Massachusetts Department of Educations

GOAL: Developing a Research Base

ACTIVITY: Examination of School-Based Factors Affecting Performance on the Grade 8 Statewide Mathematics Assessment

SUMMARY: The Massachusetts Department of Education has contracted with Thomas, Warren and Associates in Arizona to conduct an exploratory study of school-related influences on student achievement on the 8th grade statewide assessment in mathematics over the past four years. The study seeks to identify the factors that may be related to substantial increases in the percent of a school's grade 8 students in the Proficient/Advanced categories of the statewide assessment when there is also a substantial decrease in the percent of a school's grade 8 students in the Warning category of the statewide assessment. The contractor will examine and compare curriculum, instructional practices, extra support (after-school, tutoring, parental assistance, etc.), educator qualifications, and instructional organization (block scheduling, clustering, team-teaching, etc.) across a randomly selected group of schools. Additional factors including differential changes in student absence rate, major changes in enrollment patterns, instructional time, funding levels, and class size will be explored.

PURPOSE: The purpose of the study is to identify school-based factors such as curriculum, instructional practices, extra support, educator qualifications, and instructional organization that affect grade 8 mathematics student achievement.

ACCOMPLISHMENTS SO FAR: Over 60 randomly selected schools are participating in this study. Currently, surveys of teachers, curriculum coordinators, and principals are being conducted in those selected schools. These surveys ask a range of questions including implementation of curriculum, time spent on mathematics, and teacher qualifications, among many other factors.

PLANS FOR THE NEXT 12 MONTHS: In addition to the current survey, focus groups will be held at two of the schools. Teachers, administrators, parents, and students will be interviewed to elicit a full range of ideas, attitudes, experiences, and opinions regarding factors that may affect student achievement in mathematics. This spring, the survey results will be analyzed with data already collected by the Department (such as absentee rates and funding levels) to determine possible factors affecting statewide mathematics assessment scores at the grade 8 level. We expect to have a final report of this project by the end of June 2003.