



Gender gaps in assessment outcomes in Vermont and the United States



Institute of Education Sciences
U.S. Department of Education



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Summary

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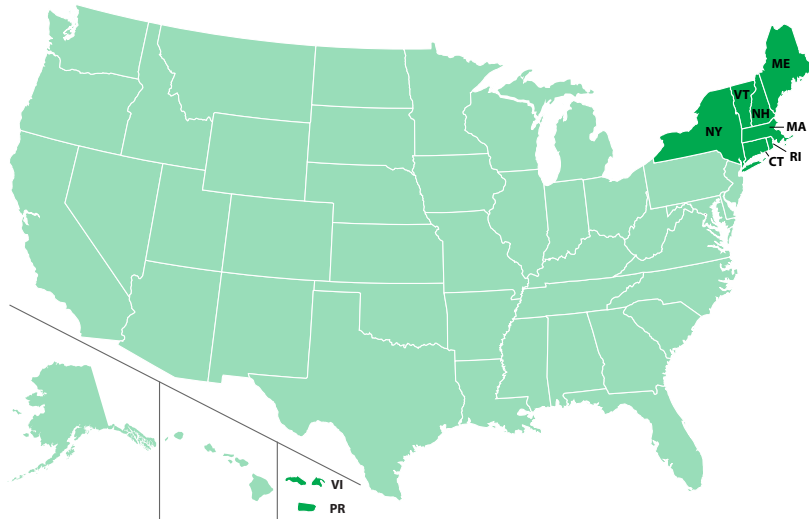
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Gender gaps in assessment outcomes in Vermont and the United States

Using data from the National Assessment of Educational Progress (NAEP) and the New England Common Assessment Program (NECAP), the report examines how gender gaps differ between Vermont NAEP scores and U.S. NAEP scores and between Vermont NAEP and NECAP scores in grades 4 and 8. Overall and disaggregated by poverty and disability status, gender achievement gaps in Vermont resembled those in the country as a whole except in a few cases.

Vermont education leaders remain concerned about the size of gender gaps in statewide assessment data. They question whether the gender gaps in Vermont differ from gaps in the country as a whole and whether they differ when measured by the state assessment (the NECAP) and by the NAEP in Vermont.

Current debates over gender gaps occur within a context of heightened national focus on achievement gaps among students. The No Child Left Behind (NCLB) Act of 2001 has increased pressure on states, districts, and public schools to close such gaps in reading and math. Under the act states must work to address achievement gaps to ensure that all students reach proficiency by 2014. States are required to conduct annual assessments in reading and

math in grades 3–8 and once in high school and to report the results by student poverty, race/ethnicity, disability, and limited English proficiency status. Interest in gender gaps is thus high among many education leaders as they tackle issues of education equity and strive to improve achievement outcomes for all students.

By comparing Vermont and U.S. NAEP reading, writing, and math assessment data for 2000–07 and by examining Vermont NECAP reading and math data for 2006 and writing data for 2002, this report addresses the following questions:

- Do gender gaps differ significantly between Vermont and U.S. NAEP scores?
- How do gender gaps differ between Vermont's NECAP scores and its NAEP scores?

The study found that:

- In reading, gender gaps in Vermont and U.S. NAEP scores have typically not differed at a statistically significant level. From 2002 to 2007 grade 4 girls outscored boys by 5–8 points (or 7–10 percentiles) on average, and grade 8 girls outscored boys by 9–13 points (or 11–16 percentiles) on average, in both Vermont and nationwide.

- In writing, gender gaps in 2002 Vermont and U.S. NAEP scores did not differ at a statistically significant level. The grade 4 gender gap was 21 points (or 23 percentiles) in Vermont and 18 points (or 19 percentiles) nationwide. And the grade 8 gap was 24 points in Vermont and 21 points (or 25 and 22 percentiles) nationwide.
- In math, gender gaps in Vermont and U.S. NAEP scores did not differ at a statistically significant level. Boys outscored girls by 5 points (8 percentiles) or less on average in 2000–07.
- In all but a few cases the gender gaps in reading and math scores on the Vermont NECAP differed from those of the Vermont NAEP by 5 percentile points or less. Gender gaps in 2006 NECAP scores were larger in reading and smaller in math than gender gaps in 2007 NAEP scores by 5 percentile points or less. Accounting for disability and poverty subgroups, however, revealed several exceptions. The average NECAP and NAEP gender gaps in math scores differed by 12 percentile points among grade 8 students in poverty

and by 7 percentile points among grade 8 students with disabilities.

Analysis of NAEP and NECAP data suggests areas for further research. For example, gender achievement gaps in Vermont resembled those in the country as a whole except in a few isolated cases. Future research could explore whether these instances represent broader trends or are statistical outliers. In addition, between grades 4 and 8 in both jurisdictions boys' score advantage in math shrinks and girls' score advantage in reading and writing grows. Future studies could examine whether changes in gender gaps occur between other grades and whether these changes reflect differences in development between boys and girls. Finally, gender gaps in all three content areas changed after controlling for student disability status. Among students with disabilities in both grades and in both jurisdictions the gender gap was larger in math and smaller in reading and writing. These shifts raise questions about how boys and girls are grouped in disability categories. This report outlines these issues and presents data to augment current knowledge about gender gaps in achievement in Vermont and the United States.

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