

Tax Equity Is the Wrong Target, And Property Value Per Pupil Is the Wrong Metric

by Daphne A. Kenyon



Tax equity alone is the wrong goal when designing school finance systems.¹ The main objective of school finance systems should be to improve the quality of education for the children who need it most. Aiming at tax equity will not do an effective job of channeling resources to improve the quality of education for the most needy children.

Even those who do not support the tax equity goal often focus on property value per-pupil and so-called disparities in per-pupil property values.² They refer to those districts with high per-pupil property values as "rich" and those with low per-pupil property values as "poor." This focus on per-pupil property values is misguided and the assumption that per-pupil property values indicate whether a community is rich or poor is inaccurate. Many low-income families live in property-rich districts and many high-income families live in property-poor districts.

This column draws heavily on my experience with school finance reform in New Hampshire.³ In a sense, the New Hampshire experience is a case study of the pernicious results of focusing on the goal of tax equity and on per-pupil property values. I will also draw from a growing body of literature that points out flaws in the school finance "reform" movement that

has swept the country. Especially notable are a study of the fruits of school finance reform in California by Jon Sonstelie, Eric Brunner, and Kenneth Ardon,⁴ and the chapter on school finance reform in William Fischel's book *The Homevoter Hypothesis*.⁵

Possible Goals of School Finance Reform

There is no single goal of school finance reform. That is part of the problem. In a forthcoming book, John Yinger sets out four possible goals:⁶

- adequacy, when all students receive an education meeting some minimum standard;
- equality, provision of the same education in every school district;
- access equality, when an increase in taxpayer effort has the same impact on per-pupil revenue in every district; and
- wealth neutrality, when school district wealth and education spending are not correlated.

As Andrew Reschovsky has pointed out, some goals focus on the treatment of taxpayers (for example, access equality), and others focus on the treatment of students (for example, adequacy).⁷

Often the choice of a goal is muddled, as when two objectives that may be mutually contradictory are chosen simultaneously. Thus, the objective of New Hampshire's school finance reform appears to be a reduction in "inequities in educational opportunity for students in different school districts and inequities in the tax burden imposed on taxpayers in different school districts."⁸

¹ Many thanks to Peter Antal, Charles Arlinghaus, Ted Jankowski, and Bethany P. Paquin for their helpful comments on earlier drafts.

² See, for example, William N. Evans, Sheila E. Murray, and Robert M. Schwab, "The Property Tax and Education Finance: Uneasy Compromises," in Wallace E. Oates, ed., *Property Taxation and Local Government Finance*, Cambridge, Mass.: Lincoln Institute of Land Policy, pp. 209-235; and Katherine L. Bradbury, "Equity in School Finance: State Aid to Local Schools in New England," *New England Economic Review*, March/April 1993, pp. 24-46. This practice is also criticized by Susanna Loeb in "Commentary," in Wallace E. Oates, ed., *Property Taxation and Local Government Finance*, Cambridge, Mass.: Lincoln Institute of Land Policy, pp. 236-237.

³ In order to comply with the New Hampshire Supreme Court ruling in *Claremont School District v. Governor*, 142 N.H. 462 (1997), in 1999 the state enacted a new school funding system that nearly quadrupled the amount of general state education aid provided by the state.

⁴ *For Better or Worse? School Finance Reform in California*. San Francisco, Calif.: Public Policy Institute of California, 2000. Available at http://www.ppic.org/content/pubs/R_200JSR.pdf.

⁵ Cambridge, Mass.: Harvard University Press, 2001.

⁶ "State Aid and the Pursuit of Educational Equity: An Overview," July 2002.

⁷ "Fiscal Equalization and School Finance," *National Tax Journal*, Vol. XLVII, No. 1, March 1994, pp. 185-197.

⁸ Douglas E. Hall and Richard A. Minard Jr., "School Finance Reform: Trends & Unintended Consequences," New Hampshire Center for Public Policy Studies, Concord, N.H., April 2003, p. 19.

What Do Tax Equity Proponents Focus On?

