NEW YORK STATE EDUCATION DEPARTMENT

2004
Analysis of Local Effort in New York State School Districts

APRIL 2005

MAJOR FINDINGS

- This report identifies as a policy concern those school districts that are low taxing, low spending and low performing.
- Thirty-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 decrease 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 Five 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.
- The total levy loss attributed to low tax effort, low spending, and low performing districts for 2002-03 was $23 million; two-thirds of this levy loss is attributed to Rural and Upstate Suburban districts.
- This result is $582 million less than 2001-02.
- Average or median spending per pupil increased 3.2 percent while median tax effort declined by 0.3 percent from 2001-02.
- In total, State financing for K-12 education, including STAR, only increased by 0.6 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 2002 data suggest a 12.5 percent increase in actual values over 2001.

POLICY 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 school 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 seven years. It provides an update on school district local tax effort using 2002-03 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 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 policy concern.

Discussion

This analysis was conducted to provide a picture of the tax effort problem. Tax effort was examined using a modified version of the three-tiered approach described in an October 1999 Regents report[1]. 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 2002-03 by taxing themselves below the statewide median tax rate of $18.21 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 $12,556 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 such districts 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 spending behavior as problematic, given the level of performance obtained by their

[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.

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.

Lost Levy = Levy Assuming Median Tax Rate – Actual Levy

Effective Lost Levy Calculation: refers to that portion of the calculated lost levy that would have to be raised in an "under-spending" district in order to close the spending gap (between the district's actual spending per pupil and the statewide median spending level) **(see 3 examples that follow):**

District 1:
Lost levy per pupil = $500 Expenditure per pupil = $11,800
Median state expenditure per pupil = $12,556
Distance below the median expenditure per pupil = $756
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 = $12,200
Median state expenditure per pupil = $12,556
Distance below the median expenditure per pupil = $356
Therefore, **the effective lost levy per pupil = $356** (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 = $12,800
Median state expenditure per pupil = $12,556
Distance above the median expenditure per pupil = $244
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

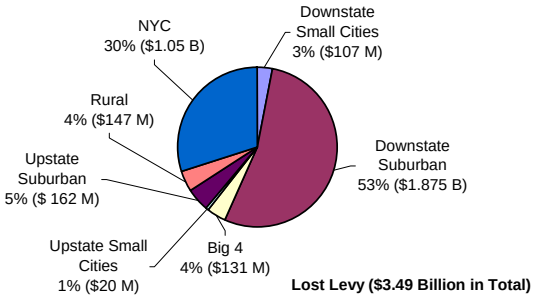
For the purpose of this analysis, tax rates were calculated using a local levy that includes the STAR payment. This approach is consistent with the way tax rates are calculated for State Aid purposes. When STAR is included in the local levy, the median tax rate is $18.21 per $1,000 actual value. Another 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 49 districts with poor performance (versus 39 districts when STAR is included) having an effective lost levy of $24.2 million (versus $23.7 million with the inclusion of STAR).

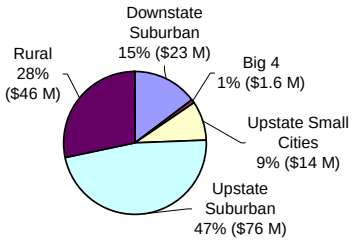
Findings

The magnitude of the lost levy problem statewide was $3.49 billion in 2002-03. New York City had a lost levy of $1.05 billion, accounting for 30 percent of the State total. Downstate suburban districts had a lost levy of $1.875 billion, which represents 53 percent of the total (Chart 1).

