

## 3. Education

**Melissa Nemon**

There are many educational performance indicators that may be used to track educational progress in the Greater Manchester area. This study selected the following educational indicators:

- Diversity
- Graduates
- Dropout Rates
- Per Pupil expenditures
- Free or Reduced Lunch Programs
- Student Teacher Ratios

Since education is organized by municipal or regional school districts, many of these data will focus on the Manchester area.

## DIVERSITY IN THE SCHOOL SYSTEM

### HOW TO READ

The table at right depicts diversity data for the Greater Manchester area at two points in time. These data allow a comparative view of how diversity is changing in Manchester.

### GREATER MANCHESTER

Historically, New Hampshire has been one of the least racially and ethnically diverse states in the nation. However, the minority and immigrant population is growing rapidly, which raises important issues for the future of education and community life in Greater Manchester.

A recent study by Harvard surveyed high school seniors in Cambridge, MA and examined their attitudes towards diversity in the school system (Kurlander & Yun, 2002). The results included:

- Students appeared to have positive educational impacts.
- Students reported a strong level of comfort with members of other racial and ethnic groups.
- Students indicated that their school experiences have increased their level of understanding of diverse points of view, and enhanced their desire to interact with people of different backgrounds in the future.
- Students reported that they have been strongly affected by their school experiences.

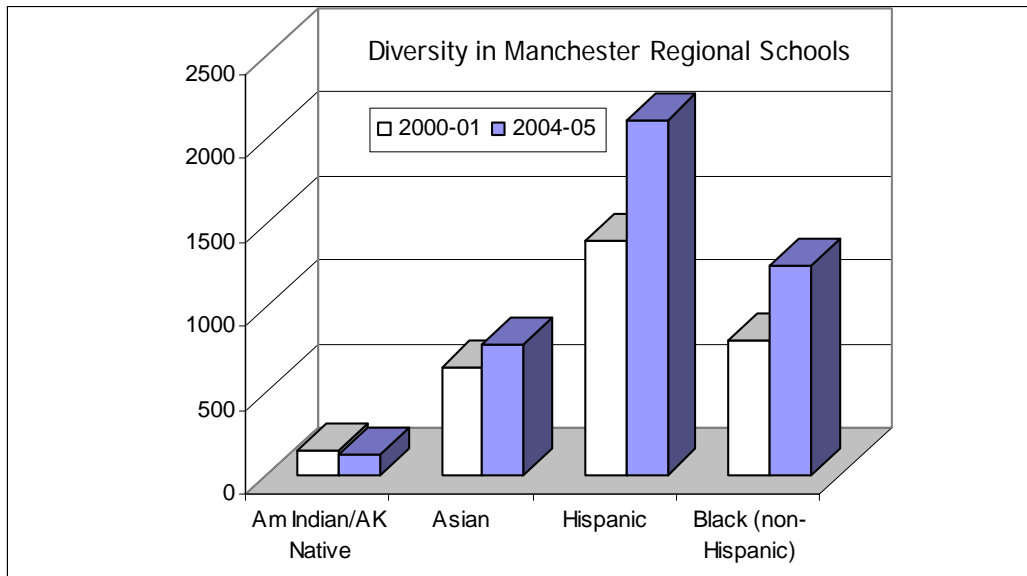
Throughout the 2000-2001 academic year, the Manchester Area had a student population of 46,440. In the 2004-2005 academic year, this dropped to 43,155, a slight decline of 3,285 students. During this same time period, the white, non-Hispanic student population decreased from 93.6% to 90.2%. However, the diversity increased for this area. The student population saw the highest increase in Hispanic students (from 1,395 to 2,104), followed by Black, non-Hispanic students (from 801 to 1,238), and Asian students (from 638 to 738). The overall

### DISCUSSION

The demographics of New Hampshire are changing and these are important issues both for future education in the state and for community life the Manchester Area.

## EXHIBIT 32

### DIVERSITY IN MANCHESTER REGIONAL SCHOOLS



SOURCES: NH Department of Education (2002a); NH Department of Education (2005b).



Melissa Nemon of SNHU presents her research at the Education Community Forum.

## GRADUATES: WHERE DO THEY GO?

### **HOW TO READ**

The tables at right depict graduation rates for New Hampshire over time and for the Greater Manchester area in 2003-2004. In both cases the data show activity post graduation. These data allow a comparative view of Greater Manchester and the state.

### **NEW HAMPSHIRE**

The proportion of NH students going on to higher education or training (e.g., university, college, technical college, certificate programs) has increased gradually over time to 72.3% in 2004. The number going to work or unemployed or in the military after high school has been decreasing over time to slightly over 22% in 2004. There were 13,847 high school graduates; approximately 98.5% earned a standard diploma.