In New Hampshire, tax equity proponents typically speak of the necessity of "moderating tax burden in the poorer towns."⁹ Tax burden is typically assumed to be proportional to the equalized property tax rate, and improvements in tax equity are typically measured by reductions in the range in equalized property tax rates among the towns.

Policy analysts recognize that there is an inverse relationship between per-pupil property values and equalized property tax rates. Another way that these analysts define "tax inequity" is by disparities in per-pupil property values.

Further, when tax equity proponents speak of "poorer towns," they mean towns with relatively low per-pupil property values. Unfortunately, in the public mind, property-poor towns have been equated with income-poor towns. A look at the data indicates that the two are by no means the same.

Weak Relationship Between Property Value per Pupil and Household Income

The correlation between equalized property value per-pupil and median household income for New Hampshire towns is 0.11.¹⁰ This indicates that there is a very weak direct relationship between the two. William Fischel found the same thing 20 years ago — "almost no correlation ($r = 0.04$) between tax base per capita and family income in New Hampshire."¹¹

Tax equity alone is the wrong goal when designing school finance systems. The main objective of school finance systems should be to improve the quality of education for the children who need it most.

Because one of the aims of New Hampshire's 1999 school finance reform was to equalize property tax rates, and the relationship between property wealth and income is so weak, a number of anomalies resulted in the pattern of school aid. The visibility of these anomalies is heightened by the fact that New Hampshire is one of the few states that allows "negative aid." That is, after the 1999 school finance reform, certain communities stopped receiving general-purpose education aid and instead had to pay an "excess education tax" to the state's education trust fund. Communities paying the "excess education tax" are commonly referred to as "donor towns." The town with the lowest median household income in the state (Lincoln) is a donor town, while the four highest-income towns receive about \$10 million in education aid. Altogether, 22 towns with median incomes below the state median (\$49,467) are donor towns.¹²

⁹ See for example, Arthur Mudge, "N.H. School-Finance Reform Has Accomplished Its Purpose," *Valley News*, July 12, 2003.

¹⁰ This correlation uses Census data on town income and 2002 New Hampshire Department of Revenue Administration and Department of Education data on equalized property values and number of pupils. When the correlation is calculated using "weighted pupils," based on the weighting in the school finance formula in place in 2002, the correlation increases to 0.14. The calculation of weighted pupils gives a higher weight to low-income students.

¹¹ *The Homevoter Hypothesis*, p. 134.

¹² Charles M. Arlinghaus, "Foreword" to Brian J. Gottlob's *The Results of the New Hampshire Education Funding Reform*. Concord, N.H.: The Josiah Bartlett Center for Public Policy, June 2003.

This lack of a strong positive correlation between household income and per-pupil property values is not confined to New Hampshire. Sonstelie, Brunner, and Ardon looked at the distribution of assessed value per pupil by family income in California in 1969-70, before that state reformed its school finance system. They found that 20 to 30 percent of low-income families, middle-income families, and high-income families lived in districts with per-pupil assessed values lower than 75 percent of the median. At the same time, 20 to 30 percent of low-income families, middle-income families, and high-income families lived in districts with per-pupil assessed values higher than 125 percent of the median.¹³ Or as William Fischel states, "Poor kids were as likely to live in a property-rich district as a property-poor one."¹⁴

What Are the Results of Focusing on Tax Equity?

New Hampshire Case. Although New Hampshire reformers give lip service to objectives of equalizing educational opportunity as well as achieving tax equity, the system is designed to emphasize tax equity.¹⁵ Not surprisingly, the school finance system has led to a reduction in the range of equalized tax rates, but no reduction in the range of per-pupil education spending, as Chart 1 shows.

Ratio of 6th highest to 6th lowest ¹⁶	1998	2001
Equalized tax rate for schools	6.46	3.01
Per-pupil expenditure for elementary schools	2.07	2.07
Source: Hall and Minard, "School Finance Reform."		

Because of New Hampshire's strong focus on tax equity, little analysis has been done on the effects of school finance reform on children from households of differing income levels. The chart below, however, provides some worrisome data about New Hampshire's system of school aid and its relationship to income. The chart divides New Hampshire towns according to their per-pupil grant size. While it is true that the lowest-income towns receive the greatest per-pupil grants, towns with average household income of \$56,318 receive greater per-pupil aid than the group of towns with average household income of \$51,141, which are donor communities and receive negative aid. Furthermore, although all towns that receive grants have seen a decline in their property tax rates from 1999 to 2002, it is the group of towns with \$52,651

¹³ *For Better or For Worse?* *supra* note 4, p. 28.

