"Substantial academic underachievement is present in most Upstate urban areas, as well as in several clusters of rural Upstate districts."

Metropolitan Policy Program

Upstate School Reform:
The Challenge of Regional Geography

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Findings

An examination of K-12 education in Upstate New York finds:

- **While Upstate school districts as a whole are more homogenous than those Downstate, racial demographics—as well as income levels—vary considerably among individual districts.** For example, the percentage of black students enrolled in the Syracuse City School System is 52 times greater than the levels found among suburban districts in the Central Upstate region; poverty levels are 2.6 times greater.
- **Despite strong variation in property wealth and tax rates within Upstate regions, the financial condition of Upstate schools is strong and rather equitable.** However, given the relative homogeneity of expenditures across Upstate districts, this financial parity may not adequately support the educational needs found in poorer and more urban and rural communities.
- **Resource availability contributes to differences in the types of services available to students, including the quality of teachers.** Although the quality of teachers is generally consistent across Upstate regions, within individual regions suburban districts attract and retain more highly qualified teachers than their urban counterparts.
- **While students across Upstate regions perform well on state examinations, substantial academic underachievement is present in most urban areas, as well as in several clusters of rural districts in the Central and Southern Tier regions.** In addition, drop out rates in the largest Upstate cities are two to three times as high as those in suburban and rural districts, while their proportion of students attaining the Regents Diploma is comparatively low.

While great strides have been made to increase educational expectations, resources, and expenditures across New York state, these trends suggest several challenges for policymakers as they work to develop a fiscal and educational system that can support high levels of learning for all students in the state.

Introduction

As documented in four prior reports in this series, Upstate New York faces many common challenges, including economic decline, sprawling development, population and job loss, and concentrated poverty. The impact of these problems is not uniform across Upstate, however, as the regional landscape includes large and small cities, stable and unstable metropolitan economies, and economically isolated rural areas. The health and status of the K-12 educational systems is no exception.

Overall, communities across Upstate New York invest heavily in public education with generally positive outcomes for children. This is good for Upstate, where issues of persistent job loss, population decline, and stagnant incomes hinder the delivery of expensive edu-

cation, healthcare, and human services across a variety of communities. In financing these services, education consumes a tremendous percentage of property tax revenues, making it an accessible and public target for constant public scrutiny. Strong state investments in public schooling generally yield strong outcomes in terms of student achievement on exams and, ultimately, high graduation rates.

But there are also appropriate areas of concern.

Specifically, there is dramatic variation among Upstate's inner-city, suburban, and rural areas in terms of the social and fiscal characteristics and performance of the local school systems. These differences, coupled with the state's highly fragmented and localized governmental system, have persuaded the state of New York to take an increasingly active role in driving teaching and learning reforms in local schools across the state. While it has been a major public policy priority in New York for several decades, the reformation of public schools has accelerated in recent years, with new policies that link a common standards-based curriculum with strict accountability measures.[2]

Often considered a model for other states, New York's academic standards for public schools have quite a long history. In fact, the first mass-administration of the NYS Regents exams took place as far back as 1865 and served as a census-taking instrument to document all students attending the state's accredited academies. In 1906, in response to pressure to broaden the path to a high school diploma, the Board of Examiners created a "dual" diploma track that included a state-endorsed Regents Diploma or a Local diploma.[3] This held for more than ninety years, before the Board of Regents adopted a timeline for phasing in new learning and graduation standards. Beginning in 2000, and set to be fully implemented by 2007, the option of earning a local diploma is being eliminated. As evidenced by the fact that fewer than 50 percent of graduating students earned a Regents diploma in 1999, this push for higher standards is swift and substantial.

Concurrent with these changes, the state of New York (and many local communities) has invested heavily in the system, and New York state school districts have enjoyed a relatively long period of increased spending, particularly those in Upstate.[4] Among all New York state school districts, real per pupil expenditures grew from $6,976 per pupil in 1979–1980 to $11,155 per pupil in 2000.[5] This is equivalent to an annualized percentage change of 2.4 percent, a steady rate of increase despite enrollment fluctuations and periodic economic recessions. In Upstate, expenditure growth among urban, suburban, and rural school districts has exceeded the state average by about 10 percent over the past 20 years. The "big four" school districts (the state's largest excluding New York City)—Upstate's Syracuse, Buffalo, Rochester, and Yonkers in Downstate—tend to match the state average while rural school districts exceed the average by more than 30 percent.

Despite these strong investments in the system and more challenging standards in recent years, inequities persist in the form of racial and socioeconomic achievement gaps, school finances, and the stratification of teacher quality. But while much variation in these measures exists throughout the state, recent litigation has narrowed the conversation from the reform of New York state's public educational system to the adequate funding of the New York City (NYC) public schools, the largest school district in the country. The court is now calling for an operating expenditure increase of $5.6 billion to be spent in NYC public schools over the next four years with another $6 billion increase in capital improvements.[6]

The challenges Downstate are clearly immense. Recent research indicates that while about a third of all elementary schools in the state are in NYC, an overwhelming concentration of failing schools and students are located there. For example, in only 5 percent of New York state elementary schools did more than 25 percent of the student population score below a 55 on the 4th grade Math Examination in 2002; 77.6 percent of these low-performing elementary schools are located in NYC.[7] But while there is clear need for improvement of NYC schools, it is vital that Upstate schools— particularly those located in large and small cities—are included in the broader policy and funding conversations regarding school performance.

In keeping with the other reports in this series, this report continues to examine the social and economic health of Upstate New York, with a focus on the condition and recent progress of Upstate schools. The report sheds light on the differing capacity of Upstate school districts, examining the demographic context of students and communities, local and state fiscal inputs, and the characteristics of teachers in the schools. Finally it describes key school outputs—the goals of the current reform movement—focusing specifically on dropout and graduation rates. These findings suggest several implications and recommendations for policymakers in their push for higher education standards across New York state.

Methodology

This report culls data from many sources, including the extant literature. The fiscal, demographic and performance data is drawn from the 2004 NYS School District Report Card (SRC) database (reporting data from the 2002–2003 school year), the 2004 Chapter 655 Report database (also reporting data from the 2002–2003 school year), and the 2003 Fiscal Pro-

file Reporting System (reporting data from the 2001–2002 school years). All are publicly available from the State Education Department (www.NYSED.org), are collected and published annually, and include the universe of school districts in the state.

Consistent with the other Brookings Upstate series reports, this study categorizes the 52 counties that comprise Upstate New York into one of six Upstate regions: Hudson, North Country, Central, Rochester/Finger Lakes, Southern Tier, and Western. The report compares school districts both across and within these Upstate regions, and compares Upstate districts to those Downstate.[8]

School district boundaries are not necessarily contiguous with other municipal boundaries in New York state. This is a feature of most school systems in the Northeast, but it is not typical in the South or West where school districts and county boundaries are often contiguous. As such, in NYS many school districts are located in one county, many cross county boundaries and very few follow the boundaries of other jurisdictions (e.g., villages, cities, and towns). More importantly, the presence of overlapping governmental boundaries tends to sustain the independent authority and governance of schools and municipalities (e.g., budgeting, taxing, development authority, etc.) across the vast majority of Upstate school districts.