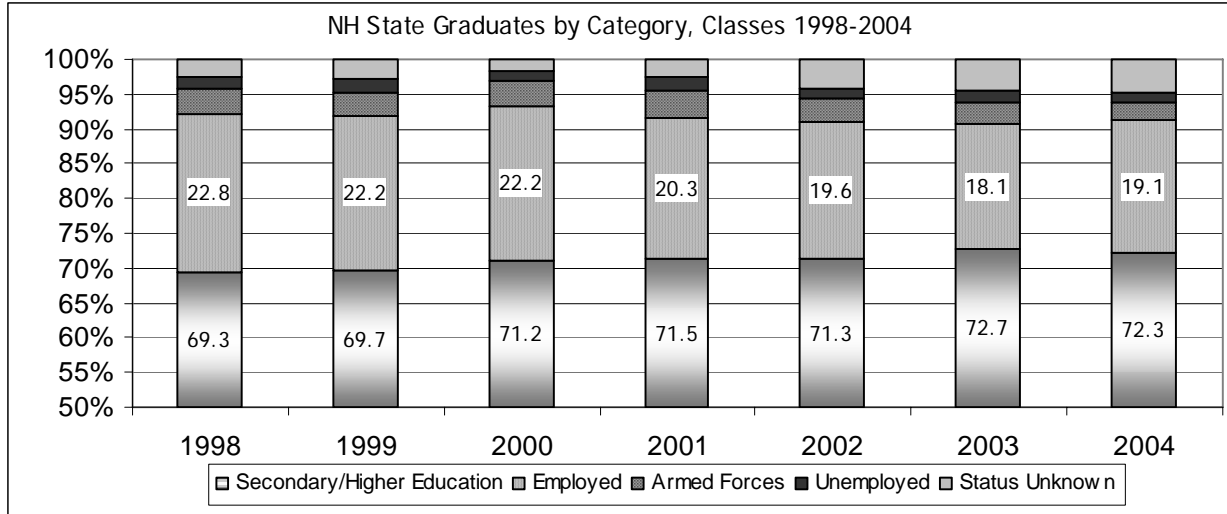
### **GREATER MANCHESTER**

Hillsboro County had 4,499 graduates and Rockingham County had 3,032 graduates in 2004; the two counties comprised almost 55% of all NH 2004 graduates. Greater Manchester had a higher proportion of students going into higher education (76.4%) and a lower proportion going to work, unemployed or in the armed forces (20%) than the state in 2004. This is a promising picture for area.

### **DISCUSSION**

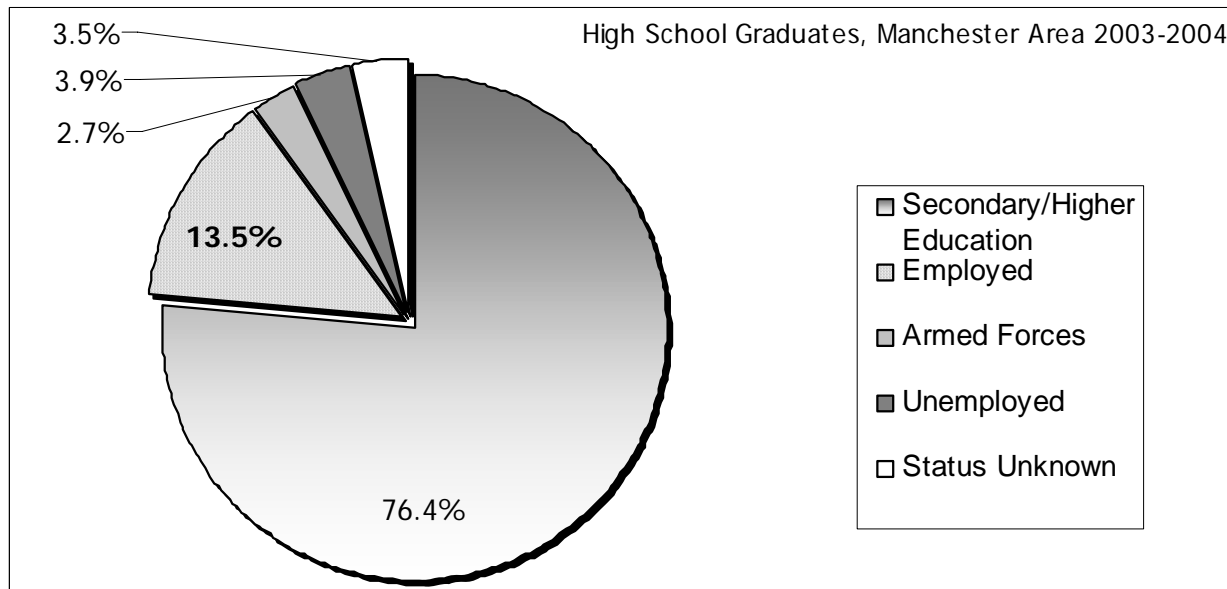
The ability of high school graduates to continue on to higher education or vocational training reflects the success of the school system in this regional economy. Preparing students to continue their education or training not only improves their ability to attain better employment, higher wages, and ultimately higher aggregate earnings, but also creates spillover benefits to society. Students who pursue higher education are more likely to engage in public/civic life, contribute more to the economy, are less likely to be chronically unemployed, on welfare or dependent on social services, and less likely to commit violent crimes. The data suggests a proportional advantage by Greater Manchester over the state as a whole.

