment faced severe problems in covering their fixed costs because the revenue limit capped the growth of per-student revenues unless it was overridden by referendum. Enrollment decreases in declining-enrollment districts are usually spread out across the district rather than being concentrated in particular schools. Therefore, these districts cannot usually cut their expenditures on building maintenance, heating, and transportation when enrollment falls, unless they are willing to reduce the quality of the services they provide. The result is that increases in expenditures per student are normally needed when enrollment decreases. Because declining-enrollment districts may be districts in which property values are also declining, these districts may be the ones in which residents are least likely to vote to override revenue limits even though they need to spend more per student just to maintain the same service levels.

  The proposed Pennsylvania tax limit could cause similar problems for declining-enrollment districts that were also experiencing declining property values. Although the tax limit would not apply to districts that experienced sharp declines in property values during a single year, it would apply to districts that faced more gradual long-term decreases in property values. And there is no provision in the Pennsylvania proposal for additional state assistance to those districts to cover fixed costs.

- Districts with increasing proportions of special education students faced difficulty in covering their increased costs. Although special education students are more costly to educate than other students, Wisconsin's revenue limit does not take into account the proportion of special education students in a district.

  The proposed Pennsylvania tax limit could cause similar problems. Although districts experiencing large one-year increases in special education costs could be allowed to override the tax limit without a referendum, districts that faced more gradual long-term increases would not be allowed to do so. Consequently, these districts are likely to have to hold referendums to increase their revenues above the state-mandated limits. But referendum overrides of tax limits may not be approved if only a small (although possibly growing) minority of voters in a district have children in special education and if other voters are unaware of or unconcerned about the increased revenue needs resulting from the growth in the district's proportion of special education students.

What Else Is Wrong With Local School Tax Limits?

Proponents of local school tax limits often argue that these limits respond to a failure of representative democracy. Because school board members know much more about the details of school budgets and the relationships between spending and educational functions than the typical voter, it is possible that boards will set higher taxes than voters would like and use the "excess" revenue for things that voters do not value.

According to proponents of limits, because voters and challengers to incumbent school board members are generally less well informed about these details than incumbent board members, elections, even frequent ones, are not enough to keep school boards accountable to voters. Tax limits, they contend, force boards to cut wasteful spending. If limits can be overridden through referendums, they claim, then voters can always vote to override the limit if they wish to spend more money on schools.

The evidence reviewed in this report has shown that educational quality suffers when tax limits are imposed, even if referendum overrides are allowed. Voters' lack of information about school budgets is at least as much an argument against limits as in favor of them. Voters may think that by voting against an override they are voting to cut waste, fraud, and abuse while leaving quality unaffected,[19] but in reality they are often voting to cut spending that is essential to quality. If there is wasteful spending on public schools, tax limits and referendums are too blunt an instrument to root it out.

Tax limits and referendums may reduce spending in areas that are important to school quality even in districts that vote to override the limits. A school board must cut its proposed budget to keep revenues within state-mandated limits in the event that voters defeat an override. Other things equal, voters are more likely to defeat overrides if the board proposes a tax increase that is much higher than that allowed under the limit than if it proposes one that is at or just slightly above the limit. As a result, school boards have an incentive to propose smaller tax increases—and, therefore, smaller spending increases—when they must submit them to referendum than when they are not required to do so. If voters were well informed about the impact of spending on school quality, then this could be desirable, but since they are not, the referendum requirement can lead school boards to propose budgets that skimp on necessary expenditures because those budgets will have a greater chance of being approved in referendum.

Because school tax referendums offer voters the only opportunity to vote directly on their taxes, some voters may vote against overriding the school revenue limit because they may want lower taxes overall. Those voters may prefer that other public services, rather than education, be cut in order to reduce taxes. But because they cannot vote on other public services or the taxes that support those services, they cannot achieve the combination of taxes and public services that they would most prefer. It would not solve this problem, however, if referendums were required for all taxes or all types of public spending. Voters cannot easily become well informed and make decisions on large numbers of issues at once; if asked to do so, they may vote against all the ballot proposals with which they are presented or refuse to vote on some or all of them, simply because they face "information overload."[20]

Although most research shows that tax and spending limits generally reduce the growth of revenues and expenditures,[21] they do not necessarily do so on an annual basis. Limits such as the one proposed in Pennsylvania give districts no "credit" for remaining below the limit. A district that does so in one year is still subject to the same limit on tax increases in subsequent years, but the tax rate on which the permissible rate increase is calculated is lower than if the district had initially gone up to the limit. Therefore, the limit gives districts an incentive to raise tax rates by the amount of the limit every year, even if they would have sometimes made smaller increases in the absence of the limit.

