

Highlights From TIMSS 2007

Mathematics and Science Achievement of U.S. Fourth- and Eighth-Grade Students in an International Context

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TIMSS Background Information

- Developed and implemented by the International Association for the Evaluation of Educational Achievement (IEA)
- Designed to align broadly with mathematics and science curricula in participating countries
- Assesses fourth- and eighth-graders
- In 2007, 36 countries participated at grade 4, and 48 countries participated at grade 8
- Results focus on U.S. performance relative to other countries in 2007, and on changes in achievement since 1995

TIMSS 2007 mathematics average scores grade 4

| Country | Average score |
|------------------------------------|---------------|
| TIMSS scale average | 500 |
| Hong Kong SAR ¹ | 607 |
| Singapore | 599 |
| Chinese Taipei | 576 |
| Japan | 568 |
| Kazakhstan ² | 549 |
| Russian Federation | 544 |
| England | 541 |
| Latvia ² | 537 |
| Netherlands ³ | 535 |
| Lithuania ² | 530 |
| United States^{4,5} | 529 |
| Germany | 525 |
| Denmark ⁴ | 523 |
| Australia | 516 |
| Hungary | 510 |
| Italy | 507 |
| Austria | 505 |
| Sweden | 503 |
| Slovenia | 502 |
| Armenia | 500 |
| Slovak Republic | 496 |
| Scotland ⁴ | 494 |
| New Zealand | 492 |
| Czech Republic | 486 |
| Norway | 473 |
| Ukraine | 469 |
| Georgia ² | 438 |
| Iran, Islamic Rep. of | 402 |
| Algeria | 378 |
| Colombia | 355 |
| Morocco | 341 |
| El Salvador | 330 |
| Tunisia | 327 |
| Kuwait ⁶ | 316 |
| Qatar | 296 |
| Yemen | 224 |

U.S. average score:

- Higher than TIMSS scale average
- Higher than average scores of 23 countries
- Lower than average scores of 8 countries

Top countries in Asia and Europe

- Average score is higher than U.S. average score
- Average is not measurably different from U.S. average
- Average score is lower than U.S. average score

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¹Hong Kong is a Special Administrative Region (SAR) of the People's Republic of China.

²National Target Population does not include all of the International Target Population defined by the Trends in International Mathematics and Science Study (TIMSS).

³Nearly satisfied guidelines for sample participation rates only after substitute schools were included.

⁴Met guidelines for sample participation rates only after substitute schools were included.

⁵National Defined Population covers 90 percent to 95 percent of National Target Population.

⁶Kuwait tested the same cohort of students as other countries, but later in 2007, at the beginning of the next school year.

NOTE: Countries are ordered by 2007 average score. The tests for significance take into account the standard error for the reported difference. Thus, a small difference between the United States and one country may be significant while a large difference between the United States and another country may not be significant. The standard errors of the estimates are shown in table E-1 available at <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2009001>.

SOURCE: International Association for the Evaluation of Educational Achievement (IEA), Trends in International Mathematics and Science Study (TIMSS), 2007.

TIMSS 2007 mathematics average scores grade 8

| Country | Average score |
|------------------------------------|---------------|
| TIMSS scale average | 500 |
| Chinese Taipei | 598 |
| Korea, Rep. of | 597 |
| Singapore | 593 |
| Hong Kong SAR ^{1,2} | 572 |
| Japan | 570 |
| Hungary | 517 |
| England ² | 513 |
| Russian Federation | 512 |
| United States^{2,3} | 508 |
| Lithuania ⁴ | 506 |
| Czech Republic | 504 |
| Slovenia | 501 |
| Armenia | 499 |
| Australia | 496 |
| Sweden | 491 |
| Malta | 488 |
| Scotland ² | 487 |
| Serbia ^{3,4} | 486 |
| Italy | 480 |
| Malaysia | 474 |
| Norway | 469 |
| Cyprus | 465 |
| Bulgaria | 464 |
| Israel ⁵ | 463 |
| Ukraine | 462 |
| Romania | 461 |
| Bosnia and Herzegovina | 456 |
| Lebanon | 449 |
| Thailand | 441 |
| Turkey | 432 |
| Jordan | 427 |
| Tunisia | 420 |
| Georgia ⁴ | 410 |
| Iran, Islamic Rep. of | 403 |
| Bahrain | 398 |
| Indonesia | 397 |
| Syrian Arab Republic | 395 |
| Egypt | 391 |
| Algeria | 387 |
| Colombia | 380 |
| Oman | 372 |
| Palestinian Nat'l Auth. | 367 |
| Botswana | 364 |
| Kuwait ⁶ | 354 |
| El Salvador | 340 |
| Saudi Arabia | 329 |
| Ghana | 309 |
| Qatar | 307 |

U.S. average score:

- Higher than TIMSS scale average
- Higher than average scores of 37 countries
- Lower than average scores of 5 countries

Top countries in Asia

- Average score is higher than U.S. average score
- Average is not measurably different from U.S. average
- Average score is lower than U.S. average score

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¹Hong Kong is a Special Administrative Region (SAR) of the People's Republic of China.

