

Moving Towards Educational Equity?

How is New York State's School Funding Reform Impacting Educational Equity on Long Island?



The Public Policy and Education Fund of New York

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**Alliance for Quality Education
Public Policy and Education Fund
Long Island Progressive Coalition**

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Credits

This report was produced by the Alliance for Quality Education and the Public Policy and Education Fund of New York, and released in partnership with the Long Island Progressive Coalition. The Alliance for Quality Education is a statewide non-profit coalition of over 230 organizations of parents, children’s advocates, schools, teachers, clergy and others. The Public Policy and Education Fund of New York is a not-for-profit research and public education organization founded in 1986 to address social, economic, racial and environmental issues facing low and moderate-income New Yorkers. The Long Island Progressive Coalition, the local affiliate of Citizen Action of New York, is a 30-year old organization dedicated to promoting sustainable development, revitalizing local communities, creating effective democracy, enhancing human dignity, and achieving economic, racial and social justice.

Sumaya Saati, a Policy Analyst at the Alliance for Quality Education, was the primary author of this report. Her responsibilities included analyzing all fiscal data, creation of charts and graphs, and writing the analysis of the report. All data and fiscal analysis in this report was generated by the Alliance for Quality Education. AQE evaluated prior analysis of the funding levels by student poverty, generated data on funding streams, and created graphs of student performance.

Introduction

Long Island schools are well known for quality education, but in reality there is a wide range of differences between the educational resources and the student outcomes in school districts on Long Island. Long Island is home to some of the best schools in New York State and the country--particularly in some of the wealthier suburban districts, but Long Island also is home to school districts with the highest concentration of student poverty in New York State. As in small and large cities across New York State, high concentrations of student poverty correlate on Long Island with higher proportions of black and Hispanic students. However, no other region of New York State has the degree of racial segregation seen in Long Island schools. In fact out of the eleven school districts in the state with the greatest proportion of black and Hispanic students, nine are on Long Island. Five Long Island school districts--Wyandanch, Roosevelt, Hempstead, Westbury and Uniondale--have a student population that is over 95% black and Hispanic.

These school districts were carved out to segregate communities during housing and demographic changes during the 1970's. According to *Newsday's* 2004 *Shame of the Suburb* series, "In the '60s and '70s, blacks began to move into a smattering of communities – Roosevelt, Hempstead, Wyandanch, Westbury, Amityville, Uniondale, among others – where they were greeted by whites who left the community or took their children out of the schools. Some whites were frightened into racial fire sales by 'blockbusting' real estate agents looking for quick profits. Soon minorities were steered to these communities and away from white ones. In a familiar cycle, the new arrivals were poorer and lacked the political clout of those who left. So the quality of homes and services declined, and ever cheaper housing stock drew poorer people. The consequence for schools? A concentration of black and Hispanic students in the few communities without the wherewithal to deal with the academic problems that accompany poverty. Now about two-thirds of Long Island's minorities attend about ten percent of its schools, most of which sit at the bottom of wealth and achievement."¹

Student poverty is widely accepted by policy-makers and educators as correlating with greater educational need. Higher concentrations of English language learners also correlates with greater student need and the same Long Island districts that have concentrations of poverty and students of color also have greater numbers of students learning English as a second language. Past reports by the Alliance for Quality Education and others (including the Long Island Index) have documented the tremendous disparity that exists in educational opportunity between Long Island school districts. Given the racial and ethnic segregation that exists on Long Island, this disparity has tremendous implications for student opportunity based on race, ethnicity and language as well as family income level. Adequately funding these school districts will have long term implications for these Long Island communities. This report is interested in the question of whether or not New York State is making progress in meeting its

¹ Newsday Editorial Series. "The Shame of the Suburbs: How we got this way – Historical, cultural, fiscal patterns led to Long Island's handful of struggling schools." June 14, 2004. <http://finance.tc-library.org/Content.asp?uid=2246>

responsibility in providing these students the funding resources they need to receive an equitable educational opportunity.

In 2007, after 13 years of court challenges and statewide community organizing, New York State enacted an historic statewide settlement to the Campaign for Fiscal Equity (CFE) lawsuit. This settlement was built around a new method for dividing up future school aid dollars among school districts called a foundation formula. The foundation formula does not redistributed dollars between school districts; it only impacts the distribution of new state school aid. Under the 2007 law, the state committed to increase basic classroom operating aid, known as foundation aid, by \$5.5 billion statewide over four years. Seventy percent of this new foundation aid is directed to high need school districts around the state, such as those that are the focus of this report. Some lawmakers have portrayed the CFE settlement as favoring New York City at the expense of other parts of the state; however, this is a grossly inaccurate characterization. The foundation formula distributes funds based upon student need as opposed to the historic method which was upon political deal-making. In determining how to distribute foundation aid, the state included regional cost differences in the foundation formula--this Regional Cost Index is beneficial to all Long Island schools.

Following on the groundwork laid by the *Shame of the Suburbs* series, this report identifies the 11 districts with the most student poverty and compares them with the 11 districts with middle student poverty, and the 11 districts with the least student poverty. In addition to poverty, this report looks at the demographic composition of these districts, and percentage of English language learners. Historically on Long Island, as elsewhere, there has been a large funding gap between school districts with high poverty and those with little poverty. The funding gap, as examined by The Education Trust and others, documents the difference in educational opportunity between school districts. In order to make this calculation it is necessary to both examine expenditures per pupil and student need (as measured by the proportion of student poverty). Policy makers and researchers across the spectrum agree that it generally costs more to provide equivalent educational opportunity to students from poor households as those from middle class or wealthier households. This report factors student poverty into the measurement of the funding gap.

The report examines the effectiveness since 2007 of different state school aid categories at closing the funding gap—specifically looking at foundation aid, high tax aid and all state operating aid as a whole. In addition, this report looks at student outcomes according to 8th grade English Language Arts and Math exams, graduation rates, Regents diploma rates, and college enrollment rates in order to evaluate whether there has been progress at closing the achievement gaps since funding reforms were instituted.

A note about poverty and wealth in school finance: in determining the distribution of state school aid, poverty and wealth are two distinct--not opposite--factors that enter into the foundation aid formula. Poverty is measured by the concentration of students living in poverty. This report relies on the enrollment in the Free and Reduced Price Lunch program which is a standard measure of student poverty. We are comparing high concentrations of student poverty with low and medium

concentrations of student poverty. School district wealth is a different measure that looks at both property and income wealth within a district. It is possible for a district to have virtually no student poverty and not be a high wealth district and it is also possible for a school district to have some student poverty and still be a district with average income and property wealth. This report looks only at the level of student poverty and does not look at school district income and property wealth.

Key Findings

- There are tremendous economic and demographic contrasts between Long Island School districts. In the high poverty districts two-thirds of students live in poverty, compared with only 10% in the middle poverty districts and less than 2% in the lowest poverty districts. High-poverty districts also have high concentrations of African American, Hispanic students and English language learners.
- Long Island is home to 9 of the 11 school districts in New York State with the highest concentration of African American and Hispanic students and is home to the only 5 districts in the state with a concentration exceeding 95%. All 9 of these districts are high poverty districts.
- There is tremendous disparity between school systems on Long Island. The funding gap between school districts with the greatest and least poverty is \$6,876 per pupil.
- Since 2007, school aid delivered as a result of the historic 2007 school aid reform from the Campaign for Fiscal Equity lawsuit settlement has been more effective than all other types of school aid at closing the funding gap. This type of aid is known as “foundation aid” was specifically designed to increase school funding equity. Roughly \$5.50 in new foundation aid goes to high poverty districts for every \$1 provided to low poverty districts. Foundation aid is more than twice as effective at closing the funding gap as so-called “high tax aid” which was designed to maintain the “shares” agreement for school aid distribution.
- Increases in state aid have correlated with progress in narrowing the gap in achievement between high poverty and low poverty districts. More progress was made on eighth grade tests than on fourth grade tests. On Eighth grade Math tests scores the gap has closed by one-third in the past two years, on eighth grade English Language Arts exams the gap has closed by one-quarter.
- Progress in state aid closing the funding gap halted in 2009 as the state froze school aid at 2008 levels and did not implement the third year of the 2007 equitable school funding reforms. In 2009, the state also made clear its intentions to back away from its commitments to increase funding equity in 2010. If the commitment to close the funding gap in 2010 is not reinstated progress towards funding equity made in the first two years will continue to be halted, or even reversed.
- While funding reform is correlated with progress, the achievement gap between the high poverty and low poverty school districts with respect to whether or not students graduate on time with a Regents Diploma and go to College remains high. There is a 31% gap in high school graduation rates, a 40% gap in Regents diplomas, and a 44% gap in college enrollment.

