



**Worcester
Municipal
Research
Bureau**

AN INDEPENDENT VOICE FOR RESPONSIBLE GOVERNMENT

**SPENDING AND EDUCATION
REFORM IN THE WORCESTER
PUBLIC SCHOOLS: A STATUS
REPORT**

Report No. 98-5
August 28, 1998

EXECUTIVE SUMMARY

An analysis of the Worcester Public Schools (WPS) budget in FY99 indicates the following:

- Spending will increase by \$7.5 million or 5% over FY98 as a result of the continuing infusion of funds appropriated under the Massachusetts Education Reform Act (MERA) of 1993. (Since FY93, WPS spending has increased by 56%, from \$106 million to \$165.8 million.)
- State aid (Chapter 70) constitutes 66%, or \$110 million of the total \$165.8 million budget.
- \$3.7 million or 50% of this year's increase will be spent on teacher salaries.
- Of the 76 new positions, 36 will be teachers and 25 will be instructional assistants. These positions are intended to further reduce student/teacher ratios according to the recommendations of MERA.
- Other instructional salaries will increase by \$774,000.
- The miscellaneous education OM (Ordinary Maintenance) account will increase by 42%, or \$1 million largely as a result of building rentals for 453 students who require alternative placements.

The WPS have used the \$60 million increase in its budget since FY93 to address the objectives of education reform.

- Standardized test scores have improved significantly.
- Each principal is held accountable for the performance of his school according to a number of indicators.
- MERA's guidelines for student/teacher ratios have almost been achieved.
- Since FY93, teacher compensation has risen by 23% for entry level and 32% for the highest salary level.
- Professional development opportunities have been greatly enhanced.
- Instructional time has increased to meet state guidelines.
- Ten schools, or about 20% have an extended-day schedule.
- Block scheduling and teams are used in grades 7-9.
- Attendance requirements for attaining course credit have been increased.
- The dropout rate has decreased from 14% to 6.8%.

The WPS have made a concerted effort to comply with the requirements of MERA, and have demonstrated measurable improvement in a number of areas. Nevertheless, the Research Bureau has a number of recommendations to further enhance student achievement and control costs:

1. The City Manager and the Superintendent of Schools should carefully plan expenditures for the next several years so that the programs and personnel that have been added since the implementation of MERA can be retained after the expiration of the Act in FY00.
2. The Worcester School Committee should negotiate an arrangement with the Education Association of Worcester (EAW) regarding professional development whereby the superintendent and principal may prescribe courses for the purpose of increasing teacher competence in a particular area.
3. In the next round of negotiations, the School Committee should establish recognition of the fact that the principal is the appointing authority in his school, and that inter-school transfers of teachers should not be made without approval of the appointing authority.
4. While no one form of school organization should be imposed, principals should be able to divide their larger schools into smaller units in order to enhance student achievement and parent involvement.
5. The EAW should waive the 20% cap on the number of schools eligible for the Performance Based Awards Program (PBAP) so that more schools will apply for and receive the \$20,000 awards based on various school improvements when measured against past performance. (The account now has \$400,000 that would benefit the union's members.)
6. The Superintendent should explore the rental of city or state-owned facilities for housing the WPS alternative programs.
7. The Superintendent and the Worcester School Committee need to determine why so many students leave the district between kindergarten and grade 12.
8. Given the recent increase in the number of special education students, the Superintendent should carefully track that population and carefully monitor special education expenditures.
9. The EAW and the Worcester School Committee should encourage one or more schools to apply for Horace Mann Charters to become in-district charter schools.

INTRODUCTION

The purpose of this report is to provide a snapshot of spending priorities of the WPS in FY99, and a more general overview of the impact of the infusion of funds into the WPS as a result of MERA since its inception five years ago.

In FY99, spending in the WPS will increase by \$7.5 million, or 5% over FY98. Since FY93, WPS spending has increased by 56%, from \$106 million to \$165.8 million, well

above the 15.9% cumulative inflation for that time period.¹ (While the School Department budget includes expenditures for health insurance and retirement, it does not include debt service on new schools and renovations, grants from the state and federal government, or the allocation for the Seven Hills Charter School or the Abby Kelley Foster Charter School.)² WPS spending as a percentage of total city expenditures is 51.5% of the total General Fund budget, which will reach more than \$322 million in FY99. When the vocational school, which is now part of the WPS, is included, spending by WPS represents 55% of the General Fund budget. (Boston Public Schools expenditures of \$549 million constitute 38% of the General Fund budget.) The increases in school spending in recent years are directly attributable to increases in state aid as a result of MERA. The following chart indicates these increases in state aid:

	State Aid Chapter 70	% of WPS budget
FY94	\$55,362,382	49.0%
FY95	\$63,246,180	50.9%
FY96	\$76,405,807	56.1%
FY97	\$90,966,101	60.3%
FY98	\$102,394,910	63.1%
FY99	\$110,018,071	66.3%

A. ENROLLMENT

- In FY99, enrollment which has a direct impact on the budget, is expected to increase by 1% from 23,965 to 24,252. (This figure does not include about 1,000 students from Worcester who will be enrolled in two public charter schools. An additional 200 students from surrounding towns will be enrolled in the Abby Kelley Foster Charter School which is a regional school.)
- 37% of the students will enroll in the elementary grades.
- Enrollment in grades K-6 will increase by .7% over last year.
- Enrollment in grades 7-8 will decrease by .65%.
- Enrollment in grades 9-12 will remain the same.

IMPACT OF ENROLLMENT

	FY96	FY97	FY98	FY99	%CHANGE FY96-99
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1 Source: Consumer Price Index, U.S. Department of Labor, Bureau of Labor Statistics.

2 The allocation for the Seven Hills Charter School IN FY99 is expected to be almost \$4.3 million for 666 students, or \$6,446 per student. (This figure is set by calculating the average per-pupil expenditure for the WPS.) Expenditures for the Abby Kelley Foster Charter School, which opens in September, 1998, will be about \$3.5 million.

PRE-K	651	739	844	844	30%
K-6	14,812	14,869	15,118	15,224	3%
7-8	3,345	3,366	3,349	3,327	-1%
9-12	4,611	4,754	4,854	4,857	5%
TOTAL	23,419	23,728	23,965	24,252	4%

B. STAFFING IN WORCESTER PUBLIC SCHOOLS

- The FY99 budget supports 3,154 positions, an increase of 76 positions or almost 2.5% over last year.
- Teachers constitute 60.5% of the WPS staff. If instructional support personnel are included, about 72.5% of the WPS staff is directly involved with student learning. (The number of teachers has increased by 30% since the inception of education reform, while the number of instructional assistants has increased by 54%. Instructional assistants are assigned primarily to special education and bilingual education classrooms in accordance with state mandates regarding student/teacher ratios.)
- Of the 76 new positions, 36 will be teachers, 25 will be instructional assistants, and 2 will be Central Administration Building (CAB) administrators. The remaining increases are in support staff.

C. BUDGET BY PROGRAM

- In FY99, regular education expenditures will constitute \$79 million or 45.6% of the total budget, with a 4% increase in salaries due to collective bargaining and virtually

no increase in non-salary expenses.

- Special education expenditures represent almost 17.2%, or \$28.5 million of the FY99 budget. The number of special education students in FY98 was 4,275, or 17.8% of the student body. That is an increase from the two previous years when the number was 17% (4,074 in FY96 and 4,066 in FY97). Substantial increases are projected in legal fees for special education appeals (33%, or \$40,000) and tuition for day school and residential placements for youngsters with highly specialized needs (10%, or \$500,000).
- Total expenditures for bilingual education are \$6 million, or 3.6% of the budget. This program serves 2,200 linguistic minority students, or 9% of the student body. About 1,160 students are enrolled in formal Transitional Bilingual Education programs. The remainder are served by an English as a Second Language (ESL) tutorial program.
- Indirect costs, which include administrative and clerical salaries, custodians, school plant personnel, retirement, health insurance, electricity, telephone, etc. represent 31% (\$52 million) of the FY99 budget. Additional building repairmen, custodians, cafeteria workers, and clerical personnel constitute the largest part of the 9% increase for non-instructional salaries. The 6% increase in non-salary items is largely attributable to building rentals (\$1 million) for alternative programs for 453 very disruptive youngsters or students who have dropped out of school or are on the verge of dropping out.

D. BUDGET BY EXPENSE

The chart on the following page shows the WPS budget FY93-FY99.

1. SALARY EXPENSES

- 72.3%, or \$120 million, of the budget will be spent on salaries, with almost 75% (\$89.8 million) of the total salary budget spent on teacher salaries.
- Teacher salary expenditures will increase by 4% due to added positions to reduce the student-teacher ratio per the recommendation of MERA and employee contract provisions. (Teacher salaries have increased by 64% since FY93.) Average student-teacher ratios are now 21.6:1 in grades K-5, and 18:1 at the secondary level.
- Expenditures for instructional assistants will increase by more than \$450,000 or 10%. This category has increased by 77% or \$2.1 million since FY93. These assistants are used in a number of programs: special education, bilingual education, preschool, kindergarten, and other specialized situations within the school system such as large classes. Under state law, all three-year olds with disabilities must be provided with a pre-school program.
- Miscellaneous salaries increased by 11%, or \$320,000 over last year, and by 253%, or \$2.3 million since FY93. The biggest increases were in ESL tutors (13%), basic literacy tutors (18%), special education summer school programs for students with significant disabilities (70%), and Worcester Juvenile Court probation officers (120%). The Federal Office of Civil Rights has required the WPS to provide special education summer school on the ground that the district was not providing the same

services for special needs students as for regular education students.