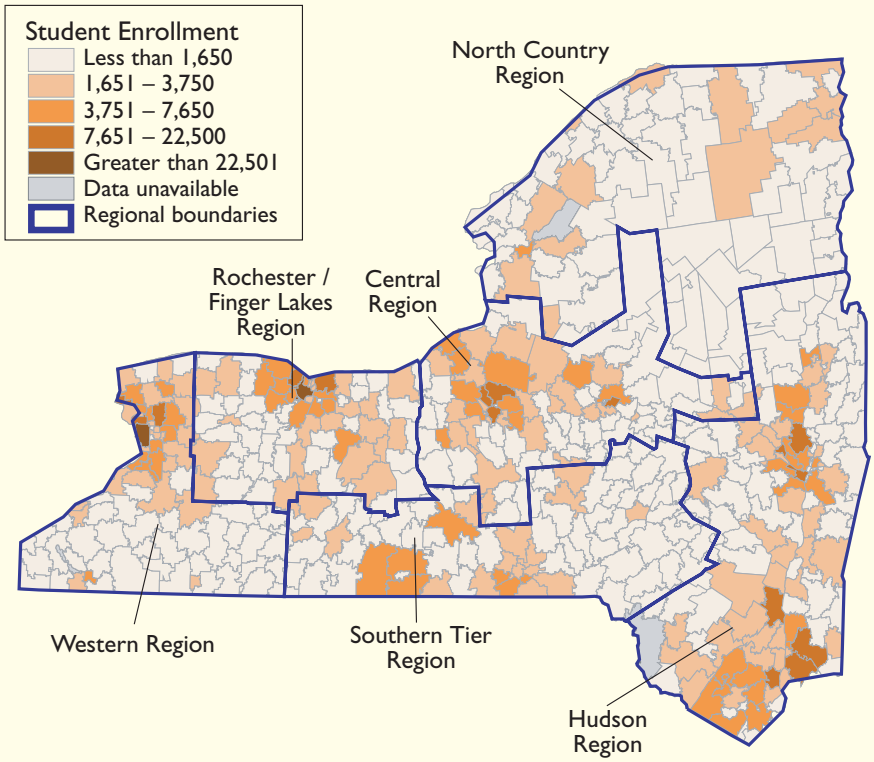
The analyses herein rely on traditional measures of central tendency and dispersion, with a particular emphasis on median values across school districts. Given the universe of school districts in the state, the district averages are equally weighted. This factor results in some skewing of means within regions as the characteristics of large city school districts are treated the same as those of districts with small enrollments. For this reason, we commonly report median values rather than means in the text, tables, and figures.

Findings

A. While Upstate school districts as a whole are more homogenous than those Downstate, racial demographics—as well as income levels—vary considerably among individual districts.

Of the more than 700 school districts in New York in 2002–2003, 511 are

Figure 1. Upstate School Districts by Student Enrollment, 2002–2003



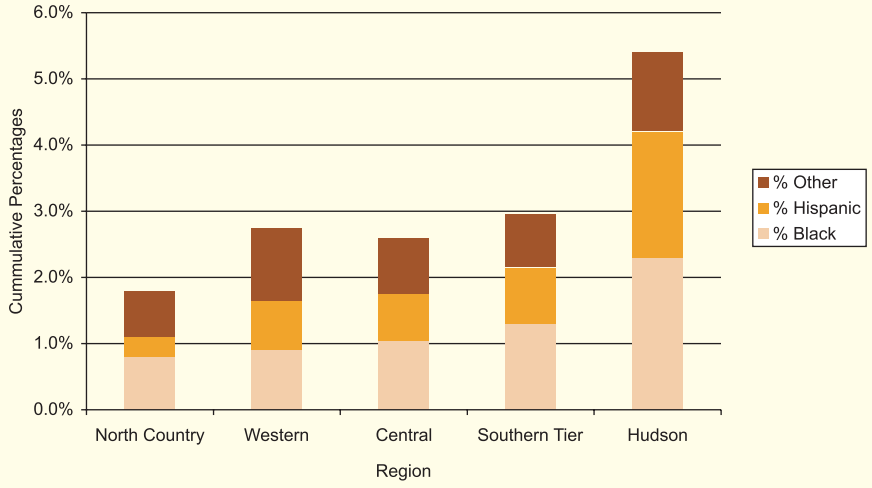
Source: New York State School Report Card Database, 2004; and New York State Chapter 655 Report Database, 2004

Table 1. Student Enrollment Characteristics by District, Region, and Locale, 2002–2003

Region	District Locale	# of Districts	Enrollment	% FRPL	% Black	% Hispanic	% Other
Central							
	Syracuse	1	22,455	77.5	46.7	7.3	2.5
	Small City	11	43,344	40.4	1.4	1.3	1.1
	Suburb	61	117,695	29.9	0.9	0.7	0.9
	Rural	9	9,192	37.5	1.1	0.5	0.6
	Total	82	192,686	-	-	-	-
	Median by Region	-	-	33.9	1.1	0.7	0.9
Hudson							
	Small City	17	84,212	59.7	16.1	6.8	2.1
	Suburb	89	196,329	19.7	1.4	1.1	1.1
	Rural	29	47,003	26.9	2.9	3.7	1.3
	Total	135	327,544	-	-	-	-
	Median by Region	-	-	26.6	2.3	1.9	1.2
North Country							
	Small City	3	8,398	56.6	5.3	1.8	2.3
	Rural	63	59,318	38.9	0.8	0.3	0.7
	Total	66	67,716	-	-	-	-
	Median by Region	-	-	39.4	0.8	0.3	0.7
Rochester/Finger Lakes			**35,659**	**85.4**	**63.9**	**19.6**	**2.1**
	Small City	3	9,533	40.7	10.0	1.9	1.4
	Suburb	55	140,126	26.4	2.1	1.6	1.2
	Rural	11	14,014	31.9	1.0	0.7	0.8
	Total	70	199,332	-	-	-	-
	Median by Region	-	-	28.0	2.1	1.5	1.2
Southern Tier							
	Small City	7	31,975	44.4	4.5	1.8	2.5
	Suburb	19	40,712	35.2	1.7	0.7	0.7
	Rural	50	42,320	45.0	1.1	0.7	0.8
	Total	76	115,007	-	-	-	-
	Median by Region	-	-	43.4	1.3	0.9	0.8
Western							
	Buffalo	1	43,481	82.6	58.3	12.3	2.7
	Small City	9	35,693	50.1	7.1	2.1	1.6
	Suburb	49	124,765	25.4	0.9	0.7	1.1
	Rural	23	20,393	46.1	0.7	0.4	0.8
	Total	82	224,332	-	-	-	-
	Median by Region	-	-	32.1	0.9	0.8	1.1
Downstate							
	NYC	37	978,550	86.4	29.6	33.2	6.5
	Large City	1	26,398	66.3	29.7	45.7	5.7
	Small City	7	40,814	45.6	22.1	27.8	3.7
	Suburb	181	609,507	5.7	2.7	6.9	3.2
	Total	226	1,655,269	-	-	-	-
	Median by Region	-	-	9.4	4.4	9.3	3.5

Source: New York State School Report Card Database, 2004; and New York State Chapter 655 Report Database, 2004

Figure 2. Median School District Minority Student Enrollment by Race/Ethnicity and Upstate Region, 2002–2003



Source: New York State School Report Card Database, 2004; and New York State Chapter 655 Report Database, 2004

located Upstate. These districts serve 1.12 million students, or 40 percent of all students in the state (Table 1 and Figure 1). Following the population centers, the Hudson Valley region has the most students, and the North Country the least.

Average enrollment per school district is highest in the Rochester/Finger Lakes region and the Western region, with the Central and Hudson regions close behind. By contrast, districts in the North Country and Southern Tier regions are quite small; their average district size is 1,026 and 1,513 students, respectively, two to three times smaller than the state average. In the North Country, this pattern is almost entirely a function of low population densities and small schools across much of the Adirondack Park. For example, Long Lake enrolled just 97 students in 2002–2003.

Students are also distributed unevenly among districts within Upstate regions. Contrary to conventional wisdom, most students are enrolled in suburban school districts rather than urban areas. Over 600,000, or 55 percent, of all Upstate students are enrolled in suburban school districts, with the balance spread across city and rural locations.