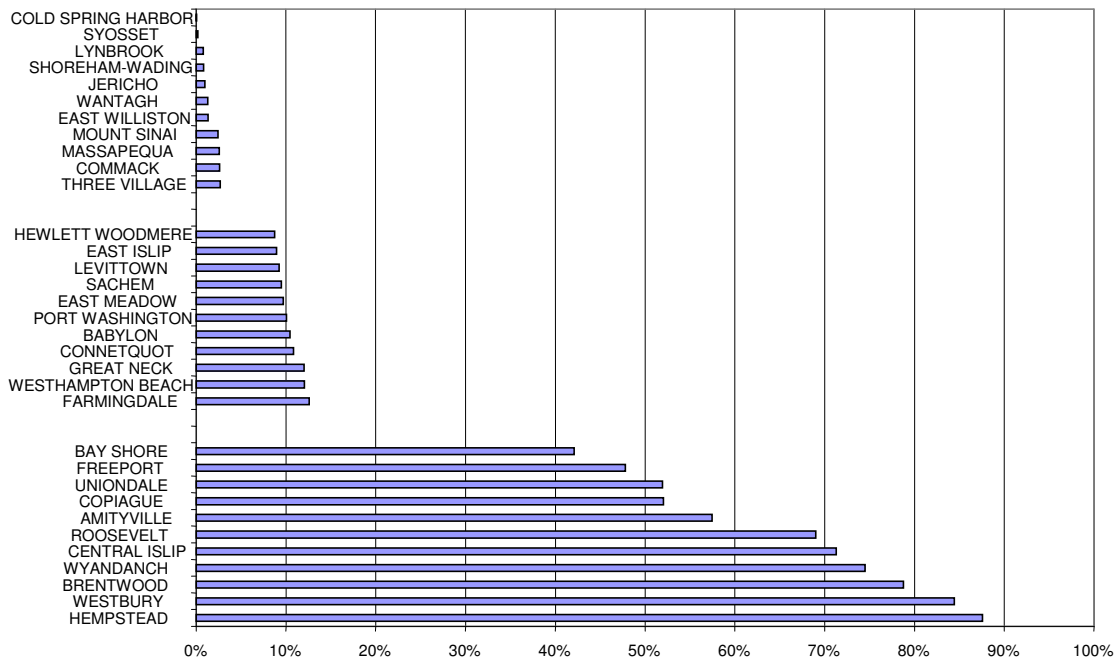
Section I: Demographics

Disparities in Need: Student Poverty Rates

In Long Island's highest poverty school districts 66.5% of students are in poverty. It is a huge gap to the middle districts with 10.24% of students in poverty and 1.73% of the students in the lowest poverty groups are in poverty.

Student poverty rates are correlated with students' educational opportunities. According to the NYS Board of Regents, students in poverty cost twice as much to educate as their peers who do not live in poverty. The Long Island Index found that, "there is an almost 20 point gap in the percentage of residents in high-and low-need districts who rate the quality of local education as good or excellent....when it comes to public education on Long Island, residents who live in school districts with a largely high poverty and minority student population are markedly less satisfied with the quality of education provided for children in their area."²

Student Poverty Rates reveal drastic disparities on Long Island

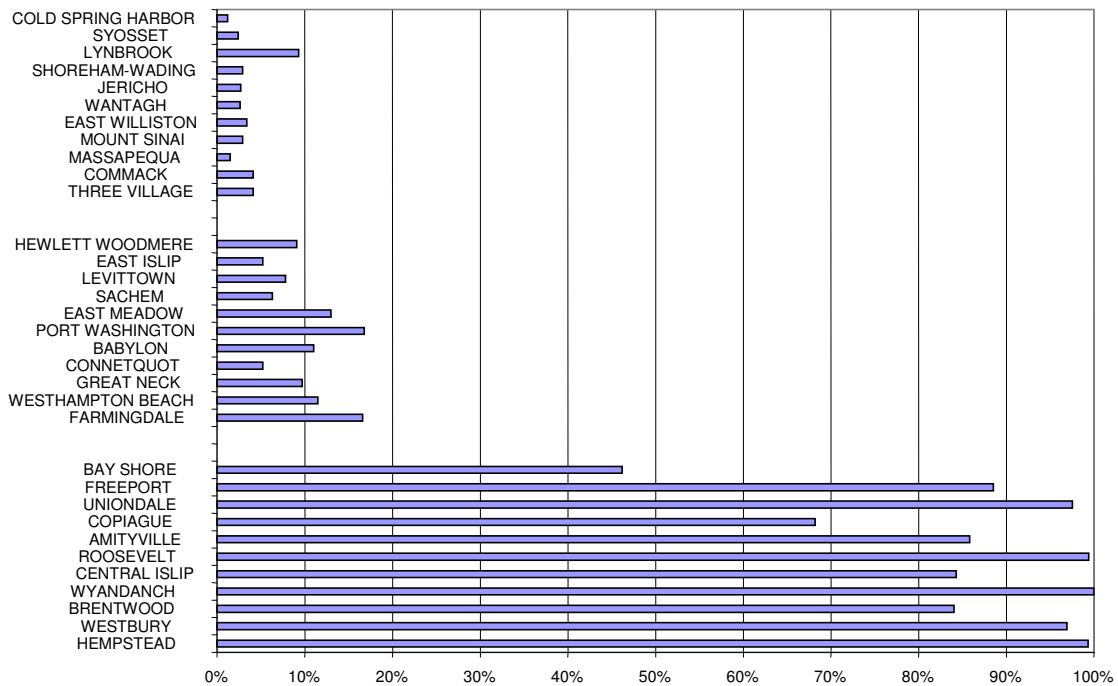


² Long Island Index. "Education Inequality on Long Island: Public Awareness and Support for Solutions." <http://www.longislandindex.org/291.0.html>

Long Island’s High Poverty Districts have the Highest Concentrations of Black and Hispanic Students in New York State

Beyond differences in wealth, Long Island school districts have tremendous contrasts in the racial and ethnic compositions of the student body. The high poverty school districts have a dramatically higher concentration of Black and Hispanic students than other districts on Long Island. 100% of Wyandanch’s student population is Black and Hispanic. Five of the highest poverty Long Island districts also have student populations who are more than 95% Black and Hispanic. Nine of the eleven school districts in New York State with the highest concentration of Black and Hispanic students are on Long Island. The high degree of racial segregation that exists in Long Island school districts is dramatic and is unique within New York State. This segregation correlates with a significant school funding gap adding inequitable educational opportunity based upon race and ethnicity to the issues of fair school funding. This fact makes the state’s failure to provide committed school aid increases in 2009, and potentially in 2010, all the more troubling.