- Non-instructional support has increased by 14%, or \$900,000. The largest increase is in the Information Systems Section that provides systemwide support in various technology-related categories such as database administration, and implementation of the technology plan for all schools.
- Overall salary expenses in FY99 will increase by 5%, or about \$5.5 million over FY98. Since FY93, salaries have increased by 64%, or \$47 million.

2. NON-SALARY EXPENSES

- Personal services expenditures in FY99 will decrease by 29%, or \$400,000. The bulk of this account goes for staff and curriculum development which decreased by \$200,000. This reduction was primarily in technology education, which will be supplemented by state funds for technology staff development. However, since FY93, \$3.2 million has been spent on professional development. As mentioned previously, there were substantial increases in legal fees for special education appeals and contract negotiations. However, the school performance award program account (which will be discussed in a later section) still had a substantial balance, and therefore received no additional funds.
- The tuition account increased by 10% or \$500,000 in FY99 due to rate changes and an increase in the number of students who require placements in more restrictive settings (day schools and residential programs), and those special needs students who have been excluded from the WPS because of serious violations of the discipline codes.
- The miscellaneous education OM (Ordinary Maintenance) account will increase by 42%, or \$1 million. The major increase in this account is the result of building rentals for 453 regular education students who must be placed in alternative programs because they are too disruptive to remain in a regular classroom. (The building used for this purpose previously at 75 Grove Street has been demolished in order to build a Courtyard Marriott.)
- The telephone account was budgeted to decrease by 70%, or \$130,000 in anticipation of receiving E-Rate funds from the Federal government. It should be noted, however, that this rate is now in jeopardy, and the telephone account may well have to be increased during the course of the year.
- Both the health insurance and retirement accounts increased by 7% (\$900,000 for health insurance and \$400,000 for retirement). Increases in health insurance are based on increases in premium rates and new hires. Most of the increase in pensions is the result of new hires plus the cost of living adjustment (COLA) for retirees.
- Overall spending for non-salary items will increase by 5% or about \$1.1 million. Since FY93, non-salary items have increased by 38% or \$12.8 million.

E. WHY DID THE BUDGET INCREASE?

The FY99 budget of \$165.8 million reflects an increase of \$7.5 million or 5% over the FY98 budget. The new revenues come from Chapter 70 aid from the state as prescribed by MERA. On the expenditure side, the biggest increases were teachers (\$3.7 million), instructional assistants (\$450,000), ESL and basic literacy tutors (\$110,000), and building rentals (\$378,000). The increase in teachers brings the WPS close to the MERA recommendations of 22:1 for grades K-5, 25:1 for grades 6-8 and 17:1 for grades 9-12. The tutors, who are certified teachers, are employed 3 hours per day in classes that exceed the desired ratios. As previously noted, building rentals are for housing alternative programs for about 450 students whose behavior is too disruptive for them to remain in a regular classroom. Tuition for special needs placements in all day or residential schools will increase

by \$500,000. These latter two categories reflect an increase in the special needs population. Spending on instructional supplies will increase from \$110 to \$115 per student, but the overall account will decrease because of last year's one-time expenditures associated with the opening of two new schools.

F. EXTERNAL FUNDS

- In FY99, funds from the state and federal government not included in the WPS budget discussed above will increase by 11.6%, or \$4 million.
- About 85% of these grants are formula-driven, including Title I, Head Start, special education, occupational education, magnet schools, etc.
- Grants will represent 9.3% of total WPS revenues of \$192.7 million in FY99. (This total includes revolving funds of \$6.7 million, and an allocation for the City's Department of Public Health and Code Enforcement of \$2.2 million for school nurses.)

G. FACILITY MAINTENANCE

- About \$9.1 million will be spent in FY99 to maintain existing WPS buildings, with \$6.5 million spent on employee salaries.
- In FY98, five employees were added to the school shop staff to increase the level of services beyond what the WPS would have paid to outside contractors. These contractors charge \$35 - \$50 per hour in addition to materials for which they charge a 10% markup over cost.
- During the past two fiscal years, the school shop has undertaken a complete rehabilitation of Burncoat High School and Burncoat Middle School. The staff is currently concentrating on the Central Administration Building, refurbishing individual offices and constructing new offices on the fourth floor.
- WPS facilities include 40 elementary schools, 6 middle schools (University Park Campus School, A.L.L. School, Burncoat, Forest Grove, Worcester East Middle and Sullivan) and 5 high schools (one in each quadrant plus the A.L.L. School)³. Other buildings include the Central Administration Building, Foley Stadium and field house, several alternative programs in rental facilities, and the former Fanning Trade School.