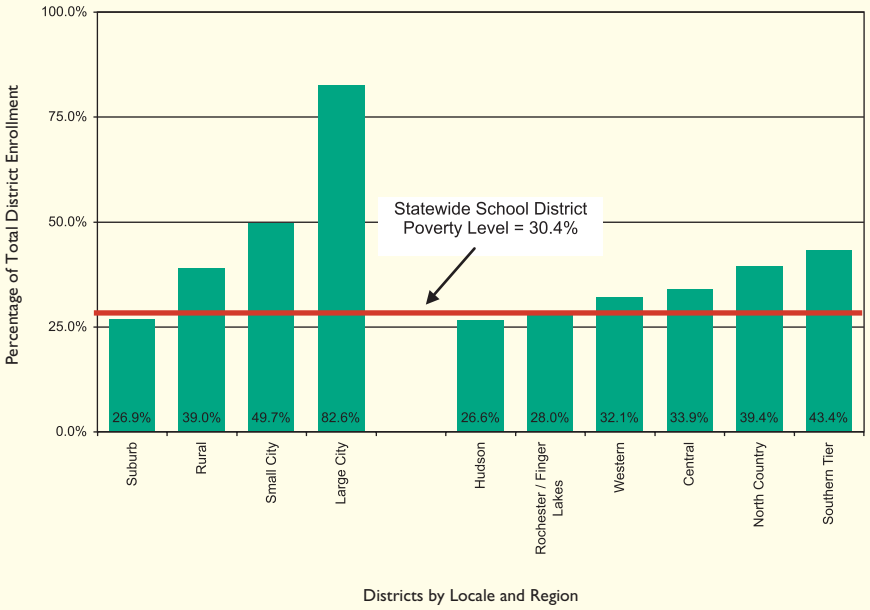
Upstate school districts are far more racially homogenous than those Downstate. While white students comprise just a little over half of total enrollment in Downstate districts, they comprise 92 percent of the student population Upstate. The racial composition of students enrolled in the average district in the North Country, Western, Central, and Southern Tier regions is typically more than 97 percent white; the Rochester and Western regions are only slightly more diverse (Figure 2). The average enrollment of blacks and Hispanics, as a proportion of total enrollment, tends to be higher among districts in the Hudson Valley region than anywhere else Upstate. For example, toward New York City, more than a quarter of students in districts like Middletown and Newburgh are Latino. This is true in the small city of Amsterdam as well, where 24.3 percent of the enrolled student population is Latino.

While the average racial composition of students doesn't differ significantly from one region to the next, significant variation in racial demographics does exist between city, suburban, and rural districts within Upstate regions. The largely suburban and rural school districts that characterize much of the Upstate school system tend to be racially homogenous (predominantly white), while urban districts are more diverse. For example, black students comprise 1.3 percent and 1.1 percent of suburban and rural school district enrollments Upstate. Yet, 58.3 percent of students in the largest urban school districts (Buffalo, Rochester and Syracuse) are identified as black. Downstate, in the city of Yonkers, this figure climbs to 66 percent, reaching 86 percent within the New York City District.[9]

Students from low income backgrounds are fairly evenly distributed across Upstate regions; that is, the concentration of poverty—measured as the percentage of children that qualify for the federal free and reduced price lunch (FRPL) program in any given school district—does not vacillate all that much across regions.[10] Poverty levels for most regions of Upstate New York hover near the statewide median of 30 percent, and do not vary substantially. School districts in the Hudson region have the lowest levels of students eligible for FRPL (26.6 percent), while those in the North Country and Southern Tier have the greatest (39.4 percent and 43.4 percent, respectively). This contrasts sharply with the eligibility levels Downstate, which average 9.4 percent overall—reflecting the 181 wealthy and suburban school districts that dot Long Island and Westchester County—but average 86.4 percent in the New York City school district.

These subtle differences between Upstate regions mask the disparity across districts within regions (Figure

Figure 3. Median School District Poverty Levels, Upstate, 2002–2003



Source: New York State School Report Card Database, 2004; and New York State Chapter 655 Report Database, 2004

3). The median poverty levels among rural and urban school districts exceed the statewide average and overshadow the levels found among suburban schools. The dichotomy is striking in several examples. Eighty-three percent of children enrolled in the Buffalo school district are eligible for FRPL; in the small city of Jamestown, more than 57 percent qualify. These levels are between two and three times greater than the average for all school districts in the Western region. The average suburban school district in the Western region has only a 25 percent FRPL rate. This suburban to urban variation holds across each region, and is particularly striking Downstate as well, where 66 percent of children in the Yonkers City School district are lunch eligible, versus average levels of 5.7 percent among Downstate suburban districts.

B. Despite strong variation in property wealth and tax rates within Upstate regions, the financial condition of Upstate schools is strong and rather equitable.

Conventional wisdom in the funding of schools argues that property wealthy communities tend to invest quite heavily in schools in ways that systematically increase educational opportunities compared to those available in poorer areas. On the surface, this does not appear to be the case Upstate: While there is pronounced wealth variation among many Upstate communities, per pupil spending on K-12 education is both high and relatively equal within and across Upstate regions.[11]

Overall, school districts in New York state invest quite heavily in K-12 education, outspending the national average by nearly 49 percent.[12] According to federal statistics, as of the 2002–2003 school year per pupil spending was $11,961, which situates New York (#2) between New Jersey (#1) and the District of Columbia (#3) in ranked order. Neighboring states also spend at high levels, with Connecticut ranked fourth, Massachusetts ranked fifth, Vermont ranked sixth, and Pennsylvania ranked 13th.

Median per pupil spending is also fairly even across and within Upstate regions. Overall, the Central region spends the least at $10,911 per pupil and the Hudson region the most at $12,076—or 11 percent greater. Districts in the Downstate region spend far more on average than those found Upstate. The regional average Downstate is $14,922, an amount 37 percent greater than the level found in the Central region and 24 percent greater than that in the adjacent Hudson region. Within Upstate regions, spending is roughly equivalent across districts, though there is a tendency for rural and large city districts to reflect the highest per pupil spending. For example, rural districts Upstate outspend small city districts by 9.1 percent. This difference is the greatest in the Central region, where rural districts spend 11.7 percent more than small city districts.

A look at the geography and financing of Upstate schools— the combination of local property wealth, local property taxes, and state aid that constitute school spending—helps explain how this parity is maintained, and why, in fact, it may be more problematic than it appears.

Local contributions to school spending are almost wholly accounted for by local property wealth and tax rates, which differ substantially from one school district to the next. Property wealth variations, for example, are evident both across and within Upstate regions. The Hudson region has the highest levels of property wealth, while the Southern Tier has the lowest (Table 2). Within regions, these disparities are marked, some-

Table 2. Financial Characteristics by District, Region, and Locale, 2001–2002

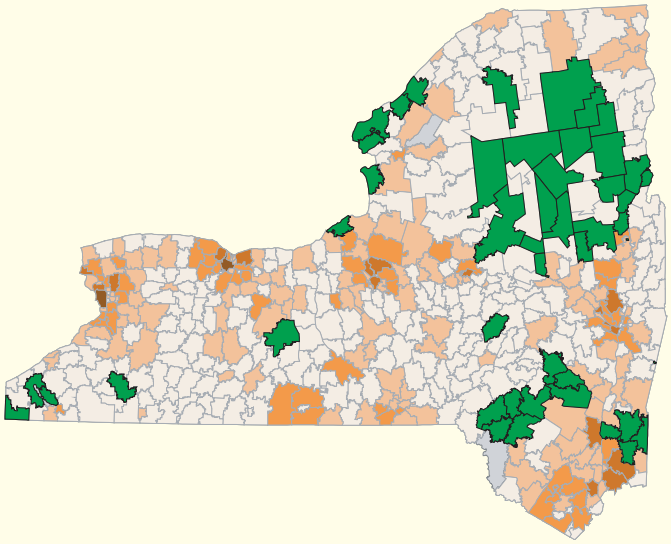
Region	District Locale	# of Districts	Full Property Value Per Pupil	Percentage of District Revenue from State Aid*	Tax Rate ($/1000)	Total Expenditures Per Pupil
Central						
	Syracuse	1	$116,659	66.2%	17.40	$11,074
	Small City	11	$142,559	68.1%	17.74	$10,854
	Suburb	61	$159,744	68.3%	17.23	$10,874
	Rural	9	$154,828	72.5%	14.75	$12,126
	Total	82				
	Median by Region	-	$154,649	68.4%	17.21	$10,911
Hudson						
	Small City	17	$164,052	57.1%	20.39	$12,161
	Suburb	89	$221,794	50.6%	18.30	$11,716
	Rural	29	$278,202	48.2%	16.88	$13,117
	Total	135				
	Median by Region	-	$223,261	51.0%	18.35	$12,076
North Country						
	Small City	3	$152,282	64.1%	17.77	$11,419
	Rural	63	$183,553	66.1%	13.63	$11,598
	Total	66	$181,735	65.9%	13.98	$11,580
	Median by Region	-				
Rochester/Finger Lakes						
	Rochester	1	$112,107	64.5%	25.41	$12,552
	Small City	3	$173,141	55.8%	19.00	$11,170
	Suburb	55	$161,030	62.2%	20.76	$11,740
	Rural	11	$163,505	70.4%	15.26	$11,652
	Total	70				
	Median by Region	-	$162,824	63.0%	19.84	$11,727
Southern Tier						
	Small City	7	$128,742	57.5%	19.71	$11,237
	Suburb	19	$137,316	66.5%	17.89	$10,404
	Rural	50	$146,236	69.9%	16.54	$12,048
	Total	76				
	Median by Region	-	$143,536	69.5%	17.27	$11,314
Western						
	Buffalo	1	$101,022	71.0%	19.30	$12,201
	Small City	9	$156,457	67.7%	19.76	$11,763
	Suburb	49	$198,935	57.4%	18.04	$10,978
	Rural	23	$129,849	76.3%	16.58	$12,494
	Total	82				
	Median by Region	-	$166,165	66.6%	18.01	$11,683
Downstate						
	NYC	37	na	na	na	na
	Large City	1	$270,147	63.6%	12.02	$15,777
	Small City	7	$517,029	28.2%	18.74	$15,688
	Suburb	181	$447,154	26.5%	16.47	$14,863
	Total	226				
	Median by Region	-	$447,154	26.6%	16.47	$14,922