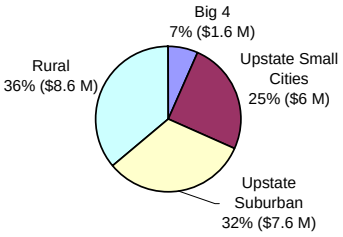
Chart 1
Lost Levy by District Type (2002-03)



Lost Levy ($3.49 Billion in Total)



Effective Lost Levy ($161 Million in Total)



Effective Lost Levy in Low-Performing Districts ($23.75 Million in Total)

When considering only those low taxing districts that are also spending below the median expenditure per pupil of $12,556, the total effective lost levy is $161 million. There were 134 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 $13,043 exceeded the statewide median. Rather, the district types making the greatest contribution to this problem are the Upstate suburbs and rural districts: these two categories are responsible for three-fourths of the State total effective lost levy. These categories are followed by the downstate suburban districts, which represent 15 percent of the statewide total.

If we further narrow the effective lost levy districts to include only those whose performance was below a standard performance level, 39 districts were found to be in this category. For these 39 districts, the total effective lost levy amounted to $23.7 million, of which the greatest shares derive from the following categories: rural, Upstate suburban and Upstate Small Cities, with 36, 32 and 25 percent of the total, respectively.

Rural districts were disproportionately represented in the effective lost levy, low-performing category as seen in the District Type table located in Appendix A. That is, while rural districts account for 29.1 percent of all districts in the State, they comprise 43.6 percent of the 39 districts with effective lost levy and poor performance.

Table 1

Analysis of Local Effort -- State Aid Variables[1] by Need/Fiscal Capacity Index Deciles [2] (2002-03)

[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 that Lost Levy in each Decile	Effective Lost Levy per Pupil	Districts with Effect. Lost Levy in each Decile	Eff. Lost Levy/Pupil for Low-Performing[3] Districts	Districts w/ Eff. Lost Levy & Low-Performance[3] in Decile	Revenue from State Sources per Pupil	Combined Wealth Ratio (CWR)	Extra-Ordinary Needs Percent
(Low Need)	1	0.026	$13.22	$16,112	$6,500	58	$0	0	$0	0	$2,014	2.282	2.9%
	2	0.087	$14.15	$14,247	$6,444	42	$656	7	$0	0	$2,735	1.742	8.2%
	3	0.209	$18.02	$12,810	$1,725	29	$1,016	9	$0	0	$3,763	1.128	14.0%
	4	0.385	$17.34	$12,575	$1,918	33	$554	14	$205	1	$4,480	1.002	23.6%
	5	0.558	$19.19	$12,169	$1,427	26	$329	10	$387	2	$4,665	0.892	30.3%
	6	0.768	$18.47	$13,116	$1,374	28	$799	11	$17	1	$5,307	0.882	42.5%
	7	1.001	$19.55	$11,936	$680	28	$541	21	$486	12	$6,419	0.650	44.4%
	8	1.356	$16.02	$12,864	$2,024	29	$429	19	$1,234	3	$7,300	0.679	61.7%
	9	1.695	$19.50	$12,696	$573	33	$429	23	$433	10	$7,266	0.576	63.3%
(High Need)	10	3.073	$19.54	$12,820	$428	33	$213	20	$176	10	$8,099	0.474	82.2%
NYC (9)		1.791	$15.57	$13,045	$1,001	1	0	0	0	0	$4,984	0.952	94.4%
Buffalo (10)		3.707	$12.60	$13,143	$683	1	$0	0	$0	0	$8,611	0.434	89.1%
Rochester (10)		3.870	$19.17	$13,305	$0	0	$0	0	$0	0	$9,368	0.443	94.9%
Syracuse (10)		3.334	$17.76	$12,171	$69	1	$69	1	$69	1	$7,723	0.445	82.2%
Yonkers (8)		1.402	$10.48	$15,691	$3,931	1	$0	0	$0	0	$8,762	1.033	80.2%
State Median			$18.21	$12,556									

[1] Values (except those for the Big Four and NYC) shown reflect weighted averages for the deciles.

[2] Deciles were calculated without NYC, but with the Big Four cities included.

[3] For the purposes of this analysis, low performing districts are defined as those with average scores below the cut point for more than one of the following exams: 4th and 8th Grade Math and ELA.