H. CAPITAL FUNDS

- Capital funds are raised by the City through the sale of bonds, and are used to fund projects such as new school construction and renovations, schoolyard improvements, heating systems, etc. Each year, the City gives the WPS \$2 million of funds it has borrowed to finance these projects.
- In addition, the City is currently constructing new schools: ALL/Woodland, Norrback

³ A.L.L. School includes grades K-12.

School, and Roosevelt School. (Future projects include an addition to Forest Grove Middle School and a new vocational school.) 90% of those costs will be paid by the state.

ACCOUNTABILITY

Spending in the WPS has increased by 56% or almost \$60 million since FY93. It is reasonable to ask first, whether the objectives of MERA have been addressed by the school district, and second, what the results have been thus far. The Education Reform Act makes reference to the need for improvement in a number of broad categories:

Student Achievement

While standardized tests are only one measure of student achievement, they are the only uniform measure the state can use as a guide to determine the effectiveness of the Education Reform Act. Therefore, MERA requires the implementation of a statewide testing system (Massachusetts Comprehensive Assessment System or MCAS) in a number of academic areas in grades 4, 8, and 10. The tests are based on statewide curriculum frameworks. Passing the tenth-grade exams will be the minimum requirement for receiving a high school diploma. These tests were administered for the first time in May, 1998, but because of the number of essay responses that must be scored and the need to establish specific criteria in each of the subject areas for each of the levels of performance, the scores for every student will not be available until November.

Prior to this year, the state was using the Massachusetts Educational Assessment Program (MEAP) tests, achievement tests in four subject areas that were not aligned with the new frameworks. Scores were recorded by school and district; there were no individual score reports. The tests were administered in grades 4, 8, and 10 five times over the last ten years. In grade 4, Worcester has seen significant progress in all four curriculum areas tested (reading, math, science, and social studies) since 1988, and more improvement than the performance of fourth-grade students statewide. In fact, six of Worcester's elementary schools were among the 50 schools in the state that improved the most during the last test administration in 1996. In grade 8 there was a statistically significant improvement in all areas between 1988 and 1996. However, the scores for the WPS were still below the statewide average. In 1994, the MEAP test was given to students in grade 10 for the first time. (Prior to 1994, it was given in grade 12.) In 1996, students had improved in all areas but were still well below the statewide average.

In 1996, Worcester fourth-graders scored significantly higher than their counterparts in similar urban communities. Eighth-graders were within the score band for similar communities in reading and math and above the band in science and social studies. Tenth grade scores compared favorably with those in similar communities in all areas.

Each school has had a plan in place since FY93 to address student deficiencies on the MEAP tests, consisting of the following steps:

1. Analyze previous test data.
2. Integrate open-ended questions into all curriculum areas, since MEAP tests the ability to answer open-ended questions. (Open-ended questions have a variety of answers, or

one answer with a variety of ways of reaching it.⁴)

3. Use the Metropolitan Achievement Test (MAT 7), SAT 9 and PSAT (Grade 10) to provide information on student performance in both process and content skills. This item analysis provides information about individual students' strengths and weaknesses, which should then be addressed.

4. Orient students to the procedures of multiple choice tests (the other portion of the MEAP tests), which is done most successfully about ten days prior to the test.

5. In 1997-98, all schools amended their School Improvement Plans, adding an MCAS Action Plan.

The other standardized test from which the district has results is the third-grade reading test (Iowa Test of Basic Skills or ITBS). This test was administered in 1997 and 1998. The results in 1997 indicated that Worcester's third-graders scored as well as or better than the national average. The 1998 scores were slightly lower (following the same pattern as the entire state), but the difference was not statistically significant, and the difference in scores between the district and the statewide average was not statistically significant either. It should also be noted that in 1998 more students with special needs and more students with limited English proficiency were tested under routine conditions than were tested in those categories in 1997. In addition to this grade analysis, that is, a comparison of two different groups of students who took the Iowa tests in 1997 and 1998, the WPS prepared a cohort analysis. This is a comparison of the results for the same group of 459 students from 10 of the lower-performing schools in the district who took two different but comparable forms of the Iowa tests. The first was given at the beginning of the school year, and the second was administered in April as part of the statewide testing program. The first administration was used as a diagnostic tool for identifying, and subsequently addressing during the course of the year, specific student weaknesses. When the students were tested again, it was found that, depending on the tested area, between 60-80% of the schools made statistically significant gains, and again, depending on the tested areas, 59%-66% of the students tested made significant gains. While these ten elementary schools enrolled large numbers and high percentages of students from low-income families where English is often not the main language spoken, these schools and their students demonstrated significant improvement in reading skills as measured by the Iowa Grade 3 reading tests. Data analysis also indicated that the mobile students (in the same school for one year or less) scored significantly lower than the more stable students (in the same school for three years).