Source: New York State Fiscal Profile Reporting System, 2003

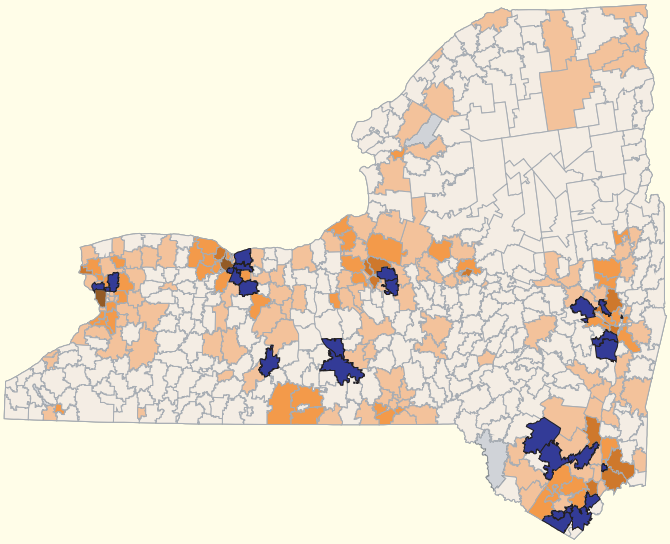
Note: State Aid revenues include School Tax Aid Reduction (STAR) revenues from the state.

Figure 4. Upstate School Districts Sorted by Property Wealth and School Tax Rates, 2001–2002

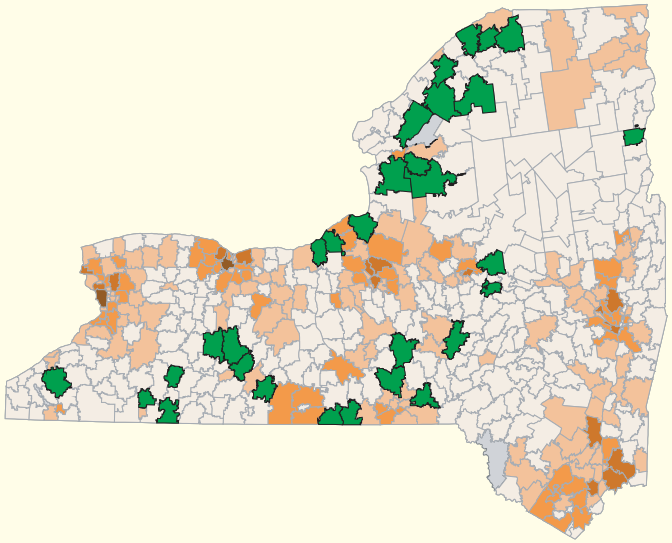
A. High Wealth and Low Tax Districts



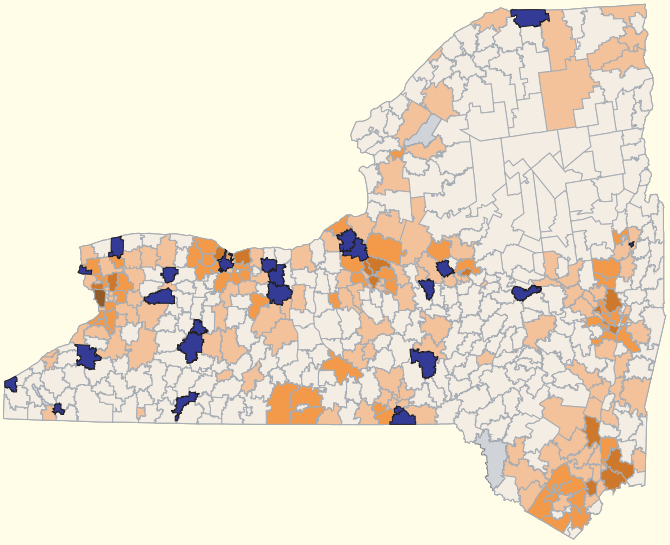
C. High Wealth and High Tax Districts



B. Low Wealth and Low Tax Districts



D. Low Wealth and High Tax Districts



Source: New York State Fiscal Profile Reporting System, 2003

Notes: Criteria for selection of high and low categorization reflects values greater/less than the 25th or 75th percentile.

times even over short distances. In the Hudson region, for example, property wealth per pupil ranges from highs of $854,610 in Lake George and $521,150 in Rhinebeck to lows of $140,822 in Schenectady and $135,198 in Poughkeepsie.[13] Overall, suburban school districts tend to have the greatest average property wealth per pupil at $179,614, followed by rural districts at $165,952. Among the largest city school districts (Buffalo, Rochester and Syracuse) the median property wealth per pupil is $112,107—an amount 32 percent lower than their rural counterparts. This puts the largest city school districts at a relative disadvantage when trying to raise local revenues. The "big five" (the previously mentioned "big four" plus New York City) school districts are fiscally dependent and hence do not have the taxing authority possessed by all other school districts in the state. Rather, these large city districts receive their funding from their city governments, which have taxing authority and levy property taxes within the city boundaries.

But while wealth differences can be striking across neighboring districts, so too are local tax rates. Figure 4 categorizes districts by both high or low property wealth, and high or low tax rates. Each map reflects the distribution of student enrollment by shades of orange and brown within the school district boundaries, illustrating the population concentration around major metropolitan areas as well as the rural character of many Upstate NY communities. Figure 4A identifies those school districts with low tax rates and high property wealth. There are three main areas of such clustering, mainly in vacation areas near the Thousand Islands, the Adirondacks, and the upper Catskills. Figure 4B shows the distribution of low tax and low wealth districts in the North Country region and in the Southern Tier; they are also mainly rural school districts. Yet not all low wealth, rural districts tax themselves at low levels. Figure 4D shows the distribution of districts with low property wealth, and relatively high tax rates. Better than half of those districts are located in low population and rural communities around the state. Figure 4C identifies districts that are high wealth with high tax rates. These appear to be mainly suburban districts that ring the largest Upstate city school districts. In summary, these maps paint a portrait of local fiscal effort for funding schools that differs rather substantially across much of Upstate.

While it is true that local communities set their own tax rates based on preferences and voter approval, clearly these choices are more complicated in low property wealth areas where fiscal effort is harder to muster. The maps described above highlight this very point by comparing low wealth communities with both high and low tax rates. In order for low wealth school districts to generate revenues to spend on a similar level with adjacent, wealthier districts, their tax rates must be higher—sometimes uncomfortably so. However, as Figure 4D demonstrates, there are Upstate districts whose fiscal effort is high. It is at this intersection that state aid can equalize and ameliorate spending differences attributable to property wealth variation.

Two adjacent Upstate school systems—Jordan-Elbridge (rural) and Skaneateles (suburban)—exemplify the role of state aid in funding education. These two districts are representative of the communities west of Syracuse in Onondaga County, which primarily consist of rural hamlets and small towns. According to the 2000 Census, the districts each contain approximately 2,500 students, share the same household size, household tenure, and race characteristics. However, both median income and housing values are substantially higher in Skaneateles. The median housing value for owner occupied housing is $138,200 in Skaneateles, 81 percent higher than in neighboring Jordan-Elbridge. Seven percent of households live below the poverty line in Jordan-Elbridge, more than double the share found in Skaneateles. In terms of property wealth, Jordan-Elbridge levels are equal to $137,697 per pupil, while Skaneateles is $320,218—again more than double. Though the property wealth differences per pupil are pronounced and the property tax rates are similar, spending between these two districts was relatively equal with Jordan-Elbridge spending $11,634 and Skaneateles spending $11,052 per pupil.[14] This equality in spending is a result of state aid for education that helps even out the property wealth differences.