As shown in the decile table above, 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 11.8 percent of districts were found to be low taxing and low spending, whereas in the five highest need/fiscal capacity deciles, 28 percent of the districts were identified as effective lost levy districts.

[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.

As need/fiscal capacity status worsened, districts that were low taxing and low spending *also* experienced substantial drops in academic performance. Of the 39 districts that were identified as low taxing, low spending *and* low performing (column J of Table 2), 92.3 percent fell into the five highest need/fiscal capacity deciles.

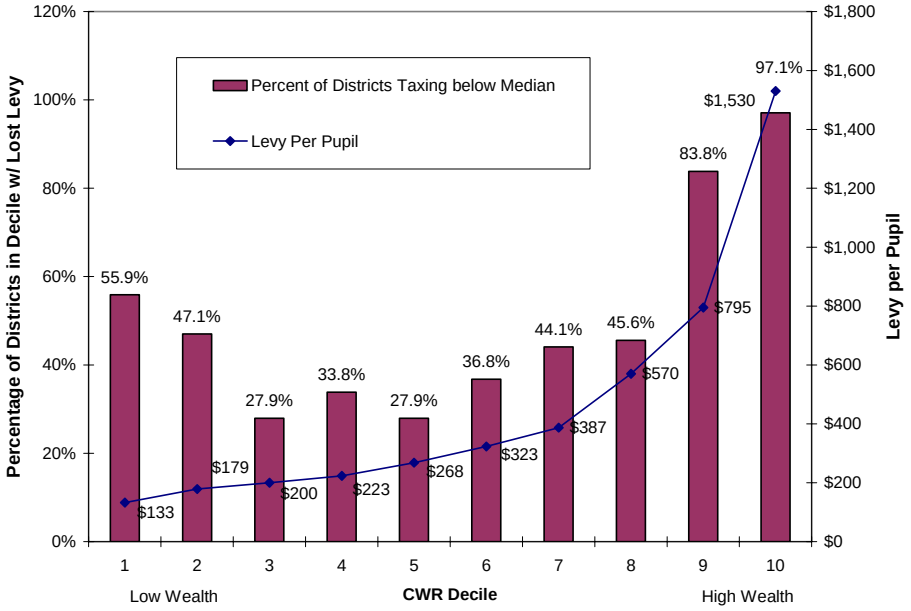
In addition to the decile analysis, Table 1 displays the lost levy and the effective lost levy for New York City and the Big Four cities. While New York City, Buffalo, Syracuse and Yonkers all had tax rates below the median, only Syracuse had below average spending, thus falling into the effective lost 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 category.

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 51 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 $1,001, $683 and $3,931 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.

Chart 2.
Median Additional Levy per Pupil Associated with a One Dollar per Thousand (Actual Value) Increase in Tax Effort and Percent of Districts Found to Be Low Taxing by CWR Decile (2002-2003)



Changes from 2001-02: 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.

In addition to the fact that NYC is no longer among the districts with effective lost levy districts (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 significantly (23.6 percent) over the prior year, back to levels of the late '90s. Both of these trends -- the improved taxing and higher than average spending behavior -- we attribute to 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 education[4].

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

	1996-97	1997-98	1998-99	1999-2000	2000-01	2001-02	2002-03
NYC Tax Rate/$1,000 AV	$13.73	$15.88	$15.26	$16.14	$15.90	$12.60	$15.57
Median Tax Rate/$1,000 AV	$16.55	$17.02	$17.34	$17.58	$17.75	$18.26	$18.21
Estimated Median Additional Tax Rate/$1,000 AV	$3.02	$1.14	$2.09	$1.44	$1.85	$5.66	$2.64
Lost Levy per Pupil	$800/Pupil	$301/Pupil	$552/Pupil	$411/Pupil	$570/Pupil	$1,940/Pupil	$1,001/Pupil
Effective Lost Levy per Pupil	$800/Pupil	$301/Pupil	$455/Pupil	$110/Pupil	$46/Pupil	$509/Pupil	$0/Pupil
NYC Revenue from State Sources per Pupil	$3,500/Pupil	$3,681/Pupil	$3,985/Pupil	$4,112/Pupil	$4,838/Pupil	$5,153/Pupil	$4,984/Pupil