²Met guidelines for sample participation rates only after substitute schools were included.

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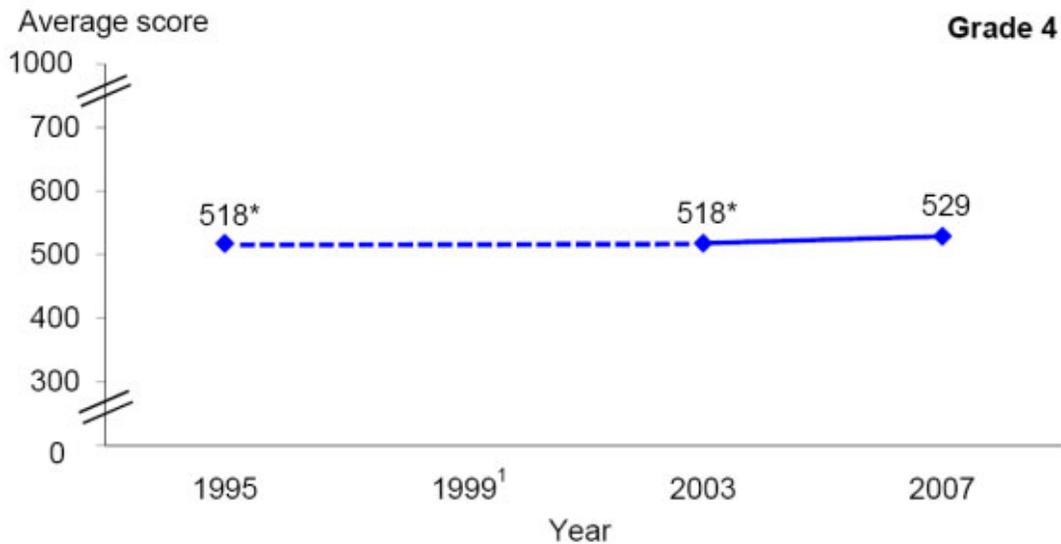
⁵National Defined Population covers less than 90 percent of National Target Population (but at least 77 percent).

⁶Kuwait tested the same cohort of students as other countries, but later in 2007, at the beginning of the next school year.

NOTE: Countries are ordered by 2007 average score. The tests for significance take into account the standard error for the reported difference. Thus, a small difference between the United States and one country may be significant while a large difference between the United States and another country may not be significant. The standard errors of the estimates are shown in table E-2 available at <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2009001>.

SOURCE: International Association for the Evaluation of Educational Achievement (IEA), Trends in International Mathematics and Science Study (TIMSS), 2007.

Trends in average mathematics scores of U.S. fourth-grade students: 1995, 2003, and 2007



* $p < .05$. Score significantly different from 2007 score.

¹ No fourth-grade assessment was conducted in 1999.

NOTE: In 2007, the United States met guidelines for sample participation rates only after substitute schools were included. The National Defined Population covered 90 percent to 95 percent of National Target Population. The standard errors of the estimates are shown in table E-39 available at <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2009001>.

SOURCE: International Association for the Evaluation of Educational Achievement (IEA), Trends in International Mathematics and Science Study (TIMSS), 1995, 2003, and 2007.

Trends in average mathematics scores of fourth-grade students, by country: 1995 to 2007

| Country | Average score | | Difference ¹ |
|------------------------------------|---------------|------------|-------------------------|
| | 1995 | 2007 | 2007-1995 |
| England | 484 | 541 | 57 * |
| Hong Kong SAR ² | 557 | 607 | 50 * |
| Slovenia | 462 | 502 | 40 * |
| Latvia ³ | 499 | 537 | 38 * |
| New Zealand | 469 | 492 | 23 * |
| Australia | 495 | 516 | 22 * |
| Iran, Islamic Rep. of | 387 | 402 | 15 * |
| United States^{4,5} | 518 | 529 | 11 * |
| Singapore | 590 | 599 | 9 |
| Scotland ⁴ | 493 | 494 | 1 |
| Japan | 567 | 568 | 1 |
| Norway | 476 | 473 | -3 |
| Hungary | 521 | 510 | -12 * |
| Netherlands ⁶ | 549 | 535 | -14 * |
| Austria | 531 | 505 | -25 * |
| Czech Republic | 541 | 486 | -54 * |

- Country difference in scores between 1995 and 2007 is greater than U.S.
- Country difference in scores between 1995 and 2007 is not measurably different from U.S. difference
- Country difference in scores between 1995 and 2007 is less than U.S.

* $p < .05$. Within-country difference between 1995 and 2007 average scores is significant.