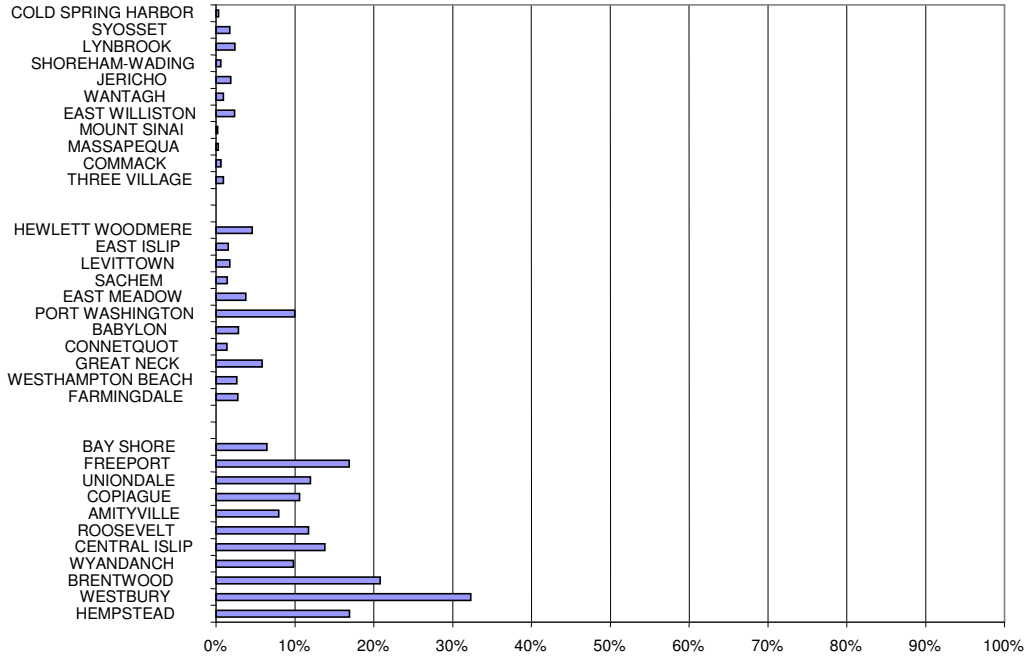
Percentage of Black and Hispanic Students by District Poverty Rates



High Poverty Districts Have More English Language Learners

Long Island's high poverty school districts face the demand of educating more students who are English Language Learners. Of the students in the highest poverty school districts 15.8% of the students are ELLs, in the middle poverty school districts this is 3.1%, and in the lowest poverty school districts the rate is 1%. Westbury School District has the largest concentration, where 1 in every 3 students is an English Language Learner.

English Language Learners correlate with Poverty Rates – High Poverty Districts have more students who are English Language Learners



Section II: Expenditures and Funding

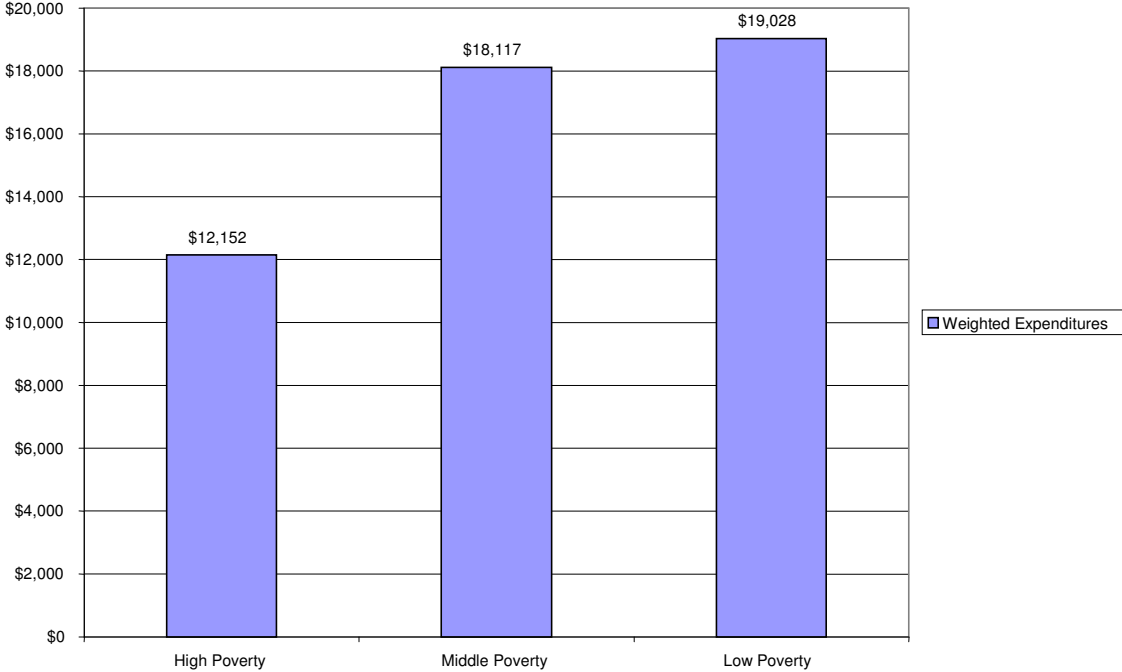
Student Spending and Adjustments for Need

A considerable body of research demonstrates that generally students living in poverty cost more to educate than other students. Weighting systems are commonly used to show how “far” a dollar goes when comparing different student groups. This report used the weighting commonly used by the New York State Board of Regents. Weighting reflects the broad-based consensus among policy makers and education experts that it costs more to provide students in poverty equivalent educational opportunities. The New York State Board of Regents has documented a close correlation between student performance and student poverty. To address this educational inequity, the Regents have used a two-to-one weighting for student poverty. In using this standard the Regents calculate the cost of providing an equivalent education for each student in poverty as costing \$2 for every \$1 spent on other students. This standard has been used throughout this report.³

While total expenditures per pupil for the three groups of school districts seems roughly equal when funding levels are adjusted for student need, there was a funding gap in 2007-08 of \$6,876 per student between the high poverty and low poverty districts and almost \$6000 between high poverty and middle poverty districts. Clearly the high poverty districts have overwhelming unmet funding needs to provide equivalent educational opportunity with both low poverty and medium poverty districts on Long Island.

³ NY Fiscal Analysis and Research Unit. “Towards an Understanding of the Relationships among Student Need, Expenditures and Academic Performance.” 2003. <http://www.oms.nysed.gov/faru/articles.html>
See also William H. Clune “The Shift from Equity to Adequacy In School Finance” June 1993, and William Duncombe. CPR Working Paper Series No. 44: Estimating the Cost of an Adequate Education in New York.” Syracuse, New York. Feb 2002. <http://www.cpr-maxwell.syr.edu>