¹⁴ *Homevoter Hypothesis*, p. 134. Fischel cites data for Connecticut, New York, and Washington that support the assertion of a weak correlation between property value per pupil and income (pp. 133-134).

¹⁵ The new school funding formula enacted in July 2003, which will take effect in 2005, focuses even more squarely on taxpayer equity than does the current system, which has been in effect since 1999.

¹⁶ This is one of many measures of dispersion in equalized tax rates and per-pupil expenditures. Typically the highest and lowest values (in this case, the top five and bottom five) are not used because of the possibility of extreme outliers.

median household income that have seen the greatest decline in tax rates (the state median household income is \$49,467).

Grouping of Towns	Significance of Grouping	Percent Change in Property Tax Rates	Median Household Income
1	Highest Per-Pupil Grants	-17.4%	\$39,949
2		-21.8	\$45,819
3		-24.1	\$52,651
4	Lowest Positive Per-Pupil Grants	-16.3	\$56,318
5	Donor Towns/Negative Aid	2.4	\$51,141

Source: The Josiah Bartlett Center for Public Policy, June 2003, p. 13.

California Case. School finance reform in California also began with a focus on disparities in property value per-pupil among districts. After more years of experience with its "reformed" system of school finance, the assessment of the results is an even greater indictment:

From the perspectives of the original reformers, California's school finance reform must be judged a failure. It has not fundamentally realigned school revenues to the benefit of poor families, and it has not equalized the quality of school districts. Furthermore, it has equalized revenue by leveling down, decreasing average spending per-pupil, and increasing the state's pupil-teacher ratio relative to other states. (*Sonstelie, et al., xi.*)

Shouldn't We Be Concerned With Tax Rate Disparities?

Tax equity proponents may still argue: disparities in property tax rates are a problem! Let us consider various aspects of this view. The arguments below are not intended to persuade you that tax rate differences are completely irrelevant, but that the importance of such differences is highly overrated.¹⁷

How High-Income Communities Become Property-Poor. We noted earlier that many property-poor communities have high average household incomes. How can that be? Consider that aggregate community property value includes industrial, utility, commercial, and residential property. High-income towns may purposely zone out industrial, utility, and commercial activity. Even though the average home in a high-income town will be worth more than in a low-income town, per-pupil property values may be lower in the high-income town because of the absence of industrial, utility, and commercial

¹⁷ For example, I would not quarrel with Andrew Reschovsky's statement that, "by far the most compelling goal is one that requires state governments to guarantee that all children are provided with an adequate education without placing an unreasonably high property tax burden on residents." "Fiscal Equalization and School Finance," *supra* note 7, p. 195.

property. In essence, some high-income towns may purposely use zoning to obtain a quiet, rural environment, and, as a side effect, reduce per-pupil property values and increase their tax rates. Does this exclusionary zoning merit concern by state policymakers and higher state aid?

Unfortunately, in the public mind, property-poor towns have been equated with income-poor towns. A look at the data indicates that the two are by no means the same.

In New Hampshire, there should be a special concern about the impact of current-use taxation on the distribution of property value per pupil among the towns. Current use provides an incentive for landowners to keep their land undeveloped in exchange for lower tax rates. Because the Department of Revenue Administration is required to use the current-use value in computing equalized property values, putting land into current use also reduces a community's per-pupil property value. Because about 60 percent of taxable land in New Hampshire is now under current use, depending on the distribution of the dollar value of that land by community, the current-use policy could have a substantial impact on the distribution of per-pupil property value by town.¹⁸

How Low-Income Communities Become Property Rich. Conversely, low-income communities can become relatively property-rich by accepting locally undesirable land uses (LULUs). In essence, low-income communities might purposely accept these undesirable land uses in order to obtain increased property tax revenues. Keep in mind that hosting power plants, landfills, and industrial and commercial development provides a service to citizens in the rest of the state, who need these land uses while preferring them far enough away. Is it fair to reduce the state aid to the communities that have lowered their tax rates in this way?¹⁹

Furthermore, inner cities tend to have both a disproportionate amount of industrial and commercial property and a disproportionate number of low-income children. This is another example of how communities can have low income but be property-rich.

