

Educational Efficiencies: Savings Within The Educational System

A Working Paper
Prepared as Support for
“Can New York Get an A
in School Finance Reform?”
A Report by
the Citizens Budget
Commission
November 2004



FOREWORD

Founded in 1932, the Citizens Budget Commission (CBC) is a nonprofit, nonpartisan civic organization devoted to influencing constructive change in the finances and services of New York State and New York City governments.

This Working Paper was prepared under the auspices of CBC's Education Finance Committee, which we co-chair. The other members of the Committee are: Paul R. Alter, Richard H. Bagger, Stephen Berger, Deborah A. Buresh, Lawrence B. Bittenwieser, Evan A. Davis, Stephen F. DeGroat, Kenneth D. Gibbs, Bud H. Gibbs, H. Dale Hemmerdinger, Bill Lambert, James L. Lipscomb, Stanley Litow, Robinson Markel, Joel H. Moser, David I. Moskowitz, Lester Pollack, Hector P. Prud'homme, Alfredo S. Quintero, Edward L. Sadowsky, William G. Salter, and Howard Wilson.

The CBC created this ad hoc Committee in the wake of the 2003 New York State Court of Appeals decision in the Campaign for Fiscal equity case. Initially, we believed that the scope of the Committee's work would be confined to helping public officials identify the most economically effective sources of revenue to fund the Court's decision. However, as the Committee explored the issues, and as the Governor and State Legislature failed to reach an agreement on the amount required, we broadened the scope of our work. The Committee recognized that in order for the goal of the Court's ruling to be achieved - for students to obtain a sound basic education - changes were needed beyond the allocation of more money.

The Committee prepared its final report, *Can New York Get An "A" In School Finance Reform*, with two goals in mind. The first is to provide the responsible public officials – judges, legislators and others – with sound advice on how to craft a remedy that will be effective and efficient. But the CBC also recognizes that shaping policy affecting so many lives, and costing so many billions of dollars, should involve an informed citizenry who support the eventual outcome. Accordingly, the CBC seeks also to use the Committee's final report, and a companion conference scheduled for December 2-3, 2004, to stimulate informed debate about the options available to New Yorkers for providing their children a sound basic education.

In order to prepare the final report, the Committee met nine times between January and November of 2004. Its meetings were focused on research conducted by the staff and expert consultants. This background research has been organized into six working papers, of which this is one. This working paper was prepared by Jo Brill, Director of State Studies at the Citizens Budget Commission. All six working papers and the final report are available at the Commission's website, www.cbcny.org.

The research was made possible by generous support from the Andrew W. Mellon Foundation and by designated contributions from CBC Trustees.

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EDUCATIONAL EFFICIENCIES: SAVINGS WITHIN THE EDUCATIONAL SYSTEM

Some of the added cost of a sound basic education can be covered by saving money now spent by the State and localities on their schools. This paper reviews three instances of misspent funds.

The first is misallocation of funds. State aid is given to districts that do not need the help. A school district does not need help if its tax base is sufficient to generate the full cost of a sound basic education, even with a relatively low tax effort. As explained below, about \$750 million is now misallocated in this way.

The second two are inefficiencies that stem from rigid administrative and contractual arrangements. In New York City, current contract provisions cause about one-third of teacher time to be diverted from classroom instruction. Upstate, the small size of some school districts takes a significant toll in terms of excess administrative costs. Correcting these two inefficiencies would save about \$475 million annually.

These are three specific examples that the Citizens Budget Commission's analysis has identified and quantified. There are other opportunities that should be pursued. School transportation services, food services and the use of paraprofessionals should also be reviewed to determine whether new efficiencies could be achieved.

Misallocation of funds

Misallocated funds can be identified based on two criteria.

- First, the State should eliminate or redistribute aid that is poorly targeted. Wealthy school districts now receive substantial State aid despite generating significant local revenue at relatively low tax rates. These districts should receive less or no State aid.
- Second, the State should allocate funds in a way that creates greater equity in local tax effort. Many wealthy school districts maintain low tax rates relative to other districts, in part because of the State aid they receive. A required minimum tax effort would generate additional local tax funds in some districts and further reduce the need for State aid.