¹Difference calculated by subtracting 1995 from 2007 estimate using unrounded numbers.

²Hong Kong is a Special Administrative Region (SAR) of the People's Republic of China.

³In 2007, National Target Population did not include all of the International Target Population defined by the Trends in International Mathematics and Science Study (TIMSS).

⁴In 2007, met guidelines for sample participation rates only after substitute schools were included.

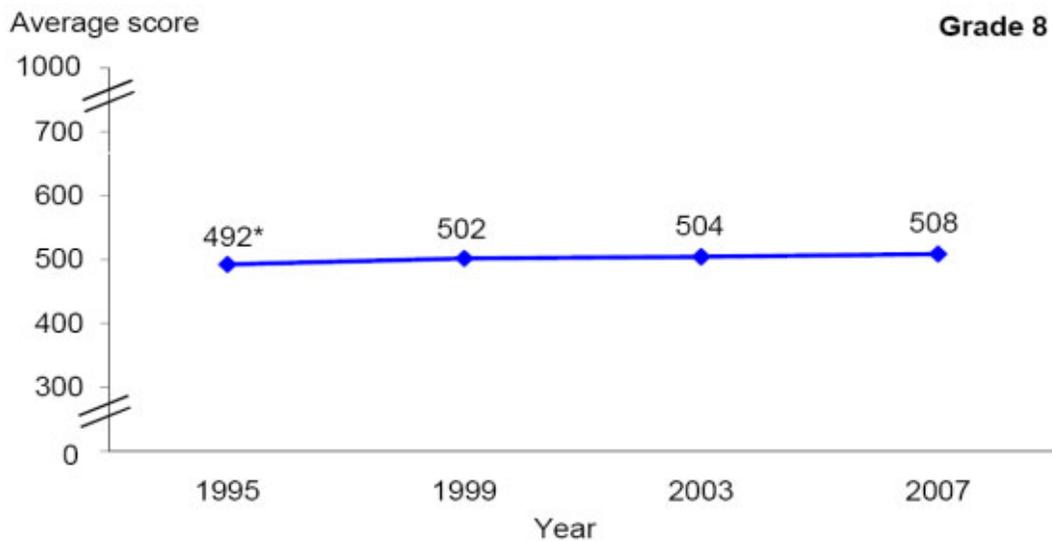
⁵In 2007, National Defined Population covered 90 percent to 95 percent of National Target Population.

⁶In 2007, nearly satisfied guidelines for sample participation rates only after substitute schools were included.

NOTE: Countries are ordered based on the difference in 1995 and 2007 average scores. All countries met international sampling and other guidelines in 2007, except as noted. Data are not shown for some countries, because comparable data from previous cycles are not available. The tests for significance take into account the standard error for the reported difference. Thus, a small difference between averages for one country may be significant while a large difference for another country may not be significant. Detail may not sum to totals because of rounding. The standard errors of the estimates are shown in table E-1 available at <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2009001>.

SOURCE: International Association for the Evaluation of Educational Achievement (IEA), Trends in International Mathematics and Science Study (TIMSS), 1995 and 2007.

Trends in average mathematics scores of U.S. eighth-grade students: 1995, 1999, 2003, and 2007



* $p < .05$. Score significantly different from 2007 score.

NOTE: In 2007, the United States met guidelines for sample participation rates only after substitute schools were included. The National Defined Population covered 90 percent to 95 percent of National Target Population. The standard errors of the estimates are shown in table E-39 available at <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2009001>.

SOURCE: International Association for the Evaluation of Educational Achievement (IEA), Trends in International Mathematics and Science Study (TIMSS), 1995, 1999, 2003, and 2007.

Trends in average mathematics scores of eighth-grade students, by country: 1995 to 2007

| Country | Average score | | Difference ¹ | |
|------------------------------------|---------------|------------|-------------------------|---|
| | 1995 | 2007 | 2007-1995 | |
| Colombia | 332 | 380 | 47 * | ■ Country difference in scores between 1995 and 2007 is greater than U.S. |
| Lithuania ² | 472 | 506 | 34 * | |
| Korea, Rep. of | 581 | 597 | 17 * | □ Country difference in scores between 1995 and 2007 is not measurably different from U.S. difference |
| United States^{3,4} | 492 | 508 | 16 * | |
| England ³ | 498 | 513 | 16 * | |
| Slovenia | 494 | 501 | 7 * | |
| Hong Kong SAR ^{3,5} | 569 | 572 | 4 | |
| Cyprus | 468 | 465 | -2 | |
| Scotland ³ | 493 | 487 | -6 | |
| Hungary | 527 | 517 | -10 * | |
| Japan | 581 | 570 | -11 * | |
| Russian Federation | 524 | 512 | -12 | |
| Romania | 474 | 461 | -12 * | ■ Country difference in scores between 1995 and 2007 is less than U.S. |
| Australia | 509 | 496 | -13 * | |
| Iran, Islamic Rep. of | 418 | 403 | -15 * | |
| Singapore | 609 | 593 | -16 * | |
| Norway | 498 | 469 | -29 * | |
| Czech Republic | 546 | 504 | -42 * | |
| Sweden | 540 | 491 | -48 * | |
| Bulgaria | 527 | 464 | -63 * | |

¹Difference calculated by subtracting 1995 from 2007 estimate using unrounded numbers.

