

2005 Analysis of Local Effort in New York State School Districts

SEPTEMBER 2005

MAJOR FINDINGS

- Twenty-nine districts were found to have a local effort problem, being below the median on measures of tax effort, spending, and student performance. This reflects a significant decrease – of ten districts - from the prior year.
- As district need relative to fiscal capacity worsens, the probability of being identified as a low tax effort, low spending, and low performing district increases.
- One Big Four district, Syracuse, was found to be low effort, low spending, and low performing.
- New York City, although low taxing and low performing, was not low spending, for the second year in a row. Moreover, it increased its local tax effort by roughly three-quarters of a dollar per \$1,000 of actual value.
- The total levy loss attributed to low tax effort, low spending, and low performing districts for 2003-04 was \$31.6 million; about three-fifths of this levy loss is attributed to rural and Big Four city school districts with shares of 32 and 26 percent of the total, respectively.
- This result is about one-third greater than the \$23 million lost levy of 2002-03.
- Average or median spending per pupil by school districts increased 6.1 percent in nominal terms, while median tax effort increased marginally -- .7 percent -- from 2002-03.
- In total, State financing for K-12 education, including STAR, only increased by 2.0 percent, relative to last year.
- Therefore, the increased ability to spend for education was largely the result of increased tax revenues from growing property values. Preliminary 2003 data suggest a 9.1 percent increase in actual values over 2002.

IMPLICATIONS

- Since local effort tends to be a greater problem for school districts with high pupil need and limited fiscal capacity, every effort must continue to be made to ensure that State Aid to school districts accurately reflects district needs and costs.
- Maintenance of local effort can be a formidable challenge for some school districts. SED should develop its capacity to provide technical assistance to school districts regarding the most cost-effective ways to use State Aid and leverage local resources.

Background

This analysis uses a three-tiered framework for analyzing school district tax effort consistent with that which the State Education Department has presented annually for the past eight years. It provides an update on school district local tax effort using 2003-04 data. In New York State, a district's capacity to achieve a given spending level involves a state and local partnership. Thus, even among low wealth districts, which benefit from highly wealth equalized aid formulas, the willingness and ability to raise funds *locally* to support education is essential in assuring that all children have the resources needed to achieve high academic standards. A clear understanding of school district local tax effort has become an issue of importance to New York State policymakers. Any diminution of local tax effort in high need school districts, particularly if local tax effort is "inadequate" to begin with, poses a significant concern.

Discussion

Tax effort was examined using the approach described in an October 1999 report¹. Three measures of tax effort were used to describe the problem: 1) "lost levy" – which refers to the amount of local tax revenue that districts lost in 2003-'4 by taxing themselves below the statewide median tax rate of \$18.34 per \$1,000 actual value; 2) "effective lost levy" – which refers to that portion of the lost levy that would have to be raised in order to bring a district up to the median statewide spending level of \$13,316 per pupil;² and 3) effective lost levy of low-performing school districts. This second criterion was necessary to address the fact that many districts with high property wealth can still generate substantial local levies per pupil at relatively low tax rates. Because of their high spending levels, the authors did not consider low tax rates to represent an effort problem for districts whose spending is adequate and so they were eliminated from the effective lost levy category. It is important to note that the spending level referred to in this analysis is the sum of a district's General Fund, Debt Service Fund, and Special Aid Fund.

The third criterion used to define the local effort problem was student performance. Some school districts may tax themselves below a statewide median tax rate, and fall below the median spending level, but still have students that achieve high standards. For these high performing districts, the authors did not view their low taxing and

¹ For a complete discussion of the effective lost levy concept as it relates to local tax effort see Regents Discussion Item September 2000 (SSA 0.1 and attachments, 9-00) and October 1999 (SSA0.1 and attachments, 10-99).

² The use of a median spending level per pupil as a spending standard has been a matter of convention in analyses of spending adequacy. For example, Allan Odden has noted that in a number of states studied by other finance experts, a median expenditure per pupil could be an appropriate benchmark for analysis. For a discussion of the use of median spending targets, see Odden (1998). Creating School Finance Policies that Facilitate New Goals. CPRE Policy Brief.

spending behavior as problematic, given the level of performance obtained by their students. Therefore, in order to identify low taxing, low spending, and low performing school districts, the same notion of effective lost levy was applied in conjunction with average student performance on the New York State 4th and 8th grade English Language Arts and Math examinations. For the purpose of this study, any district with an average score below the level three cut-point on any *two* or more of these four exams was considered to be in need of improvement.