**EXHIBIT 33**  
**GRADUATION, NEW HAMPSHIRE 1998-2004**



SOURCES: NH Department of Education (2005c); NH Department of Education (2006b).

**EXHIBIT 34**  
**GRADUATION, GREATER MANCHESTER 2003-2004**



SOURCES: NH Department of Education (2005c); NH Department of Education (2006b).

## DROPOUT RATES

### HOW TO READ

The table at right depicts dropout rates for Greater Manchester area high schools and the New Hampshire average. These data allow comparisons for this indicator of student failure and loss.

### NEW HAMPSHIRE

The NH Department of Education defines a dropout as

- Any student who completed the school year but did not return to school in September of the following school year or
- Any student who dropped out during the school year and did not return by October 1st of that year.
- Not counted as dropouts are students who are home bound or home schooled, suspended/temporarily expelled, transfers, truants, incarcerated, or deceased.

Attendance means full-time participation in a program of instruction at the school district. The annual student attendance rate for the state, measured as the share of students who attend the minimum number of days per school year, remained constant at 94.5% between 2000-2001 and 2003-2004 academic school years. Attendance rates are relatively high at the elementary level (95.7%) and decline at the high school level (92.7%). By this definition, NH reports an annual dropout rate of 4%.

This approach to measuring dropout is likely to underestimate the problem. Dropouts are accurately measured using a cohort method that tracks each entering 9<sup>th</sup> grade class through graduation.

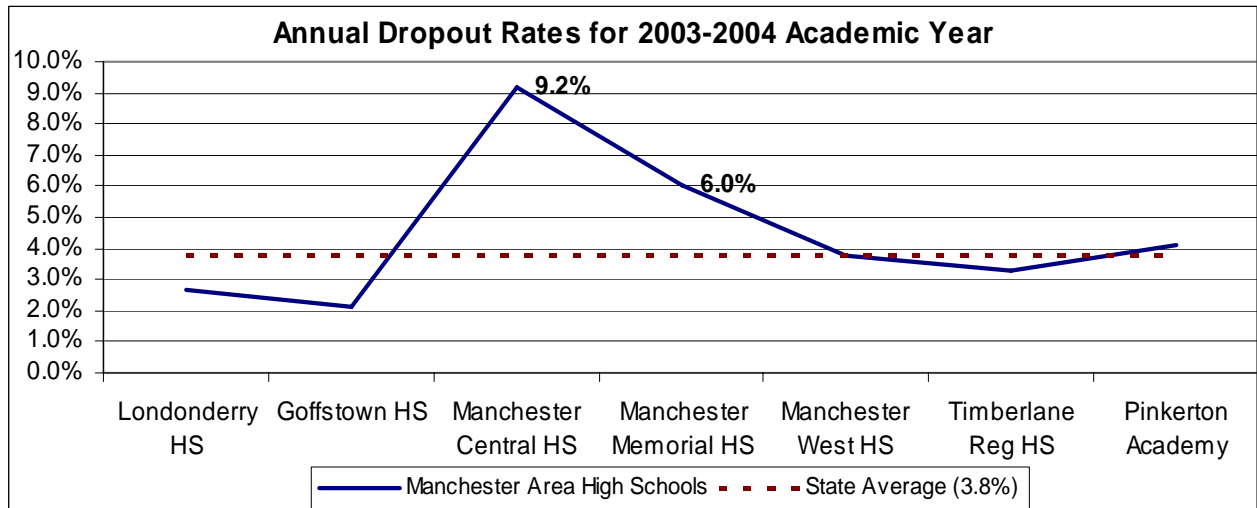
### GREATER MANCHESTER

The annual dropout estimate is lower than the state in Londonderry and Goffstown, average in Manchester West, Timberlane and Pinkerton, and higher in Manchester Central and Memorial HS. The Central HS rate, if measured using a cohort method may yield a dropout percentile rate in the 40's, which is quite high. These data show a quite notable differential within Greater Manchester.

### DISCUSSION

Consistent attendance is key to academic achievement. Typically, low dropout rates indicate engagement by students to learn and effectiveness for the school system. While many large-scale studies have been done examining dropout, local studies are needed to accurately assess the extent of the problem and its causes.

**EXHIBIT 35  
DROPOUTS, MANCHESTER 2003-2004**



SOURCES: NH Department of Education (2002b); NH Department of Education (2006a).