More Promising Approaches to School Budget Accountability

If legislators are concerned that local school districts will spend state-provided property tax relief inappropriately, then they should address that issue directly rather than rely on the arbitrary devices of tax limits and referendums. The legislature could condition some or all of a district's property tax reduction assistance on the district's adopting specific financial or educational "best practices" or on the district's adopting and successfully carrying out a process designed to improve student achievement.

In Pennsylvania, Act 48 of 2003 provides an example of the "best practices" approach. It requires the state Department of Education, in consultation with a committee of stakeholder representatives, to develop a set of financial management standards and performance indicators. The Department of Education is to evaluate all school districts periodically to determine whether they comply with these "Keystone District" standards. Districts that do not comply are required, in conjunction with the Department of Education, to develop and implement a three-year "action plan" for compliance.

The "Keystone District" standards are expected to produce cost savings for districts. All districts are required to spend funds they save at the school and classroom levels, on teacher professional development, improving classroom facilities, textbooks, supplies, technology, safety, or other instructional activities that directly affect students' performance and learning environment.

Act 48 also provides for state Pennsylvania Accountability Grants to all school districts. Districts are required to use these grants, which will begin in the 2004-05 school year, for any of the following specific methods of maintaining or improving academic performance: quality pre-kindergarten, full-day kindergarten, class-size reduction in grades K-3, promotion of social services and health services, tutoring assistance, improving the academic performance of specific groups of students, computer and information technology programs, continuing professional education and "best practices" programs for teachers, math and literacy coaching, incentives to recruit highly qualified teachers to academically challenged schools, and other programs that the district's school board determines to be essential to achieving academic performance targets. Districts are required to submit accountability plans to the state Department of Education showing how they will use their grants. If a district does not comply with its plan, the Department of Education is to cut the district's state aid by the amount of its Pennsylvania Accountability Grant.

Another approach to accountability would rely on negotiations at the district level either in conjunction with or as a substitute for state-mandated "best practices." In each district, local school boards and teacher representatives could be required to negotiate specific plans for improving student achievement along with performance indicators. Each district would then be required to carry out the negotiated plan and show performance improvement.

Along with an emphasis on quality educational outcomes should come an emphasis on the teaching processes that are most likely to produce those outcomes. School districts should encourage the spread of approaches, such as mentoring and teamwork, that help overcome the historic isolation of individual teachers from their colleagues. Teachers could become more effective because they would see other teachers in action and get feedback from their peers on their classroom practice.[22]

Conclusion

School tax limits represent the most recent example of state legislation that is inherently distrustful of public education but that contains no well-grounded diagnosis of how public education might be improved. Legislation of this type can jeopardize financial support on which public education depends. But, lacking an analysis or strategy, such legislation is not likely to lead to improvements in achievement.

In contrast, the alternative accountability approaches sketched in the previous section would begin from carefully grounded analysis of what makes for good schools and good teachers. The alternatives sketched above could also lay the basis for local strategies that build on, rather than undercut, teachers' pre-existing professional pride and their commitment to children.

By addressing funding inequity and bolstering collective commitment to quality improvement, Pennsylvania can overcome the limits to learning built into its current educational system. By enacting funding caps, Pennsylvania will only make those limits more severe.

Endnotes

[1] School districts would be allowed to retain up to 2 percent of the revenue from this tax to cover the costs of implementing the new system. In a subsequent version of the proposal, the tax rate could be raised in the year after the tax was initially adopted, to provide for an up to 2 percent increase in income tax revenue that could be spent on the public schools. House Bill 113 does not contain this provision.

[2] The market value-income aid ratio is the state's measure of how much a district's property wealth and income per student vary from the statewide average.

[3] Because Philadelphia's public schools are funded from city wage tax revenues rather than from property tax revenues, the proposal has different provisions for tax reduction in Philadelphia.