In Figure 1 below, Districts 1 and 2 are those districts for which SED policy concerns are the greatest.

Figure 1. Sample Calculation of Effective Lost Levy

Lost Levy Calculation: the lost levy was calculated as the difference between the levy that would have been attained if a district were taxing itself at the median tax rate and the district's actual levy.

$$\text{Lost Levy} = \text{Levy Assuming Median Tax Rate} - \text{Actual Levy}$$

Effective Lost Levy Calculation

District 1

Lost levy per pupil = \$500 Expenditure per pupil = \$12,800

Median state expenditure per pupil = \$13,316

Distance below the median expenditure per pupil = \$516

Therefore, **the effective lost levy per pupil = \$500** (Effective lost levy cannot exceed the lost levy, since the lost levy is the loss due to failure to tax at the median tax rate)

District 2

Lost levy per pupil = \$500 Expenditure per pupil = \$12,900

Median state expenditure per pupil = \$13,316

Distance below the median expenditure per pupil = \$416

Therefore, **the effective lost levy per pupil = \$416** (Effective lost levy is that portion of the lost levy required to bring a district up to the median expense per pupil).

District 3

Lost levy per pupil = \$500 Expenditure per pupil = \$13,700

Median state expenditure per pupil = \$13,316

Distance above the median expenditure per pupil = \$384

Therefore, **the effective lost levy per pupil = \$0** (Effective lost levy is that portion of the lost levy required to bring a district up to the median expense per pupil).

A Note on STAR

For the purpose of this analysis, tax rates were calculated using a local levy that includes the STAR payment. This approach is consistent with the way tax rates are calculated for State Aid purposes. When STAR is included in the local levy, the median

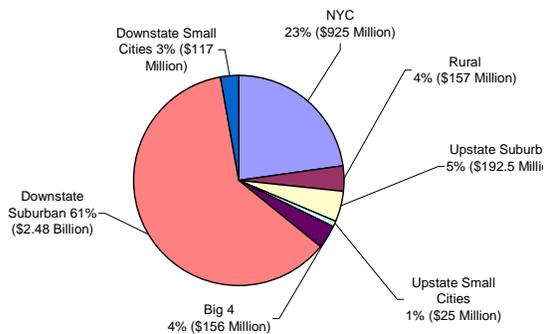
tax rate is \$18.34 per \$1,000 actual value. Another option would have been to remove the STAR payment from the local levy. If STAR were not included in the local levy, the median tax rate would be \$14.60 per \$1,000 actual value. This change would result in the identification of 42 districts with poor performance and effective lost levy (as opposed to 29 when STAR is included). Interestingly, if STAR were not included in the definition of local tax effort, New York City's relationship to the state median would change drastically: their effort would be \$14.59/\$1,000 actual value, just \$.01/\$1,000 below the state median. With STAR, on the other hand, New York City's effort is \$16.18 per \$1,000 actual value or \$2.16 below the state median.

Findings

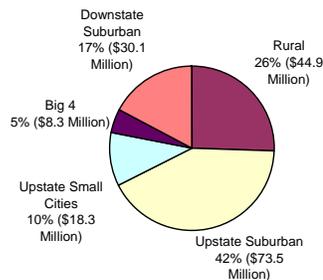
The magnitude of the lost levy problem statewide was \$4.05 billion in 2003-04. New York City had a lost levy of \$925 million, accounting for just under a quarter (23 percent) of the state total. Downstate suburban districts had a lost levy of \$2.48 billion, which represents 61 percent of the total (Chart 1). When considering only those low taxing districts that are also spending below the median expenditure per pupil of \$13,316, the total effective lost levy is \$175 million. There were 127 districts found to be low taxing and low spending, thus placing them into the effective lost levy category. New York City had no effective lost levy, as their expenditure per pupil of \$13,634 exceeded the statewide median (\$13,316) by more than \$300. Rather, the district types making the greatest contribution to this problem are the Upstate suburban and rural districts: these two categories of school districts are responsible for just over two-thirds of the state total effective lost levy.