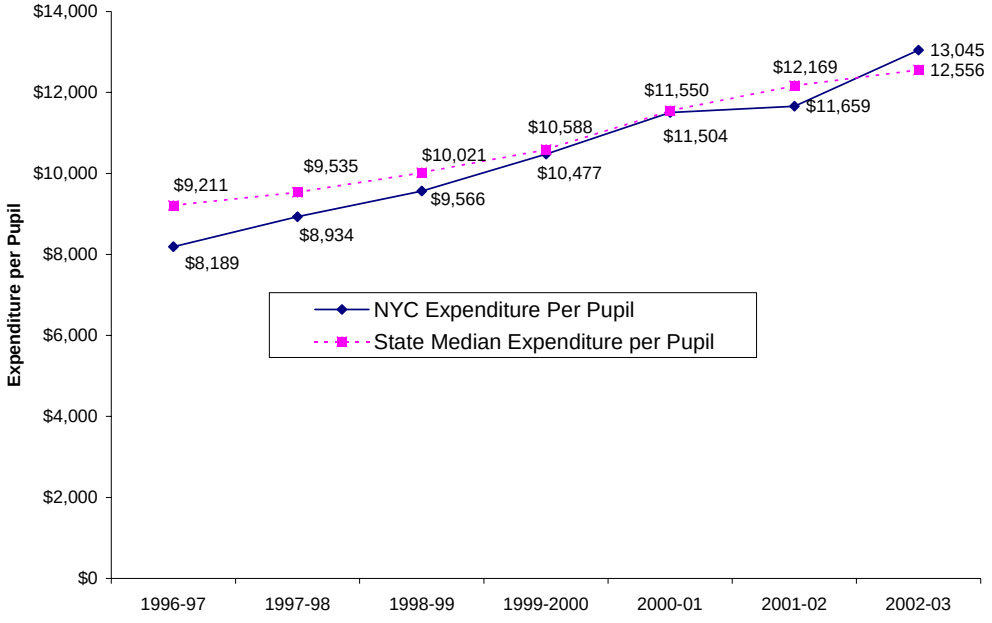
[4] The New York City Comptroller's office reports that the annual 2002 increase over the prior calendar year in taxes that reflect real estate activity (both volume of sales and prices) the mortgage recording and real property transfer taxes - grew 15.7 and 10.3 percent, respectively. See Economic Notes, NYC Office of the Comptroller, July 2003. http://www.comptroller.nyc.gov/bureaus/bud/econnotes-pdf/Vol-XI-2-July03.pdf

As seen in Chart 3 below, for the first 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 $13,045 per pupil is 3.9 percent higher than the statewide median of $12,556. 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, ostensibly due to the harmful effects of the recession and the events of September 11, 2001.

Tax Effort and the Big Four School Districts

In Chart 4 below, the tax rates for each of the Big Four school districts are compared to the State median. While the State median tax rate was essentially flat - it changed only marginally from the last year, from $18.26 to $18.21 - two members of the Big Four, Buffalo and Syracuse, increased their calculated tax rates during the same time period. Although, the former still taxes significantly less than the average statewide district, the latter has made significant improvement over the last year, such that Syracuse's rate is just under a half dollar less than the State overall (per $1,000 actual value) at $17.76. After a period of consistently exceeding the statewide average, Rochester lowered its tax effort in the past year to about a dollar above the State average at $19.17/$1,000.