In 2007-08 Funding Gap was \$6,876

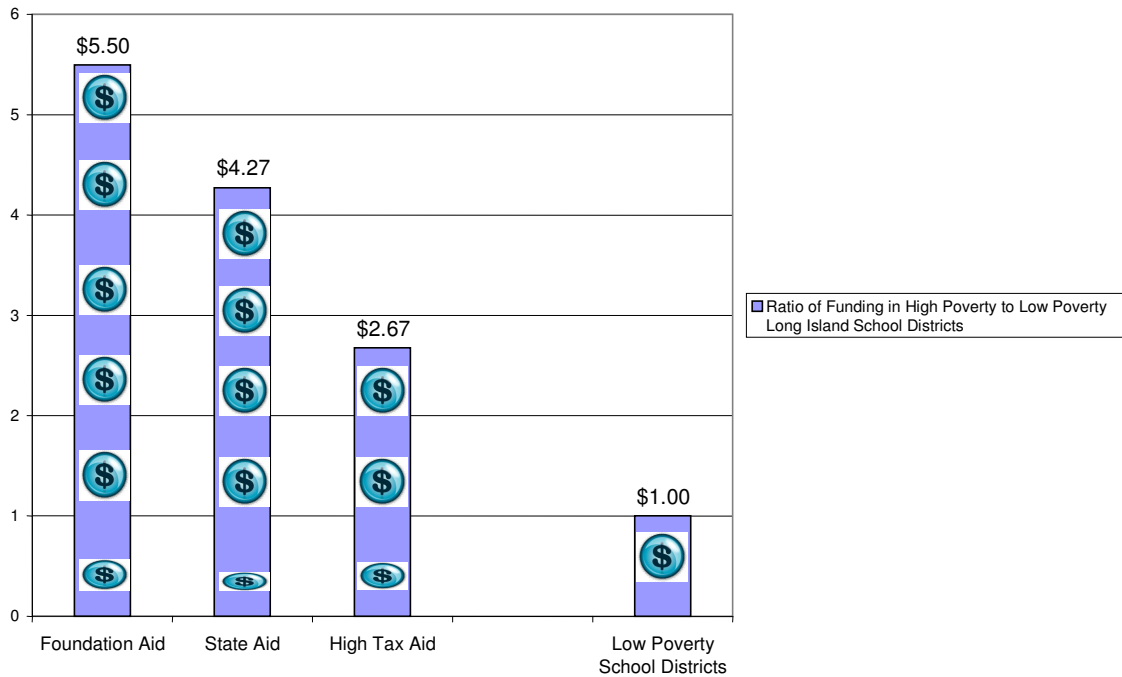


2007-2008 Expenditures Per Pupil Based on Student Need		
	Unweighted Expenditures	Weighted Expenditures
High Poverty	\$20,221	\$12,152
Middle Poverty	\$19,978	\$18,117
Low Poverty	\$19,361	\$19,028

Closing the Gap: State Aid, Foundation Aid and High Tax Aid

AQE examined three categories of funding by the state that were impacted by the Education Budget and Reform Act of 2007: total state aid, foundation aid, and high tax aid. Based on new dollars going into these school districts, Foundation Aid is the best at promoting equity for high-need school districts, followed generally by state aid, and high tax aid is the least effective. For every \$1 dollar provided to a low poverty district, foundation aid provides \$5.50 to a high poverty district, Total State Aid provides \$4.27 and high tax aid provides \$2.67. The ratios depicted are in unadjusted dollars.

Foundation Aid is Most Effective Way to Close Funding Gap on Long Island; High Tax Aid is Least Effective



State Aid

The tables below demonstrate how much funding existed per pupil in these funding streams over time. State aid increases promote equity, most notably foundation aid, however, the freezing of state aid increases in 2009 halted progress that was being made in equitable funding.

Average State Aid per Pupil in Sampled LI School Districts

	2006-07 State Aid Per Weighted Pupil	2007-08	2008-09	2 year Total Change	2009-10
High Poverty	\$8,116	\$9,098	\$10,385	\$2,269	\$10,379
Middle Poverty	\$4,088	\$4,370	\$4,722	\$634	\$4,850
Low Poverty	\$2,486	\$2,794	\$3,017	\$531	\$3,080

Foundation Aid

Most state aid is delivered to school districts in the form of foundation aid, or basic classroom operating aid. Foundation Aid is the most equitable aid category looked at in this report, and promoted equity by delivering \$4,699 in 2006-07 and \$5,769 in 2008-09 more per high-poverty pupil than low-poverty pupil. (In 2009-10 this funding was reduced slightly to \$5,707.)

Average Foundation Aid per Pupil in Sampled LI School Districts

	2006-07 Foundation Aid Base Per Pupil	2007-08	2008-09	2 year Total Change	2009-10
High Poverty	\$6,649	\$7,317	\$7,957	\$1,308	\$7,916
Middle Poverty	\$3,336	\$3,405	\$3,526	\$190	\$3,579
Low Poverty	\$1,950	\$2,071	\$2,188	\$238	\$2,209

High Tax Aid

High Tax Aid is a category of school aid that was created in 2007 in order to provide funding for what is known as “shares” under which new school aid is divided regionally based on pre-determined percentages or shares. “Shares” is not a part of law, rather it is a long-standing arrangement that politicizes school aid and counteracts need-based distribution. While there was a High Tax Aid formula that existed prior to 2007, this aid was rolled into the foundation aid formula in 2007 and the current High Tax Aid category was created as a new category of school aid. The name “High Tax Aid” is somewhat of a misnomer as there are many school districts with high burdens that do not receive this aid.

Compared with 2007-08, the formula for distributing additional high tax aid improved considerably in 2008-09 in terms of addressing equity on Long Island. However, High Tax Aid is far less efficient than foundation aid in addressing funding inequities.

Average High Tax Aid Spending per Pupil in Sample Over Time

	2006-07 High Tax Aid Per Pupil	2007-08	2008-09	2 year Total Change	2009- 10
High Poverty	\$0	\$147	\$543	\$543	\$542
Middle Poverty	\$0	\$147	\$324	\$324	\$329
Low Poverty	\$0	\$147	\$203	\$203	\$205

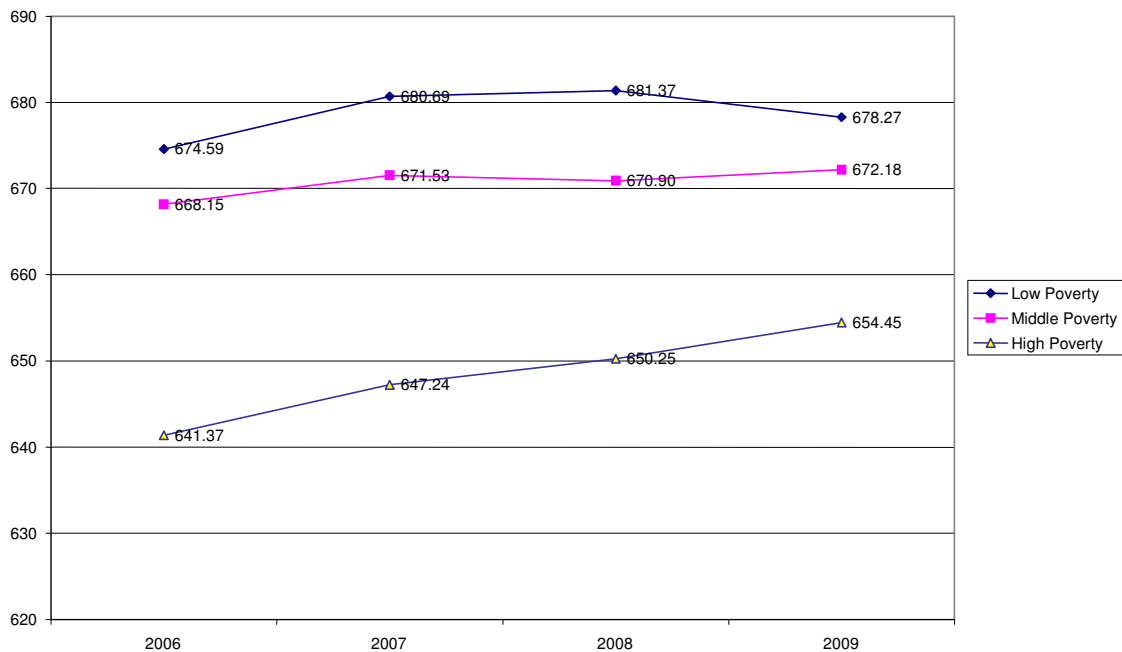
Section III: Student Outcomes

State English Language Arts Exams

There are typically significant disparities in student performance between students in poverty and their peers who are not in poverty. The disparities widen as students age. Progress appears to have been made in Long Island for both 4th and 8th grade ELA – in 4th grade the progress made at closing the achievement gap was not as dramatic as 8th Grade (4.6 points in ELA, 5 points in math.)

The 8th grade ELA exams show all groups progressing, but the greatest amount of progress has been made by the high poverty group which increased 13 points from 2006-2009 whereas other groups have only increased by 4 points. This has led to a smaller achievement gap on the 8th grade ELA exams – from 33.22 points in 2006 to a gap of 23.82 points in 2009.

