



Trend NAEP Reports Math Scores Up for 9- and 13-Year-Olds; 17-Year-Olds Steady

RESTON, VA, July 14, 2005—The math scores of the nation's 9- and 13-year-olds showed clear improvement in the 2004 Long-Term Trend National Assessment of Educational Progress (NAEP) released today. This progress shows the continuing effect of mathematics standards and increased attention on math in the elementary and middle grades, according to the National Council of Teachers of Mathematics (NCTM).

However, the flat results of 17-year-olds point to a need to focus on high school mathematics and to improve teaching practice and our students' performance in those grades, the Council said.

“The 2004 Long-Term Trend NAEP results show that our elementary and middle school students are performing core skills like computation better than at any time in the thirty years since the test was first administered,” said NCTM President Cathy Seeley. “This is good news, since much of the effort to improve math programs has focused on problem solving, conceptual understanding and complex mathematics. It shows that we can improve in these important areas and still make progress on computation.”

The report shows significant improvement in math scores in 2004 at both ages 9 and 13. At age 9, scores increased from 232 to 241 since 1999 (when the last test was given); at age 13, the increase was from 276 to 281. The continued emphasis on math and science education in recent years in the early grades is paying off. However, scores for 17-year-olds have remained flat since 1973. “While we can't judge the effectiveness of current high school math programs solely from this measure, this may be one more indication that not much is changing in high school math classrooms,” Seeley noted. “The release of main NAEP results in a few months will give us a clearer indication of whether these flat scores reflect a broader inertia across the current high school mathematics curriculum.”

The report also points to progress in closing the achievement gap. “Although we're pleased with the progress, we have a long way to go. Closing this gap should be the most important educational priority in this nation,” said Seeley. “We have far too many students with untapped potential sitting in our math classrooms at every grade level, especially in urban and rural schools and in high-poverty schools.”

The 2004 Trend NAEP report showed the mathematics achievement gap narrowing in almost all areas. When comparing white students to black and Hispanic students, the report reveals that all achievement gaps at ages 9, 13, and 17 narrowed since 1999 except for the white/Hispanic gap at age 17. The most significant long-term change narrowed the difference from 46 to 27 points over the years 1973 to 2004 between white and black 13-year-olds.



Another notable trend in the results is that significantly more 17-year-olds are taking advanced courses (53 percent in 2nd-year algebra and 17 percent in calculus) in 2004 than in 1978 (37 percent in 2nd-year algebra and 6 percent in calculus). The percentage of 17-year-olds for whom pre-algebra was the most advanced math course dropped from 20 percent in 1978 to 4 percent in 2004. These results, coupled with the overall flat scores of 17-year-olds, raise the question of whether simply requiring more courses is enough to raise student achievement. “We need to look carefully at the mathematical content of our high school courses and the way the content is presented to students,” Seeley observed. “In order to improve student achievement and learning at the high school level, we are going to have to teach in different ways than we have for the past 30 years.”

The National Council of Teachers of Mathematics is a public voice of mathematics education, providing vision, leadership, and professional development to support teachers in ensuring mathematics learning of the highest quality for all students. With 100,000 members and 250 Affiliates, NCTM is the world’s largest organization dedicated to improving mathematics education in prekindergarten through grade 12. The Council’s Principles and Standards for School Mathematics includes guidelines for excellence in mathematics education and issues a call for all students to engage in more challenging mathematics

Contact: Gay Dillin, Media Relations Manager, (703) 620-9840 ext. 2189, gdillin@nctm.org.

###