Performance Patterns for Students with Disabilities in Grade 4 Mathematics Education in Massachusetts

Across the country, states and school districts need to improve the elementary-level mathematics performance of students with disabilities. This population of students has increased since the 1970s, and there have been changes in education expectations and accountability for this subgroup. Particularly, No Child Left Behind (NCLB) has cast light on the generally low mathematics performance of students with disabilities and on achievement gaps between this subgroup and general education students. This project takes a closer look at these trends in Massachusetts.

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PROJECT OBJECTIVES

- Describe and analyze the mathematics performance patterns of fourth-grade elementary school students with disabilities in Massachusetts.

AUDIENCE & APPLICATION

- Massachusetts policymakers and education leaders.

METHODOLOGY

- Analysis of publicly available school achievement data for fourth-grade elementary school students in Massachusetts across three years describing:
  - mathematics performance of schools with disabilities,
  - performance gaps between students with disabilities and general education students, and
  - the distribution of school-level mathematics performance of students with disabilities.
- Mathematics performance trends within and across groups of schools with similar need levels and/or geographic locales.

FINAL PRODUCTS

Issues & Answers Report published by the Institute of Education Sciences, which may be found at: http://ies.ed.gov/ncee/edlabs/regions/northeast/pdf/REL_2008051.pdf

What Are Fast-Response Projects?

Fast-Response Projects are short-term projects that respond to regional and national needs and priorities and provide research-based knowledge to inform policy and practice. They use methods such as research syntheses, mining of existing data sets, and descriptive studies.

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FAST RESPONSE APPLIED RESEARCH AND DEVELOPMENT

Summary of Findings

Performance Patterns for Students with Disabilities in Grade 4 Mathematics Education in Massachusetts

Approximately 15% of grade 4 students with disabilities reached proficiency on the Massachusetts Comprehensive Assessment System (MCAS) exam in 2006. The performance of students with disabilities was highest for those students attending rural low-need schools. In schools where the percentage of students with disabilities scoring proficient was in the top 10% of all schools, 47% of students with disabilities reached proficiency, compared with only 12.7% in other schools.

From 2004 to 2006, the proportion of students with disabilities scoring proficient decreased from 15.7% to 15.3%. Within locale-need combination categories, the proficiency improvement was highest for students in rural low-need schools (a 1% gain). Across the state, 43.7% of schools exhibited improved proficiency from 2004 to 2006.

The proficiency gap between general education students and students with disabilities was 30 percentage points in 2006, a 2% decrease from 2004. That change reflected decreases in proficiency among both groups, with general education students falling more. But the gap widened in high-need schools across all locales and in urban schools across all need categories. At the school level, the proficiency gap narrowed from 2004 to 2006 (without a decrease in performance among general education students) in 12.7% of schools with appropriate data.

Contact Information

For more information about this project, e-mail Rebecca Carey (rcarey@edc.org) or visit REL-NEI online (www.relnei.org).

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