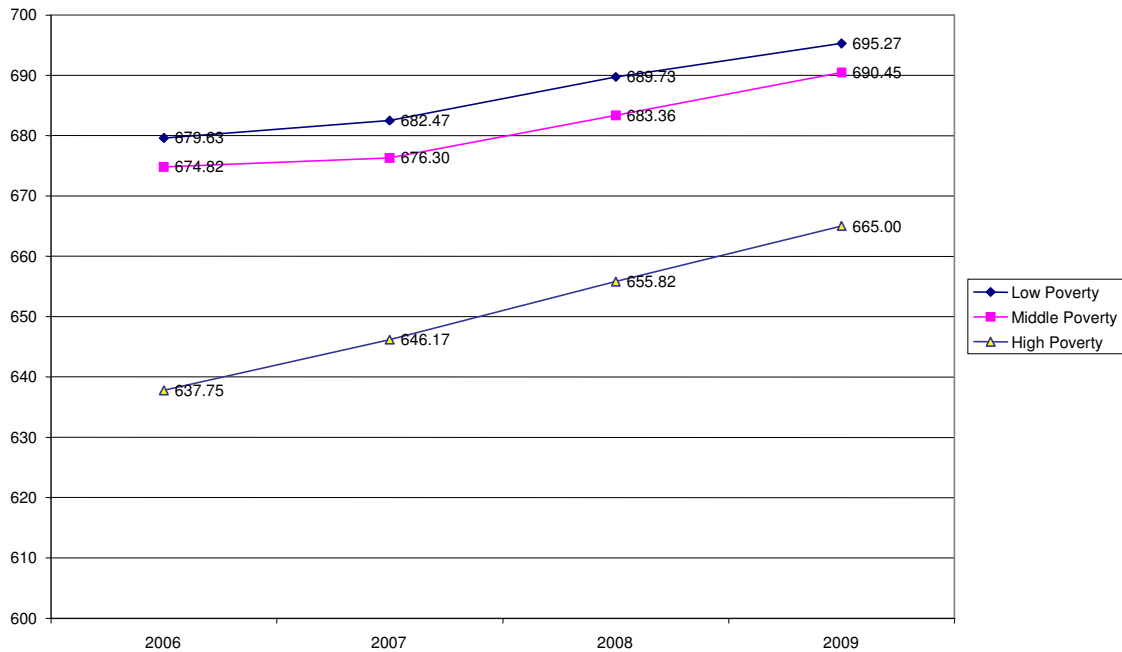
Average Mean Scale Score 8th Grade ELA -- High, Middle, and Low Poverty Long Island School Districts, 2006-2009, Level 3 = 650 – 714, Level 4 = 715 -790



Student Outcomes: State Mathematics Exams

On Long Island there are disparities in student outcomes on New York State Math exams as well. While the 4th grade gap closed by 5 points, the 8th grade gap closed by over 11 percentage points. On the 8th grade exams each group of school districts have substantially increased their scores. The achievement gap on 8th grade Mathematics exams has decreased from 41.88 to 30.27 points.

Average Mean Scale Scores 8th Grade Math -- High, Middle, and Low Poverty Long Island School Districts, 2006-2009, Level 3 = 650 -700, Level 4 = 701- 775



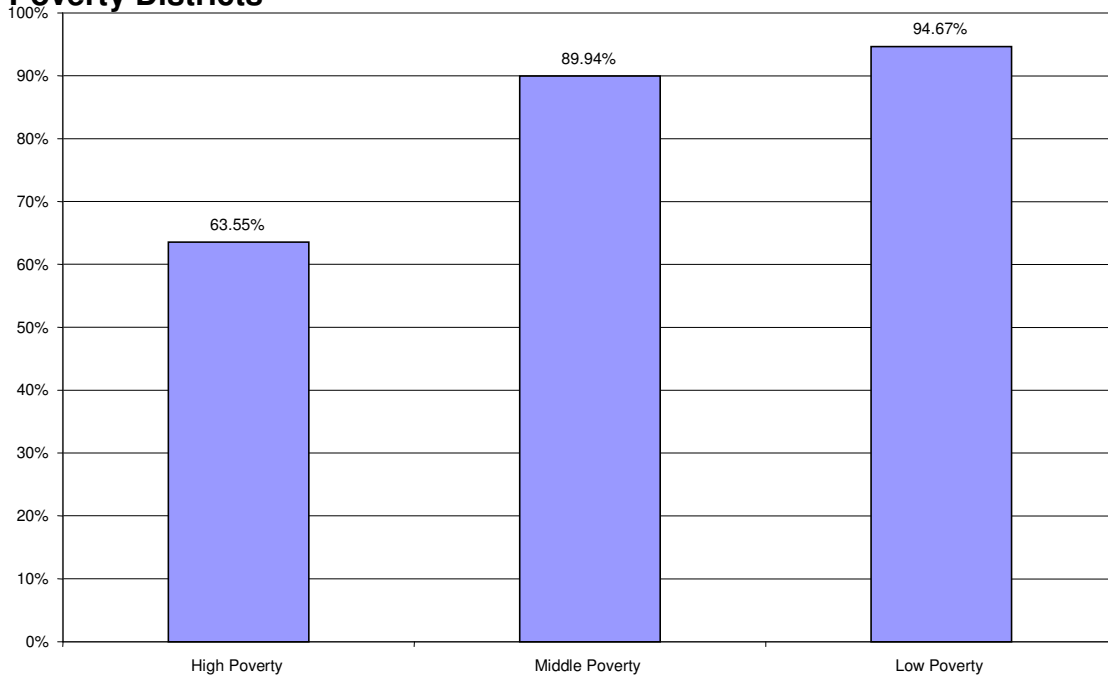
Section IV

Graduation Rates

There are unacceptable patterns with respect to the relationship between poverty and graduation rates. As documented in *Newsday's "Shame of the Suburbs"* series Long Island's high poverty districts have notoriously graduated far fewer students with Regents Diplomas than in other Long Island districts. New York has enacted a new policy which will require that all students, beginning with those who entered ninth grade in 2008, must qualify for a Regents Diploma in order to graduate – in short the Local Diplomas will be phased-out. The impact of this policy will be greater in high-poverty school districts which have awarded greater percentages of Local diplomas. Based on data from the School Report Card in 2008 graduation data, of the degrees awarded in 2008, 22.04% of degrees awarded in high-poverty school districts were Local Diplomas compared to 4.48% in low poverty school districts.

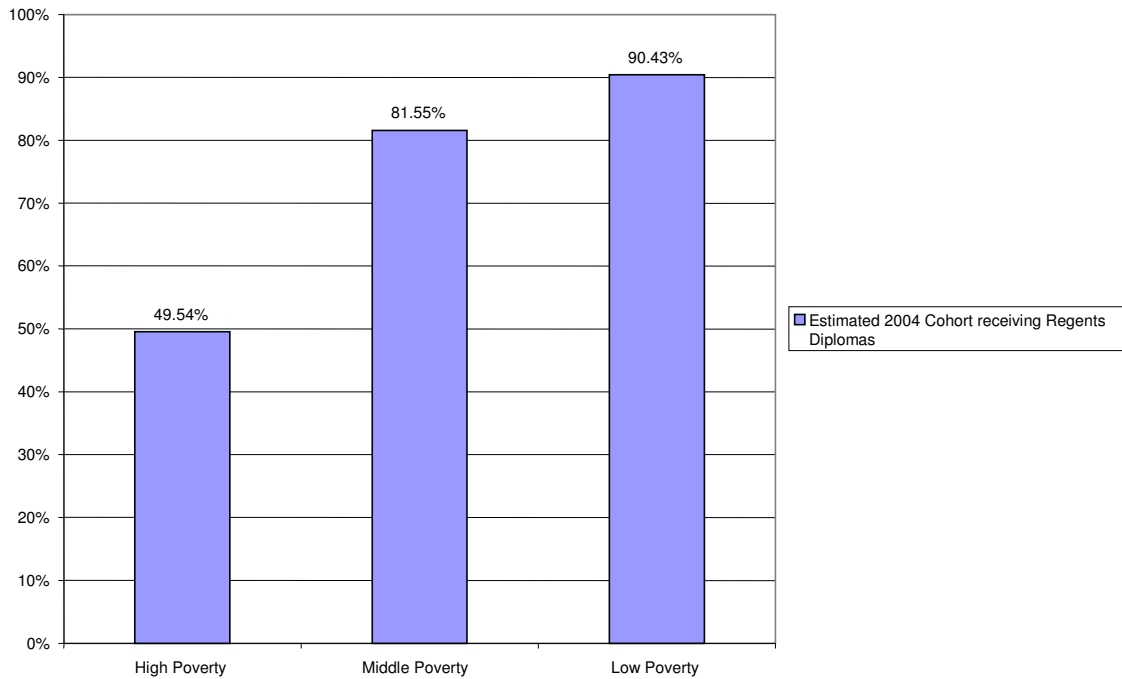
For the freshman class that enrolled that enrolled in 2004, there was a more than 30 percentage point gap between high and low poverty districts in high school graduation rate.