Governance and Management

- MERA removed principals from collective bargaining units to give superintendents more leverage in motivating the performance of principals. In the WPS, the

⁴ A sample fourth-grade social studies question is as follows: The town of Riversdale is planning to build a hospital next to the Town Hall. The exact place where they plan to build the hospital is shown by dotted lines on the map (not shown here). The Town Council wants to know the opinion of citizens about the location that has been chosen. You are a citizen of Riversdale. Look carefully at the map and think about good reasons for choosing the location. Also think about the reasons the hospital should not be there. Do you think that the town has chosen a good place to build the hospital? Discuss several reasons for your answer.

superintendent hires and evaluates principals. He meets with individual principals to establish the terms and conditions of each contract. He is one of a handful of superintendents across the state to utilize this option under education reform.

- At the beginning of the school year, Quadrant Managers work with their principals to set 3 or 4 measurable goals. These goals will reflect school district goals and the goals identified in School Improvement Plans.
- Principals submit written, monthly reports (Timeline Mandate reports) detailing what school staff are doing to implement school improvement activities in several key areas including standardized tests, new curriculum initiatives, staff development, character education, secondary school restructuring, student daily attendance, suspensions, dropouts, personnel evaluations, staff attendance, etc.
- Quadrant Managers evaluate principals on how well they have achieved these Timeline Mandates.
- Quadrant Managers make recommendations to the Deputy Superintendent and the Superintendent for the length of contract and salary of principals. Based on the principals' performance evaluations, the Superintendent offers principals contracts of differing lengths and differing salaries. Regardless of the length of the employment contract, salary increases are provided only for one year at a time. Future salary increases will continue to be based on annual performance. Three principals have been removed from their positions since the implementation of MERA, and thirteen have retired.

Teacher/Student ratio

MERA guidelines for student/teacher ratios are as follows:

K-5 = 22:1

6-8 = 25:1

9-12 = 17:1

Vocational = 10:1

The assumption is that a lower student/teacher ratio will have a positive impact on student achievement. The WPS have increased the number of teachers by 30% or 443 since FY93 to try to achieve those ratios. As noted earlier, the average student/teacher ratio is 21:1 for K-6 and 18:5:1 in grades 7-12. 17% of the K-6 classrooms have over 22 pupils, and 13% of 7-12 classrooms have over 25 pupils. In addition, the number of instructional assistants has increased by 54% or 133 since FY93. These assistants help in classrooms that have a higher-than-desired student/ teacher ratio. The number of students has increased by 13%, or 2,848 since FY93.

Teacher Compensation

Between FY93 and FY99, the expenditure for teachers' salaries rose 64%, reflecting increases for new staff as well as raises in the teachers' contracts. As the chart below indicates, the entry level salary rose by 22.8%, while the highest level salary increased by 32.2% since FY93. In contrast, the cumulative inflation between FY93 and FY98 was 15.9%. By the end of this period, expenditures for teacher salaries had increased from 51.6% (\$54.8 million) to 54.2% (\$89.8 million) of school expenditures (excluding teachers

paid by state and federal grants).

Professional Development

Expenditures for professional development have increased by over 200% since FY93, reaching about \$2 million in FY99. The WPS adheres to the state regulation that every teacher must complete 120 hours of professional development over five years in order to be recertified. At least half of those hours must be in the teacher's area of certification. The other half may concern instructional strategies, multiple assessments and technologies.

In order to provide access to professional development opportunities, the WPS applied for and was designated by the State Department of Education as a professional development site. The school system offers courses and workshops to teachers and administrators at no cost for all teachers and administrators to be recertified. In addition, the Alliance for Education, the area colleges and museums, and private consultants also offer courses and workshops. While teachers may take all their professional development hours through one of these professional development providers, step salary increases are contingent on obtaining professional development hours through college courses. Professional development points are generally based on the hours per course. There is usually no written work for the shorter courses. The courses offered are determined by what teachers need to learn for the new frameworks and surveys of teachers' interests. Most programs are offered after school and Saturdays or during the summer and vacations. There are three in-service days and an additional eight hours per year after school hours. The half-days of in-service training have been eliminated. The in-service days are used to

meet school-based, system-wide professional development objectives. In addition, each teacher must develop his own plan for recertification. The individual professional development plans are tied to the goals of the school system and to the individual school improvement plan. In addition, the WPS is one of only two districts in Massachusetts to offer district-based certification.

