

# Analysis of Local Effort in New York State School Districts

AUGUST, 2003

## **MAJOR FINDINGS**

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- Sixty-six districts were found to be below the median on measures of tax effort, spending, and student performance.
- 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.
- Two Big Five districts (New York City and Syracuse) were found to be low effort, low spending, and low performing.
- The total levy loss attributed to low tax effort, low spending, and low performing districts for 2001-02 was \$605 million, \$497 million more than 2000-01. Of the \$605 million, \$543 million was ascribed to New York City.

## **POLICY IMPLICATIONS FOR THE REGENTS PROPOSAL**

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- New York City's local effort has decreased when compared to 2000-01. This can be attributed, in part, to the events of September 11, 2001, which have reduced the fiscal capacity of the City.
- 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.

## **Findings Part 1: Analysis of School District Local Tax Effort**

This analysis uses a three-tiered framework for analyzing school district tax effort consistent with that presented annually for the past six years. It provides an update on school district local tax effort using 2001-02 data.

### **Background**

In New York State, a district's capacity to achieve a given spending 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. In light of the Regents emphasis on targeting State Aid to high need school districts, a clear understanding of school district local tax effort has become an issue of even greater 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 policy concern. Therefore, in accordance with the State Aid Work Group's research agenda, this analysis will define and describe the status of the local tax effort problem.

### **Discussion**

This analysis was conducted to provide the Regents a clear picture of the tax effort problem. Tax effort was examined using a modified version of the three-tiered approach described in the October 1999 Regents report<sup>1</sup>. Three measures of tax effort were used to describe the problem: a) "lost levy" – which refers to the amount of local tax revenue that districts lost in 2001-2002 by taxing themselves below the statewide median tax rate of \$18.26 per \$1,000 actual value; b) "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<sup>2</sup> statewide spending level of \$12,169 per pupil. 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 and these types of districts were eliminated from the effective lost levy category. It is important to note that the spending level referred to in this analysis is an aggregate of a district's General Fund, Debt Service Fund, and Special Aid Fund.

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<sup>1</sup> 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).

<sup>2</sup> 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.

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 students. Therefore, in order to identify low taxing, low spending, and districts needing to improve their academic performance, the same notion of effective lost levy was applied in conjunction with average student performance on the New York State 4<sup>th</sup> and 8<sup>th</sup> 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.

Figure 1 below displays the type of district for whom 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 = \$11,800**

**Median state expenditure per pupil = \$12,169**

Distance below the median expenditure per pupil = \$369

Therefore, the effective lost levy per pupil = \$369 (Effective lost levy is that portion of the lost levy required to bring a district up to the median expense per pupil).

District 2

**Lost levy per pupil = \$500      Expenditure per pupil = \$11,150**

**Median state expenditure per pupil = \$12,169**

Distance below the median expenditure per pupil = \$1,019

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).

**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. 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 \$14.59 per \$1,000 actual value. This change would result in the identification of 83 districts with poor performance (versus 66 districts when STAR is

