

## TIMSS 2011 results for North Carolina

### Science - Grades 4 and 8

- Public school students' average science score was 538 at grade 4 and 532 at grade 8.
- Higher percentages of North Carolina 4th- and 8th-graders performed at or above each of the four TIMSS international benchmarks than the international medians. For example, 12 percent of 4th-graders and 12 percent of 8th-graders in North Carolina performed at or above the *Advanced* benchmark (625) compared to the international median of 5 percent at grade 4 and 4 percent at grade 8 (figures 11 and 12).
- Males outperformed females by 9 score points on average in science at grade 4 and by 12 score points at grade 8 (figures 13 and 14). At both grade 4 and grade 8, male and female students in North Carolina scored higher, on average, in science than the TIMSS scale average (table 48).
- At grade 4, White, Hispanic, Asian, and multiracial students scored, on average, above the TIMSS scale average. Black students' average scores were not measurably different from the TIMSS scale average.

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**Table 47. Average science scores of 4th- and 8th-grade students in North Carolina public schools compared with other participating education systems: 2011**

Grade 4		Grade 8	
<b>Education systems higher than North Carolina</b>		<b>Education systems higher than North Carolina</b>	
Korea, Rep. of	Japan	Singapore	Japan
Singapore	Russian Federation	<i>Massachusetts-USA</i>	<i>Minnesota-USA</i>
Finland	<i>Chinese Taipei-CHN</i>	<i>Chinese Taipei-CHN</i>	Finland
		Korea, Rep. of	<i>Alberta-CAN</i>
<b>Education systems not measurably different from North Carolina</b>		<b>Education systems not measurably different from North Carolina</b>	
<i>Florida-USA</i>	Slovak Republic	Slovenia	<i>Florida-USA</i>
United States	Austria	Russian Federation	United States
<i>Alberta-CAN</i>	Netherlands	<i>Colorado-USA</i>	Hungary
Czech Republic	<i>England-GBR</i>	<i>Hong Kong-CHN</i>	<i>Ontario-CAN</i>
<i>Hong Kong-CHN</i>	Denmark	<i>England-GBR</i>	<i>Quebec-CAN</i>
Hungary	Germany	<i>Indiana-USA</i>	Australia
Sweden	<i>Ontario-CAN</i>	<i>Connecticut-USA</i>	
<b>Education systems lower than North Carolina</b>		<b>Education systems lower than North Carolina</b>	
Italy	Thailand	Israel	Bahrain
Portugal	Turkey	Lithuania	Thailand
Slovenia	<i>Dubai-UAE</i>	New Zealand	Jordan
<i>Northern Ireland-GBR</i>	Georgia	Sweden	Tunisia
<i>Quebec-CAN</i>	Iran, Islamic Rep. of	Italy	Armenia
Ireland	Bahrain	Ukraine	Saudi Arabia
Croatia	Malta	<i>California-USA</i>	Malaysia
Australia	Azerbaijan	Norway	Syrian Arab Republic
Serbia	Saudi Arabia	Kazakhstan	<i>Palestinian Nat'l Auth.</i>
Lithuania	United Arab Emirates	<i>Alabama-USA</i>	Georgia
<i>Belgium (Flemish)-BEL</i>	Armenia	<i>Dubai-UAE</i>	Oman
Romania	<i>Abu Dhabi-UAE</i>	Turkey	Qatar
Spain	Qatar	Iran, Islamic Rep. of	Macedonia, Rep. of
Poland	Oman	Romania	Lebanon
New Zealand	Kuwait	United Arab Emirates	Indonesia
Kazakhstan	Tunisia	Chile	Morocco
Norway	Morocco	<i>Abu Dhabi-UAE</i>	Ghana
Chile	Yemen		

NOTE: Italics indicate participants identified and counted in this report as an education system and not as a separate country.

SOURCE: International Association for the Evaluation of Educational Achievement (IEA), Trends in International Mathematics and Science Study (TIMSS), 2011.

- At grade 8, White and Asian students scored, on average, above the TIMSS scale average while Black students scored lower, on average. Hispanic and multiracial students' average scores were not measurably different from the TIMSS scale average.
- In general, at grade 4 students in public schools with less than 75 percent of students eligible for free or reduced-price lunch scored higher, on average, than the TIMSS scale average. Average scores among students in public schools with 75 percent or more of students eligible for free or reduced-price lunch were not measurably different from the TIMSS scale average. At grade 8, students in public schools with less than 50 percent of students eligible for free or reduced-price lunch scored higher, on average, than the TIMSS scale average, while average scores for students in schools with 50 percent or more students eligible for free or reduced-price lunch were not measurably different from the TIMSS scale average.

**Table 48. Average science scores in grade 4 and 8 for selected student groups in public schools in North Carolina: 2011**

Reporting groups	Science	
	Grade 4	Grade 8
<b>TIMSS scale average</b>	<b>500</b>	<b>500</b>
<b>U.S. average</b>	<b>544 *</b>	<b>525 *</b>
<b>North Carolina average</b>	<b>538 *</b>	<b>532 *</b>
Sex		
Female	534 *	526 *
Male	543 *	537 *
Race/ethnicity		
White	565 *	565 *
Black	492	481 *
Hispanic	519 *	502
Asian	590 *	577 *
Multiracial	553 *	513
Percentage of public school students eligible for free or reduced-price lunch		
Less than 10 percent	‡	595 *
10 to 24.9 percent	574 *	569 *
25 to 49.9 percent	555 *	538 *
50 to 74.9 percent	534 *	518
75 percent or more	498	504

‡ Reporting standards not met.

\* $p < .05$ . Difference between score and TIMSS scale average is significant.

NOTE: Black includes African American, Hispanic includes Latino, and Asian includes Pacific Islander and Native Hawaiian. Racial categories exclude Hispanic origin. Not all race/ethnicity categories are shown, but they are all included in the U.S. and state totals shown throughout the report. The standard errors of the estimates are shown in table E-42 available at <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2013009>.

SOURCE: International Association for the Evaluation of Educational Achievement (IEA), Trends in International Mathematics and Science Study (TIMSS), 2011.