Time and Learning

The School Committee approved time and learning plans from the individual schools as well as a district-wide plan. All Worcester public schools meet the minimum time and learning regulations established by the State Department of Education. Starting in 1995-96, all middle and high schools added 18 minutes to their daily schedules in order to provide the required 990 hours of instruction annually. (This additional instructional time was the result of adding time at the beginning and end of the day, eliminating study halls, and reducing home room and passing time between periods.)

In addition, ten schools or about 20% have an extended-day schedule which add 42 minutes to each day. There are also 11 Community School Programs held primarily after school, which provide academic, recreational, and social programs to students, parents, and community members. During the school year, the program operates four afternoons a week from 2 p.m. to 9 p.m. It also operates during school vacations—February, April and Summer. During the summer, most Community School programs operate from 4:00 p.m. to 8:00 p.m. Many community agencies use Community School facilities to offer programs to neighborhood youth and residents.

While the number of annual school days has not increased, the district has initiated a number of steps to enhance available learning time on core subjects:

- In response to the Reform Act's mandate to eliminate the general track, during 1995-96 each high school designed and implemented a Grade 9 Restructuring Pilot Program in which teachers and students used alternative time schedules to provide interdisciplinary instruction. Grades 7-9 uses interdisciplinary teams of teachers for every 80-100 students and block scheduling. This kind of scheduling (90 rather than 45 minutes) is intended to enable teachers to treat a subject in greater depth and to give substantially more homework. Each team member teaches five classes and uses the preparation period to work with the team on course material and discussing individual student progress, and meeting with students and parents. In this manner, a large school is broken down into smaller units to improve student-teacher relations and to develop more rapport with parents. In brief, it is an attempt to recapture a sense of community that has been lost in large, out-of-neighborhood schools.
- Attendance Policy: Beginning with the school year 1996-97, the Worcester School Committee increased the number of days which middle and high school students must attend in order to earn credit for a course. Prior to 1996-97, middle and high school students needed to be present for 160 days of the school year's 180 days (89% attendance) in order to pass. Students who exceeded 20 absences did not earn credit for a course. As of 1996-97, students must be present for 164 of the school year's 180 days (91% attendance) in order to earn credit.
- Multi-year teaching ("looping"): Multi-year teaching, or "looping," is a strategy which increases the amount of students' time on instructional programs. In the multi-year teaching model, students and teachers stay together for two years. Students and

teachers thus will not have to spend as much time getting to know one another and establishing rules and routines. Teachers can also make more effective use of the school district's summer reading program. Over the last two years, seven elementary schools have used a multi-year teaching schedule in various grades: Chandler Magnet, Goddard, Lake View, McGrath, Thorndyke Road, Vernon Hill, and the A.L.L. School.

Dropout Rate

The WPS have instituted a number of programs to reduce the dropout rate. The Comprehensive Skills Center coordinates five programs for "at risk" young people in the Worcester Public Schools. It operates in collaboration with the City Manager's Office of Employment and Training, Quinsigamond Community College, the Worcester Community Action Council, and the Worcester Juvenile Court.

- The High School Returnee Program is a non-traditional program designed to offer students who have left the Worcester Public Schools an opportunity to return to high school and receive a diploma. Students utilize a computer-assisted, competency-based program for their academics. Career exploration is also part of the academic day. A work-based component places students in internships in the public and private sector. The "Returnee Program" is serving 125+ students per year.
- The School Age Mothers Program (SAMS), which has been in operation for 27 years, is also located at the Comprehensive Skills Center. The SAMS Program is a joint venture between the Worcester Public Schools and the Worcester Children's Friend Society. In addition to their academic program, SAMS students have access to comprehensive health and social services for themselves and their infants. The SAMS Program operates an infant day-care center at Trinity Lutheran Church. There are over 70 young women from the eight secondary schools enrolled in the SAMS Program this year. The program is intended to promote infant health and responsible parenting.
- A program for non-English-speaking students also operates out of the Comprehensive Skills Center. The New Citizens Center is an ESL program designed to prepare students for transition to high school, GED, or the work force. Students currently enrolled in the New Citizens Center come from Puerto Rico, the Dominican Republic, Vietnam, Laos, Colombia, Haiti, Liberia, and Somalia.
- The Downtown Campus Program (located in the former Denholm building) is a collaboration between the Community Action Council and the Worcester Public Schools. This program is designed for regular education students who are having problems at their home high school. The program provides short-term intervention strategies to assist students and to help them make the transition back to their high schools. There were 37 students enrolled in this project during the last academic year.
- The Career Pathways Academy is an initiative for "at risk" middle school students. It provides an intense counseling program as well as an individualized academic plan. A partnership with Girls, Inc., provides physical education daily at the Girls, Inc., facility. The Worcester Juvenile Court works closely with the Career Pathways Academy. Because of the close proximity of the court and school, court business can be conducted in the school, enabling the students to maximize their educational

hours. The court also offers a violence prevention course on a weekly basis at the school.