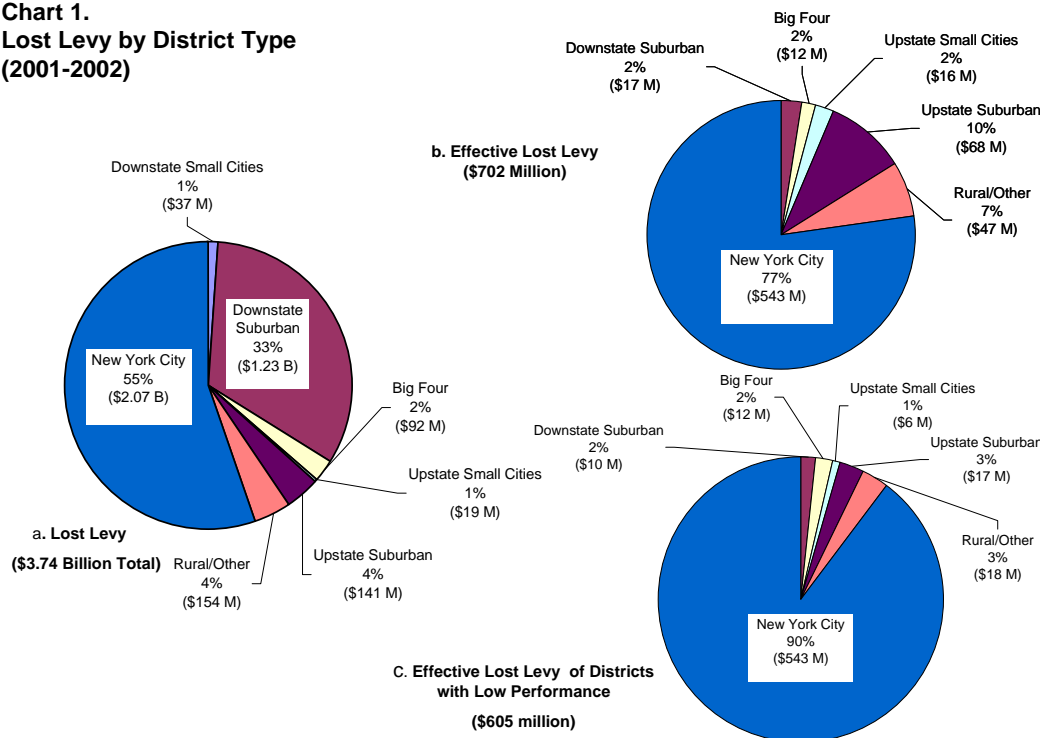
included) having an effective lost levy of \$599 million (versus \$605 million). The districts identified in both instances would be virtually identical.

## Findings

The magnitude of the lost levy problem statewide was \$3.74 billion in 2001-02. New York City had a lost levy of \$2.07 billion, accounting for 55 percent of the total statewide lost levy. Downstate suburban districts had a lost levy of \$1.23 billion, which represents 33 percent of the total.

When considering only those low taxing districts that are also spending below the median expenditure per pupil of \$12,169, the total effective lost levy is \$702 million. There were 149 districts found to be low taxing and low spending, thus placing them into the effective lost levy category. New York City had an effective lost levy of \$543 million (Chart 1), which represents a \$494 million increase from last year's total.

**Chart 1.**  
**Lost Levy by District Type**  
**(2001-2002)**



As shown in Chart 1, as we shift our focus from an exclusive concern of low tax effort, to a narrower policy concern with *both* tax effort and spending levels, the downstate small city districts were eliminated completely from consideration. In this case, New York City accounted for 77 percent of the total effective lost levy. Twenty-five percent of the 270 upstate suburban districts examined in this study were found to fall into the effective lost levy category. The levy lost by upstate suburban districts due to low tax and spending

behavior was \$68 million, which accounted for 10 percent of the statewide effective lost levy.

If we further narrow the effective lost levy districts to only include those whose performance was below a standard performance level, 66 districts were found to be in this category. For these 66 districts, the total effective lost levy amounted to \$605 million, of which New York City's levy loss share amounted to 90 percent. The Syracuse school district was the only member of the Big Four City school districts identified as having an effective lost levy. Syracuse's lost levy due to low taxing and low spending behavior totaled \$12 million in 2001-02 and accounted for two percent of the total effective lost levy in districts with low academic performance.

Rural districts were disproportionately represented in the effective lost levy category as seen in the Set Code table located in Appendix A. That is, while rural districts account for 26.3 percent of all districts in the State, they comprise 43.94 percent of the 66 districts with effective lost levy and poor performance.

As shown in the decile table below, 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<sup>3</sup> status worsened, the likelihood of falling into the effective lost levy category increased. In the five lowest need/fiscal capacity deciles, only 15.13 percent of the districts were found to be low taxing and low spending, whereas in the five highest need/fiscal capacity deciles, 28.53 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 66 districts that were identified as low taxing, low spending *and* low performing (column J of Table 2), 92.42 percent fell into the five highest need/fiscal capacity deciles.

