



**A Study of MCAS Achievement and Promising Practices
in Urban Special Education**

Summary Findings of Data Analysis

October 2004



Summary of Findings

Study Overview

Following is a summary of the findings that appear in a larger report titled, *A Study of MCAS Achievement and Promising Practices in Urban Special Education: Data Analysis and Site Selection Methodology*. That report is part of a broader research effort to clarify MCAS achievement and identify promising practices in urban special education. This research is being conducted by the University of Massachusetts Donahue Institute at the direction of the Massachusetts State Legislature in collaboration with the Massachusetts Office of Educational Quality and Accountability. The ultimate goal of this study is to identify district and school-level practices supporting MCAS achievement among elementary and middle school students with special needs in urban public schools. This summary presents the findings of a comprehensive analysis of student level MCAS data and insight into the site selection process for district and school case studies conducted in conjunction with this research.

This phase of the research project was intended to identify urban districts and schools that demonstrate better than expected MCAS achievement among students with special needs. The study defined 33 Massachusetts school districts as urban based on two criteria: 1) An enrollment of 4000 or more students; and 2) A demography that places it in the lower half of the state's demographic distribution of communities. These 33 urban districts were stratified into four groups based on their demographic characteristics. The groupings provided a framework for comparison of MCAS achievement and ensured that each system was measured against its demographic peers.

This study of MCAS achievement was limited to students with special needs in grades 4, 7, and 8. Source data for the research was provided by the Massachusetts Department of Education. The source data file included both Student Information Management System (SIMS) and MCAS data for the school years ending 2001-2003. Following are the results of the analysis of these data.

Special Education Student Population Characteristics

Within the 2003 analysis data set, which included students in grades 4, 7, and 8, 17.6% receive special education services.

- The percentage of special education students varies from district to district and from grade to grade. The percentage of students in special education is higher in urban districts than in non-urban districts and the percentage of students in special education in Grades 4, 7, and 8 varies from 14.6% in Lowell to 28% in Cambridge.
- There is no consistent pattern to special education participation by grade level.

Income characteristics

- The percentage of students from low income families varies from district to district and grade to grade.
- The percentage of students from low income families is higher in urban than in non-urban districts.
- The percentage of students from low income families in Grades 4, 7, and 8 varies from 14.1% in Peabody to 84.2% in Springfield.
- When looking only at students in special education, the percentage of students from low income families is higher than for all students, with low income status much more prevalent in urban than in non-urban districts. For example, the mean percentage of low income grade 4 students with special needs in urban districts is 71.5%, compared to 22% in non-urban districts.



Disability type

- Among students with special needs, nearly 70% are identified with one of four disabilities and another 20% have no specific disability indicated (in this data set). The most common disability category is Specific Learning Disability, representing 51% of students in special education in Massachusetts. The other categories include Developmental Delay/Intellectual; Emotional Disturbance; and Speech/Language/Communication.
- Urban districts have a greater proportion of students with identified developmental delays or intellectual impairments non-urban districts (47.1% versus 53.4%).
- Urban districts have a greater proportion of students with identified emotional or behavioral disturbances than non-urban districts (7.7% versus 4.7%).
- Non-urban districts have a greater proportion of students with specific learning disabilities than urban districts (53.4% versus 47.1%).

Placement of students with special needs

- Urban students with special needs are more likely to be placed in restrictive environments than non-urban students. Urban districts have a greater proportion of students in substantially separate classrooms than non-urban districts (28% to 9%), and have more students in outside placements (7% versus 4%).
- Conversely, non-urban districts have a greater proportion of students who are “Up to 25% Separated” from the regular classroom than urban districts (58% versus 38%).
- Boston exhibits a very different student placement profile than the set of 33 urban districts. The district has far fewer students in minimally restrictive, general education modified settings (1% compared to 13% for the urban 33). It also had a far greater proportion of students in substantially separate classrooms (46% compared to 28%).

Limited English Proficiency (LEP) and special education

- The percentage of SPED LEP students varies from district to district, ranging from 0% in New Bedford to 19% in Lawrence.
- The percentage of LEP students who are also in special education is higher in urban districts than in non-urban systems. The mean percentage of Grade 4 SPED LEP students in urban districts is 12.6% while the percentage in non-urban districts is 1%. For Grade 7, 8.6% of urban students are SPED LEP as compared to 0.6% in non-urban districts. For Grade 8, the numbers are 7.2% in urban districts and 0.3 % in non-urban systems.

Special Education Student Performance

Special education students exhibit wide variation in educational achievement as measured by MCAS. Whether in urban or non-urban districts, students with special needs generally demonstrate lower achievement than other students. Within the population of students with special needs, the performance of students in urban districts lags that of their peers in non-urban districts. Consistent with past studies of student MCAS achievement, students with special needs' MCAS scores tend to decrease as the degree of demographic challenge of the resident district increases.