²In 2007, National Target Population did not include all of the International Target Population defined by the Trends in International Mathematics and Science Study (TIMSS).

³In 2007, met guidelines for sample participation rates only after substitute schools were included.

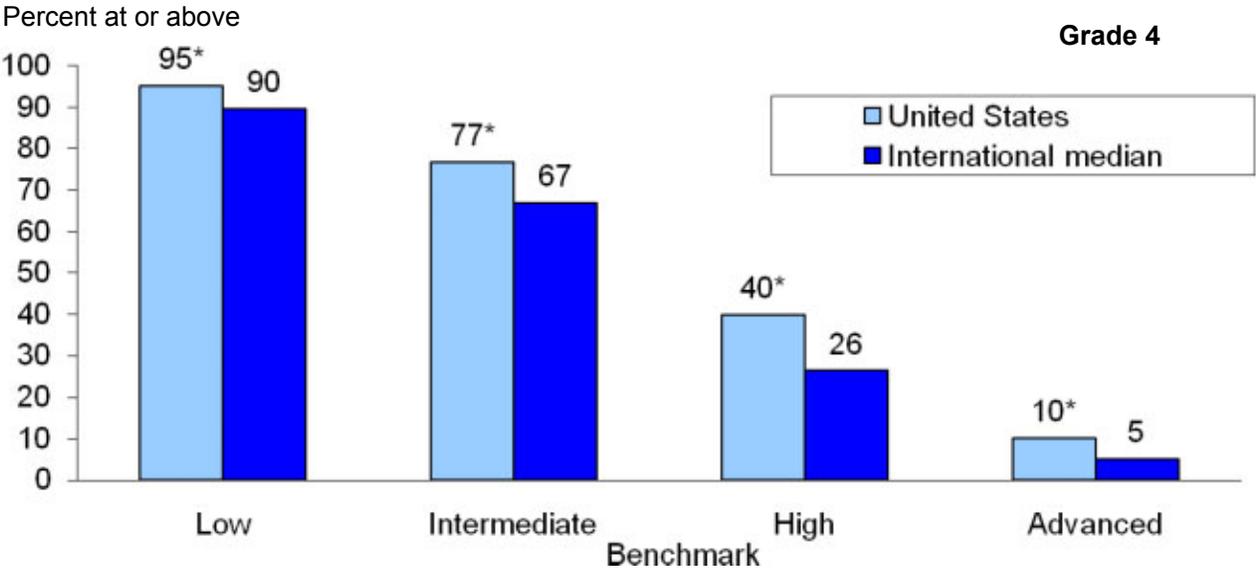
⁴In 2007, National Defined Population covered 90 percent to 95 percent of National Target Population.

⁵Hong Kong is a Special Administrative Region (SAR) of the People's Republic of China.

NOTE: Countries are ordered based on the difference in 1995 and 2007 average scores. All countries met international sampling and other guidelines in 2007, except as noted. Data are not shown for some countries, because comparable data from previous cycles are not available. The tests for significance take into account the standard error for the reported difference. Thus, a small difference between averages for one country may be significant while a large difference for another country may not be significant. Detail may not sum to totals because of rounding. The standard errors of the estimates are shown in table E-2 available at <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2009001>.

SOURCE: International Association for the Evaluation of Educational Achievement (IEA), Trends in International Mathematics and Science Study (TIMSS), 1995 and 2007.

Percentage of U.S. fourth-grade students who reached each TIMSS international mathematics benchmark compared with the international median percentage: 2007