Table 2 below, 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 New York City and Syracuse had below average spending, thus falling into the effective lost levy category. Both New York City and Syracuse were found to have performance below a standard level. New York City had an effective lost levy per pupil of \$509 and Syracuse had an effective lost levy per pupil of \$478. Appendix A contains similar tables representing districts by district type and by need/resource category.

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<sup>3</sup> 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 2.

Analysis of Local Effort -- State Aid Variables\* by Need/Fiscal Capacity Index Deciles\*\* (2001-2002)

(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)	
Need/Fiscal Capacity Index Deciles	Need/Fiscal Capacity Index	Tax Rate Per \$1,000 Actual Value	Total Expense Per Pupil	Lost Levy Per Pupil	Dist. That Lost Levy in each Decile	Effec. Lost Levy Per Pupil	Dist. w/Effec. Lost Levy in Each Decile	Effec. Lost Levy/Pupil for Low Performing Dist.***	Dist. w/Effec. Lost Levy & Low Performance in Each Decile	Revenue From State Sources	CWR	EN%	
(Low Need)	1	0.024	\$15.19	\$15,235	\$4,854	50	\$326	3	\$0	0	\$1,829	2.263	2.69%
	2	0.088	\$14.89	\$13,573	\$5,630	39	\$685	7	\$0	0	\$2,681	1.745	8.54%
	3	0.209	\$18.88	\$12,364	\$1,797	20	\$671	9	\$0	0	\$3,758	1.157	13.80%
	4	0.376	\$18.23	\$12,182	\$1,180	34	\$429	16	\$470	2	\$4,439	1.029	23.88%
	5	0.546	\$19.73	\$11,885	\$929	31	\$395	16	\$307	3	\$4,817	0.900	31.40%
	6	0.763	\$19.56	\$12,155	\$789	27	\$491	16	\$487	9	\$5,241	0.833	39.33%
	7	0.997	\$18.21	\$11,935	\$801	37	\$631	22	\$557	13	\$5,884	0.773	51.37%
	8	1.319	\$19.15	\$11,943	\$547	37	\$357	23	\$222	12	\$6,864	0.616	55.97%
	9	1.616	\$18.11	\$12,759	\$971	27	\$495	16	\$498	12	\$7,550	0.660	67.15%
(High Need)	10	2.922	\$20.52	\$12,343	\$621	36	\$406	20	\$419	14	\$7,731	0.486	81.30%
NYC (9th)	1.798	\$12.60	\$11,659	\$1,940	1	\$509	1	\$509	1	\$5,153	0.939	93.68%	
Buffalo (10th)	3.327	\$9.99	\$12,543	\$973	1	\$0	0	\$0	0	\$8,458	0.474	87.49%	
Rochester (10th)	3.660	\$30.77	\$13,054	\$0	0	\$0	0	\$0	0	\$8,038	0.471	95.64%	
Syracuse (10th)	3.001	\$15.03	\$11,196	\$478	1	\$478	1	\$478	1	\$7,147	0.479	79.77%	
Yonkers (9th)	1.474	\$14.41	\$15,777	\$1,461	1	\$0	0	\$0	0	\$8,722	1.061	86.75%	
State Median		\$18.26	\$12,169										

