KENTUCKY CENTER FOR MATHEMATICS

INCREASING MATHEMATICS ACHIEVEMENT ON THE NATION’S REPORT CARD

National Assessment of Educational Progress (NAEP)

Commonly referred to as The Nation’s Report Card, the NAEP was created in the 1960’s as a tool for measuring student performance in a variety of subjects. Because of the large number of participants, this assessment is considered “the most representative indicator of mathematics skills” in the U.S.\(^1\) In addition to providing a national overview of student achievement, the NAEP allows for achievement comparisons among states.

Statewide Improvement at the Elementary Level

Recently released NAEP results indicate that Kentucky is one of only eight states that had a statistically significant increase in 4th-grade mathematics scores from 2007 to 2009. Although the national average from 2007-2009 remained flat, Kentucky gained 4 scale score points during that time. Additionally, the number of students testing at or above the proficient level increased by 6% from 2007-2009 while the national average did not increase. Moreover, Kentucky’s achievement increase from 2007-2009 on the NAEP outpaced the performance of surrounding states.

<table>
<thead>
<tr>
<th>State</th>
<th>KENTUCKY</th>
<th>Natl. Avg.</th>
<th>Ohio</th>
<th>Tennessee</th>
<th>Indiana</th>
<th>W. Virginia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change in Scale Score 2007-2009</td>
<td>+4</td>
<td>0</td>
<td>-1</td>
<td>-1</td>
<td>-2</td>
<td>-3</td>
</tr>
<tr>
<td>% change students at or above proficient 2007-2009</td>
<td>+6%</td>
<td>0%</td>
<td>-1%</td>
<td>-1%</td>
<td>-4%</td>
<td>-5%</td>
</tr>
</tbody>
</table>

For the first time in the history of NAEP data collection for individual states, Kentucky is now performing at the national average in elementary mathematics.

Although NAEP results are not released for individual schools, analysis of Kentucky Core Content Test (KCCT) data for each participating NAEP school reveals that from 2007-2009, schools with an Mathematics Intervention Teacher (MIT) experienced an average increase of more than a **13.2%** of students testing at the proficient/distinguished level while non-MIT schools experienced an average gain of 6.9%.

We find much cause to celebrate this significant achievement of Kentucky’s children and are proud to say that mathematics matters in the Commonwealth!

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\(^1\) Kloosterman, P. & Morge, S.P. (2006). Introducing NAEP. In C.A. Brown, & L.V. Clark (Eds.), Learning from NAEP (pp. 5-10). Reston, VA: NCTM.