Chart 1
Three Measures of Lost Levy by District Type 2003-04

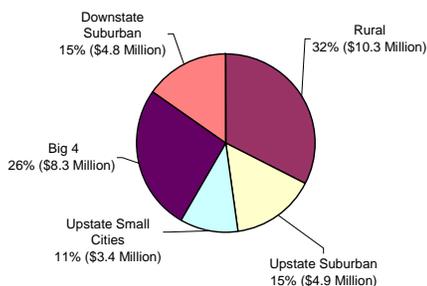
Lost Levy (\$4.05 Billion in Total)



Effective Lost Levy (\$175 Million in Total)



Effective Lost Levy in Low-Performing Districts (\$31.6 Million in Total)



If we further narrow the effective lost levy districts to include only those whose performance was below a standard performance level, 29 districts were found to be in this category. For these 29 districts, the total effective lost levy amounted to \$31.6 million, of which the greatest shares derive from the following categories: rural, Big Four, Upstate suburban and Downstate suburban, with 32, 26, 15 and 15 percent of the state's total, respectively.

As shown in the decile analysis in Table 1 there is a strong relationship between a district's need relative to fiscal capacity and the low taxing and low spending phenomenon. As district need/fiscal capacity status worsened, the likelihood of falling into the effective lost levy category increased.³ In the five lowest need/fiscal capacity deciles, i.e., the wealthiest, only 13.9 percent of districts were found to be low taxing

³ The need/fiscal capacity index consists of an extraordinary needs index without sparsity, divided by the Combined Wealth Ratio. The need/fiscal capacity index is similar to the need/resource index in that it provides a measure of pupil need in relation to district wealth.

Table 1
Analysis of Local Effort State Aid Variables by Need/Fiscal Capacity Index Deciles, 2003-04

	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]	[L]	[M]
Need/Fiscal Capacity Index Deciles	Need/Fiscal Capacity Index	Tax Rate/\$1,000 Actual Value	Total Expense/Pupil	Lost Levy/Pupil	Districts w/ Lost Levy in each Decile	Effective Lost Levy per Pupil	Districts w/ Eff. Lost Levy in each Decile	Eff. Lost Levy/Pupil for Low-Performing ¹ Districts	Districts w/ Eff. Lost Levy & Low-Performing in each Decile	Revenue from State Sources per Pupil	Combined Wealth Ratio (CWR)	Extra-Ordinary Needs Percent	
(Low Need)	1	0.021	\$12.17	\$17,416	\$8,759	61	\$0	0	\$0	0	\$1,806	3.677	3.4%
	2	0.096	\$14.27	\$14,736	\$5,726	46	\$530	9	\$0	0	\$2,844	1.875	8.0%
	3	0.230	\$17.27	\$13,825	\$2,198	35	\$1,126	10	\$0	0	\$3,753	1.250	14.2%
	4	0.418	\$17.19	\$13,004	\$2,082	34	\$359	16	\$59	2	\$4,345	1.018	21.3%
	5	0.617	\$19.28	\$12,979	\$1,453	29	\$512	12	\$413	2	\$4,819	0.848	29.1%
	6	0.847	\$18.76	\$13,200	\$1,819	22	\$509	12	\$85	1	\$5,452	0.699	34.6%
	7	1.115	\$18.11	\$13,045	\$1,450	30	\$775	15	\$625	1	\$6,331	0.635	41.4%
	8	1.440	\$16.63	\$13,873	\$2,164	23	\$422	14	\$292	5	\$7,360	0.531	53.9%
	9	1.840	\$16.39	\$13,590	\$867	29	\$571	20	\$554	7	\$5,268	0.493	88.9%
(High Need)	10	2.820	\$19.59	\$13,594	\$566	29	\$296	19	\$292	11	\$8,393	0.413	77.6%
NYC	9	1.688	\$16.18	\$13,634	\$875	1	\$0	0	\$0	0	\$5,076	0.998	92.3%
Buffalo	10	4.010	\$12.57	\$14,051	\$716	1	\$0	0	\$0	0	\$9,923	0.397	87.9%
Rochester	10	4.342	\$23.42	\$14,213	\$0	0	\$0	0	\$0	0	\$8,815	0.383	94.6%
Syracuse	10	3.708	\$14.46	\$12,957	\$587	1	\$359	1	\$359	1	\$8,235	0.412	81.9%
Yonkers	8	1.515	\$10.23	\$17,010	\$4,437	1	\$0	0	\$0	0	\$8,602	0.993	83.2%
State Median			\$18.34	\$13,316									