\*Values shown are weighted averages for each decile

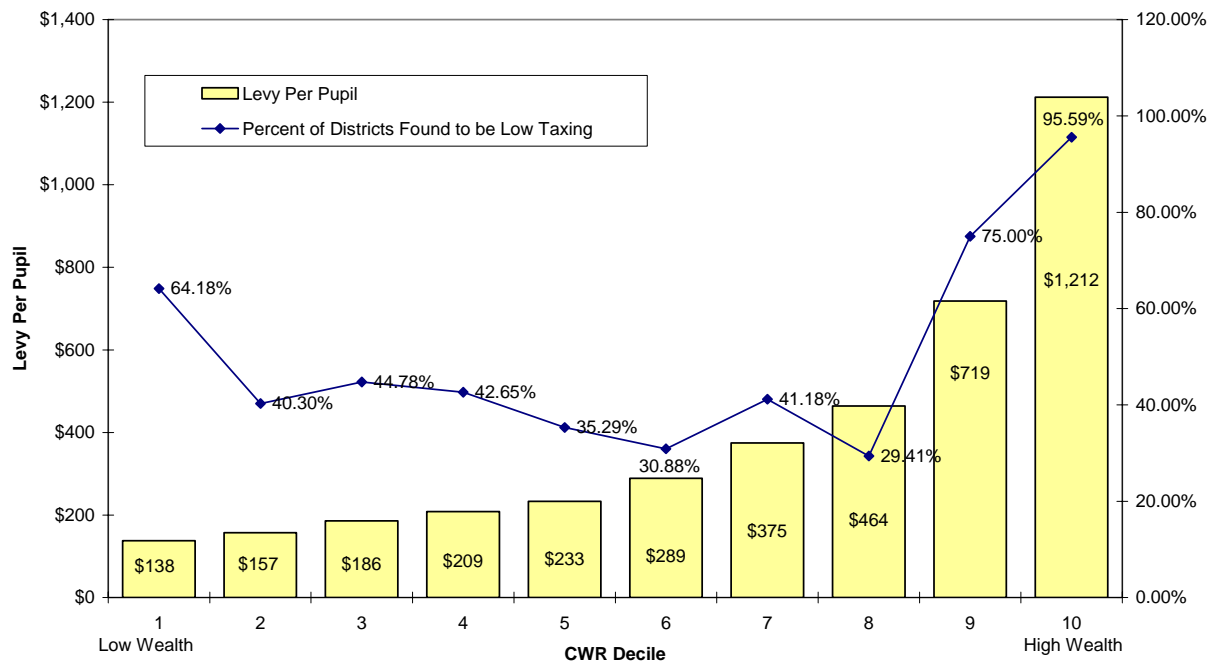
\*\*Deciles were calculated without New York City but including the Big Four Cities

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

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. There are a total of 54 districts that fall into the category of low taxing and low performing, but spending above the median expense. Included within this group are Buffalo and Yonkers whose tax rates were below the State median, which accounted for a lost levy of \$973 and \$1,461 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 will 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 districts.

**Chart 2.**  
**Median Additional Levy Per Pupil Associated with a One Millage Increase in Tax Effort and**  
**Percent of Districts Found to be Low Taxing by CWR Decile**  
**(2001-2002)**



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 2000-01

In a previous report, local effort was examined using 2000-01 data. Due to several added refinements in the measures used in the current study, it is difficult to compare, with precision, the results presented for 2000-01 and 2001-02 for individual districts. However, it is useful to note the changes for New York City and the Big Four, in addition to all districts in general.