A lighter moment during open discussion at the Community Forum on Education.

## FREE AND REDUCED PRICE LUNCH PROGRAM

### HOW TO READ

The table at right depicts free and reduced lunch rates for Greater Manchester and the New Hampshire average. These data allow comparisons for this indicator of low income status and poverty.

### NEW HAMPSHIRE

To qualify for free meals, a student's annual family income must be less than 130% of the poverty rate. Students from households with incomes between 130% and 185% of the poverty rate qualify for reduced-price meals. The 2005 NH rate of public school students qualifying for the free or reduced lunch was 17.6%, which indicates a high rate of poverty among families of state schoolchildren. This rate reflects a 1.2% increase from the 16.4% of students who qualified in 2003.

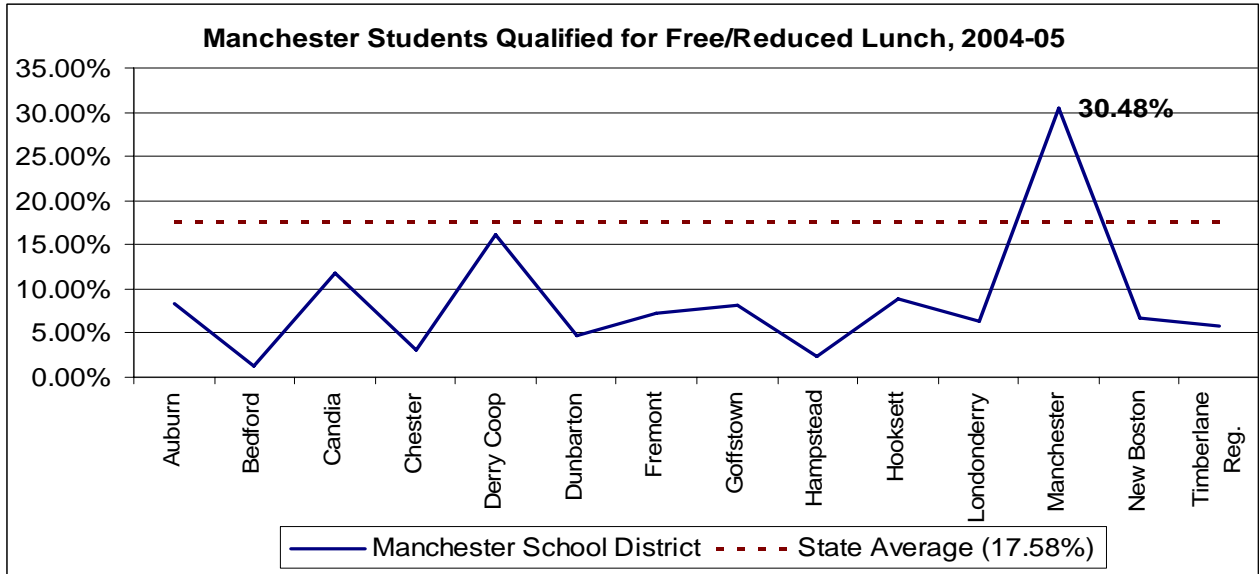
### GREATER MANCHESTER

Greater Manchester has a far lower average percentage of students eligible for the free or reduced lunch program (8.66% in 2005) than the NH average; Bedford (1.3%), Hampstead (2.3%) and Chester (34%) had the lowest rates. However, it is again important to note a high differential between the area and the City. Manchester had a poverty rate of 30.5% almost twice that of NH.

### DISCUSSION

Children need to be healthy and nourished to learn. Poverty and low socioeconomic status can be a major barrier to education. The number of children who qualify for free or reduced school lunches in public schools is a widely-used indicator of childhood poverty. While Greater Manchester fares well in this indicator when compared to the state, the City of Manchester has a very high rate suggestive of childhood poverty and its concomitant effects on the children's ability to learn, particularly in the earlier years.

## EXHIBIT 36 FREE AND REDUCED LUNCH, MANCHESTER 2004-2005



SOURCE: NH Department of Education (2005d).



Participants discuss potential intervention strategies at the Community Forum on Education, moderated by Patrick Tufts, President and CEO of Heritage United Way.

## STUDENT TEACHER RATIO

### HOW TO READ

The table at right depicts student-teacher ratios for New Hampshire and the Greater Manchester region over time. These data allow comparisons for this indicator of school instructional capacity.

### NEW HAMPSHIRE

New Hampshire public school student-teacher ratios have been decreasing over the last few years. This is a good trend. By 2004-2005, New Hampshire public schools had an average of 13.2 students per class, down from 15.4 in 1998-1999. The NH average ratio has stayed between 13.2 and 13.5 for the past 3 academic years. This is consistent with other New England states: CT=13.6, MA=13.6, ME=11.5, NH=13.2, RI=13.4, and VT=11.3. The NH ratio is well below the national average of 17.6 for public schools.