Chart 3.
Expenditure per Pupil for New York City
(1996-97 to 2002-03)

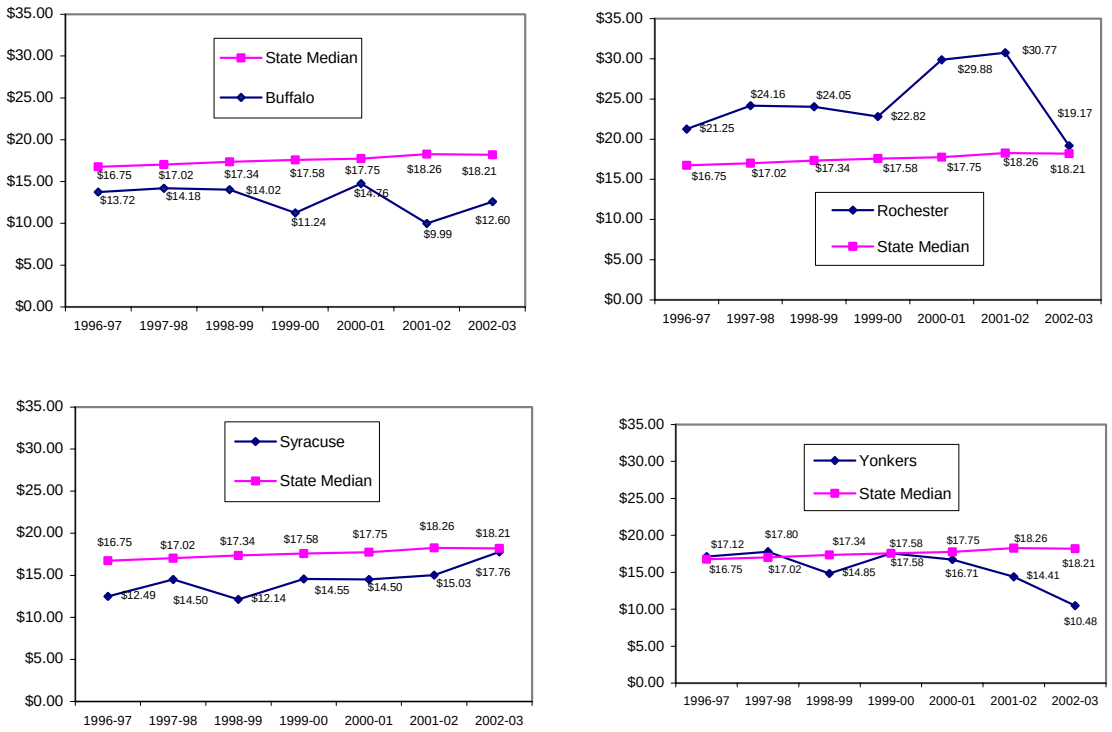


However, it should be pointed out that this is still the highest of the Big Four and the only one in this district category exceeding the State tax effort median. Yonkers, like Rochester decreased its local tax effort. Yonkers' situation however, is made worse by the fact that that it was starting off in a lesser position relative to the statewide median in

2001. Yonkers slid further, to the point where its tax rate of $10.48 for 2002-03 is almost $8/1,000 actual value less than the State average. However, as we shall see in Chart 5, despite this low tax effort, Yonkers is not spending below the statewide median. This is made possible by additional property tax revenues resulting from a large increase in property values in 2002-03.