The Current Business Cycle. There are a number of reasons to question the presumption that high community property values indicate high income. The unusual role of the housing market in the current business cycle provides one more reason to question that presumption. At the same time that jobs were being lost and bankruptcy filings were increasing, "Real house prices have risen more during the past three years than in any other three-year period on record."²⁰ Many communities

¹⁸ See Statewide Program of Action to Conserve Our Environment, "A Layperson's Guide to New Hampshire Current Use," and the New Hampshire Timberland Owners Association Web site at <http://www.nhtoa.org/nhcurrentuse.htm>.

¹⁹ For New Hampshire examples of low-income towns that are also property-rich see Charles M. Arlinghaus, "The Opportunity to Eliminate the Statewide Property Tax," Concord, N.H., The Josiah Bartlett Center for Public Policy, August 2003.

²⁰ Zandi, Mark M. "Housing's Virtuous Cycle." *Regional Financial Review*, August 2003, p. 13.

with a disproportionate amount of their property dedicated to residential housing probably saw property values soar at the same time that incomes fell.

The General Case of Capitalization. An extensive economic literature review shows that taxes are negatively capitalized in property values. What this means in common sense terms is this: Newcomers to any metropolitan area have many communities to choose from in deciding where to buy a home. Families choosing high-tax towns will pay less for their homes, and if they choose low-tax towns, they will pay more for their homes. Taking mortgage payments and tax payments together, families will tend to pay about the same per month for the same quality home no matter where they locate.

Low-income communities might purposely accept these undesirable land uses in order to obtain increased property tax revenues.

The tax equity implications of capitalization are dramatic. If capitalization is perfect, new homeowners in communities with very different property tax payments can be said to be equally well-off. Of course, not all households live in metropolitan areas where there is extensive choice among suburban communities (although many do). My review of the capitalization literature convinced me that the best assumption was that 50 percent of property tax differentials were capitalized into property values.²¹ But even if the capitalization argument is only half right, this means that the tax equity proponents are at least half wrong.

Tax Equity Measures Are Too Simplistic. If someone told you that Town A had an equalized property tax rate of \$12 per \$1,000 of assessed value and Town B had an equalized property tax rate of \$24 per \$1,000 of assessed value, your first reaction might be to think that Town B was suffering from an inequitable tax structure. But what if median family income in Town B was \$100,000 and residents in Town B willingly supported a lavish school system, whereas median family income in Town A was \$25,000 and the town had chosen to fund a no-frills school system? This hypothetical example is meant to illustrate the fact that focusing on equalized tax rates alone can be terribly misleading.

Public finance analysts (outside of school finance) usually look at tax equity in terms of tax burden in relation to income.²² This is how equity of an income tax system is judged, for example. A simple focus on tax rates does not take into account the economic circumstances of the households who pay the tax.

It is commonly recognized that the property tax has elements of a benefit tax. That is, citizens who want a richer menu of

public services will pay higher taxes than those who prefer a more basic menu. This is another problem with focusing on tax rates as a measure of tax equity. Looking at per-pupil property values is somewhat better in this regard, but it still does not take household income into account.

Which Children Are Being Left Behind?

This column makes the value judgment that providing all children with an adequate education should be the primary objective of school funding reform. Low-income students rather than middle- or high-income students are the children who are at the greatest risk of not receiving an adequate education or who are most likely to be "left behind."