### GREATER MANCHESTER

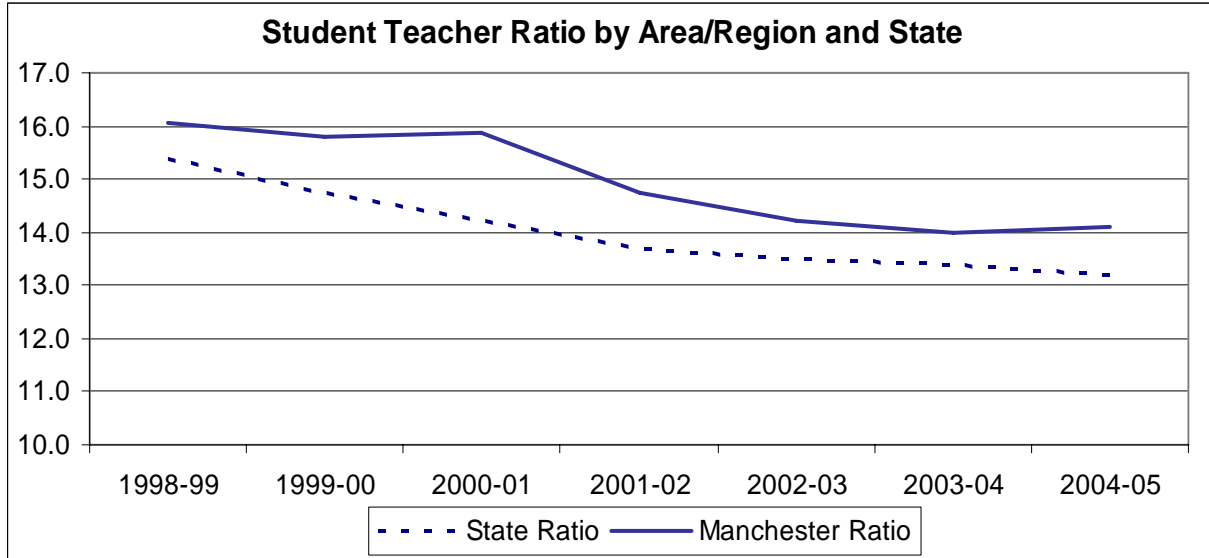
Public school student-teacher ratios in Greater Manchester have also been decreasing over the last few years, to 14 students per teacher in 2005. The Greater Manchester ratios are higher than the NH average and lower than the US average. Derry Cooperative has the highest student-to-teacher ratio at 17.3 while Candia has the lowest at 11.7.

### DISCUSSION

Classroom learning can be improved greatly when students have a smaller class size. This allows for the teacher to incorporate more one-on-one interaction and better focus their efforts while the students develop better learning skills and gain academic confidence. The lower the ratio of student to teacher, the more individual attention and time teachers can spend on their students. NH and, to a slightly lesser extent, Greater Manchester fare well in this regard, enjoying fairly low public school student-teacher ratios.

This will profoundly impact the quality of education in Manchester and increase the student-to-teacher ratio in the state.

## EXHIBIT 37 STUDENT TEACHER RATIO 1999-2005



SOURCE: NH Department of Education (2005a).



Participants rank potential intervention strategies at the end of the Community Forum on Education. Ranked strategies are proposed to Heritage United Way as recommendations to guide strategic philanthropy.

## LOCAL, STATE AND FEDERAL PER PUPIL EXPENDITURES

### HOW TO READ

The tables at right depict revenue, sources, and expenditures per pupil for New Hampshire, the US and Greater Manchester. These data allow comparisons for this indicator of investments and resources in public education.

### NEW HAMPSHIRE

The table at right shows that local and state revenues are the principal sources for education; that revenues for education have been increasing annually at local, state and federal levels; and that local revenues have caught up and marginally exceed NH revenues. The bottom table shows that increasing revenues translate into growing annual spending, and that New Hampshire's spending has been growing faster than the US, and is now close but below the US average spending per pupil per year (NH \$7800, US \$8,000).