## New York City

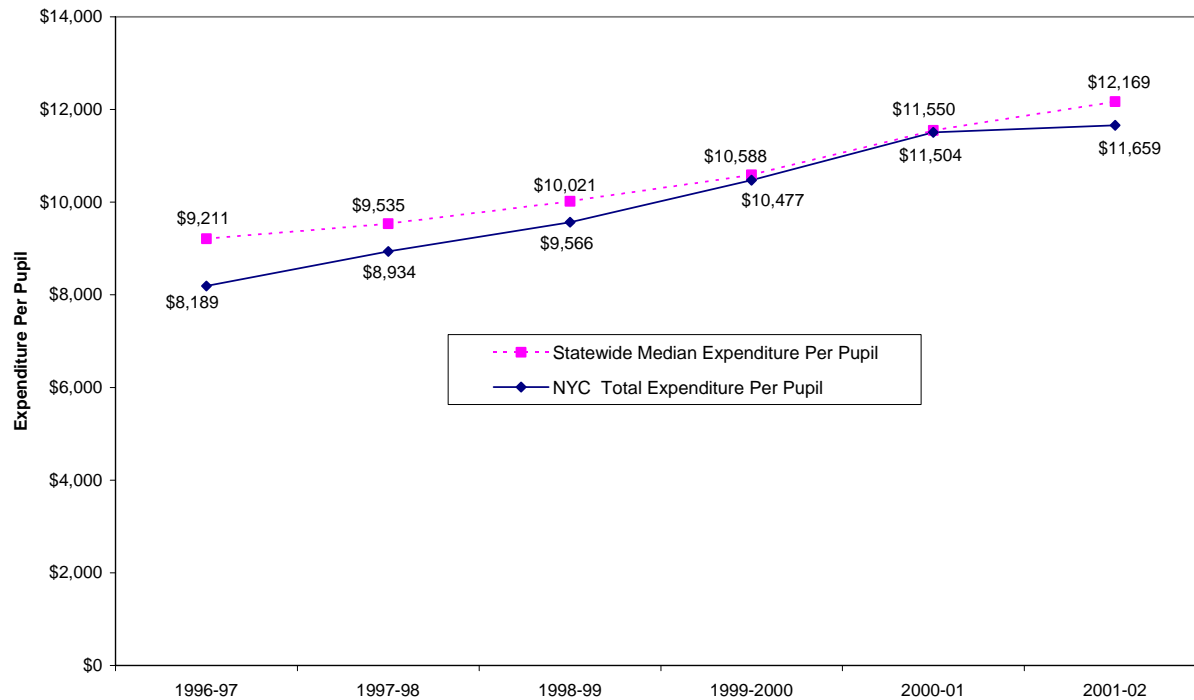
In 2000-01 the total effective lost levy for the 75 districts identified at that time as low taxing, low spending and low performing was \$108 million, of which New York City's levy loss share was 45 percent of the total. In 2001-02, there were 66 districts identified as low taxing, low spending and low performing. The total effective lost levy for these districts was \$605 million, of which New York City's levy loss share was 90 percent. Table 3 below describes some of the changes for New York City in order to better understand the increase in the magnitude of the local effort problem.

An important difference to note with respect to New York City is the change in the calculated tax rate. While the median tax rate statewide has increased, New York City's tax rate has decreased by \$3.30 per \$1,000 actual value. This decrease has further placed New York City below the median tax rate by \$5.66 per \$1,000 actual value. This results in a lost levy per pupil of \$1,940, which represents a \$1,370 increase when compared to the total in 2000-01.

	1996-97	1997-98	1998-1999	1999-2000	2000-2001	2001-2002
NYC Tax Rate/\$1,000 AV	\$13.73/\$1,000 AV	\$15.88/\$1,000 AV	\$15.26/\$1,000 AV	\$16.14/\$1,000 AV	\$15.90/\$1,000 AV	\$12.60/\$1,000 AV
Median Tax Rate/\$1,000 AV	\$16.75/\$1,000 AV	\$17.02/\$1,000 AV	\$17.34/\$1,000 AV	\$17.58/\$1,000 AV	\$17.75/\$1,000 AV	\$18.26/\$1,000 AV
Distance from the Median Tax Rate/\$1,000 AV	\$3.02/\$1,000 AV	\$1.14/\$1,000 AV	\$2.08/\$1,000 AV	\$1.44/\$1,000 AV	\$1.85/\$1,000 AV	\$5.66/\$1,000 AV
Lost Levy Per Pupil	\$800/Pupil	\$301/Pupil	\$552/Pupil	\$411/Pupil	\$570/Pupil	\$1,940/Pupil
Effective Lost Levy Per Pupil	\$800/Pupil	\$301/Pupil	\$455/Pupil	\$110/Pupil	\$46/Pupil	\$509/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

As seen in Chart 3 below, the margin between New York City and the statewide median expenditure per pupil has increased for 2001-02 despite gradual improvement in recent years. Additionally, if New York City were to contribute 100 percent of the shortfall per pupil due solely to low taxing behavior (lost levy), they would be above the median expense by \$1,430 per pupil for 2001-02, whereas in 2000-01, they would have been \$524 per pupil above the median.