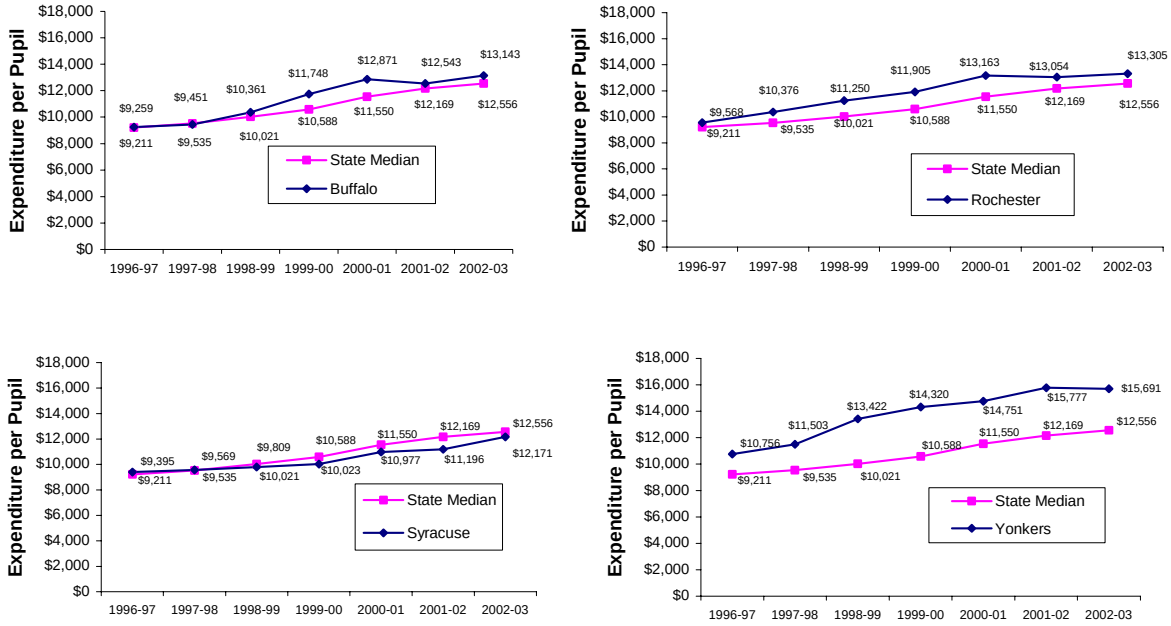
When changing the focus from tax rates to expenditure per pupil, Chart 5 shows that the expenditure per pupil for three of the Big Four school districts exceeds that of the statewide median for 2002-03. Syracuse was the only member of the group that failed

Chart 4.
Tax Rate per $1,000 Actual Value for the Big Four City School Districts
(1996-97 to 2002-03)



to meet or exceed the State median expenditure for the most recent year of this analysis. However, as the shrinking distance between the two trend lines in the chart in the lower left corner suggests, Syracuse is closing the gap between itself and the rest of the State.

Chart 5.
Expenditure per Pupil for the Big Four City School Districts
(1996-97 to 2002-03)



Rochester's spending over the last two years is essentially flat, as is Yonkers' experience over the last year (a 0.5 percent decrease). Buffalo's growth relative to the State average remained roughly the same. In the prior year it exceeded the State median in spending per pupil by 3.1 percent, while this rate grew to 4.6 percent in 2002-03.

All Districts

As shown in Table 3, when the number of low taxing and low spending effective lost levy districts in 2001-02 is compared to those in the following year, there is a decrease of 15 districts. This is roughly equal to the decrease of the prior year (of 12: from 161 effective lost levy districts to 149). The net effect in dollar terms of this effective loss levy declined markedly from roughly $700 million to just $161 million. We can attribute virtually all of this to the fact that in this year's analysis, New York City is no longer an effective lost levy district.

When considering districts with effective lost levy *and* low performance, there was a very significant decrease of 27 districts from 2001-02 to 2002-03: this is a threefold increase over the prior year's reduction of 9 fewer districts (from 75 to 66) with both effective lost levy and low performance. This last result reflects the general trend of better academic performance in the elementary and middle grades statewide: among all districts, regardless of their taxing and spending behavior. In 2001-02 240 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 2002-03 is 182 districts, a decline of almost a quarter (24.2 percent).