The ability of a district to raise revenue locally depends on its tax base. For non-New York City districts, which rely on the property tax, the value of taxable property determines the ease with which revenues can be raised. Some wealthy districts can raise substantial revenues even with tax rates much lower than those that poorer districts must use. Low tax districts are often those that are relatively wealthy, and high tax districts often raise and spend less than their property-rich counterparts. Tax effort, defined as property tax revenues as a percent of property

value, ranges from 0.2 percent to 3.7 percent, with a median of 1.24 percent. One quarter of the state's school districts tax property at more than 2 percent of value.¹

Based on these criteria, how much is misallocated? The answer depends on assumptions about a suitable minimum tax effort and the target per pupil spending. Table 1 summarizes the results of a simulation of a State aid policy which uses 2001-02 data and assumes that the minimum tax effort² is the current statewide median and that the per pupil spending target is the current median statewide. Under this scenario, 75 districts would be able to raise more than enough to fund the median spending level without any State aid – not surprising given that these districts enjoy a combined wealth ratio of 4.1.³ Yet under current practice, these districts get \$297 million in State aid. Fully 450 districts (including the 75 already mentioned) get more State aid than the gap between what they can raise locally at a median tax rate and the median spending level; together they receive almost \$1.5 billion more than they need to fund median per pupil expenditures.

¹ New York State Education Department, Fiscal Analysis and Research Unit, *Analysis of School Finances in New York State School Districts 2001-02*, December 2003, <http://www.oms.nysed.gov/faru/Analysis/01-02/analysis_of_school_finances_01-02.htm?>, accessed October 25, 2004.

² The CBC's measure of tax capacity differs from the State Education Department's in that it reflects residents' income as well as property values.

³ Combined Wealth Ratio is calculated by New York State Department of Education, and is used to compare district wealth to the State average wealth. The State average CWR is defined as 1.0. See New York State Education Department, Office of Management Services, Fiscal Analysis and Research Unit, *A Guide to the Headings of the Fiscal Profile*, <<http://www.oms.nysed.gov/faru/Profiles/13th/Profiles%20Appendix.html>>, accessed October 25, 2004.

Table 1
Public School Revenues under Current Policy and Uniform Tax Effort Policy at Two Different Target Spending Levels
New York State, 2001-02
(dollars in millions)

	<u>Current Policy</u>	<u>State Median</u>
Total Revenues *	\$35,061.5	\$37,890.3
Change from Baseline		\$2,828.8
Number of Districts with Increased Revenue		256
State Aid	\$17,091.4	\$18,691.2
Change from Baseline		1,599.8
State Aid Savings from Districts with Decreased Aid		\$1,486.2
Number of Districts		450
Combined Wealth Ratio**		1.4
State Aid Savings from Districts with No Aid		\$296.6
Number of Districts		75
Combined Wealth Ratio**		4.1
Local Tax Revenue	\$16,204.0	\$17,433.0
Change from Baseline		\$1,229.0
Number of Districts with Increased Tax Effort		340

* Total includes federal revenues not shown separately.

** Combined Wealth Ratio is calculated by New York State Department of Education, and is used to compare district wealth to the State average wealth. The State average CWR is defined as 1.0. See New York State Education Department, Office of Management Services, Fiscal Analysis and Research Unit, *A Guide to the Headings of the Fiscal Profile*, <<http://www.oms.nysed.gov/faru/Profiles/13th/Profiles%20Appendix.html>> (October 25, 2004).

Realistically, the amount of misallocated aid available to fund a CFE remedy is likely to be substantially less than \$1.5 billion, primarily because the target spending level may be above the current median. Another way to estimate the amount of potential misallocated aid available is presented by the CFE in its study. Its proposal includes “a hold harmless provision that will prevent any district from receiving less in state operating aid and STAR payments than it now receives.”⁴ The CFE calculates that the total cost of providing hold harmless aid is about \$750 million for 2004-2005, which increases their proposed basic operating aid by about 3.5 percent, a “relatively small” amount. According to the CFE, “about 28 percent of all school districts (189 out of 680 school districts) would be eligible for hold harmless aid if the proposal were fully implemented in 2004-2005.”

⁴ Campaign for Fiscal Equity, *Final Report of the Sound Basic Education Task Force*, May 2004, page 36.

Using \$750 million in order to quiet objections from the State's wealthiest districts is clearly inconsistent with the Commission's principles as outlined earlier. This money should be made available for a sound basic education in the districts where it is most needed.

