Trends in International Mathematics and Science Study (TIMSS) 2007



DECEMBER 9, 2008

How does United States performance compare to all countries participating in TIMSS?

TIMSS 2007 Grade 4 Math

U.S.A. Ranked 11th out of 36 Countries



📕 Higher than U.S. average 🗌 Not measurably different from U.S. average 📃 Lower than U.S. average

TIMSS 2007 Grade 8 Math

U.S.A. Ranked 9th out of 48 Countries



📕 Higher than U.S. average 🗌 Not measurably different from U.S. average 📃 Lower than U.S. average

TIMSS 2007 Grade 4 Science

U.S.A. Ranked 8th out of 36 Countries



📕 Higher than U.S. average 🗌 Not measurably different from U.S. average 📃 Lower than U.S. average

TIMSS 2007 Grade 8 Science

U.S.A. Ranked 11th out of 48 Countries



📕 Higher than U.S. average 🗌 Not measurably different from U.S. average 📃 Lower than U.S. average

How does United States performance compare to that of its peer* countries?

*Countries classified by the IMF as advanced economies

TIMSS 2007 Grade 4 Math

U.S.A. Ranked 7th out of 17 IMF Advanced Economies



📕 Higher than U.S. average 🗌 Not measurably different from U.S. average 📃 Lower than U.S. average

TIMSS 2007 Grade 8 Math

U.S.A. Ranked 7th out of 16 IMF Advanced Economies



📕 Higher than U.S. average 🗌 Not measurably different from U.S. average 📃 Lower than U.S. average

TIMSS 2007 Grade 4 Science

U.S.A. Ranked 6th out of 17 IMF Advanced Economies



📕 Higher than U.S. average 🗌 Not measurably different from U.S. average 📃 Lower than U.S. average

TIMSS 2007 Grade 8 Science

U.S.A. Ranked 8th out of 16 IMF Advanced Economies



📕 Higher than U.S. average 🗌 Not measurably different from U.S. average 📃 Lower than U.S. average

How does the United States compare to its peer* countries in terms of the percentage of students meeting the TIMSS advanced benchmark?

*Countries classified by the IMF as advanced economies

TIMSS 2007 Grade 4 Math

IMF Advanced Economies – Percentage Advanced



Percentage Reaching TIMSS Advanced International Benchmark

TIMSS 2007 Grade 8 Math

IMF Advanced Economies – Percentage Advanced



Percentage Reaching TIMSS Advanced International Benchmark

TIMSS 2007 Grade 4 Science

IMF Advanced Economies – Percentage Advanced



Percentage Reaching TIMSS Advanced International Benchmark

TIMSS 2007 Grade 8 Science

IMF Advanced Economies – Percentage Advanced



Percentage Reaching TIMSS Advanced International Benchmark

Which countries have made substantial improvement on TIMSS?

TIMSS Grade 4 Math

U.S.A. Compared to Top Improvers

Country	Average Score		Difforonco
Country	1995	2007	Difference
U.S.A.	518	529	11
England	484	541	57
Hong Kong SAR	557	607	50
Slovenia	462	502	40
Latvia	499	537	38

TIMSS Grade 8 Math

U.S.A. Compared to Top Improvers

Country	Averag	Difforonco	
	1995	2007	Difference
U.S.A.	492	508	16
Colombia	332	380	47
Lithuania	472	506	34

TIMSS Grade 4 Science

U.S.A. Compared to Top Improvers

Country	Averag 1995	e Score 2007	Difference
U.S.A.	542	539	-3
Singapore	523	587	63
Latvia	486	542	56
Islamic Rep. of Iran	380	436	55
Slovenia	464	518	54
Hong Kong SAR	508	554	46
Hungary	508	536	28
England	528	542	14

TIMSS Grade 8 Science

U.S.A. Compared to Top Improvers

Country	Average Score		Difforonco
	1995	2007	Difference
U.S.A.	513	520	7
Lithuania	464	519	55
Colombia	365	417	52
Slovenia	514	538	24

How have subgroups in the United States performed over time?

Some gap closing

Grade 4 – TIMSS Math



Big gaps by school poverty level

Grade 4 – TIMSS Math



African-American and Latino students narrow gap

Grade 8 – TIMSS Math



Big gaps by school poverty level

Grade 8 – TIMSS Math



No consistent narrowing of gaps

Grade 4 – TIMSS Science



Big gaps by school poverty level

Grade 4 – TIMSS Science



No consistent narrowing of gaps

Grade 8 – TIMSS Science



Big gaps by school poverty level

Grade 8 – TIMSS Science



Across the performance of all participating countries, where does United States subgroup performance fall?

TIMSS 2007 Grade 4 Math



TIMSS 2007 Grade 8 Math



TIMSS 2007 Grade 4 Science



TIMSS 2007 Grade 8 Science



How does the United States compare to its peer* countries in terms of the gap between students scoring at the 90th and 10th percentiles?

*Countries classified by the IMF as advanced economies

TIMSS 2007 Grade 4 Math

IMF Advanced Economies – Gap in Average Scale Scores of 90th and 10th Percentiles



TIMSS 2007 Grade 8 Math

IMF Advanced Economies – Gap in Average Scale Scores of 90th and 10th Percentiles



TIMSS 2007 Grade 4 Science

IMF Advanced Economies – Gap in Average Scale Scores of 90th and 10th Percentiles



TIMSS 2007 Grade 8 Science

IMF Advanced Economies – Gap in Average Scale Scores of 90th and 10th Percentiles