Table 3.
Comparison of Effective Lost Levy Districts, 1996-'97 to 2002-'03

	1996-97	1997-98	1998-99	1999-2000	2000-01	2001-02	2002-03
Total Number of Effec. Lost Levy Districts Including NYC (Low Taxing and Low Spending Districts)	185	190	190	178	161	149	134
Total Effec. Lost Levy Statewide Including NYC	$960 million	$449 million	$617 million	$250 million	$188 million	$702 million	$161 million
Total Effec. Lost Levy Statewide Excluding NYC	$119 million	$130 million	$128 million	$133 million	$139 million	$159 million	$161 million
Total Number of Districts w/Effec. Lost Levy & Low Performance Including NYC	70	65	88	110	75	66	39
Total Effec. Lost Levy for Districts w/ Effec. Lost Levy & Low Performance Statewide Including NYC	$878 million	$354 million	$542 million	$196 million	$108 million	$605 million	$23 million
Total Effec. Lost Levy for Districts w/ Effec. Lost Levy & Low Performance Statewide Excluding NYC	$37 million	$35 million	$53 million	$78 million	$58 million	$62 million	$23 million

Analysis of Local Effort -- State Aid Variables* by District Type (2002-03)

	Need/Fiscal Capacity Index	Tax Rate per $1,000 Actual Value	Total Expenditure/ Pupil	Lost Levy /Pupil	Districts w/ Lost Levy in each Decile	Effective Lost Levy/ Pupil	Districts w/ Effective Lost Levy in each Decile	Eff. Lost Levy/Pupil in Low-Perf. Districts	Districts w/ Effect. Lost Levy & Low-Perf.	Revenue from State Sources/ Pupil	Combined Wealth Ratio (CWR)	Extraordinary Need Percent
Downstate Small Cities (7)	0.829	$14.73	$16,268	$2,861	6	$0	0	$0	0	$3,844	1.614	55.0%
Downstate Suburban (169)	0.481	$14.80	$15,260	$4,681	119	$479	9	$0	0	$3,596	1.593	22.0%
Big 4 (4)	3.227	$13.44	$13,512	$1,418	3	$70	1	$385	1	$8,704	0.555	87.9%
Upstate Small Cities (50)	1.674	$20.54	$11,943	$441	13	$354	12	$1,356	5	$6,103	0.652	54.1%
Upstate Suburban (251)	0.569	$19.88	$11,520	$1,178	73	$686	47	$1,805	16	$4,885	0.852	25.0%
Rural (198)	1.377	$16.28	$12,310	$1,162	125	$569	65	$1,046	17	$7,233	0.628	60.9%
NYC (1)	1.791	$15.57	$13,045	$1,001	1	$0	0	$0	0	$4,984	0.952	94.4%
State Median		18.21	$12,556									

*Values shown are weighted averages for each category.

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

Analysis of Local Effort -- State Aid Variables* by Need Resource Category (2002-03)

	Need/Fiscal Capacity Index	Tax Rate per $1,000 Actual Value	Total Expenditure/ Pupil	Lost Levy /Pupil	Districts w/ Lost Levy in each Category	Effective Lost Levy/ Pupil	Districts w/ Effective Lost Levy in each Category	Eff. Lost Levy/Pupil in Low-Perf. Districts	Districts w/ Effect. Lost Levy & Low-Perf.	Revenue from State Sources/ Pupil	Combined Wealth Ratio (CWR)	Extra-ordinary Need Percent
NYC (1)	1.791	$15.57	$13,045	$1,001	1	0	0	$0	0	$4,984	0.952	94.4
Big Four (4)	3.242	$13.44	$13,512	$1,418	3	$70	1	$70	1	$8,704	0.555	87.9
Urban/Suburban High Need (46)	2.103	$20.43	$13,227	$630	15	$380	8	$569	5	$6,637	0.666	69.5
Rural High Need (157)	1.799	$17.83	$12,300	$685	86	$436	52	$438	23	$7,801	0.512	65.3
Average Need (338)	0.531	$18.41	$12,424	$1,402	133	$624	67	$320	10	$4,852	0.913	27.7
Low Need (134)	0.070	$13.75	$15,064	$6,557	102	$41	6	$0	0	$2,326	1.991	6.6
State Median		$18.21	$12,556									

*Values shown are weighted averages for each category.

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