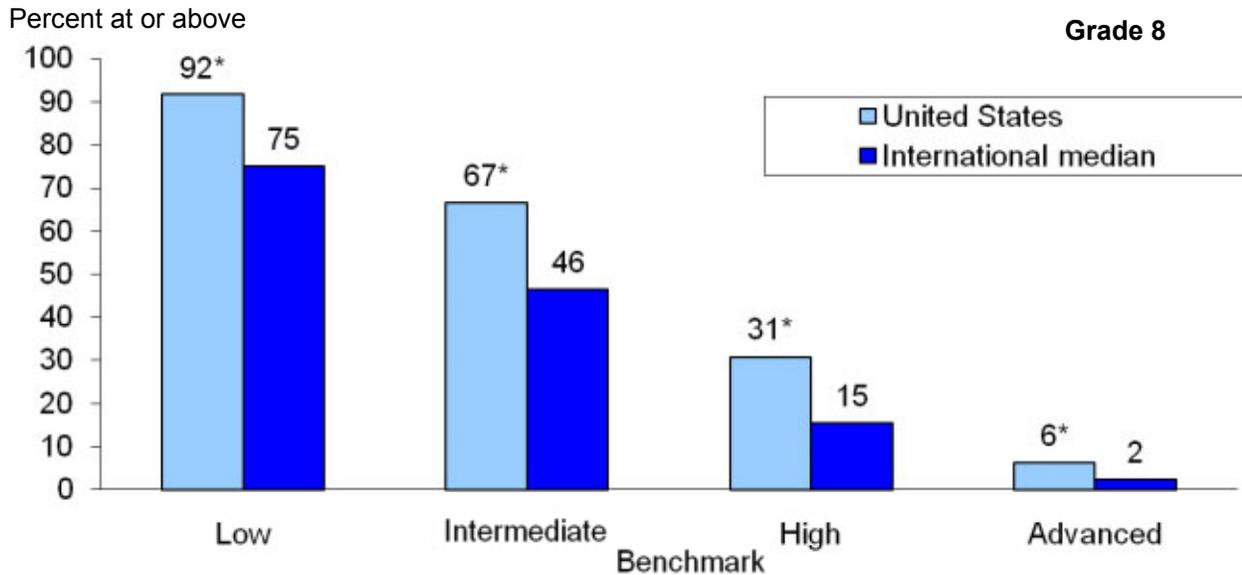


* $p < .05$. U.S. percentage significantly higher than TIMSS international median percentage.

NOTE: The United States met guidelines for sample participation rates only after substitute schools were included and the National Defined Population covers 90 percent to 95 percent of National Target Population. The TIMSS international median represents all participating TIMSS jurisdictions, including the United States. The international median represents the percentage at which half of the participating countries have that percentage of students at or above the median and half have that percentage of students below the median. The standard errors for the estimates are shown in table E-5 available at <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2009001>.

SOURCE: International Association for the Evaluation of Educational Achievement (IEA), Trends in International Mathematics and Science Study (TIMSS), 2007.

Percentage of U.S. eighth-grade students who reached each TIMSS international mathematics benchmark compared with the international median percentage: 2007



* $p < .05$. U.S. percentage significantly higher than TIMSS international median percentage.

NOTE: The United States met guidelines for sample participation rates only after substitute schools were included and the National Defined Population covers 90 percent to 95 percent of National Target Population. The TIMSS international median represents all participating TIMSS jurisdictions, including the United States. The international median represents the percentage at which half of the participating countries have that percentage of students at or above the median and half have that percentage of students below the median. The standard errors for the estimates are shown in table E-5 available at <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2009001>.

SOURCE: International Association for the Evaluation of Educational Achievement (IEA), Trends in International Mathematics and Science Study (TIMSS), 2007.

TIMSS 2007 mathematics scores defining 10th and 90th percentiles Grade 4

| Country | 90th percentile | 10th percentile |
|------------------------------|-----------------|-----------------|
| International average | 576 | 366 |
| Singapore | 702 | 487 |
| Hong Kong SAR ¹ | 691 | 520 |
| Japan | 663 | 471 |
| Chinese Taipei | 663 | 488 |
| Kazakhstan ² | 653 | 435 |
| England | 647 | 429 |
| Russian Federation | 647 | 436 |
| Latvia ² | 628 | 444 |
| United States ^{3,4} | 625 | 430 |
| Lithuania ² | 624 | 430 |
| Hungary | 620 | 389 |
| Australia | 620 | 408 |
| Armenia | 617 | 385 |
| Netherlands ⁵ | 612 | 454 |
| Denmark ³ | 611 | 431 |
| Germany | 607 | 440 |
| Italy | 601 | 406 |
| New Zealand | 598 | 377 |
| Slovak Republic | 597 | 389 |
| Scotland ³ | 592 | 389 |
| Austria | 590 | 416 |
| Slovenia | 589 | 408 |
| Sweden | 586 | 417 |
| Czech Republic | 576 | 392 |
| Ukraine | 573 | 356 |
| Norway | 566 | 372 |
| Georgia ² | 549 | 322 |
| Iran, Islamic Rep. of | 508 | 290 |
| Algeria | 493 | 261 |
| Colombia | 470 | 238 |
| Tunisia | 469 | 178 |
| Morocco | 466 | 223 |
| El Salvador | 448 | 212 |
| Kuwait ⁶ | 443 | 184 |
| Qatar | 413 | 179 |
| Yemen | 371 | 81 |

-  Percentile cutpoint score is higher than U.S. cutpoint score
-  Percentile cutpoint score is not measurably different from U.S. cutpoint score
-  Percentile cutpoint score is lower than U.S. cutpoint score