The school spending figures described here show that there is rough equality in per pupil spending across and within regions, much of which is attributable to state aid. But this parity may not be enough. While seemingly fair, the most impoverished locales Upstate are, in fact, not particularly favored by the current school finance system. For example, property wealth per pupil is the lowest among urban districts, and tax rates are the highest. At the same time, over 80 percent of students in large cities are poor, as are nearly half of all students among the Upstate small cities (e.g. Amsterdam, Utica, Elmira City, Geneva). Given these conditions, these schools face substantially greater programmatic, structural, and instructional demands than their wealthier counterparts, and their students often don't perform as well.[15] Financial parity may thus actually disadvantage many urban and rural districts, which may require additional resources to enable their students and schools to meet higher academic expectations.

Table 3. Teacher Characteristics by District, Region, and Locale, 2002–2003

Region	District Locale	Count	Salary	Years of Experience	% Annual Turnover	% Provisionally Certified
Central						
	Syracuse	1,774	$44,176	14	11.7	23.8
	Small City	3,087	$49,569	16	9.0	19.7
	Suburb	8,566	$44,805	14	11.2	21.8
	Rural	723	$41,150	15	9.5	20.0
	Total	14,150				
	Median by Region		$44,950	15	11.0	20.7
Hudson						
	Small City	6,264	$51,414	13	13.6	24.6
	Suburb	13,756	$48,025	13	11.4	22.2
	Rural	3,519	$48,547	13	15.4	22.5
	Total	23,539				
	Median by Region		$48,633	13	12.9	22.9
North Country						
	Small City	635	$48,100	14	6.6	21.5
	Rural	4,738	$44,283	14	11.0	21.4
	Total	5,373				
	Median by Region		$44,378	14	10.9	21.5
Rochester/Finger Lakes						
	Rochester	3,005	$41,825	10	18.2	29.0
	Small City	746	$46,426	14	10.2	26.0
	Suburb	10,617	$42,545	12	13.1	27.3
	Rural	1,133	$40,000	14	13.5	24.7
	Total	15,501				
	Median by Region		$42,000	12	12.9	26.2
Southern Tier						
	Small City	2,503	$40,558	13	11.3	23.1
	Suburb	3,071	$42,129	13	11.1	23.5
	Rural	3,523	$40,105	14	12.1	21.7
	Total	9,097				
	Median by Region		$40,712	13	11.5	22.5
Western						
	Buffalo	3,224	$56,704	15	17.7	0.0
	Small City	2,676	$51,103	13	13.7	23.7
	Suburb	9,172	$44,622	12	11.7	25.7
	Rural	1,659	$40,269	13	12.9	21.2
	Total	16,731				
	Median by Region		$44,252	12	12.4	24.8
Downstate						
	NYC	na	$51,585	10	17.1	0.0
	Large City	1,817	$66,936	10	15.6	25.5
	Small City	2,974	$77,930	14	11.0	19.4
	Suburb	44,928	$66,002	12	12.2	25.2
	Total	na				
	Median by Region		$64,399	11	12.7	25.0

Source: New York State School Report Card Database, 2004; and New York State Chapter 655 Report Database, 2004

C. Resource availability contributes to differences in the types of services available to students, including the quality of teachers.

There remains a rather healthy debate among school finance researchers on the best ways to measure the linkages among per pupil spending/resources, what they purchase, and what they yield in terms of student and school outcomes. The point remains, however, that better resources tend to purchase greater inputs into educational systems, particularly in the form of better qualified teachers—as measured by years of teaching experience, certification status, scores on teacher examinations, and the quality of a teacher's undergraduate education.[16] More qualified teachers in turn tend to produce strong learning environments for student development and achievement.[17]

Overall, an examination of teacher quality in Upstate schools shows that greater similarity exists across regions than within them (Table 3). The size of the teacher labor market closely follows student enrollment, therefore the largest number of teachers are employed in the Hudson region, the fewest in the North Country. Years of teaching experience hovers near 13 years for all regions, with similar levels of annual teacher turnover. Though median salaries do differ across regions, they likely reflect geographic cost differences and are to be expected. The median salary for teachers ranges from a low of $40,712 among districts in the Southern Tier, to a $48,633 in the Hudson region—a 26 percent difference.

Within each region there are modest similarities among rural, suburban, and small city school districts in terms years of teaching experience, percentages of permanently or provisionally certified staff, and turnover. For example, annual turnover of teachers, an indicator of retention, is 11.6 percent across all Upstate suburban districts and is just slightly higher among the small city and rural districts. Similarly, the percentage of teachers hired on a provisional (no subject area certification available) basis is 21.6 percent among rural districts and 23.9 percent among small city districts. There are some interesting caveats that represent areas of strength Upstate. For example, school districts in the North Country tend to enjoy low levels of teacher turnover and relatively high levels of permanently certified teachers. Similar patterns exist in the Hudson region.

Salary differences, however, are pronounced within regions. The median teacher salary ranges from $42,533 in rural districts, to a high of $48,353 in the small city districts. Small city districts have the highest median salaries in four regions, including the Central region, Hudson region, North Country, and the Rochester/Fingerlakes region. The median salary in the large districts (Buffalo, Rochester and Syracuse), however, falls to $44,176. These districts are overall out of step relative to their smaller city counterparts, though Buffalo is an exception. Teachers in that district enjoy a median salary of $56,704, which is 11 percent higher than salaries in area small-city districts and 27 percent higher than those found in the area suburbs.

As population centers, the three largest Upstate districts are important, as they enroll over 100,000 students and employ over 8,000 teachers, or 9.5 percent of the Upstate teacher labor force. Yet the quality of these teachers is generally not on par with those in more suburban and rural areas.

The high degree of teacher turnover in these districts helps demonstrate the problem. In Rochester, for example, the turnover rate in 2002–2003 was 18.2 percent, compared with levels just over 13 percent in the suburban and rural areas surrounding the city. This level of turnover was nearly matched by Buffalo, and far exceeds the relatively low levels found in the North Country. The turnover levels in Rochester and Buffalo also exceed the levels found Downstate, as well as those found in NYC alone. At the same time, the large Upstate urban centers tend to hire fewer permanently certified teachers, and more provisionally certified teachers, than non-urban districts. This problem is particularly acute in the Rochester schools, where just over half of teachers held a permanent certification, 29 percent were provisionally certified, and 18.4 were hired on emergency status. Though data is not available for NYC, these levels are still above average levels found Downstate, including the city of Yonkers.

Interestingly, a relatively high number of teachers in Upstate urban school districts have advanced (i.e. masters degrees and higher) degrees. Across Upstate districts, 10.6 percent of teachers hold an advanced graduate degree. These levels are the lowest in rural areas (9.8 percent) and greatest in the small and large city school districts (13.9 percent and 14.8 percent respectively). This holds true in every region, except the Hudson. The percentage of teachers in Syracuse and Rochester with advanced degrees is generally twice the levels found among rural area districts in their regions, for example. And the pattern is even more pronounced in the Western region: 26.1 percent of teachers in Buffalo have an advanced degree compared with 7.6 percent in rural districts in the area. Overall, these numbers could reflect the greater concentration of (and hence access to) institutions of higher education in more urbanized locales, and/or school district policies that subsidize graduate school training.