- A new initiative, Project New Start, is a comprehensive educational program that includes a year-round school calendar (48 weeks - 4 quarter terms and an 8-hour day - 7:30 a.m - 3:30 p.m.). In addition, a school-to-work component includes personal counseling, work-based learning, and a career development plan for each student. This program operates under the direction of the Central Massachusetts Collaborative. There will be 120 students enrolled in Project New Start during the upcoming year.
- As part of the truancy abatement program, all police officers are designated supervisors of attendance with the authority to apprehend and take to school, without a warrant, any truant or absentee found wandering in the streets or public places. The purpose of this action is to allow officers to assist the WPS in reducing the number of students who are truant. Students may then be required to attend a 3-day program designed to coordinate and link the efforts of parents and guardians, school administrators, counselors, and special program staff with community, city, and social agencies to support youths' school attendance, academic progress, career preparation and degree completion.

The Comprehensive Skills Center and the Truancy Abatement Center assisted the WPS to reduce its dropout rate from 14% to 6.8%.

RECOMMENDATIONS

Based on the criteria listed above, the WPS have made a concerted effort to comply with the requirements of MERA, and have demonstrated measurable improvement in a number of areas. There are, however, several issues of concern that should be addressed:

1. The City Manager and the Superintendent of Schools should carefully plan expenditures for the next several years so that the programs and personnel that have been added since the implementation of MERA can be retained after the expiration of the Act in FY00.

The infusion of state aid (Chapter 70) into the WPS has been based on a formula that established a foundation for per-pupil spending. That foundation level will probably be met in FY00, and the amount of local aid increases may diminish. If the current formula continues, the City will have to increase its contribution each year by the municipal growth factor (a combination of new growth in property tax revenues, local receipts, and lottery aid) which is currently 3.61% of the local contribution to the WPS budget. Since this spending from local receipts is required by the state, the City administration must make sure that these expenditures are factored into the overall budget.

2. The Worcester School Committee should negotiate an arrangement with the EAW regarding professional development similar to the one between the Triton Regional School Committee and the Triton Regional Teachers Association. (The Triton District includes Newbury, Rowley, Salisbury, and Triton.)

In the WPS, as already noted, teachers may choose whatever professional development courses they want to take provided that half of their 120 hours required for recertification are in the teacher's area of certification. The other half may concern instructional strategies. The

only two district-wide- mandated courses are Dimensions of Learning and World of Difference, both of which are taught during the eight hours per year of after-school training at each school. In the Triton Regional School District, the superintendent and principal may prescribe courses for the purpose of increasing teacher competence in a given area. (The performance evaluation system in Worcester allows the principal to recommend specific staff development courses for a teacher.) This provision should be particularly valuable for using the yearly results from the MCAS tests to determine student weaknesses, and to develop plans, including individual professional development plans, for improving student achievement on those tests.

3. In the next round of negotiations, the School Committee should establish recognition of the fact that the principal is the appointing authority in his school, and that inter-school transfers of teachers should not be made without approval of the appointing authority. If principals are to be held accountable for improving student achievement, they need to be able to hire teaching staff who they believe can accomplish the goals of the school. Under the current arrangement, principals must give preference to teachers who apply from within the system based on their educational preparation, length of service, and quality of performance. Only if none of those who apply meet these criteria, plus any additional qualifications for a particular position, are the principals able to hire teachers from outside the system.

4. While no one form of school organization should be imposed, principals should be able to divide their larger schools into smaller units in order to enhance student achievement and parent involvement. While the middle schools and grade 9 of the high schools have been divided into teams with one set of teachers for 80-100 students, similar arrangements should be made available for large elementary schools.

The newer elementary schools are intended to accommodate about 600 students. Since a considerable body of research indicates that smaller schools are more conducive to higher academic achievement and building a sense of community,⁵ these schools should also be broken down into smaller, more manageable units. "Looping," that is, having the same teacher for two years, is one approach to the problem. Another has been adopted by the Seven Hills Charter School, which is divided into "academies" consisting of three grades with 90 students in each academy. Students remain with the same students and teachers for three years. Thus no time need be spent on getting to know students during the second and third years, teachers can better monitor student progress, and parents can feel more at ease in a smaller environment having contact with the same teachers for several years.