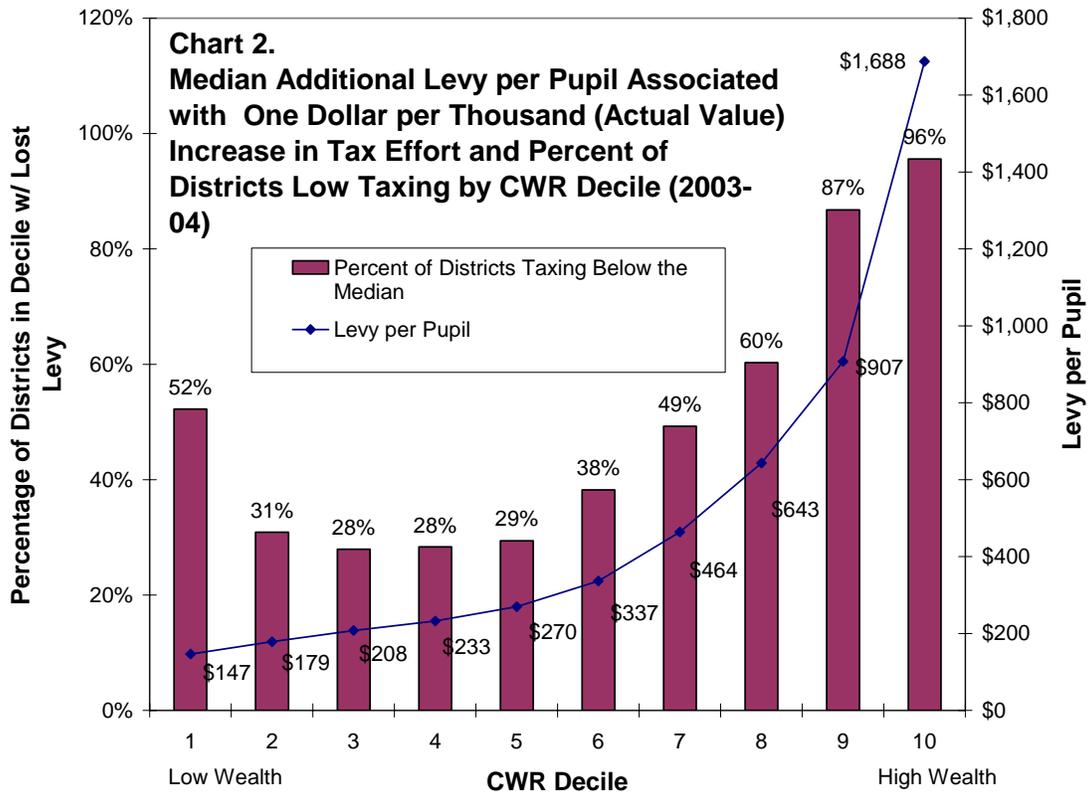
¹ For the purposes of this analysis, low-performing districts are defined as those with average scores below the Level 3 cut point for more than one of the following four exams: 4th and 8th Grade Math and English Language Arts (ELA)

and low spending, whereas in the five highest need/fiscal capacity deciles, 23.6 percent of the districts were identified as effective lost levy districts.

As need/fiscal capacity status worsened, districts that were low taxing and low spending also experienced substantial drops in academic performance. Of the 30 districts that were identified as low taxing, low spending and low performing (column J of Table 2), 86.2 percent fell into the five highest need/fiscal capacity deciles.

In addition to the decile analysis, Table 1 displays the lost levy and the effective lost levy for New York City and the Big Four cities. While New York City, Buffalo, Syracuse and Yonkers all had tax rates below the median, only Syracuse had below average spending, thus falling into the effective lost levy category. Moreover, Syracuse was found to have performance below the standard level. Appendix A contains similar tables representing districts by district type and by need/resource capacity category in Table 5.

It is important to note that this framework identifies only those districts that are low taxing, low spending and low performing as districts of greatest local effort concern. Districts that are low taxing and low performing, but are spending above the median could also be considered to have a local effort problem, particularly if they rely heavily on State revenues to achieve their spending levels, but fail to make adequate local effort. A total of 62 districts fall into the category of low taxing and low performing, but spending above the median expense. Included within this group are New York City, Buffalo and Yonkers, whose tax rates were below the state median; they had a lost levy of \$875, \$716 and \$4,437 per pupil, respectively.



As noted previously, when need/fiscal capacity status increases, districts are more likely to exhibit low taxing and spending behavior. This can be attributed, in part, to the fact that, as wealth increases, districts enjoy a greater local levy at a standard level of tax effort. As seen in Chart 2, as the Combined Wealth Ratio (CWR) of a district increases, so does the levy per pupil at a standard level of effort (one mill). Therefore, low wealth districts have less of an incentive to increase their tax effort when compared to high wealth ones.