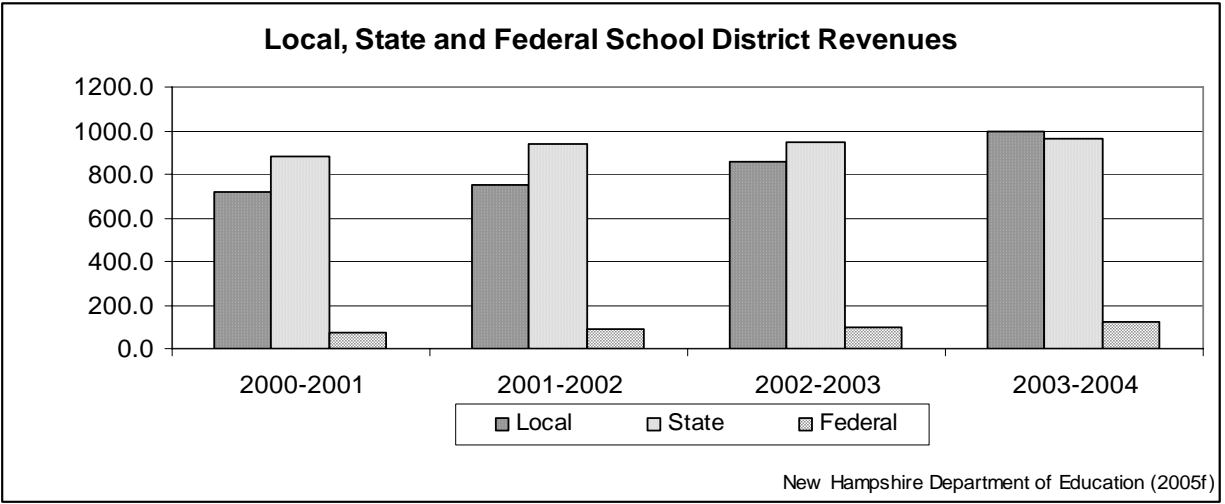
### GREATER MANCHESTER

The middle table shows revenue sources for the Manchester School District. Overall revenue increased 24% from 2000-01 to 2003-04. While local taxation, state and federal aid all increased during this period, their relative contribution to revenue changed. Local Taxation increased strongly, from 40 to 46% of all revenue, while State Adequacy Aid dropped from 49% to 43% and Federal Aid increased slightly from 4.6% to 5.8% of all revenue (to \$895 million). To achieve this pre-eminent role, Local Taxation grew by 41% during this period (almost at twice the rate of total revenue) to \$954 million in 2003-04.

### DISCUSSION

Local Taxation for education is supported by property taxes. The emerging leading role of Local Taxation in funding local public education is behind educational improvements such as reduced student-teacher ratios. Enhanced Local Taxation is made possible by rapidly growing property values in the Greater Manchester area. Public education is a direct beneficiary. Increasing property values (and bills, not tax rates), as we shall see later, affect residents on a fixed income, lower income, and the supply and availability of affordable and workforce housing.

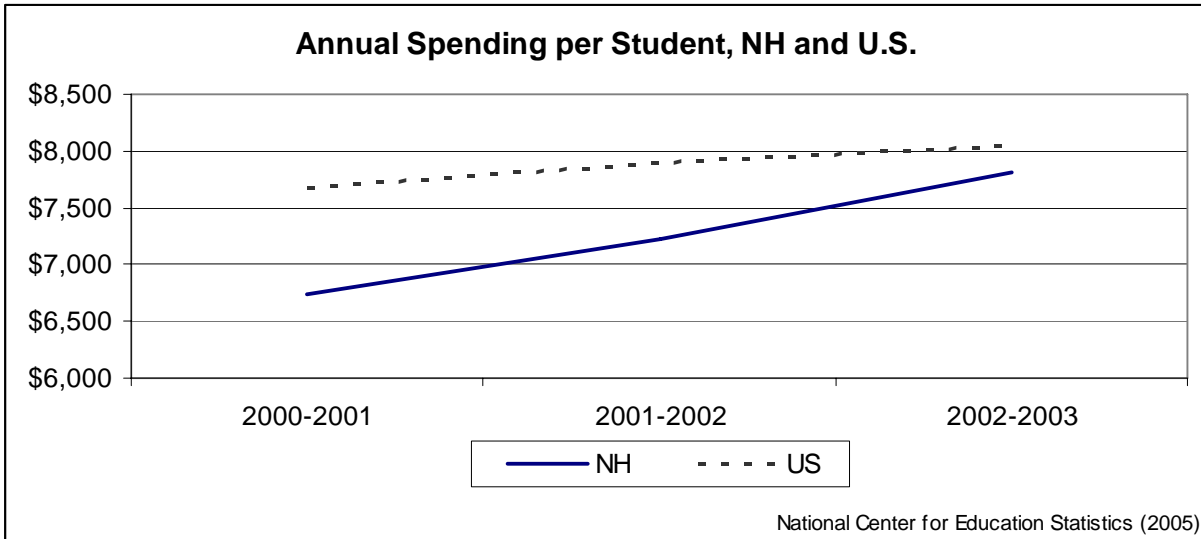
### EXHIBIT 38. SCHOOL DISTRICT REVENUES 2001-2004