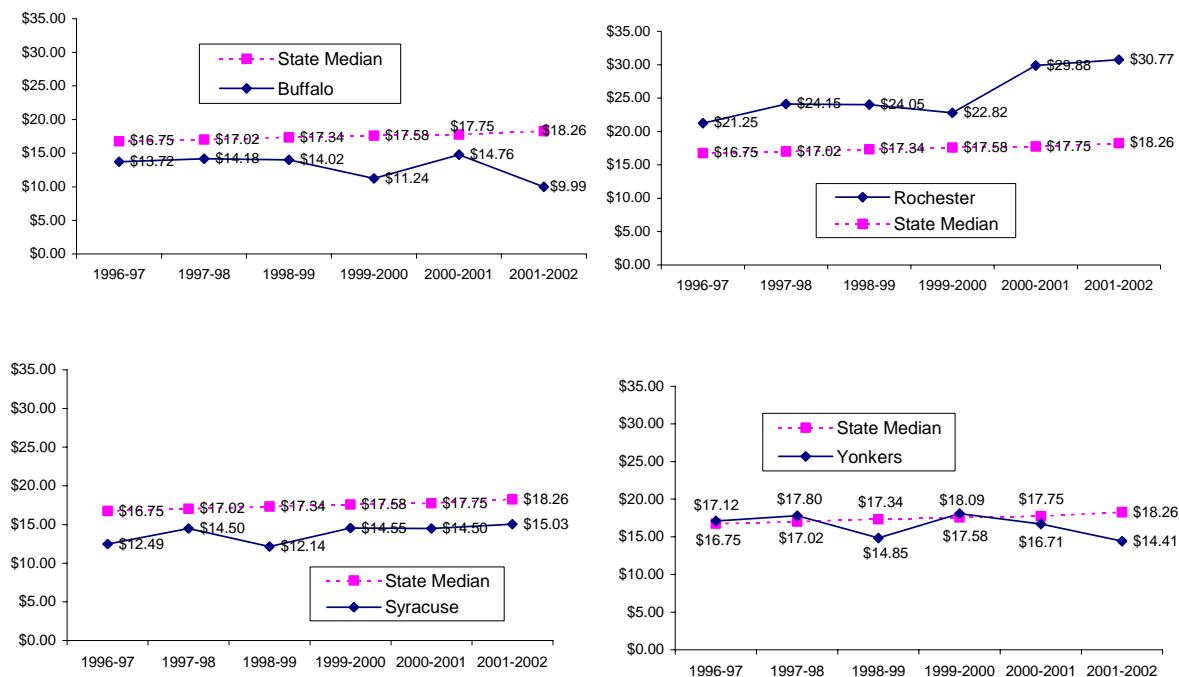
**Chart 3.**  
**Expenditure Per Pupil for New York City**  
**(1996-97 to 2000-2001)**



### 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 increased from 2000-2001 to 2001-2002, only two members of the Big Four, Rochester and Syracuse, increased their calculated tax rate during the same time period. With a tax rate of \$30.77 per \$1,000 actual value, Rochester was the lone member of the Big Four school districts to exceed the State median tax rate of \$18.26 per \$1,000 actual value. Conversely, with a tax rate of \$9.99 per \$1,000 actual value for 2001-2002, which represents a decline of \$4.77 from the previous year, Buffalo had the lowest calculated tax rate of any member of the Big Four school districts.