As shown in Chart 2, when the levy associated with a standard level of tax effort is low, such as in the low wealth deciles, a greater percentage of districts were found to be low taxing. As the property value per pupil increases, and therefore the associated levy per pupil increases, the likelihood that a district will be found to be low taxing decreases. This relationship holds up until the ninth and tenth deciles in which the percentage of districts found to be low taxing begins to increase due to the substantial resources generated at low tax effort levels in high wealth districts. Therefore, we find that there is a nonlinear relationship between wealth and local effort with very wealthy districts and very poor districts having a greater propensity toward low tax effort.

Changes from 2002-03: New York City

In 2001-02 the total effective lost levy for the 66 districts identified at that time as low taxing, low spending and low performing was \$605 million, of which New York City's levy loss share was 90 percent of the total. In 2002-03, there were 39 districts identified as low taxing, low spending and low performing. The total effective lost levy for these districts was \$23.7 million, of which New York City had no part. This trend of New York City spending more than the state median per pupil (and thus ceasing to have an effective lost levy problem), continues in 2003-04.

Table 2.
Comparison of Local Effort Measures for the New York City (NYC) School District

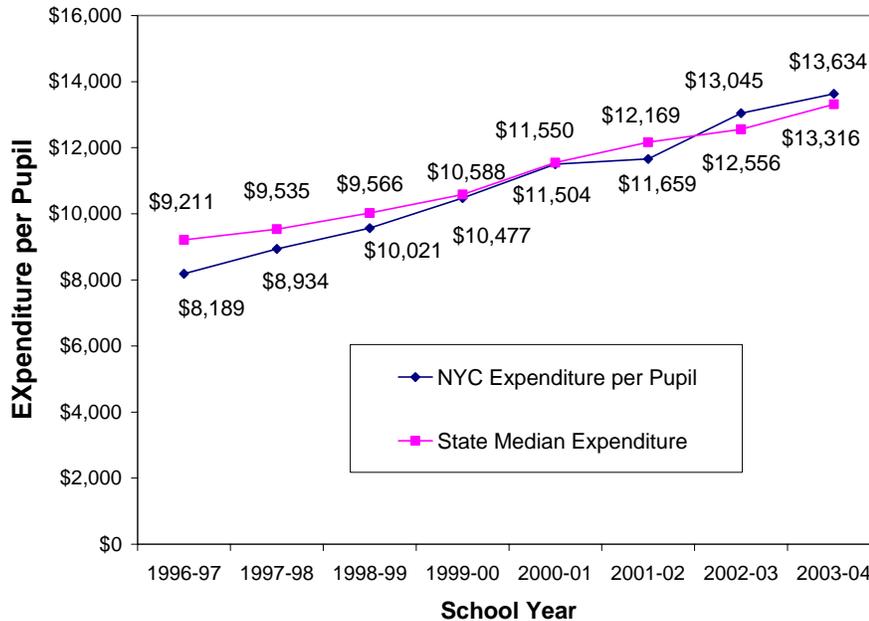
	1996-97	1997-98	1998-99	1999-2000	2000-01	2001-02	2002-03	2003-04
NYC Tax Rate/\$1,000 AV	\$13.73	\$15.88	\$15.26	\$16.14	\$15.90	\$12.60	\$15.57	\$16.18
Median (State) Tax Rate/\$1,000 AV	\$16.75	\$17.02	\$17.34	\$17.58	\$17.75	\$18.26	\$18.21	\$18.34
Distance from the Median Tax Rate/\$1,000 AV	\$3.02	\$1.14	\$2.08	\$1.44	\$1.85	\$5.66	\$2.64	\$2.16
Lost Levy/Pupil	\$800	\$301	\$552	\$411	\$570	\$1,940	\$1,001	\$875
Effective Lost Levy/Pupil	\$800	\$301	\$455	\$110	\$46	\$509	\$0	\$0
NYC Revenue from State Sources/Pupil	\$3,500	\$3,681	\$3,985	\$4,112	\$4,836	\$5,153	\$4,984	\$5,076

In addition to the fact that New York City is no longer among the districts with effective lost levy (row 5 of Table 2) in the most recent year, another very significant finding is that New York City's tax rate per \$1,000 actual value has increased marginally (3.9 percent) over the prior year, back to levels of the late 1990s. Both of these trends -- the improved taxing and higher than average spending behavior -- may reflect improvements in the New York City economy, particularly very robust housing and real estate markets, and hence the City's fiscal capacity to spend for education⁴.