In summary, the indicators of teacher quality are relatively equal across much of Upstate New York. However, the largest school districts Upstate distinguish themselves with lower teacher salaries and other teacher quality indicators in ways that call into question current levels of

Table 4. Student Performance by District, Region, and Locale, 2002–2003

		Scores At or Below 55%				Proportion of District Enrollment		
Region	District Locale	ELA 4	ELA 8	Math 4	Math 8	% Dropping Out	Attending College	Attaining Regents Diploma
Central								
	Syracuse	9.0	15.3	7.6	33.0	4.31	86	41
	Small City	4.7	8.5	2.8	14.1	3.31	87	61
	Suburb	4.0	6.0	0.9	7.7	1.98	85	63
	Rural	8.7	7.1	2.1	9.7	1.24	73	62
	Median by Region	4.3	7.0	1.1	8.5	2.05	85	63
Hudson								
	Small City	6.2	10.2	4.0	19.6	3.98	84	51
	Suburb	2.4	4.6	1.8	7.2	1.44	82	61
	Rural	3.4	9.1	1.6	13.0	2.47	82	58
	Median by Region	2.9	5.8	2.0	9.4	1.70	89	59
North Country								
	Small City	7.5	10.2	4.0	11.8	2.94	77	52
	Rural	4.5	6.8	1.8	8.2	1.61	78	56
	Median by Region	4.5	7.0	2.0	8.7	1.80	78	56
Rochester/Finger Lakes								
	Rochester	12.1	21.9	9.0	49.8	10.07	80	21
	Small City	3.3	5.6	4.0	7.4	3.36	88	75
	Suburb	3.1	6.3	1.5	8.0	1.83	83	72
	Rural	5.3	4.5	2.3	7.1	1.16	76	59
	Median by Region	4.0	5.9	1.8	7.5	1.70	82	70
Southern Tier								
	Small City	8.3	8.3	4.3	13.6	2.29	86	64
	Suburb	3.7	6.5	1.4	8.1	2.19	79	64
	Rural	5.9	7.0	1.4	8.9	1.98	79	52
	Median by Region	5.3	6.8	1.6	9.2	2.10	79	59
Western								
	Buffalo	16.5	22.2	9.7	26.1	8.88	77	37
	Small City	4.5	7.1	2.6	8.4	4.19	85	59
	Suburb	2.2	4.2	1.1	5.3	2.11	85	69
	Rural	5.0	6.2	2.7	10.7	2.74	79	52
	Median by Region	3.1	4.7	1.7	7.0	2.40	83	65
Downstate								
	NYC	6.8	13.8	6.7	27.6			
	Large City	5.0	17.0	4.6	26.0	3.01	73	22
	Small City	1.5	7.0	3.0	14.6	1.72	90	58
	Suburb	1.3	2.1	0.5	3.5	0.50	91	66
	Median by Region	1.5	2.7	0.8	4.7	0.40	89	60

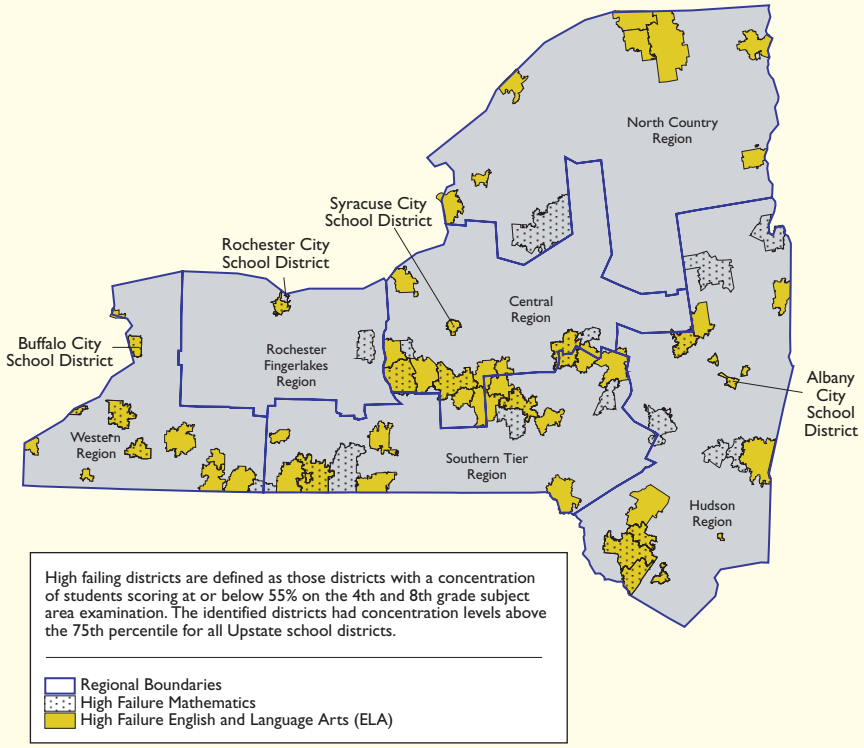
Source: New York State School Report Card Database, 2004; and New York State Chapter 655 Report Database, 2004

resources available for the most challenged districts.

D. While students across Upstate regions perform well on state examinations, substantial academic underachievement is present in most urban areas, as well as in several clusters of rural districts in the Central and Southern Tier regions. Tracing the precise influence of educational expenditures on student achievement is a complex, controversial, and largely unresolved area of education policy research. What is clear is that the most challenging school settings warrant innovative practices, leadership, and teaching that may require greater expenditures (i.e., for teacher time, space, and materials). Attracting and retaining high quality teachers is one area where resources are likely to improve student and school outcomes. Among Upstate school districts, student and school outcomes tend to reflect the now divisions in resources among urban, suburban, and rural communities.

Urban school systems Upstate have a strong and persistent concentration of poorly performing students. As shown in Table 4, districts with the highest proportion of Level 1 performers—defined as those students scoring below 55 percent on the New York state 4th or 8th Grade English Language Arts or Mathematics Comprehensive Examinations—are typically urban, with slightly elevated levels among rural districts. In the Central region, Syracuse has at least double the proportion of students scoring at Level 1 as the other locales. Exceptions to this are rural districts that have similar proportions of children at Level 1 on the 4th grade ELA and the 8th grade math scores in the small cities. The most disparate performance gradient between large city and suburbs is found in the Rochester/Finger Lakes region, where nearly half of all 8th graders in Rochester score at Level 1 in contrast to less than 10 percent in the surrounding locales.

Figure 5. Distribution of Districts with High Concentrations of Low Performing Students, Math and English/Language Arts Examinations, 2002–2003



Source: New York State School Report Card Database, 2004; and New York State Chapter 655 Report Database, 2004

When mapped, there appear to be distinct clusters of school districts among and across regions that have high levels of low-performing students (Figure 5). These clusters are determined by ranking districts according to the proportion of students scoring Level 1 on two subject area examinations—English Language Arts (ELA) and Math—in the 4th and 8th grade. Districts with the highest proportions of students scoring at Level 1 are those exceeding the 75th percentile rank. In some cases, the identified districts exceed the 75th percentile for both the ELA Examination and the Math Examination.

There are two main observations concerning the concentration of poorly performing school districts Upstate. First, while one would expect the map to reflect high concentrations of poorly performing students in urban districts—and low concentrations in suburban schools—a great number of rural districts, particularly in the Central, Southern Tier and Western regions, also appear on the map. Second, there are several distinct pockets or bands of poorly performing districts Upstate. The most significant include a row of six districts along the Pennsylvania/NYS border. The other band involves 10 districts clustered around the border of the Southern Tier and lower Central region. They include small towns and cities such as Nor-

wich, Homer, and Union Springs. Clusters are also apparent in the southern Hudson region and in the northern most portion of the North Country.

While the 4th and 8th grade assessments provide important evidence of variation in student performance by locale within region, and to a lesser degree between regions, it is also important to examine the degree of variation in high school completion indicators, including the proportions of students that dropped out, the proportion of students that went to college (two year or four year), and the proportion of students that earned a Regents Diploma. The patterns found in the 4th and 8th grade achievement hold true for these indicators as well.

The districts with the highest dropout rates are found in the largest cities, with rates anywhere from two to five times as high as those in suburban and rural districts.[18] Over 10 percent of students in the Rochester district did not complete the school year in 2002–2003, for example, compared to 1.8 percent and 1.2 percent of students in this region's suburban and rural districts, respectively.

The proportion of students who graduate and go on to college indicates a different pattern. Across all Upstate regions, the proportion of students attending college from urban districts is generally higher than in rural districts and generally comparable to suburban districts. It is important to emphasize that this indicator reflects only those students who actually graduate from high school. Hence, college attendance rates among students who graduate from Big Four districts are similar to those students who graduate from suburban districts and higher than those students graduating from rural districts.