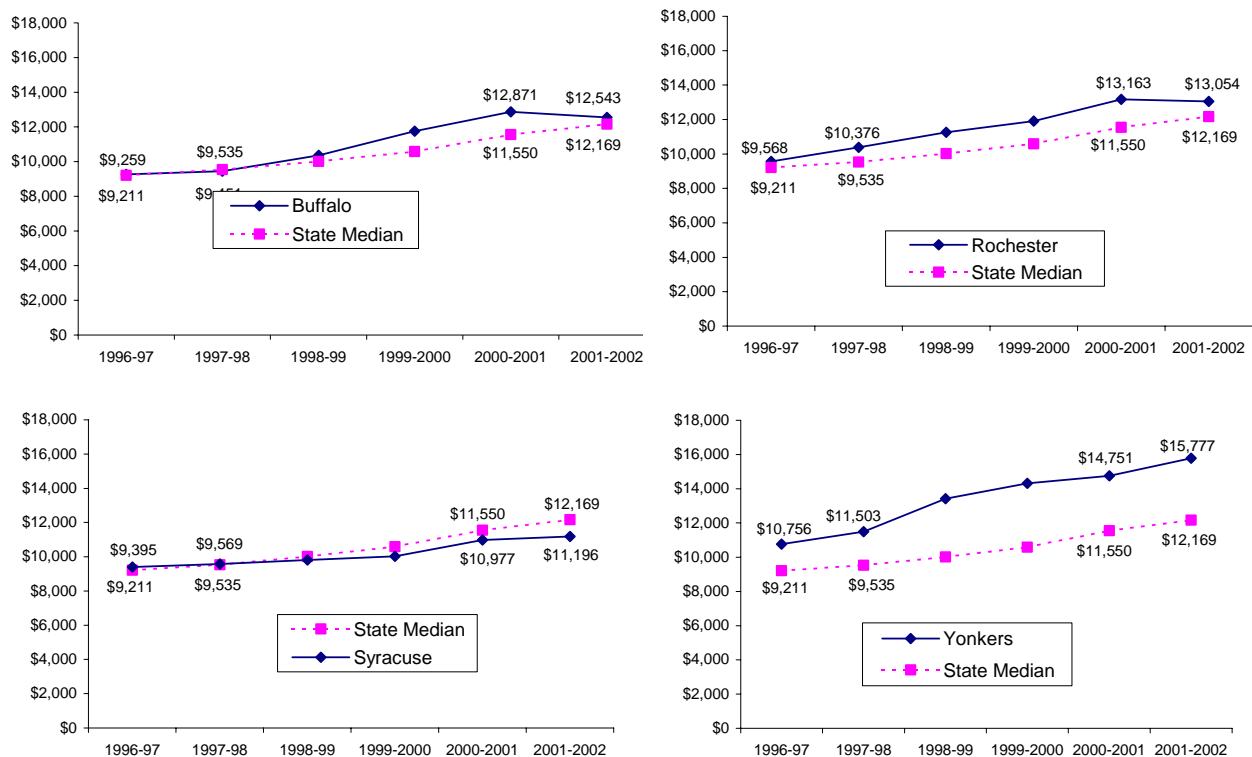
Chart 4.  
Tax Rate Per \$1,000 Actual Value for the Big Four City School Districts  
(1996-97 to 2001-2002)



When changing the focus from tax rates to expenditure per pupil, Chart 5 shows that the expenditure per pupil for three of the members of the Big Four school districts exceeds that of the statewide median for 2001-2002. 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. Furthermore, Syracuse's margin from the 2001-2002 statewide median expenditure is larger than at any point in the previous five years.

Despite constant growth in the prior years of this analysis, both Buffalo and Rochester's 2001-2002 expenditure per pupil has decreased when compared to the preceding year. It is found that Buffalo and Rochester's expenditure per pupil in 2001-2002 has decreased by 2.55% and 0.83% respectively, when compared to their total in 2000-2001.

Chart 5.  
Expenditure Per Pupil for the Big Four City School Districts  
(1996-97 to 2001-2002)



## All Districts

As shown in Table 4 below, when the number of low taxing and low spending effective lost levy districts in 2000-2001 is compared to those in 2001-2002 there was a decrease of 12 districts. When considering districts with effective lost levy *and* low performance, there was a decrease of nine districts from 2000-2001 to 2001-2002. It is interesting to note that when New York City is excluded from the effective lost levy category, the magnitude of the effective lost levy problem for the rest of the State has continuously grown since 1998-1999.