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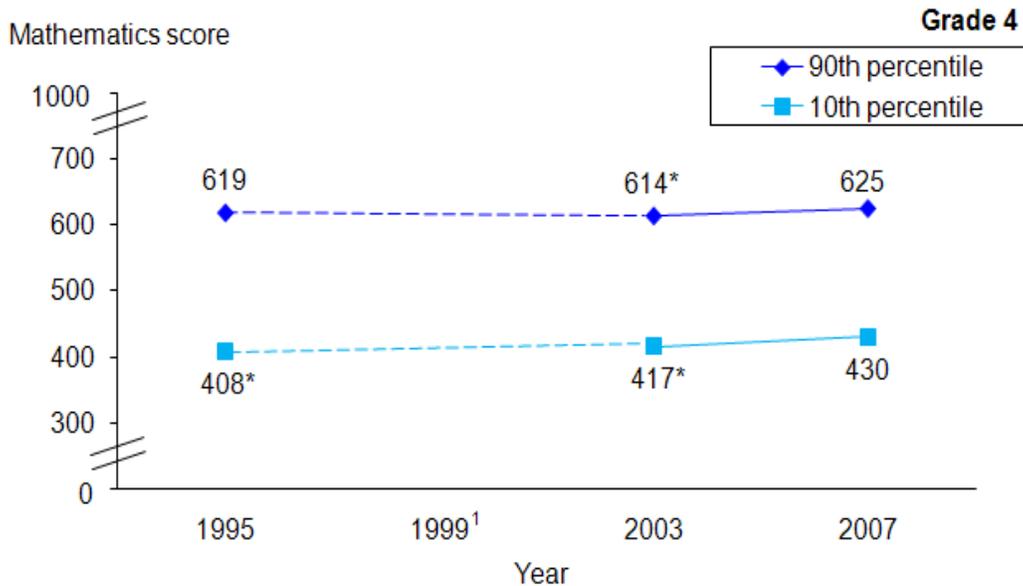
⁵Nearly satisfied guidelines for sample participation rates only after substitute schools were included.

⁶Kuwait tested the same cohort of students as other countries, but later in 2007, at the beginning of the next school year.

NOTE: Countries are ordered based on the 90th percentile cutpoint for mathematics scores. Cutpoints are calculated based on distribution of student scores within each country. The international average is the average of the cutpoint scores for all reported countries. The standard errors of the estimates are shown in table E-6 available at <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2009001>.

SOURCE: International Association for the Evaluation of Educational Achievement (IEA), Trends in International Mathematics and Science Study (TIMSS), 2007.

Trends in 10th and 90th percentile mathematics scores of U.S. fourth-grade students: 1995, 2003, and 2007



*p < .05. Percentile cutpoint score is significantly different from 2007 percentile cutpoint score.

¹ No fourth-grade assessment was conducted in 1999.

NOTE: In 2007, the United States met guidelines for sample participation rates only after substitute schools were included. The National Defined Population covered 90 percent to 95 percent of National Target Population. Cutpoints are calculated based on distribution of U.S. student scores. The standard errors of the estimates are shown in table E-9 available at <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2009001>.

SOURCE: International Association for the Evaluation of Educational Achievement (IEA), Trends in International Mathematics and Science Study (TIMSS), 1995, 2003, and 2007.

TIMSS 2007 mathematics scores defining 10th and 90th percentiles Grade 8

| Country | 90th percentile | 10th percentile |
|------------------------------------|-----------------|-----------------|
| International average | 559 | 339 |
| Chinese Taipei | 721 | 448 |
| Korea, Rep. of | 711 | 475 |
| Singapore | 706 | 463 |
| Hong Kong SAR ^{1,2} | 681 | 438 |
| Japan | 677 | 460 |
| Hungary | 624 | 405 |
| England ² | 618 | 400 |
| Russian Federation | 617 | 402 |
| Lithuania ³ | 609 | 402 |
| United States^{2,4} | 607 | 408 |
| Armenia | 601 | 390 |
| Australia | 600 | 394 |
| Czech Republic | 599 | 408 |
| Malta | 597 | 359 |
| Serbia ^{3,4} | 597 | 368 |
| Slovenia | 594 | 409 |
| Scotland ³ | 590 | 381 |
| Romania | 587 | 328 |
| Bulgaria | 586 | 324 |
| Israel ⁵ | 584 | 328 |
| Sweden | 582 | 399 |
| Turkey | 581 | 297 |
| Malaysia | 578 | 372 |
| Cyprus | 575 | 347 |
| Italy | 574 | 381 |
| Ukraine | 572 | 346 |
| Thailand | 562 | 327 |
| Jordan | 556 | 290 |
| Norway | 552 | 382 |
| Bosnia and Herzegovina | 552 | 352 |
| Lebanon | 549 | 354 |
| Georgia ³ | 532 | 280 |
| Egypt | 521 | 258 |
| Iran, Islamic Rep. of | 516 | 295 |
| Indonesia | 509 | 286 |
| Tunisia | 508 | 336 |
| Bahrain | 505 | 289 |
| Syrian Arab Republic | 502 | 290 |
| Palestinian Nat'l Auth. | 498 | 233 |
| Oman | 492 | 245 |
| Colombia | 477 | 281 |
| Algeria | 465 | 311 |
| Botswana | 460 | 264 |
| Kuwait ⁶ | 455 | 252 |
| El Salvador | 433 | 248 |
| Saudi Arabia | 429 | 231 |
| Ghana | 428 | 192 |
| Qatar | 427 | 186 |