### EXHIBIT 39. SCHOOL DISTRICT REVENUE SOURCES

	2000-2001		2001-2002		2002-2003		2003-2004	
	\$ (in mil)	%	\$ (in mil)	%	\$ (in mil)	%	\$ (in mil)	%
Local Taxation	675.6	40.4%	727.8	41.0%	830.5	43.4%	953.8	46.0%
Tuition, Food & Other Local Aid	40.9	2.4%	25.5	1.4%	28.5	1.5%	39.2	1.9%
State Adequacy Aid	824.0	49.4%	880.7	49.6%	896.2	46.9%	894.5	43.1%
Other State Aid	53.8	3.2%	57.2	3.2%	54.5	2.9%	66.9	3.2%
Federal Aid	77.4	4.6%	85.9	4.8%	101.9	5.3%	120.5	5.8%
Other	0.6	0.0%	0.1	0.0%	0.3	0.0%	0.5	0.0%
<b>TOTAL</b>	<b>\$1,672.3</b>	<b>100.0%</b>	<b>\$1,777.2</b>	<b>100.0%</b>	<b>\$1,911.9</b>	<b>100.0%</b>	<b>\$2,075.4</b>	<b>100.0%</b>

### EXHIBIT 40. PER PUPIL EXPENDITURES





Participants listen to ideas and strategies at the Community Forum on Education.

## PROPOSED EDUCATION INTERVENTIONS

Planning teams identified and recruited Public Forum participants, including educators, administrators, parents, community leaders, daycare providers, business, civic, and educational organizations in Greater Manchester. The goal was to engage a representative group of stakeholders in a data-driven discussion of educational needs/strategies for Greater Manchester. Participants discussed various education issues, identified multiple potential interventions, then priority-ranked the top three intervention strategies.

Three interventions emerged as the top strategies to recommend to Heritage United Way: (1) Preschool for all children; (2) promote Community School model; and (3) Diversity training. All can be addressed by Heritage United Way and municipal partners. The top strategy interventions are listed below.

TOP INTERVENTIONS		
<i>INTERVENTION</i>	<i>CATEGORY</i>	<i>VOTES</i>
1. Early upstream intervention: preschool for all children and early literature skill building	Preschool	20
2. Promote Community School model	Elementary+	11
3. Diversity training for administrators, teachers, councilors	Training	5

The Education issues discussed by participants, which ultimately led to intervention ideas, are listed below grouped by areas.

EDUCATION ISSUES DISCUSSED
<p><b>Data Issues / Program Evaluation Issues</b></p> <p>Percentage of students in special education            Evaluate socio-economic status of families and education levels            Count and status of homeless students in Manchester            State data project: i.4.see            Current data on dropout rates            Survey database            No data on kids who do not make it            No assessment of curriculum quality            No assessment on school performance            Data on homeless students            Evaluate school administration and use of community resources            Difference: special education students and behavioral problem students            Data on suspension/expulsion rates</p> <p><b>Infrastructure / Policy / Government Issues</b></p> <p>Preschool issues</p>

Literacy issues  
 Adult basic education issues  
 Public health of children  
 Representation of minority teachers to student population  
 Lists of available grants/programs and students currently involved  
 Social awareness/promotion about dropout rates  
 Early childhood/headstart programs issues  
 Education of teachers for preschool (under age 5)  
 School preparedness for kindergarten students going to the 1<sup>st</sup> grade  
 Alternative education concern: Algebra mandate by 2009  
 Reduction of sports programs / after school activities  
 Large or impersonal schools  
 School buildings: why aren't they open all day?  
 Manchester schools have different issues than surrounding area schools  
 Better define the relationship between social issues (i.e. pregnancy) and education  
 No Child Left Behind Act creates perception problems  
**Parent and Community Involvement Issues / School Outreach Issues**  
 How do parents feel about the educational system?  
 Immigrant students: integration, cultural competency  
 Lack of awareness of community programs  
 No guide for Manchester services  
 No centralized hub for information  
 Help immigrants who speak English get ESOL certification  
 There is no childcare available for ESOL participants  
 Community investment in youth and youth investment in community  
 Holistic view: communities, schools and parents  
 How open are schools to community input?  
 Parental involvement is high in elementary and then drops off dramatically  
 Schools put in for grant solo – no parental input  
 How do we define student success?

Below is an outline of all the interventions proposed by participants. These proposals are annotated with the relevant strategy category (below) and priority rankings (potential interventions table below).

EDUCATION INTERVENTIONS PROPOSED	VOTES
<b>Early intervention / Preschool / Elementary School</b>	
Full day kindergarten with busing	2
Success-by-Six program	3
Preschool interventions for special needs youth: social–emotional development	4
All students read by 3 <sup>rd</sup> grade	1
Subsidized childcare slots	1
Universal preschool	1
<b>Middle School</b>	
Middle school – every student involved in an extra-curricular activity	2
Adult mentor for every student in middle school	1
Early college awareness for middle school	2