There are a number of reasons for this. Low-income households are less likely to be college-educated, two-parent families with the time to monitor their children's education and volunteer in their children's classrooms, or the money to pay for supplements to their children's education. Although the majority of states make some adjustment to their school aid to take into account the special needs of low-income children, a recent study finds that the average state falls far short of meeting the additional resource needs of low-income students.²³

Recent data are used to show which children are most at risk of not receiving an adequate education in New Hampshire. Kids Count New Hampshire 2003 examined third grade test scores for all school districts in the state. School districts were divided into five clusters based on the latest Census data on median family income, per capita income, percent of children below poverty, and percent of persons below 185 percent of poverty.²⁴ In Chart 3, average test scores are shown for the five clusters of school districts, ranging from the highest-income to the lowest-income.²⁵

A beginning step for policy analysts is to focus on the distribution of state aid by the income of a community rather than by the community's property value per pupil.

Scores at the novice level (scaled scores of 239 and lower) indicate the child has not adequately mastered the curriculum. Because the scores of the lowest-income districts are so much lower than those of the higher-income districts, and the average scores for the lowest-income cluster exceed the adequacy standard by so few points (9.6 points for math and 6.2 points for language arts) this indicates that students in the lowest-income school districts are at much greater risk of not receiving an adequate education than are students in higher-income districts.

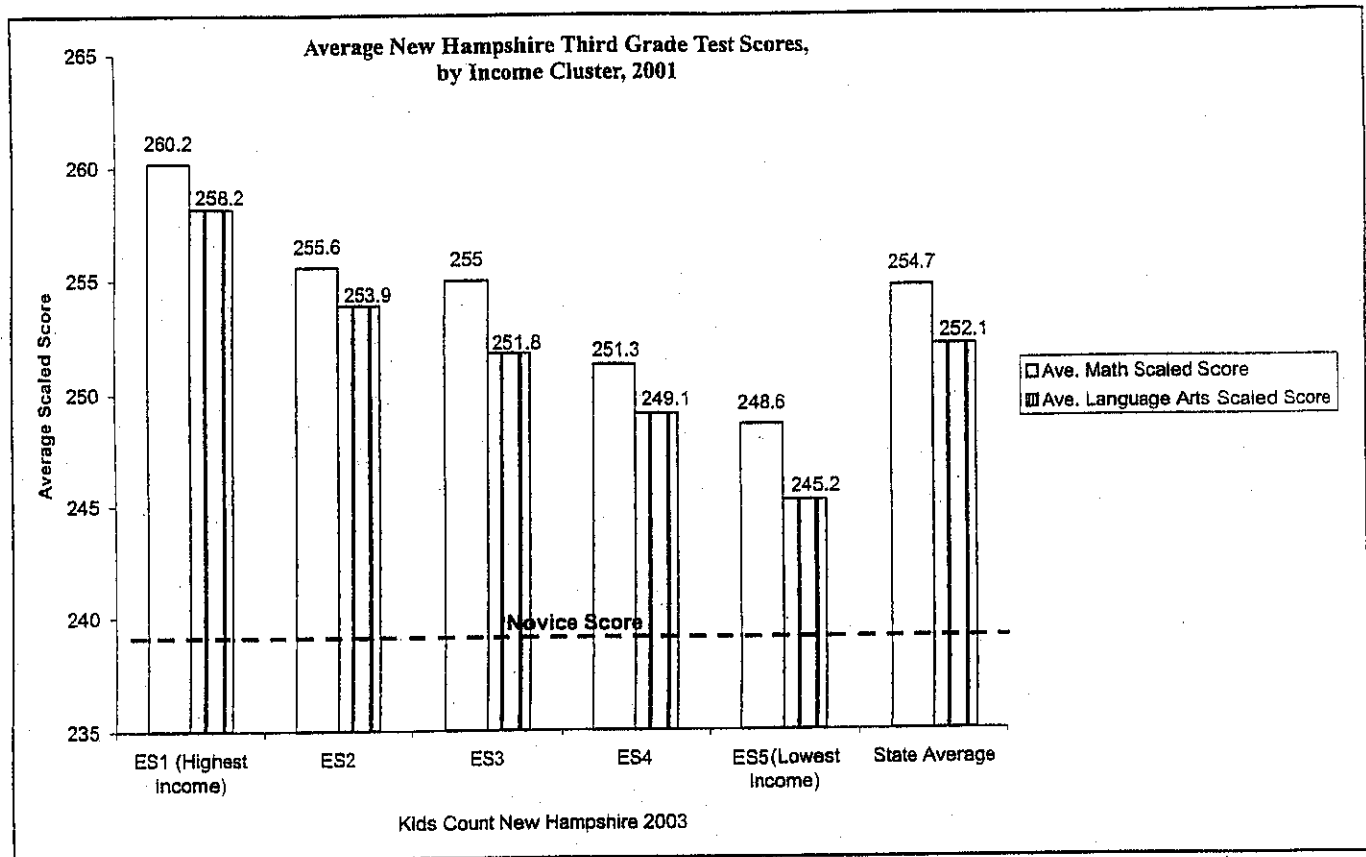
²¹ Lisa Shapiro, Richard England, Daphne Kenyon, and Charles Connor. *The Economic and Fiscal Impacts of a Uniform Statewide Property Tax*. Concord, N.H.: Gallagher, Callahan & Garrell, 1999.