Limits on the use of teachers' time for instructional activities

Providing a sound basic education is likely to require more teachers, but the number and cost of additional personnel can be reduced if those hired are assigned to teach students rather than to other duties. The City now follows inefficient policies that cause about one-third of teacher time to be diverted from classroom instruction. Under current contractual arrangements, all teachers are entitled to regular preparation periods, and in the junior high and high schools teachers also are assigned to administrative tasks for part of the day. Covering classes during these periods requires additional staff. About 17 percent of all available teacher time is required to cover classes while their colleagues are on preparation periods or administrative duties. An almost equal amount of teacher time is diverted from regular classroom assignments because teachers are on sabbatical or other leaves (about 3 percent of all teachers), are serving as union representatives (the equivalent of about 200 full-time teachers), or have other non-instructional assignments.⁵

A similar finding was reported in an audit by the City Comptroller of the use of teaching staff in a sample of high schools in October 1998. The audit found that teachers in regular high schools spent 64 percent of their time on instruction, and that those in alternative high schools spent 66 percent on instruction. The proportion in the regular high schools was unchanged from a similar audit in the spring of 1996, but the proportion in the alternative high schools had increased from 64 percent.⁶

In the city's public schools, there are 13.9 pupils for each teacher, a figure about 7 percent higher than the statewide total. (See Table 2.) However, the disparity in average class size between New York City and the rest of the state is far greater; classes are between 11 percent and 32 percent larger. This means that teachers in New York City spend less time in classrooms teaching than their counterparts in the rest of the state.

There is a ready source of additional teaching talent available from the current staff, if their non-teaching time is reallocated to teaching. The misallocation of the scarce resource of available teachers should be rectified.

⁵ The estimates in this paragraph are based on an analysis of teacher assignments by Richard Delaney for the Citizens Budget Commission based on data from the Board of Education, Division of Human Resources and Labor Relations for the 1994-1995 school year. They were presented to Mayor Giuliani and Chancellor Ramon Cortines in a letter from the CBC's then-chairman Lawrence Bittenwieser, dated September 1, 1995. There have been few, if any, significant changes in the deployment priorities underlying these estimates since that analysis was completed.

⁶ Bureau of Management Audit, Office of the Comptroller, City of New York, "Audit Report on the Board of Education's High School Teacher Utilization," MG 98-218A, June 29, 1999.

Table 2
Pupil-Teacher Ratio and Average Class Sizes
in New York City and New York State Public Schools, 2001-02

	<u>New York City</u>	<u>New York State</u>	<u>Percent Difference</u>
Pupil-Teacher Ratio	13.9	13.0	6.9%
Average Class Size			
Kindergarten	21	19	10.5%
Grades 1 - 6	25	22	13.6%
English Grade 8	28	23	21.7%
Math Grade 8	28	23	21.7%
Science Grade 8	29	23	26.1%
Social Studies Grade 8	29	24	20.8%
English Grade 10	29	22	31.8%
Math Grade 10	28	23	21.7%
Science Grade 10	29	22	31.8%
Social Studies Grade 10	29	22	31.8%

Source: State Education Department, "A Report to the Governor and the Legislature on the Educational Status of the State's Schools," submitted July 2003, Tables 1 & 3.

Four specific measures to increase instructional time are:

- Reduce combined preparation and administrative periods for junior high and high school teachers from 10 to five per week.
- Reduce preparation periods for elementary school teachers from five to three per week.
- Eliminate sabbatical leaves for travel and study.
- Eliminate subsidized time for union activities.

Reallocating teacher time in this way would have the impact of adding the equivalent of more than 4,250 teachers to the payroll.⁷ These gains in productive time could be used to offset the need for additional hires necessary to provide a sound basic education. With compensation (salaries plus fringe benefits) for New York City teachers averaging \$83,376⁸ this offset amounts to a savings of over \$350,000,000.

⁷ Citizens Budget Commission, *Using Collective Bargaining to Improve Public Education: Recommendations for the 2000 Negotiations with the United Federation of Teachers*, August 2000.

⁸ Average compensation costs for Department of Education Pedagogues, City of New York, Office of Management and Budget.

Savings from school district consolidation and administrative cost caps

Two significant sources of inefficiency among public schools in New York State are:

1. the operation of small districts with excessive per pupil costs due to the diseconomies of small size; and
2. excessive spending on administrative services at some districts in all size categories.

As explained below, eliminating these inefficiencies could save a total of \$126 million annually.

Consolidation of small districts. Small districts incur excessive costs due to high fixed costs for administration and capital plant. In addition, small enrollment may require higher instructional and other program costs due to small class sizes and small numbers of students requiring specialized services. While cooperative arrangements with other districts may lower some of these costs, there is abundant evidence of higher costs among small districts.