-  Percentile cutpoint score is higher than U.S. cutpoint score
-  Percentile cutpoint score is not measurably different from U.S. cutpoint score
-  Percentile cutpoint score is lower than U.S. cutpoint score

13

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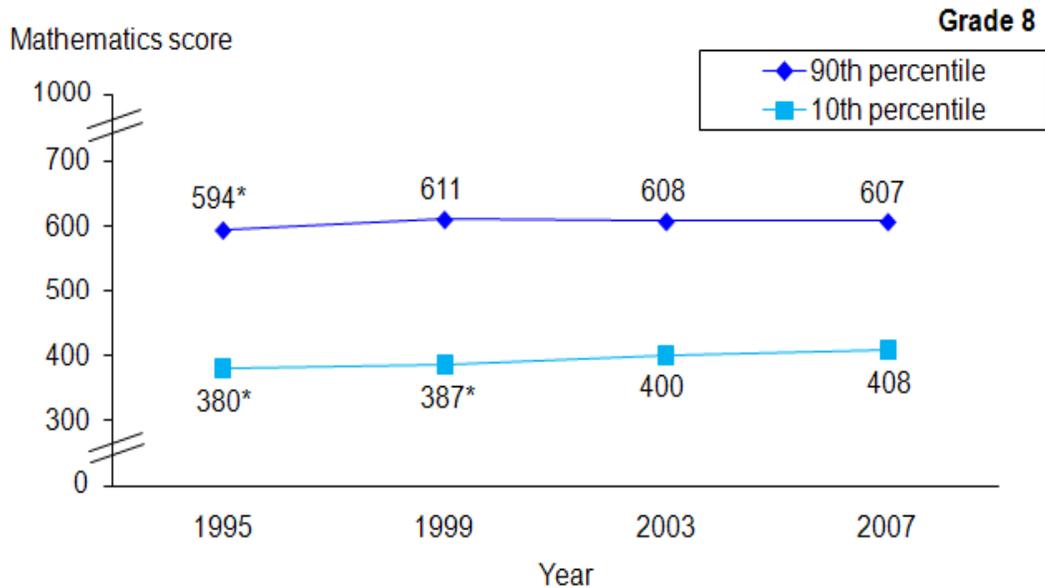
⁵National Defined Population covers less than 90 percent of National Target Population (but at least 77 percent).

⁶Kuwait tested the same cohort of students as other countries, but later in 2007, at the beginning of the next school year.

NOTE: Countries are ordered based on the 90th percentile cutpoint for mathematics scores. Cutpoints are calculated based on distribution of student scores within each country. The international average is the average of the cutpoint scores for all reported countries. The standard errors of the estimates are shown in table E-7 available at <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2009001>.

SOURCE: International Association for the Evaluation of Educational Achievement (IEA), Trends in International Mathematics and Science Study (TIMSS), 2007.

