
Analyzing Performance by Grade 10 Hispanic High School Students on the Massachusetts State Assessment

Massachusetts policymakers have expressed concern about the consistently lower scores of Hispanic students, compared to other subgroups, on the Massachusetts Comprehensive Assessment System (MCAS). To better understand the achievement patterns of Hispanic students in Massachusetts, this project performs an in-depth analysis of Hispanic high school students' MCAS scores and the student- and school-level characteristics that are associated with them. Previously, no such analyses of this specific subgroup's performance on the MCAS had been conducted.

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PROJECT OBJECTIVES

- Describe the performance of 10th-grade Hispanic students on the MCAS in mathematics and English language arts (ELA) over the years 2002–2003 to 2005–2006 compared with the performance of non-Hispanic students.
- Describe how particular student background and school-level characteristics are associated with MCAS achievement in mathematics and ELA for 10th-grade Hispanic students over those years.

METHODOLOGY

- Four years of Massachusetts ESE student and school background data, MCAS ELA and mathematics scores, and NCES geographic locale data.
- Descriptive and multilevel regression analyses.

AUDIENCE & APPLICATION

- Policymakers at Massachusetts Department of Elementary and Secondary Education (Mass ESE) who requested these analyses.
- Other policymakers, district administrators, and researchers interested in learning how individual- and school-level characteristics are associated with the test performance of high school Hispanic students.

FINAL PRODUCTS

- Issues & Answers Report published by the Institute of Education Sciences, which may be found at: <http://ies.ed.gov/ncee/edlabs/projects/project.asp?projectID=114>

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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Tenth-grade Hispanic students had significantly lower scores on the ELA and mathematics MCAS test than their non-Hispanic counterparts did in each year from 2002–03 to 2005–06. However, average scores for the 10th-grade population of Hispanic students in Massachusetts have increased significantly over time in both content areas and this trend has contributed to the narrowing of the MCAS achievement gap over the years.

Using multilevel analyses that focused only on Hispanic students over the years 2002–03 through 2005–06, statistically significant findings over all 4 years include the following:

Student-level Factors

- Hispanic males performed significantly higher than Hispanic females on the math test, while the opposite was true for the ELA test.
- Hispanic students who were (i) not low income, (ii) without limited-English proficient (LEP) status, or (iii) not in special education performed significantly higher than students with these characteristics on both the math and ELA tests. These associations mirror those that are typically reported in the achievement literature for Hispanics and other ethnic groups.
- Hispanic students who were newly categorized as English proficient during the previous 2 years (and therefore labeled former LEP, or FLEP) had significantly lower scores in ELA and math than did English-proficient Hispanic students each year.
- Hispanics born in the United States had significantly higher scores than Hispanic students from Central America or Mexico and Caribbean countries on the ELA test, but Hispanics from Brazil did not perform significantly differently from those who were U.S. born. In math, Hispanic students who emigrated from a South American country other than Brazil scored significantly higher than Hispanic students born in the U.S.

School-level Factors

- Hispanic students in schools with higher attendance rates scored significantly higher on the ELA and math MCAS tests than did Hispanic students in schools with lower attendance rates, when holding all other variables constant.

Contact Information

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