Graduation Rate -- Total Cohort 2004, Long Island's High, Middle, and Low Poverty Districts



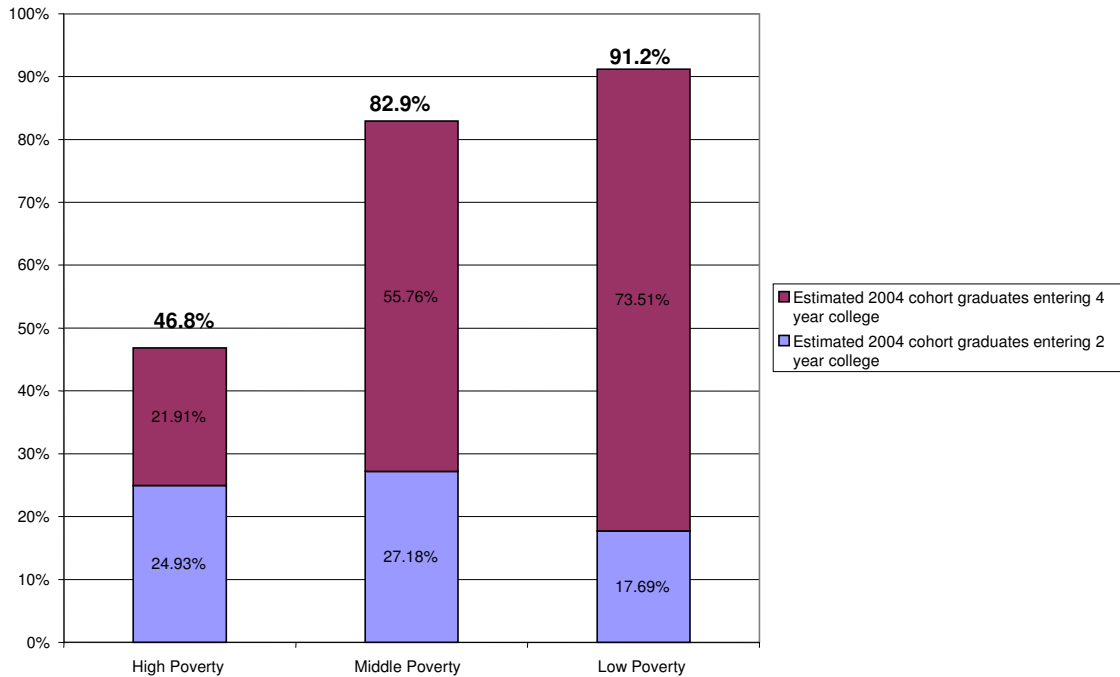
AQE calculated the percent of the 2004 freshman class who earned a Regents Diploma in four years as well as the percent of the 2004 freshman class who in 2008 were expecting to enroll in college. There is a gap of more than 40 percentage points between the high and low poverty school districts in the percentage of students earning Regents diplomas. This is especially troubling because Local Diplomas (which were formerly awarded by schools to students who did not meet the Regents standards) are being phased-out.

Percent of 2004 Freshman Class Earning Regents Diploma in 2008



The Long Island Regent's Diploma award rate closely approximates the percentage of students who are planning to pursue higher education. For the freshman class of 2004, there is a 44 percentage point gap between high and low poverty districts in the students who, in 2008, expected to attend college, and a 51.6 percentage point gap between students who planned on attending a 4-year college.

Estimated Percent of 2004 Cohort entering college by poverty rate



A Note About State Education Department Data Reporting

The State Education Department releases regarding Regents diplomas and college enrollment in a manner that obscures the actual contrast that exists in student success. Graduation rates are reported based upon the percentage of entering freshman who graduate four years later. No comparable data is provided for Regents graduates or college enrollees. Instead of reporting on the percentage of entering freshman who receive Regents diplomas and those who enroll in college, the SED only reports on the percent of high school graduates receiving a Regents diploma or entering college. The difference is huge. For instance, among Long Island's 2004 freshman class, 63.55% in highest poverty districts graduated in four years, while 94.67% did so in the lowest poverty districts--a gap of 31%. Of these graduates, as reported by SED, in high poverty districts 77.96% received Regents diplomas as did 95.52% in low poverty districts. While a quick glance would provide the impression that this represents only an 18% gap in the Regents diploma rate, such a conclusion would be highly inaccurate. To calculate the actual Regents diploma rate it is necessary to compare Regents graduates with the total cohort of incoming freshmen, which AQE has done in this report based upon the best data made available by SED. SED would do a service to parents, students and policy makers to provide

publicly reported data for every school district on the percentage of each cohort of freshman who go on to receive a Regents diploma and the percentage of the actual cohort who expect to enter college. Otherwise, as is now the case, students who do not graduate are left out of the reporting on some of the most important measures of student success.

Methodology

The Alliance for Quality Education wrote and performed the data analysis based on publicly available data from the New York State Education Department website and used financial data sets of the New York State enacted budgets from 2007-2010.

The purpose of the analysis was to provide a snapshot of funding reforms in Long Island's high, middle, and low poverty school districts since the budget reform of 2007. AQE was interested in how equitable the individual funding streams were, particularly to high-poverty school districts.

AQE used free and reduced priced lunch enrollment as the unit of analysis for evaluating school district poverty. AQE ranked the data sets based on most recently available school aid runs and ordered the school districts by FRPL enrollment. The report would evaluate school districts overall demographics, funding, and student performance, and consequently AQE selected school districts that were "traditional" in the sense that they had students in every grade, and a base number of students – this eliminated "feeder" school districts and "central" school districts – school districts designed only for elementary and middle, or high school students. Of the 122 school districts on Long Island that SED had information for, 91 remained in the sample. We looked at the 11 school districts with the highest poverty rates, the 11 median districts with middle poverty rates, and the 11 districts with the lowest poverty rates. Selecting 11 districts was modeled after the "Shame of the Suburbs" which sampled the 11 districts with the greatest poverty rates a few years ago.

The highest poverty school districts were: Bay Shore, Freeport, Uniondale, Copiague, Amityville, Roosevelt, Central Islip, Wyandanch, Brentwood, Westbury and Hempstead. The middle poverty school districts were: Hewlett Woodmere, East Islip, Levittown, Sachem, East Meadow, Port Washington, Babylon, Connetquot, Great Neck, Westhampton Beach, and Farmingdale. The low poverty school districts were: Cold Spring Harbor, Syosset, Lynbrook, Shoreham-Wading River, Jericho, Wantagh, East Williston, Mount Sinai, Massapequa, Commack, and Three Village. In this fashion we had common school districts to evaluate over time.