As seen in Chart 3, for the second time since SED began studying local effort, in the late 1990s, New York City's expenditure per pupil has exceeded that of the state as a whole. The City's spending of \$13,634 per pupil is 2.4 percent higher than the statewide median of \$13,316. This came after a period where New York City was already closing the gap between its spending and the rest of the state, but which was stalled in 2001-02, due to the harmful effects of the nationwide recession and the events of September 11, 2001.

⁴ The New York City Comptroller's office reports that the annual 2003 increase over the prior calendar year in a tax that reflects real estate activity (both volume of sales and prices) - the mortgage recording tax - grew 14.3 percent. See Economic Notes, NYC Office of the Comptroller, March 2004: <http://www.comptroller.nyc.gov/bureaus/bud/econnotes-pdf/Vol-XII-1-March04.pdf>

Chart 3. Expenditure per Pupil for New York City vs. Statewide (1996-'97 to 2003-'04)

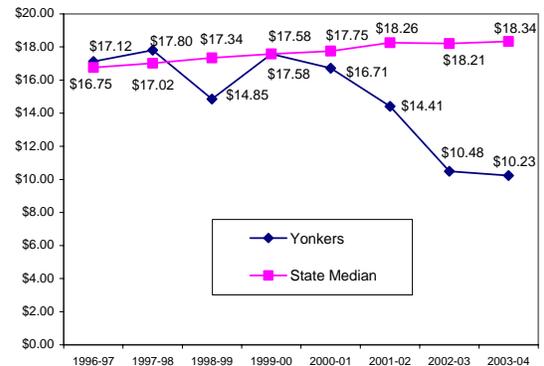
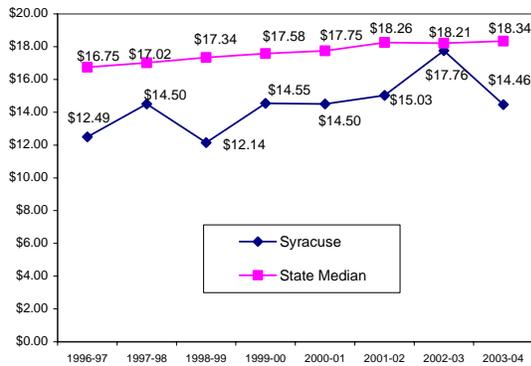
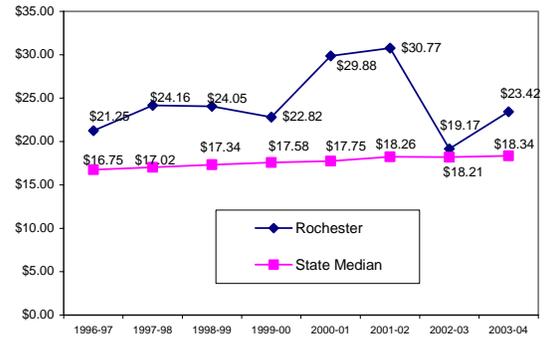
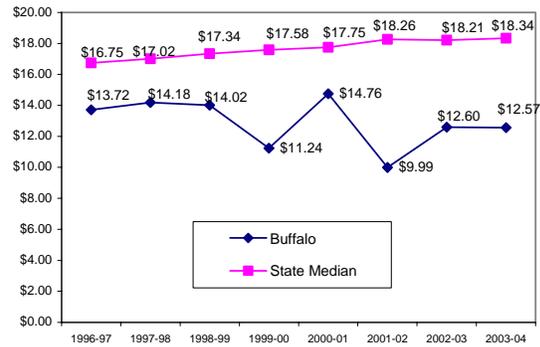


Tax Effort and the Big Four School Districts

In Chart 4 the tax rates for each of the Big Four school districts are compared to the state median over the last eight years. While the state median tax rate was essentially flat - it changed only marginally from the last year, from \$18.21 to \$18.34 – only one of the Big Four districts, Rochester increased its calculated tax rates during the same time period. In fact of the Big Four, only Rochester exceeded the state median last year and has done so historically over the period SED has conducted this local effort analysis. The taxing behavior of the other three in this category are notable in their absence. For example, Yonkers (whose tax effort for education has been criticized recently by the State Comptroller ⁵), although essentially unchanged from the prior year, is taxing \$8/1,000 actual value less than the state average. Buffalo like Yonkers, changed little in its tax behavior relative to 2002-03, with the caveat that they exert more effort; nevertheless this city’s local tax effort is only about 2/3 that of the state median at \$12.57/\$1,000 actual value. Finally, after a trend of appearing to close the gap relative to the statewide experience (and evidenced by a year in which they almost met it, in 2002-03), Syracuse once again, has fallen behind in local tax effort: their rate per \$1,000 actual value is \$3 less than the state median.