[4] In a subsequent version of the proposal, the increase in local school property tax revenues that occurs when assessed property values rose would also be limited to the average of the percentage increase in the statewide average weekly wage and the percentage increase in an education employment cost index for the previous year. If assessed values rose by more than this amount, then tax rates would have to be cut. Voters would be allowed to override this limit in a referendum.

[5] KRC analysis of U.S. Census data on public school finances for fiscal year 2001, the most recent year for which data are available. Data are for unified elementary-secondary school districts only and are adjusted for inter-district cost differences using the Geographic Cost of Education Index for 1993-94, developed by Jay Chambers and available at http://nces.ed.gov/edfin/prodsurv/data/cei93_86.zip.

[6] *Education Week*, January 2004, online at www.edweek.org/sreports/qc04/equity-t1.cfm.

[7] *Education Week*, January 2004, online at www.edweek.org/sreports/qc04/equity-t1.cfm.

[8] KRC analysis of National Center for Education Statistics data for 2003.

[9] David N. Figlio, "Did the 'Tax Revolt' Reduce School Performance?" *Journal of Public Economics*, vol. 65 (1997), pp. 245-269.

[10] David N. Figlio "Short-term Effects of a 1990s-era Property Tax Limit: Panel Evidence on Oregon's Measure 5," *National Tax Journal*, vol. 51 (1998), pp. 55-70.

[11] Thomas A. Downes, "Evaluating the Impact of School Finance Reform on the Provision of Public Education: The California Case," *National Tax Journal*, vol. 45 (1992), pp. 405-419.

[12] Thomas A. Downes, Richard F. Dye, and Therese J. McGuire, "Do Limits Matter? Evidence on the Effects of Tax Limitations on Student Performance," *Journal of Urban Economics*, vol. 43 (1998), pp. 401-417.

[13] Figlio, "Did the 'Tax Revolt' Reduce School Performance?"

[14] Thomas A. Downes and David N. Figlio, "School Finance Reform, Tax Limits, and Student Performance: Do Reforms Level Up or Dumb Down?" Institute for Research on Poverty Discussion

Paper #1142-97, September 1997.

[15] David N. Figlio and Kim S. Rueben, "Tax Limits and the Qualifications of New Teachers," *Journal of Public Economics*, vol. 80 (2001), pp. 49-71.

[16] Katharine L. Bradbury, Karl E. Case, and Christopher J. Mayer, "School Quality and Massachusetts Enrollment Shifts in the Context of Tax Limitations," *New England Economic Review*, July/August 1998, pp. 3-20.

[17] *Are School Revenue Limits Limiting Learning?* Institute for Wisconsin's Future, January 2001, available at www.wisconsinsfuture.org/pdfs/full-report.pdf.

[18] Wisconsin also imposed limits on the growth of teachers' salaries.

[19] The belief that a tax limitation would reduce wasteful spending but have no impact on public services was a major reason why Massachusetts voters enacted Proposition 2½. See Helen F. Ladd and Julie B. Wilson, " Why Voters Support Tax Limitations: Evidence from Massachusetts' Proposition 2½," *National Tax Journal*, vol. 35 (1982), pp. 131-148. Similar results about support for tax limits in Michigan may be found in Paul Courant, Edward Gramlich, and Daniel Rubinfeld, "Why Voters Support Tax Limitation Amendments: The Michigan Case," *National Tax Journal*, vol. 33 (1980), pp. 1-20; and, for California, in Jack Citrin, "Do People Want Something for Nothing? Public Opinion on Taxes and Government Spending," *National Tax Journal*, vol. 32 (1979), pp. 113-130.

[20] Shaun Bowler, Todd Donovan, and Trudy Happ, "Ballot Propositions and Information Costs: Direct Democracy and the Fatigued Voter," *Western Political Quarterly*, vol. 45 (1992), pp. 559-568.

[21] See, e.g., Anne Preston and Casey Ichniowski, "A National Perspective on the Nature and Effects of the Local Property Tax Revolt, 1976-1986," *National Tax Journal*, vol. 44 (1991), pp. 123-145.

[22] For related proposals and examples that point in the directions suggested in this paragraph and the previous one, see Charles T. Kerchner, "The Modern Guild: Prospects for Organizing Around Quality in Public Education," in *Going Public: The Role of Labor-Management Relations in Delivering Quality Government Services,* ed. Jonathan Brock and David B. Lipsky (Champaign, IL: Industrial Relations Research Association, 2003), pp. 235-265.