Performance by disability type in urban and non-urban districts

- Of the disability types with substantial student counts, students in the Developmental Delay/Intellectual Impairment, Emotional Disturbance, and Multiple Disabilities categories demonstrated consistently lower achievement than did students with other identified disabilities. This was true for both ELA and math exam achievement across all grade levels and urban/non-urban districts.
- Students in all disability categories display the greatest success on the grade 4 MCAS exams, with declining success on the grade 7 ELA and grade 8 math exams.
- The gap in pass rates between urban and non-urban students increased with grade level, moving from 19 points in Grade 4 ELA and 22 points in Grade 4 Math; to 26 points in Grade 7 ELA; to 34 points in Grade 8 Math.
- The narrowest gap in urban and non-urban performance was consistently found to be among students in the Developmental Delay/Intellectual Impairment category, where the gap was 3 points in Grade 4 ELA and Grade 4 Math, 11 points in Grade 7 ELA, and 0 in Grade 8 Math.

Performance by placement category in urban and non-urban districts

- Students in less restrictive classroom environments demonstrated higher achievement than students in more restrictive environments. In fact, achievement and extent of restriction tracked very closely and predictably. The caveat to this is that students in outside placements generally displayed higher achievement on the grade 7 ELA and grade 8 math exams than did students in substantially separate classrooms. These trends were not consistent on the grade 4 ELA and math exams.
- Students in all placement categories display the greatest success on the grade 4 MCAS exams, with declining success on the grade 7 ELA and grade 8 math exams.
- The pass rates of urban students were lower than those of non-urban students for all tests and all placement categories except Grade 4 ELA, where urban students in out of district placements had an 11 point higher pass rate than non-urban students in out of district placements (51% to 40%).
- In comparing the achievement of urban and non-urban students by placement, those in the 25 to 60% Separated category displayed the smallest gaps in pass rates.

Special education performance improvement over time, 2002 – 2003

Among the 33 urban districts, there was generally improvement in MCAS performance between 2002 and 2003.

- Data show improvements within each of the urban sub-groups on all exams, as measured by both proficiency index scores and pass rates. The one exception to this improvement was in the overall pass rates of students in districts within the Moderate to Low challenge sub-group on the grade 8 math exam (-5%). The proficiency index score remained stable for this group.
- Overall, the largest improvements in pass rates tended to be on the grade 7 ELA exam; while the smallest were on the grade 8 math exam.

MCAS Achievement by District

For the purpose of comparative analysis, the 33 urban districts were stratified by demography as follows:

Level of Challenge	District
High Challenge	Lawrence, Chelsea, Holyoke, Springfield, and New Bedford
Moderate to High Challenge	Fall River, Lowell, Lynn, Brockton, Boston, Fitchburg, and Revere.
Moderate to Low Challenge	Chicopee, Everett, Worcester, Taunton, Pittsfield, West Springfield, Leominster, Malden, and Somerville.
Low Challenge	Haverhill, Methuen, Salem, Westfield, Gloucester, Quincy, Medford, Peabody, Framingham, Cambridge, Waltham, and Marlborough.

With these demographic groupings established as a context for comparison, the selection of districts for field study was based on MCAS achievement among students with special needs at the district level. MCAS achievement was measured on each of the four exams considered by this study. Comparisons were made and selection “points” were awarded based on relative performance on each of the four tests, as well as the direction (positive or negative) and extent of change in scores between the 2002 and 2003 administrations of these tests.

Two indicators were used to measure achievement and change over time: the Proficiency Index, which is a measure of the district’s overall MCAS performance; and the pass rate, which is the percentage of students with an MCAS score in the Needs Improvement, Advanced, or Proficient category.

Relatively High Performing Districts

Districts were chosen for further study based on the overall achievement of their students with special needs relative to demographically defined peer districts. A comprehensive district selection matrix was used to organize the results of performance analyses at the sub-group and district level. Although the MCAS achievement of urban students with special needs continues to fall well short of established goals, data show that students in some districts have indeed fared better than others. Following are the districts that displayed the best performance across the grade 4, 7, and 8 ELA and math exams, for which no identifiable data anomalies existed, presented by demographic sub-group:

Level of Challenge	District
High Challenge	Chelsea and New Bedford
Moderate to High Challenge	Lynn and Fall River
Moderate to Low Challenge	Everett and Pittsfield
Low Challenge	Waltham, Framingham, and Methuen

Following a review of the distribution of disability types and placements within these districts, and discussion of available evidence to confirm each district’s suitability for selection as a field research site, three systems were selected and agreed to participate in a district-level field research process: Chelsea, Everett, and Framingham (Lynn was also selected but declined to participate). Two individual schools participated in the field research process, including the Morningside Community School in Pittsfield and the Mary Lyon School in Boston.

Details related to the performance and practices of these districts and schools appears in *A Study of MCAS Achievement and Promising Practices in Urban Special Education: Report of Field Research Findings*.