²² For a general statement of the discrepancy between notions of equity in school finance and public finance see Robert Berne and Leanna Stiefel. "Concepts of School Finance Equity: 1970 to the Present," in Helen F. Ladd, Rosemary Chalk, and Janet S. Hansen, eds., *Equity and Adequacy in Education Finance: Issues and Perspectives*, Washington, National Academy Press, 1999, pp. 10-11.

²³ See Kevin Carey, "State Poverty-Based Education Funding: A Survey of Current Programs and Options for Improvement," Washington, Center on Budget and Policy Priorities, November 7, 2002.

²⁴ Antal, Peter. *Kids Count New Hampshire 2003*. Concord, N.H., Children's Alliance of New Hampshire, 2003. www.ChildrenNH.org.

²⁵ Kids Count actually refers to these clusters as "wealth clusters" even though none of the statistics it uses to create the clusters is a measure of wealth. Therefore I have renamed these clusters as income clusters. Test scores range from 200 to 300.



The towns that the Kids Count report classifies as low-income are not the same towns that are property-poor, nor are the Kids Count high-income towns the same towns that are property-rich. For example, consider the donor towns that pay excessive education taxes to the state under New Hampshire's current school finance system because they are property-rich.²⁶ The Kids Count report classifies 19 of these towns as having above-average incomes, and 16 of these towns as having average or below-average incomes. In population terms, the Kids Count report classifies 55 percent of donor town populations as having above-average income and 45 percent as having average or below-average incomes.

The Kids Count report notes that these school district clusters also differ in other ways. The highest-income cluster has a much smaller percentage of families headed by a single parent (11.7 percent) compared with the lowest-income cluster (29.1 percent). Furthermore, educational attainment of parents differs markedly. In the highest-income cluster, 39.5 percent of adults have at least a bachelor's degree, compared with only 19.1 percent of adults in the lowest-income cluster.

Conclusion: Focus on Needy Children, Not Tax (or Taxpayer) Equity

This column has taken the premise that providing all children with an adequate education should be the overriding goal of school finance reform. It argues that low-income students are the most

needy children, and that funds should be targeted to school districts with the most low-income students. The assumption that equates school districts that have low property value per pupil with needy school districts is a dangerous one because of the very low correlation between a community's median household income and its property value per pupil.

I have no illusions about the ease of focusing on this goal. The temptation in the political arena is to muddle various goals (as the New Hampshire experience indicates), leaving the goal of providing adequate funds for the most needy children poorly addressed. A further temptation in the political arena is to spread funds as widely as possible in order to maximize political support.

This leaves an important charge for policy analysts. A beginning step is to focus on the distribution of state aid by the income of a community rather than by the community's property value per pupil. Since household income by town is available in recent Census data, I urge analysts to make use of this data when analyzing the pattern of a state's aid to education. Another important step is for public policy analysts to do more research on the impact of various school reform packages on student achievement. By focusing on that goal, rather than on interim goals such as equalizing resources among school districts, policy analysts can help steer politicians and policymakers onto a more productive course. ☆

²⁶ Almost all of the donor towns will no longer be donor towns beginning in 2005 under new school finance law that was enacted in July 2003.

Daphne A. Kenyon is president of The Josiah Bartlett Center for Public Policy, Concord, N.H., and is adjunct professor of economics at Simmons College.