After ranking these districts by poverty, AQE evaluated the demographic information available – the percent of students who were White, Black, Hispanic, combined Black and Hispanic, and those who identified as Other, as well as the percent of students who had limited English proficiency. These indicators highlight the racial-ethnic disparities on Long Island, and show additional need factors for some school districts.

Next AQE looked at SED School Report Card data to evaluate pupil expenditures in these districts. AQE utilized a system of "weighting" which adjusts school district enrollment to show how far an educational dollar goes in school districts which have high-need levels. Weighting reflects the broad-based consensus among policy makers and education experts that it costs more to provide students in poverty equivalent educational opportunities. The New York State

Board of Regents has documented a close correlation between student performance and student poverty. To address this educational inequity, the Regents have used a two-to-one weighting for student poverty. In using this standard the Regents calculate the cost of providing an equivalent education for each student in poverty as costing \$2 for every \$1 spent on other students. This standard has been used throughout this report.⁴ In order to weight in this fashion, AQE utilized an adjusted enrollment figure, effectively counting each student living in poverty as two students. Any weighted figure reflects this enrollment count and demonstrates how far the educational dollar is going within that school district.

The pupil expenditures are depicted both in dollars, and weighted dollars, and show the funding gap over time. AQE was able to show the adjusted funding gap, the difference between spending overtime for all expenditures. Next AQE examined State Aid over time by looking at the funding per pupil in these school districts, weighted and unweighted, and evaluated how much progress was being made in terms of funding from the state at altering funding disparities in Long Island's high poverty districts. Next AQE looked at the Foundation Aid and High Tax Aid to evaluate to what extent those funding streams were promoting equity or closing the funding gap.

After looking at funding trends, AQE looked at the mean scale scores from 2006-2009 for 4th and 8th grade ELA and Math exams in the groups of school districts. This allowed AQE to see whether progress had been made in school district performance over time and whether there was any closing of performance gaps in Long Island on these exams.

AQE evaluated graduation rate data according to the 2004 Cohort (the freshman class of 2004.) SED releases two sets of graduation information – cohort data – which shows student outcomes in terms of the number of students graduating, the number of students receiving an IEP diploma, the amount of students still enrolled in schools, and the number of students who have dropped out of school. SED also releases graduation data each year, showing the number of students who receive a Regents diploma, an Advanced Regents diploma, an IEP diploma, and Local diplomas. These two data sets are not necessarily comparing the same groups of students – they are different because of students who drop out of school, students who are held back, and students who transfer from one school to another. In order to show what percent of the cohort graduated with these diplomas, AQE multiplied the percentage of students from the cohort data set by specific percentages in the graduating class data set. Thus AQE was able to approximate what percentage of students were receiving a local diploma from the cohort class, what percentage of students were receiving Regents diplomas, and so on. AQE used the student data on plans to enroll in two and four year colleges (both in-state and out-of-state).

⁴ NY Fiscal Analysis and Research Unit. "Towards an Understanding of the Relationships among Student Need, Expenditures and Academic Performance." 2003. <http://www.oms.nysed.gov/faru/articles.html>
See also William H. Clune "The Shift from Equity to Adequacy In School Financie" June 1993, and William Duncombe. CPR Working Paper Series No. 44: Estimating the Cost of an Adequate Education in New York." Syracuse, New York. Feb 2002. <http://www.cpr-maxwell.syr.edu>

Total 2004 Cohort Data, Student Outcomes in June 2008

School District	Total Students in 2004 cohort	# Grads	IEP Diploma	Still Enrolled	Dropped Out	% Grads	% IEP	% Still Enrolled	% Dropped Out
Hempstead	339	173	4	125	36	51.03%	1.18%	36.87%	10.62%
Westbury	284	188	1	76	16	66.20%	0.35%	26.76%	5.63%
Brentwood	1279	804	10	289	176	62.86%	0.78%	22.60%	13.76%
Wyandanch	123	66	8	35	12	53.66%	6.50%	28.46%	9.76%
Central Islip	462	230	20	152	60	49.78%	4.33%	32.90%	12.99%
Roosevelt	207	126	2	36	43	60.87%	0.97%	17.39%	20.77%
Amityville	219	168	3	35	13	76.71%	1.37%	15.98%	5.94%
Copiague	439	310	14	86	29	70.62%	3.19%	19.59%	6.61%
Uniondale	480	344	9	98	27	71.67%	1.88%	20.42%	5.63%
Freeport	572	322	5	223	22	56.29%	0.87%	38.99%	3.85%
Bay Shore	466	364	7	70	25	78.11%	1.50%	15.02%	5.36%
Total	4870	3095	83	1225	459				
Grad Rate	63.55%		1.70%	25.15%	9.43%				
Connetquot	596	498	9	59	30	83.56%	1.51%	9.90%	5.03%
Babylon	162	155	0	4	2	95.68%	0.00%	2.47%	1.23%
Port Washington	379	363	1	12	3	95.78%	0.26%	3.17%	0.79%
East Meadow	712	636	3	51	17	89.33%	0.42%	7.16%	2.39%
Sachem	1284	1147	2	50	85	89.33%	0.16%	3.89%	6.62%
Levittown	686	636	4	33	10	92.71%	0.58%	4.81%	1.46%
East Islip	400	363	2	21	14	90.75%	0.50%	5.25%	3.50%
Hewlett-Woodmere	317	288	0	19	6	90.85%	0.00%	5.99%	1.89%
Farmingdale	484	425	1	45	13	87.81%	0.21%	9.30%	2.69%
Great Neck	573	528	0	41	4	92.15%	0.00%	7.16%	0.70%
Westhampton Beach	241	208	0	17	16	86.31%	0.00%	7.05%	6.64%
Total	5834	5247	22	352	200				
Grad Rate	89.94%		0.38%	6.03%	3.43%				
East Williston	145	141	0	4	0	97.24%	0.00%	2.76%	0.00%
Wantagh	267	258	0	7	2	96.63%	0.00%	2.62%	0.75%
Jericho	331	313	0	17	0	94.56%	0.00%	5.14%	0.00%
Shoreham-Wading River	216	208	1	6	1	96.30%	0.46%	2.78%	0.46%
Lynbrook	306	279	0	22	5	91.18%	0.00%	7.19%	1.63%
Commack	546	517	1	20	6	94.69%	0.18%	3.66%	1.10%
Syosset	592	575	1	12	3	97.13%	0.17%	2.03%	0.51%
Cold Spring Harbor	168	163	0	5	0	97.02%	0.00%	2.98%	0.00%
Massapequa	660	604	1	36	15	91.52%	0.15%	5.45%	2.27%
Mount Sinai	213	201	0	8	4	94.37%	0.00%	3.76%	1.88%
Three Village	647	614	1	26	6	94.90%	0.15%	4.02%	0.93%
Total	4091	3873	5	163	42				
Grad Rate	94.67%		0.12%	3.98%	1.03%				

Graduation Rate Information, Total Cohort 2004 and Graduating Class of 2008

	Total Cohort 2004, percent of students who graduated on time	Percent of 2008 Graduating Class who Graduate with a Regents Diploma	Percent of 2008 Graduating Class who Graduate with a Local Diploma	Percent of 2008 Graduating Class who plan to attend 2 year college	Percent of 2008 Graduating Class who plan to attend 4 year college
High Poverty	63.55%	77.96%	22.04%	39.35%	34.47%
Middle Poverty	89.94%	90.67%	9.33%	30.22%	62%
Low Poverty	94.67%	95.52%	4.48%	18.69%	77.65%