Table 4.  
Comparison of Effective Lost Levy Districts

	1996-97	1997-98	1998-1999	1999-2000	2000-2001	2001-2002
Total Number of Effec. Lost Levy Districts Including NYC (Low Taxing and Low Spending Districts)	185	190	190	178	161	149
Total Effec. Lost Levy Statewide Including NYC	\$960 million	\$449 million	\$617 million	\$250 million	\$188 million	\$702 million
Total Effec. Lost Levy Statewide Excluding NYC	\$119 million	\$130 million	\$128 million	\$133 million	\$139 million	\$159 million
Total Number of Districts w/Effec. Lost Levy & Low Performance Including NYC	70	65	88	110	75	66
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
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

## Appendix A

### Analysis of Local Effort - - State Aid Variables\* by Set Code (2001-2002)

District Type	Need/Fiscal Capacity Index	Tax Rate Per \$1,000 Actual Value	Total Expenditure Per Pupil	Lost Levy Per Pupil	Dist. w/Lost Levy in Each Category	Effective Lost Levy Per Pupil	Dist. w/Effec. Lost Levy in Each Category	Effec. Lost Levy Per Pupil for Low Performing Dist**	Dist. w/Effec. Lost Levy & Low Performance in Each Category	Revenue from State Sources	CWR	EN%
Downstate Small Cities (7)	0.820	\$17.35	\$15,428	\$3,698	3	\$0	0	\$0	0	\$3,775	1.604	54.94%
Down State Suburban (168)	0.466	\$16.19	\$14,577	\$4,363	94	\$400	9	\$458	2	\$3,481	1.591	22.02%
Big Four (4)	3.015	\$16.86	\$13,055	\$975	3	\$478	1	\$478	1	\$8,147	0.585	88.38%
Upstate Small Cities (50)	1.579	\$20.17	\$11,578	\$352	16	\$348	13	\$341	6	\$6,059	0.681	53.82%
Upstate Suburban (270)	0.596	\$19.73	\$11,095	\$825	94	\$461	67	\$371	27	\$4,961	0.858	26.32%
Rural/Other (178)	1.311	\$16.09	\$12,097	\$1,146	128	\$648	58	\$518	29	\$6,866	0.678	60.26%
NYC (1)	1.798	\$12.60	\$11,659	\$1,940	1	\$509	1	\$509	1	\$5,153	0.939	93.68%
State Median		\$18.26	\$12,169									

\*Values shown are weighted averages for each category

\*\*For the purpose of this analysis, low performing districts were 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 (2001-2002)

Need Resource Index Category	Need/Fiscal Capacity Index	Tax Rate Per \$1,000 Actual Value	Total Expenditure Per Pupil	Lost Levy Per Pupil	Dist. w/Lost Levy in Each Category	Effective Lost Levy Per Pupil	Dist. w/Effec. Lost Levy in Each Category	Effec. Lost Levy Per Pupil for Low Performing Dist.**	Dist. With Effec. Lost Levy & Low Performance in Each Category	Revenue from State Sources	CWR	EN%
NYC (1)	1.798	\$12.60	\$11,659	\$1,940	1	\$509	1	\$509	1	\$5,153	0.939	93.68%
Big Four (4)	3.015	\$16.86	\$13,055	\$975	3	\$478	1	\$478	1	\$8,147	0.585	88.38%
Urban/Suburban High Need (43)	2.035	\$21.35	\$12,634	\$443	10	\$405	6	\$383	4	\$6,589	0.661	68.51%
Rural High Need (159)	1.780	\$17.18	\$11,922	\$699	98	\$463	52	\$463	33	\$7,676	0.524	66.83%
Average Need (336)	0.542	\$19.03	\$11,995	\$1,035	139	\$475	81	\$405	27	\$4,804	0.933	28.63%
Low Need (135)	0.071	\$15.10	\$14,345	\$5,308	88	\$651	8	\$0	0	\$2,302	1.967	6.86%
State Median		\$18.26	\$12,169									

\*Values shown are weighted averages for each category

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