Finally, the proportion of Regents diplomas earned— the primary focus of recent state reform—is relatively consistent across regions and locales. The exception to this pattern are the large urban districts Upstate, with district percentages that are 41 percent (Syracuse), 21 percent (Rochester), and 37 percent (Buffalo) less than their respective suburban districts. Rural districts are slightly behind the suburban districts, except in the Finger Lakes region where they trail by 13 percentage points and in the Western region where they trail by 17 percentage points.

The concentration of poorly-performing districts in urban areas and in distinct clusters Upstate reveals opportunities for more focused policy. In terms of academic performance, it is clear that along a variety of student outcomes Upstate's large urban districts and to a lesser extent the small city districts underperform relative to the Upstate average. These are distinct places for targeted assistance. But the clusters of underperforming rural districts should also shape the type and focus of future policy interventions. These clusters exemplify some of the challenges of providing high quality schooling to all children across Upstate's varied geography. The clusters overlap dozens of unique rural communities, each with their own governmental leadership, relevant agencies, and socioeconomic contexts.

Discussion and Policy Implications

All told, this study of Upstate schools notes rather similar conditions among Upstate school systems across regions. Within regions, however, the report notes some marked differences. In demographic terms, districts with the greatest number of students are generally located closer to the urban core; these urban districts are also more racially diverse and have a greater number of poor students. And despite rather high and equal spending across Upstate school districts, it appears that urban schools may not have adequate resources to meet their needs, as demonstrated by their overall lower teacher quality and student achievement levels relative to their suburban and rural counterparts.

Despite these patterns, the policy conversation about the state continues to focus predominantly on the stark challenges facing students in the New York City schools, a situation that could be exacerbated by the results of the recent school finance reform case, the *Campaign for Fiscal Equity (CFE), Inc. v. New York*.[19] Given the substantive variation in school conditions across Upstate highlighted here, it's clear this focus needs to be broadened to include all children in the state that are at-risk or are failing to meet learning and graduation standards.

Our findings suggest several policy implications and recommendations for the state that could better ensure that all students-—regardless of where they attend school—are afforded an equal chance to benefit from current reform efforts. These recommendations are focused on three key areas: (1) teacher recruitment, retention, and professional development; (2) organizational linkages and information flow among and between school districts; and (3) the preparation and use of data for both program development and assessment. What links them together is a recognition that the challenges of regional geography are best met through regional solutions.

State Aid for Attracting and Hiring High Quality Teachers

The stark differences in teacher qualifications among urban, suburban, and rural districts becomes more salient in light of current reform efforts demand higher quality academic standards and more stringent graduation requirements.

Urban districts serving large, poor, and disproportionately minority student populations appear to be facing especially difficult challenges in staffing classrooms with qualified

teachers. To address this issue, state leaders must look for ways to overcome longstanding weakness in traditional labor market mechanisms for teacher recruitment. By way of staging, policy makers should develop new incentives to influence salary and working conditions—key factors in the attraction and retention of high quality teachers in the more difficult educational settings.

To this end, state policy makers should investigate the conditions and experiences of teachers in many small cities and rural areas, such as in the North Country, where turnover is quite low. It might be the case that teachers are drawn to the amenities of local regions, such as housing prices and natural features, as are other service professionals. If so, discussion among economic development agencies and local school boards about teacher recruitment and retention in high need areas could thus be enormously beneficial in helping to develop targeted policies. One outgrowth of this discussion, for example, might be the blending of state-funded incentives for qualified teachers to work in these districts—including the boosting of current salaries and/or the provision of tax credits or loan forgiveness for qualified teachers—coupled with local housing incentives such as mortgage assistance.

State policy efforts that improve the quality of teaching need to go beyond recruitment, however, to focus on teacher preparation, pre-service training, mentoring, and ongoing professional development.[20] In order to develop and place highly qualified teachers in front of children that need them the most, recruitment strategies described above should be integrated into a larger continuum of teacher preparation. If such recruitment strategies existed, they should be advertised among institutions of higher education, particularly those teacher preparation programs that place student interns among Upstate schools. In this sense, the policy message is distributed across stakeholders involved in the preparation of teachers.

In short, without a focused effort to address these issues, urban students will continue to receive less consistent instruction from less qualified teachers, and risk falling further behind their counterparts in better-resourced schools with better working conditions.

The Systematic Coordination of Educational Agencies

In spanning multiple county boundaries, Boards of Cooperative Educational Services (BOCES) units are an important regional unit of governance and coordination for educational systems. Frequently cited by rural school district administrators, BOCES units provide many services that many small school systems may be unable to offer themselves. But while the BOCES serve some districts quite well, there is uneven support and programs across BOCES and hence uneven support for school districts.

Currently BOCES units exist in all regions of the State and serve all school districts, except the large urban school districts (Big Five). However, there remain appreciable differences in the influence of BOCES units across Upstate regions. For example, BOCES units are more active in the Southern Tier and Western regions than anywhere else Upstate. This unequal involvement is currently of import given the role BOCES units are currently playing in the provision of alternative educational settings and outcomes such as dropout prevention programming, alternative schooling, summer school and GED programming.

The current push from the New York State Board of Regents to raise academic standards and increase graduation requirements affects every school district in the state. But given varying levels of student performance and resource availability, the impact is clearly not uniform. The state should continue to support BOCES and work

"The current push from the New York State Board of Regents to raise academic standards and increase graduation requirements affects every school district in the state."

to develop additional relationships and linkages among BOCES and school districts across Upstate. Furthermore, state policies could charge BOCES units with evaluating alternatives to traditional high school programs in order to better match student need and interest with local conditions. By acting in a more coordinated, and perhaps strategic, manner, BOCES units could help ameliorate differences in programmatic offerings and quality within and across Upstate NY school districts.

Improved and Coordinated Data systems

The cornerstone of the current school reform efforts (both state and federal) is the collection and analysis of student performance data. These data, policymakers suggest, allow close inspection of individual student, school, and district performance trends. When performance falls below the set standard, additional attention and resources are to be made available. Adding to the close inspection is the federal No Child Left Behind (NCLB) requirement of disaggregating student data by race/ethnicity, gender, and poverty level.

Despite these demands and policy successes, there remain two key obstacles to developing a data-driven system that meets the needs of those students and schools to facilitate the education of all students: data itself, and the preparation of administrators and teachers to properly and adequately make use of the data.

The first obstacle comes from weaknesses in current state data collection methods. The statewide databases reporting student, school, and district improvement do not allow systematic within- and between-school and district analyses. The state makes available aggregate school and district data but this allows only cross-sectional analyses without the benefit of linking individual students with specific programs. For instance, if a district has 34 percent of its students scoring at level 1 or 2 on the 4th grade mathematics examination, and also has 30 percent poor students, it is impossible to determine what proportion of the poor students are also scoring at a level 1 or 2.

While many large school districts have their own datasets in place (e.g., Binghamton and Albany), these datasets are often proprietary and not readily linked with other datasets in the state. To truly examine program affects and on students at a district or even state level, individual level data is essential. Support of such data collection—currently being developed by the SED—is crucial to truly understanding what programs, schools, and districts are more and less effective with specific subgroups of students.

The second obstacle is that administrators and teachers may not be properly prepared to use the data that is available. In order to help facilitate truly progressive learning organizations in which local educators design, implement, and evaluate local curricula, programs, and policy, the educators themselves must be conversant and skilled in using and analyzing local data and understanding its benefits and limitations. New and better data is not the be all and end all, but rather a necessary and important step toward a more proactive educational system that can reliably monitor the efficacy of program changes.

The state needs to continue to recognize and support professional organizations founded to better design, collect, and conduct research using New York state data. For instance, the New York State Educational Finance Research Consortium (EFRC) actively sponsors research to answer questions of interest to the Board of Regents, NYSED leadership, the Assembly, and regional and statewide professional organizations. Through this research, the EFRC makes attempts to inform policy debate on a range of issues. A second and more regional organization working to provide professional assistance to data analysts and educators across the state is the New York State Data Analysis Technical Analysis Group (DATAG). Meeting monthly, this is an active group both translating state regulation for local districts and analyzing better ways to analyze and make use of data throughout the state.