The greatest savings are possible when districts with less than 300 students are combined with other appropriately sized districts. In such cases, savings reach over 20 percent of pre-merger costs.⁹ Districts with enrollments between 300 and 900 can also achieve significant savings, at least 8 percent of pre-merger costs. For districts in the 900 to 1,500 size range the savings have been estimated at a lower 1.5 percent.

New York State has many districts in the size range that could achieve savings from consolidation. Specifically, of the state's 681 districts, 25 have fewer than 300 students, 128 have between 300 and 900 students, and 160 between 900 and 1,500 students. Based on current costs at these districts, the savings from consolidation would be about \$18.8 million annually for the smallest districts, \$78.6 million annually at those with between 300 and 900 students, and \$3.5 million for those with 900 to 1,500 students. This yields a total savings of \$100 million annually.

These figures can be considered conservative, since the savings rates assumed are those that pertain to the top of the range in student body size. That is, a savings rate of 8 percent is assumed from consolidating two schools with 301 students, even though the potential savings are likely closer to the 22 percent savings achieved by consolidating two 300-student districts. On the other hand, geography and other local considerations might prevent some consolidations that would save money.

It is worth noting that for several years the State has provided financial incentives for small districts to consolidate. Current aid formulas provide a "bonus" equal to 40 percent of current operating aid for a five-year period after consolidation and tapering down to zero over an additional nine years and 30 percent of capital aid for projects related to reorganization. Despite these potential bonuses, few districts have chosen to consolidate. There have been just sixteen

⁹ Duncombe, W. and J. Yinger. 2001. "Does School District Consolidation Cut Costs?", Center for Policy Research Working Paper No. 33, <<http://www-cpr.maxwell.syr.edu/cprwps/pdf/wp33.pdf>>.

consolidations over the past fifteen years, including some of very small elementary school districts (fewer than 100 students) with larger K-12 districts.¹⁰ Moreover, the pace of consolidation has not picked up appreciably since 1993, when the reorganization incentive bonus was doubled from 20 to 40 percent. This suggests that penalties or mandates will be required in order to ensure that the savings are achieved.

Caps on administrative expenses. From a national perspective, New York State's administrative costs are relatively high. In terms of administrative cost per pupil, New York's \$672 figure ranks eighth among the 50 states.¹¹ In terms of administrative staff per pupil New York ranks twelfth.¹² On a third measure, administrative costs as a share of total costs, New York ranks much more favorably, but this likely reflects New York's high overall spending.¹³

Within New York State, districts vary widely in their administrative costs. Savings can be achieved by setting one or more caps on these costs and obliging the higher cost districts to bring their costs closer to the statewide average.

Caps can reasonably be set in terms of dollar cost per pupil, and/or by administrative costs as a share of total costs. Using expenditure per pupil, and setting a cap at the 75th percentile, would require 172 districts to lower their costs, and would achieve annual savings of \$23.2 million annually.¹⁴ Using a share of total costs and setting the cap at the 75th percentile also would require 172 districts (not necessarily the same ones) to lower their costs, saving \$14.2 million annually.¹⁵ Applying both caps would affect 212 districts and save \$26.0 million annually.

¹⁰ Unpublished information provided by Darlene Tegza of the State Education Department's Fiscal Analysis and Research Unit.

¹¹ National Public Education Financial Survey Data, Fiscal Year 2001, from the National Center for Education Statistics, <<http://nces.ed.gov/ccd/stfis.asp>>.

¹² Ibid.

¹³ Tables 81 and 84, Digest of Education Statistics, 2002, from the National Center for Education Statistics, <http://www.nces.ed.gov/programs/digest/d02/list_tables2.asp#c2_1>.

¹⁴ The School District Fiscal Profiles compiled for 2001-2002 by the NYSED Office of Management Services, Fiscal Analysis and Research Unit, <http://www.oms.nysed.gov/faru/Profiles/profiles_cover.htm>, show that per-pupil administrative costs across the state average \$411 with a median of \$338. Capping administrative costs at one standard deviation above the mean (that is, at \$766) would yield savings of \$3.6 million. Capping administrative costs at the 75th percentile (\$448) would yield savings of \$23.2 million.

¹⁵ Administrative costs as a share of total across the state average 3 percent with a median of 2.7 percent. Capping administrative costs at one standard deviation above the mean (that is, at 4.3 percent) would yield savings of \$5.2 million. Capping administrative costs at the 75th percentile (3.395 percent) would yield savings of \$14.2 million.