5. The Education Association of Worcester (EAW) should waive the 20% cap on the number of schools eligible for the Performance Based Awards Program (PBAP) so that more schools will apply for and receive the \$20,000 awards based on various school improvements when measured against past performance. These improvements must include one of the following: a reduction in the number of dropouts or suspensions, an improvement in attendance or retention, development of business partnerships, college

⁵ See for example, The 1994 *Report Card on American Education*, a study conducted by the American Legislative Exchange Council which showed that rural schools do better on SATs because they are small (300 or less) and that minority children in rural states outperform their counterparts in the rest of the nation. An important advantage of smaller schools, according to the study, was the greater opportunity for parents to become involved.

collaborations, parent or community involvement, improvements in curricula or professional development. Because of the EAW's unwillingness to waive this cap, the PBAP account has a balance of \$444,000. These funds would clearly benefit the EAW's members.

In 1995, the Education Association of Worcester and the Worcester School Committee agreed to jointly develop and implement the PBAP. Schools use the PBAP funds to purchase additional instructional materials, supplies and equipment. Through an act of the Legislature, the School Department established a revolving account for the PBAP. Each year, the School Committee can deposit up to \$250,000 in the PBAP Revolving Fund. A panel of nine judges reviews PBAP applications and makes site visits to schools. The EAW and the Schools Department jointly pick PBAP judges.

The WPS administration thought that 20% of all schools or ten schools would be eligible each year. The contract language, however, reads that only 20% of those who apply can receive an award. During the first administration (1996-97), the EAW waived the cap so that 17 out of 24 that applied each received a \$20,000 bonus. In the second administration, the EAW refused to waive the cap so that of 16 schools that applied, only 3 received awards. The cap discourages schools from applying and reduces the incentives for schools to initiate new programs. The EAW's position is that it will lift the cap only in exchange for bargaining something else.

6. The Superintendent should explore the rental of city or state-owned facilities for housing the WPS alterative programs.

In FY99, the WPS will spend over \$1 million to rent privately owned facilities to house alternative programs for 450 special needs students who cannot function in a regular classroom environment. All publicly owned buildings should be examined before incurring this kind of expenditure.

7. The Superintendent and the Worcester School Committee need to review the dropout prevention programs to determine whether additional measures can be taken to reduce the dropout rate.

While the dropout rate has declined steadily over the last few years, from 14% to 6.8%, there is some cause for concern. The Worcester dropout rate is still considerably higher than the statewide average of 3.4%. The accompanying chart showing enrollment by grade indicates that the number of students who started kindergarten in 1985 was almost twice as large as the number from that 1985 class who completed twelfth grade in 1997 in the WPS. Where have these students gone, and why?

WPS Grade Enrollment		
<u>Grade</u>	<u>1997</u>	<u>1985</u>
K	2304	1826
1	2342	1745
2	2359	1625
3	2212	1480
4	2051	1554
5	1968	1503
6	1882	1425
7	1698	1598
8	1651	1578
9	1548	1338
10	1034	1247
11	1077	1086
12	995	998
Presch	844	135
Upgraded	0	625
Total	23965	19761

The Lowell Public School system has implemented a dropout prevention and recovery program which aims to prevent students from dropping out of school and bring students who have dropped out back into a learning environment.

The first stage of the program is an exit interview at the high school by guidance counselors when a student indicates he is planning to leave school before graduation. In addition, the school department identifies all students who have dropped out in the last three years and

interviews them to determine whether they want to return to school. The department sends invitations to the students, and telephones them, and in certain circumstances the attendance officers visit them at their residence.

8. The Superintendent should carefully track special education students and carefully monitor special education expenditures.

Between FY93 and FY97, the number of special education students decreased from 22% to 17% of the student body. In FY98, it increased to 17.8% or 4,275 students. The Superintendent should determine the causes for this number rising again. He should review the efficacy of the inclusion model, whereby as many special education students as possible are included in regular education classrooms. Does it need modification? Special Education expenditures represent 17.2% or \$28.5 million of the FY99 budget with substantial increases in tuition for residential and all-day placements and legal fees for special education appeals. The Superintendent should determine what steps can be taken to control these costs.

9. The Education Association of Worcester and the School Committee should encourage one or more schools to apply for Horace Mann Charters to become in-district charter schools. (The Superintendent has offered all principals the opportunity to apply for such a charter.) A Horace Mann School is one chartered by the Board of Education with approval from the local school committee and teachers' union. It is operated by a board of trustees, and is independent of the local school committee except for the approval of their overall budget request.

Worcester now has two charter schools, both of which offer an extended school day and a 220-day school year. The two schools together enroll about 1,000 students who are residents of the City. Each school also has a waiting list. Given the popularity of this kind of school which has its own board of trustees and operates independently of the school committee, it would be in the interest of the WPS to take advantage of the option to establish an in-district charter school. This would provide parents with another option and provide teachers with the opportunity for greater responsibility and experimentation in improving student achievement.