Moreover, as the public attention targets visible outcome measures, little is known as to how local schools and districts are altering their academic and non-academic programs to ensure that all children have an opportunity for school success. Are such responses between school districts uniform or equitable (i.e., unequal means to equal outcomes)? Are the responses by each school providing adequate opportunities and resources for each student? Motivating these questions is the knowledge that approximately 80 percent of the variation in student achievement lies within schools, leaving just 20 percent of the variation to between school differences.[21] Hence, while we need to address and study how schools and districts differ from each other, we also need to peer inside schools to examine the programmatic and equity implications for students within the same schools.

Endnotes

1. Kieran M. Killeen is an assistant professor of Educational Leadership and Policy Studies at the University of Vermont. John W. Sipple is an associate professor of Education at Cornell University.

2. In 1984, the State Board of Regents instituted the *Regents Action Plan*, geared to promote "broad-based learning, knowledge, skills and high expectations for all students" (NYSED, 1984). In 1991 the state developed the *Compact for Learning,* stressing attention on student and school outcomes rather than the traditional emphasis on inputs and process. In 1996–1997, the state laid out a roadmap and timeline for phasing in dramatic changes to high school graduation requirements and the K-12 assessment system.

3. This historical summary of the growth of New York state academic standards draws heavily from T.P. Dougherty "High Stakes Testing in New York State: A History and Review of the Literature" (Cornell University, 2004), and, M.J. Vallely, "New York State's Comprehensive District Education Planning: A Script for an Institutionalized Response or a Lever for Real Instructional Change?" (Cornell University, 2003).

4. Historically, public education financing in New York State builds off of localities first and the state government second. Local revenues—90 percent of which come from the property taxes—account for just over half of total educational revenues, while the State's share hovers around 40 percent.

5. Real expenditures are expressed in year 2000 dollars. The data were adjusted in real (inflation adjusted) terms by Boyd, Lankford and Wyckoff (2002) using the state and local government purchases element of the GDP implicit price deflator, which is publicly available from the website of the Bureau of Economic Analysis. See D. Boyd, H. Lankford, and J. Wyckoff, *School District Expenditures and Fiscal Stress* (Albany: New York State Education Finance Research Consortium, 2002). Available at **www.albany.edu/edfin/CR02.BLW.ReportWeb.pdf**

6. The plaintiffs in the school finance case, *Campaign for Fiscal Equity (CFE), Inc. v. New York*, brought suit against the state on behalf of the NYC schools and its 1.1 million schoolchildren. The case was decided in 2001 and required the State legislature to reform the entire state's school finance system by July of 2004, or face substantial judicial intervention. With the legislature failing to fulfill their obligation to devise a remedy, the future of NYC and New York state educational funding was placed in the hands of a court-appointed three-person panel in the summer of 2004. This panel, charged with deciding on a remedy to adequately fund the NYC schools, recently completed its recommendation and is now calling for an expenditure increase of $5.6 billion to be spent in NYC public schools over the next four years.

7. See Donald Boyd, Hamilton Lankford, and Susanna Loeb, "Improving Student Outcomes: The Role of Teacher Workforce Policies," A paper presented at the Symposium on Education Finance and Organizational Structure in New York State Public Schools, 2004.

8. "Downstate" school districts include those in the Bronx, Kings, Nassau, New York, Putnam, Queens, Richmond, Rockland, Suffolk, and Westchester counties.

9. For a recent study into the racial stratification among NYS schools, see Leanna Steifel, Amy Ellen Schwartz, and Colin Chellman, "Test Score Gaps in New York State Schools: What Do Fourth and Eight Grade Results Show?" A Condition Study Prepared for the New York State Education Finance Research Consortium, 2003. They rely on student performance data from the 4th Grade Regent's English and Language Arts Examination for 2000–2001.

10. Educational researchers tend to utilize one of two measures of poverty at the local school district level. The first, used here, relies on the percentage of K–6th grade students eligible for free or reduced priced lunch. This population tends to be a more accurate description of poverty than the same measure of 9th–12th grade students. The second measure taps the traditional census definition of children aged 5–17 living within a household with an income below the established poverty line.

11. For information on New York's school finance system relative to other states, see William Hussar and William Sonnenberg, "Trends in Disparities in School District Level Expenditures per Pupil," 2001, available at **nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2000020**, and, Thomas B. Parrish, Christine S. Hikido, and William J. Folwer, Jr., "Inequalities in Public School District Revenues," 1998, available at **nces.ed.gov/pubsearch/pubsinfo.asp?pubid=98210**.

12. See J. Hill and F. Johnson, "Revenues and Expenditures for Public Elementary and Secondary Education: School Year 2002/03" (Washington: United States Department of Education, National Center for Education Statistics, 2005).

13. Property wealth here is expressed in per-pupil terms, consistent with state definitions. This is calculated by totaling the assessed valuation of property on the tax rolls within all districts and dividing it by a weighted measure of students, the Total Wealth Pupil Units (TWPU). The weighted measure of students combines average daily attendance records weighted for disability classification and grade level.

14. The property tax rate in Jordan-Elbridge was 19.29, which is 12 percent higher than Skaneateles at 17.23.

15. One illustrative example of this involves the state mandate to provide supplemental Academic Intervention Services to all underperforming students. For a comprehensive analysis of the variation in need and implementation of AIS see Kieran

Killeen and John Sipple, "Mandating Supplemental Intervention Services: Is New York State Doing Enough to Help All Students Succeed? *The Journal of Education Policy Analysis Archives,* v 13 (19) (2005): pp. 1–40.

16. Hamilton Lankford and his colleagues at SUNY Albany have developed a reliable and valid composite of teacher quality to compare and contrast the distribution of teachers in New York State. This composite includes measures such as the teachers' scores on the National Teachers Examination, years of teaching experience, quality of undergraduate institution, and certification status. See H. Lankford, S. Loeb, and J. Wyckoff, "Teacher Sorting and the Plight of Urban Schools: A Descriptive Analysis," Education Evaluation and Policy Analysis, 24 (1) (2002): 37-62. For information on debates in the education field over the validity of teacher quality indicators see D. Goldhaber and D.Brewer, "Evaluating the Evidence on Teacher Certification: A Rejoinder," *Education Evaluation and Policy Analysis*, 23 (1) (2001): 79–86.

17. See R. Greenwald, L. Hedges, and R. Laine, "The Effect of School Resources on Student Achievement," *Review of Educational Research*, 66 (3) (1996): 361–397. See also Linda Darling-Hammond, "Teacher Quality and Student Achievement: A Review of State Policy Evidence," Education Policy Analysis Archives, 8 (1) (2000) and H. Wenglinsky, "How Schools Matter: The Link Between Teacher Classroom Practices and Student Academic Performance," Education Policy Analysis Archives, 10 (12) (2002).

18. The measurement of drop outs is intended to emphasize the relative differences experienced by districts. Prior to 2005, the dropout rate was calculated for the Chapter 655 Report by counting the number of students in the high school reported to have dropped out divided by the number of grades in the school (typically four). Beginning in 2005, a new cohort dropout rate is being calculated that will better reflect the actual dropout rate. This is done by tracking the number of new 9th graders in a given year and calculating the number of students who have graduated, still remain in school, transferred to another school or GED program, or dropped out four years later. This new calculation typically results in dropout rates 2 to 4 times that of the previous method, though the patterns discussed here still hold.

19. Despite a progressive state school finance system critics have raised important questions of school finance inequity in several important court cases. The most recent case will likely bring about the greatest level NYS educational funding reform in modern times. Unlike other large states such as California and Texas, the school finance system of New York State has until very recently avoided major challenge and judicial intervention. Historically, given a challenge, the courts of New York have ruled in favor of the State. For example, in *Reform Educational Financing Inequities Today* (REFIT) v. Cuomo (655 N.E.2d 647 (N.Y. 1995)) the high court ruled that the plaintiffs failed to show that students in poorer districts received less than a sound basic education as outlined in the NYS constitution. See also (*Paynter v State of New York*, 704 N.Y.S.2d 763). [Levittown]

20. See M.S. Knapp, "Professional Development as a Policy Pathway." In Robert E. Floden, ed., *Review of Research in Education* (American Education Research Association, 2003).

21. vJ.S. Coleman, Equality of Educational Opportunity Report to the President and Congress, (Washington: U.S. Office of Education, 1966); C. Jencks, *Inequality: A Reassessment of the Effect of Family and Schooling in America* (New York: Basic Books, 1972).

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