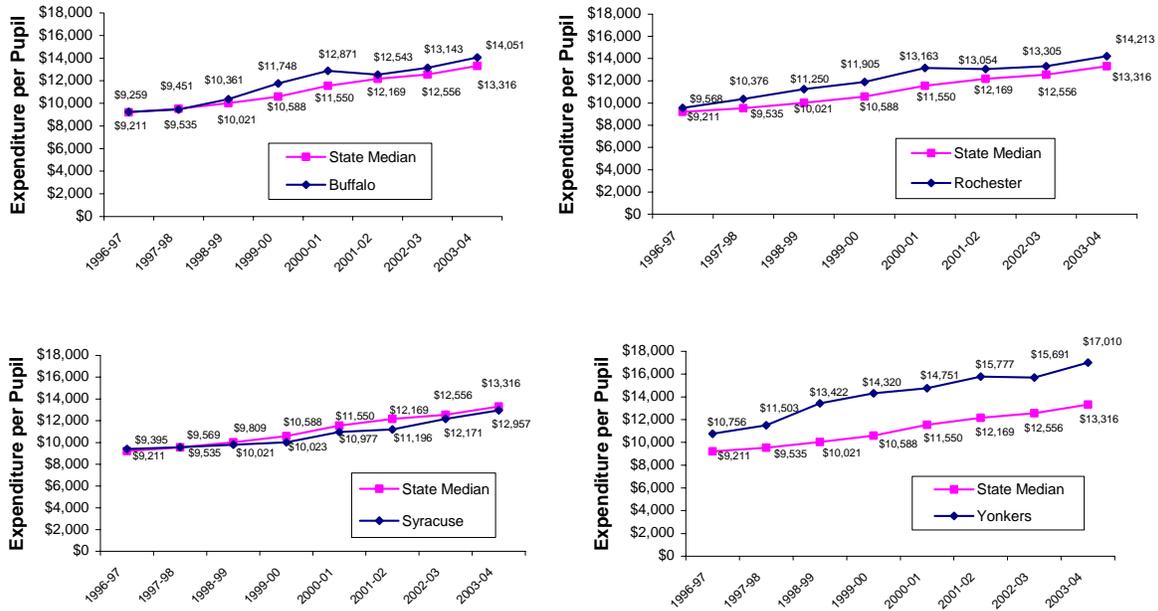
⁵ See <http://www.osc.state.ny.us/localgov/muni/audits/2005/cities/yonkers.htm> for an analysis of Yonkers’ fiscal situation.

Chart 4.
Tax Rate Per \$1,000 Actual Value for the Big Four City School Districts (1996-97 to 2003-04)



When changing the focus from tax rates to expenditure per pupil, Chart 5 shows that the expenditure per pupil for three of the Big Four school districts exceeds that of the statewide median for 2003-04. Syracuse was the only member of the group that failed to meet or exceed the state median expenditure for the most recent year of this analysis.

Chart 5.
Expenditure per Pupil for the Big Four City School Districts
(1996-97 to 2003-04)



All Districts

As shown in Table 3, when the number of low taxing and low spending effective lost levy districts in 2002-03 are compared to those in the following year, there is a decrease of 7 districts, which reflects about one-half of the prior year's decline (of 15). The net effect in dollar terms of this effective loss levy increased slightly, from \$161 million to \$175 million.

When considering districts with effective lost levy *and* low performance, there was a significant decrease of 10 districts from 2002-03 to 2003-04. This is consistent with the general trend of academic performance in the elementary and middle grades statewide, among all districts, regardless of their taxing and spending behavior. In 2002-03, 182 districts had average scores on more than one of four exams below the cut point and hence, were characterized as low performing. The applicable value for 2003-04 is 178 districts, a slight decrease.

Table 3.