Identify at-risk students in middle school	1
Career education at middle school	1
<b>High School</b>	
High school – every student should have two extra-curricular activities	1
High school – every student should have 2 adult mentors and 1 student mentor	1
Every student enters 9 <sup>th</sup> grade with a graduation plan	3
High school outreach for minority students	2
Post-secondary training for non-college bound students	1
<b>Alternative Education / Adult Education</b>	
Adult education offered all times of day	1
Alternative education programs: credit recovery and summer school	3
Company based apprenticeships	1
Separate adult education and literacy teaching	1
Improve alternative education	2
<b>Overall Education System Changes</b>	
Minority role modeling for students, parents and alumni	3
Extended school days	1
K-12 fitness/exercise program	1
Help center for parents and student to locate help, resource, and advice	3
Student information systems: electronic with parental access	1
University/community/school partnerships	1
Develop frameworks for parents/school relationships	1
Data collection project	3
Expand and support existing programs – coordination	1
Smaller classrooms	1
Change perceptions of student success	2
<b>Infrastructure / Policy / Government Changes</b>	
Start community discussion about education as an investment of taxes	1
The effects of involvement in childcare by business/industry	4
Commitment of city government	2
Increase teacher's salaries (especially preschool)	1
Create a holistic approach	1
Parent training for involvement	1
Treat schools like a community organizations	2
Resource guide	1
Community awareness programs on the importance of education	2
HUW as a convener of organizations and programs in the community	1
Address the lack of affordable childcare	1
Address the lack of available transportation	1
Initiatives to eliminate the No Child Left Behind Act	2
Family environment	3
Immigrant transitions programs	1
Facilitate collaborations between communities, school, students and parents	1

## EDUCATION DATA SOURCES

- Kurlaender, M. & Yun, J.T. (2002). *The Impact of Racial and Ethnic Diversity on Educational Outcomes: Cambridge, MA School District*. Cambridge, MA: The Civil Rights Project, Harvard University.
- National Center for Education Statistics (2005). *How much money does the U.S. spend on public elementary and secondary schools?* Retrieved March 2006 from <http://nces.ed.gov/fastfacts/display.asp?id=66>
- NH Department of Education (2002a). *New Hampshire Department of Education District Enrollment by Race 2000-2001*. Retrieved December 2005 from [www.ed.state.nh.us/education/data/enrollment.htm](http://www.ed.state.nh.us/education/data/enrollment.htm)
- NH Department of Education (2002b). *High School Dropout Rates for 2000-2001*. Retrieved January 2006 from [www.ed.state.nh.us/education/data/DropoutsAndGraduates.htm](http://www.ed.state.nh.us/education/data/DropoutsAndGraduates.htm)
- NH Department of Education (2005a). *NH Department of Education Student to Teacher Ratio in NH Public Schools*. Retrieved December 2005, from [www.ed.state.nh.us/education/data/staffing.htm](http://www.ed.state.nh.us/education/data/staffing.htm)
- NH Department of Education (2005b). *NH Department of Education Race/Ethnic Enrollments in NH Public Schools*. Retrieved December 2005 from [www.ed.state.nh.us/education/data/enrollment.htm](http://www.ed.state.nh.us/education/data/enrollment.htm)
- NH Department of Education (2005c). *State Total High School Completers by Category in NH Public Schools and Public Academies, 1998-1999*. Retrieved January 2006 from [www.ed.state.nh.us/education/data/DropoutsAndGraduates.htm](http://www.ed.state.nh.us/education/data/DropoutsAndGraduates.htm)
- NH Department of Education (2005d). *FY 2004-2005 Free/Reduced School Lunch Eligibility*. Retrieved December 2005 from [www.ed.state.nh.us/education/data/enrollment.htm](http://www.ed.state.nh.us/education/data/enrollment.htm)
- NH Department of Education (2005e). *Dropout Reporting Procedures for the 2004-2005 School Year*. Retrieved December 2005 from [www.ed.state.nh.us/education/data/DropoutsAndGraduates.htm](http://www.ed.state.nh.us/education/data/DropoutsAndGraduates.htm)
- NH Department of Education (2005f). *Statistics for NH Schools*. Retrieved January 2006 from [www.ed.state.nh.us/education/data/misc.htm](http://www.ed.state.nh.us/education/data/misc.htm)
- NH Department of Education (2006a). *2004-2005 Dropout Rates for Grades 9-12*. Retrieved January 2006 from [www.ed.state.nh.us/education/data/DropoutsAndGraduates.htm](http://www.ed.state.nh.us/education/data/DropoutsAndGraduates.htm)
- NH Department of Education (2006b). *State Total High School Completers by Category in NH Public Schools and Public Academies, 2004-2005*. Retrieved January 2006 from [www.ed.state.nh.us/education/data/DropoutsAndGraduates.htm](http://www.ed.state.nh.us/education/data/DropoutsAndGraduates.htm)
- US Department of Agriculture (2005). *National School Lunch Program Fact Sheet*. Retrieved December 2005 from [www.fns.usda.gov/cnd/lunch/](http://www.fns.usda.gov/cnd/lunch/)