High Poverty School Districts

2004 Cohort Graduation Rate = 63.55%

Graduation Rate X Regents Diplomas (63.55% X 77.96%) = 49.54%

Graduation Rate X Local Diplomas (63.55% X 22.04%) = 14.01%

Graduation Rate X 2 year college (63.55% X 39.35%) = 24.93%

Graduation Rate X 4 year college (63.55% X 34.47%) = 21.91%

Middle Poverty School Districts

2004 Cohort Graduation Rate = 89.94%

Graduation Rate X Regents Diplomas (89.94% X 90.67%) = 81.55%

Graduation Rate X Local Diplomas (89.94% X 9.33%) = 8.34%

Graduation Rate X 2 year college (89.94% X 30.22%) = 27.18%

Graduation Rate X 4 year college (89.94% X 62%) = 55.76%

Low Poverty School Districts

2004 Cohort Graduation Rate = 94.67%

Graduation Rate X Regents Diplomas (94.67% X 95.52%) = 90.43%

Graduation Rate X Local Diplomas (94.67% X 4.48%) = 4.24%

Graduation Rate X 2 year college (94.67% X 18.69%) = 17.69%

Graduation Rate X 4 year college (94.67 X 77.65%) = 73.51%

Appendix I: Long Island Selected Districts Demographic Data

District	2008-09 Estimated Enrollment	Pct. of FRPL Students	Pct. White	Pct. Black	Pct. Hispanic	Pct. Black and Hispanic	Pct. Other	Pct. Limited English Proficiency
11 Districts with Highest Poverty Rates								
HEMPSTEAD	6236	87.6%	0.3%	53.2%	46.1%	99.3%	0.4%	16.9%
WESTBURY	3987	84.4%	1.5%	45.1%	51.8%	96.9%	1.7%	32.3%
BRENTWOOD	16511	78.8%	14.0%	20.2%	63.8%	84.0%	2.0%	20.8%
WYANDANCH	2013	74.5%	0.0%	81.0%	19.0%	100.0%	0.0%	9.8%
CENTRAL ISLIP	6090	71.3%	11.7%	33.5%	50.8%	84.3%	4.0%	13.8%
ROOSEVELT	2933	69.0%	0.5%	77.8%	21.6%	99.4%	0.1%	11.7%
AMITYVILLE	2741	57.5%	12.4%	61.9%	23.9%	85.8%	1.8%	8.0%
COPIAGUE	4801	52.1%	29.8%	34.7%	33.5%	68.2%	2.0%	10.6%
UNIONDALE	6650	51.9%	1.5%	66.0%	31.5%	97.5%	1.0%	12.0%
FREEMPORT	6623	47.8%	10.3%	39.3%	49.2%	88.5%	1.2%	16.9%
BAY SHORE	5825	42.1%	50.8%	20.9%	25.3%	46.2%	3.1%	6.5%
	64,410	66.5%	13.4%	40.3%	44.5%	84.8%	1.8%	15.8%
11 Districts with Middle Poverty Rates								
FARMINGDALE	6297	12.6%	79.9%	6.0%	10.6%	16.6%	3.5%	2.8%
WESTHAMPTON BEACH	1820	12.1%	85.7%	4.2%	7.3%	11.5%	2.8%	2.6%
GREAT NECK	6267	12.0%	71.7%	2.2%	7.5%	9.7%	18.6%	5.8%
CONNETQUOT	6939	10.9%	91.3%	0.9%	4.3%	5.2%	3.4%	1.4%
BABYLON	1872	10.5%	85.7%	5.0%	6.0%	11.0%	3.2%	2.8%
PORT WASHINGTON	4990	10.1%	70.7%	2.4%	14.4%	16.8%	12.5%	10.0%
EAST MEADOW	7726	9.7%	73.0%	2.1%	10.9%	13.0%	14.0%	3.8%
SACHEM	15031	9.5%	89.6%	1.2%	5.1%	6.3%	4.1%	1.4%
LEVITTOWN	7899	9.3%	87.9%	0.8%	7.0%	7.8%	4.3%	1.8%
EAST ISLIP	4952	9.0%	92.6%	1.0%	4.2%	5.2%	2.2%	1.5%
HEWLETT WOODMERE	2992	8.8%	83.1%	1.9%	7.2%	9.1%	7.9%	4.6%
	66,785	10.24%	83.4%	2.1%	7.5%	9.5%	7.1%	3.1%
11 Districts with Lowest Poverty Rates								
THREE VILLAGE	7892	2.7%	89.0%	1.5%	2.6%	4.1%	6.9%	0.9%
COMMACK	7861	2.6%	89.3%	1.0%	3.1%	4.1%	6.6%	0.6%
MASSAPEQUA	8235	2.6%	97.2%	0.2%	1.3%	1.5%	1.2%	0.3%
MOUNT SINAI	2628	2.4%	95.2%	1.2%	1.7%	2.9%	1.9%	0.2%
EAST WILLISTON	1834	1.3%	87.1%	0.5%	2.9%	3.4%	9.4%	2.4%
WANTAGH	3683	1.3%	94.9%	0.3%	2.3%	2.6%	2.4%	0.9%
JERICHO	3098	1.0%	79.1%	1.6%	1.1%	2.7%	18.2%	1.9%
SHOREHAM-WADING RIVER	2779	0.9%	95.6%	1.2%	1.7%	2.9%	1.5%	0.6%
LYNBROOK	3043	0.8%	86.5%	1.2%	8.1%	9.3%	4.2%	2.4%
SYOSSET	6768	0.2%	78.4%	0.6%	1.8%	2.4%	19.2%	1.7%
COLD SPRING HARBOR	2069	0.1%	97.1%	0.5%	0.7%	1.2%	1.7%	0.3%
	49,890	1.73%	89.59%	0.87%	2.41%	3.28%	7.10%	0.99%

Appendix II: 2007-08 Expenditures per Pupil, Unweighted and Weighted

	Expenditures Per Pupil	Expenditures Per Pupil Weighted
HEMPSTEAD	\$21,679.47	\$11,559.30
WESTBURY	\$22,782.98	\$12,353.19
BRENTWOOD	\$17,198.11	\$9,619.17
WYANDANCH	\$22,858.19	\$13,099.25
CENTRAL ISLIP	\$23,674.49	\$13,819.68
ROOSEVELT	\$23,582.68	\$13,952.60
AMITYVILLE	\$23,572.25	\$14,971.26
COPIAGUE	\$17,597.31	\$11,572.61
UNIONDALE	\$22,060.62	\$14,520.25
FREEPORT	\$19,104.49	\$12,925.91
BAY SHORE	\$18,998.21	\$13,528.60
	\$20,221	\$12,152
FARMINGDALE	\$18,969.25	\$16,788.43
WESTHAMPTON BEACH	\$18,467.45	\$16,591.01
GREAT NECK	\$25,433.40	\$22,671.96
CONNETQUOT	\$18,822.75	\$16,977.32
BABYLON	\$20,632.41	\$18,680.32
PORT WASHINGTON	\$22,816.34	\$20,727.05
EAST MEADOW	\$18,750.14	\$17,090.64
SACHEM	\$17,949.12	\$16,388.90
LEVITTOWN	\$20,820.75	\$19,056.15
EAST ISLIP	\$17,020.42	\$15,617.93
HEWLETT WOODMERE	\$25,248.95	\$23,217.43
	\$19,978	\$18,117
THREE VILLAGE	\$17,412.74	\$16,941.76
COMMACK	\$17,552.40	\$17,115.94
MASSAPEQUA	\$18,071.61	\$17,610.22
MOUNT SINAI	\$18,172.86	\$17,701.99
EAST WILLISTON	\$24,100.52	\$23,784.19
WANTAGH	\$15,933.94	\$15,727.90
JERICO	\$25,633.41	\$25,387.15
SHOREHAM-WADING RIVER	\$17,348.09	\$17,201.87
LYNBROOK	\$18,998.46	\$18,845.81
SYOSSET	\$23,506.79	\$23,457.53
COLD SPRING HARBOR	\$22,470.26	\$22,454.54
	\$19,361	\$19,028