Comparison of Effective Lost Levy Districts, 1996-97 to 2003-04

	1996-97	1997-98	1998-99	1999-2000	2000-01	2001-02	2002-03	2003-04
Total Number of Eff. Lost Levy Districts (including NYC)	185	190	190	178	161	149	134	127
Total Eff. Lost Levy (including NYC) (in Millions)	\$960	\$449	\$617	\$250	\$188	\$702	\$161	\$175
Total Eff. Lost Levy (excluding NYC) (in Millions)	\$119	\$130	\$128	\$133	\$139	\$159	\$161	\$175
Total Number of Low-Performing Eff. Lost Levy Districts (including NYC)	70	65	88	110	75	66	39	29
Total Eff. Lost Levy of Low Performing Districts (including NYC) (in Millions)	\$878	\$354	\$542	\$196	\$108	\$605	\$23	\$32
Total Eff. Lost Levy of Low Performing Districts (excluding NYC) (in Millions)	\$37	\$35	\$53	\$78	\$58	\$62	\$23	\$32

Appendix A

Table 4. Analysis of Local Effort -- State Aid Variables by District Type (2003-04)

District Type	Need/ Fiscal Capacity Index	Tax Rate / \$1000 Actual Value	Total Expend. per Pupil	Lost Levy/ Pupil	Districts w/ Lost Levy in each Category	Eff. Lost Levy/ Pupil	Districts w/ Effective Lost Levy in each Category	Effective Lost Levy/ Pupil in Low Performing * Districts	Districts w/ Effective Lost Levy and Low- Performing *	Revenue from State Sources per Pupil	Combined Wealth Ratio (CWR)	Extra- Ordinary Need Percent
NYC (1)	1.688	\$16.18	\$13,634	\$875	1	\$0	0	\$0	0	\$5,076	0.998	92.3%
Rural (197)	1.408	\$17.15	\$14,268	\$1,568	125	\$575	67	\$225	21	\$7,237	0.733	39.6%
Upstate Suburban (251)	0.812	\$20.50	\$12,590	\$739	61	\$723	37	\$117	4	\$5,690	0.775	21.6%
Upstate Small Cities (50)	1.744	\$20.83	\$12,503	\$118	8	\$782	7	\$85	2	\$6,392	0.592	55.3%
Big 4 (4)	3.395	\$15.17	\$14,558	\$1,435	3	\$359	1	\$359	1	\$8,894	0.546	87.8%
Downstate Suburban (167)	0.322	\$14.63	\$17,657	\$4,022	134	\$332	15	\$49	1	\$2,859	2.412	22.7%
Downstate Small Cities (7)	0.786	\$15.04	\$17,607	\$2,884	6	\$0	0	\$0	0	\$3,669	1.973	57.7%
State Median		\$18.34	\$13,316									

* For the purpose of this analysis, low-performing districts are those with average scores on two or more of the following State exams (4th and 8th Grade Math and ELA) below the Level 3 cut-point

Table 5. Analysis of Local Effort -- State Aid Variables by Need/Resource Capacity Category (2003-04)

Need Resource Category	Need/ Fiscal Capacity Index	Tax Rate / \$1000 Actual Value	Total Expend. per Pupil	Lost Levy/ Pupil	Districts w/ Lost Levy in each Category	Eff. Lost Levy/ Pupil	Districts w/ Effective Lost Levy in each Category	Effective Lost Levy/ Pupil in Low Performing * Districts	Districts w/ Effective Lost Levy and Low- Performing *	Revenue from State Sources per Pupil	Combined Wealth Ratio (CWR)	Extra- Ordinary Need Percent
NYC (1)	1.688	\$16.18	\$13,634	\$875	1	\$0	0	\$0	0	\$5,076	0.998	92.3%
Big 4 (4)	3.395	\$15.17	\$14,558	\$1,435	3	\$359	1	\$359	1	\$8,894	0.546	87.8%
Urban/Sub. High Need (46)	2.106	\$20.51	\$15,923	\$894	13	\$461	6	\$384	2	\$7,234	0.666	72.3%
Rural High Need (156)	1.890	\$18.38	\$13,308	\$707	78	\$460	47	\$304	19	\$8,199	0.489	47.2%
Average Need (337)	0.673	\$19.28	\$13,248	\$1,750	134	\$575	63	\$359	7	\$5,317	0.850	24.6%
Low Need (133)	0.068	\$13.58	\$18,007	\$7,438	109	\$548	10	\$0	0	\$2,051	2.945	6.7%
State Median		\$18.34	\$13,316									

* For the purpose of this analysis, low-performing districts are those with average scores on two or more of the following State exams (4th and 8th Grade Math and ELA) below the Level 3 cut-point