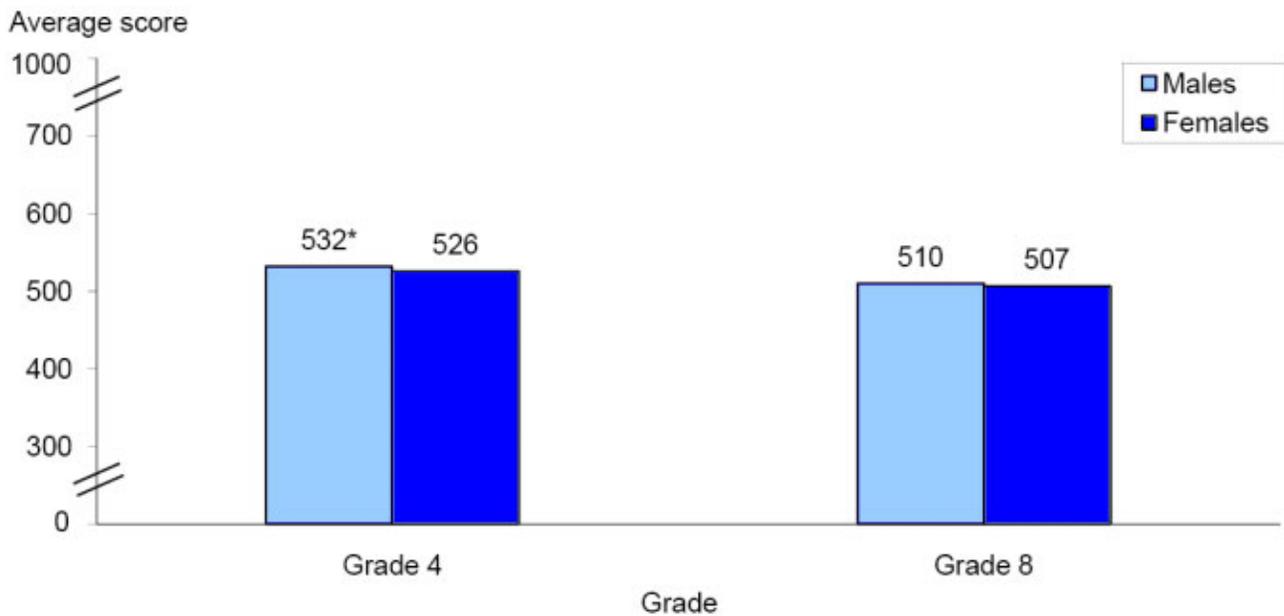
Trends in 10th and 90th percentile mathematics scores of U.S. eighth-grade students: 1995, 1999, 2003, and 2007



NOTE: In 2007, the United States met guidelines for sample participation rates only after substitute schools were included. The National Defined Population covered 90 percent to 95 percent of National Target Population. Cutpoints are calculated based on distribution of U.S. student scores. The standard errors of the estimates are shown in table E-9 available at <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2009001>.

SOURCE: International Association for the Evaluation of Educational Achievement (IEA), Trends in International Mathematics and Science Study (TIMSS), 1995, 1999, 2003, and 2007.

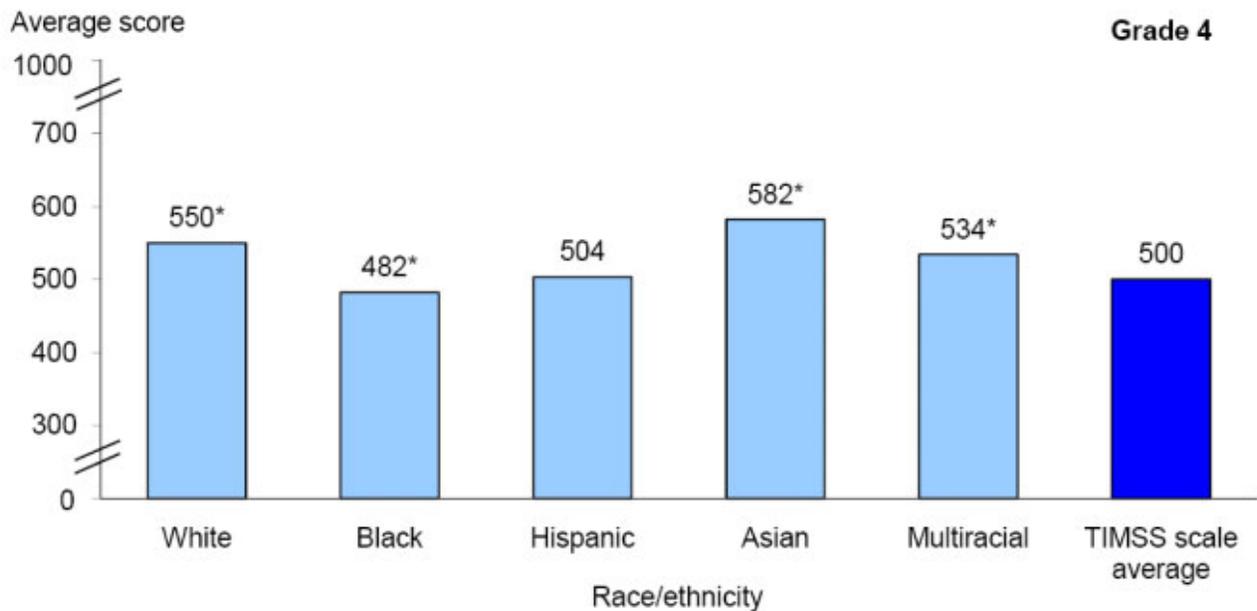
Average mathematics scores of U.S. students, by grade and sex: 2007



NOTE: The United States met guidelines for sample participation rates only after substitute schools were included. The National Defined Population covered 90 percent to 95 percent of National Target Population. The standard errors of the estimates are shown in table E-12 available at <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2009001>.

SOURCE: International Association for the Evaluation of Educational Achievement (IEA), Trends in International Mathematics and Science Study (TIMSS), 2007.

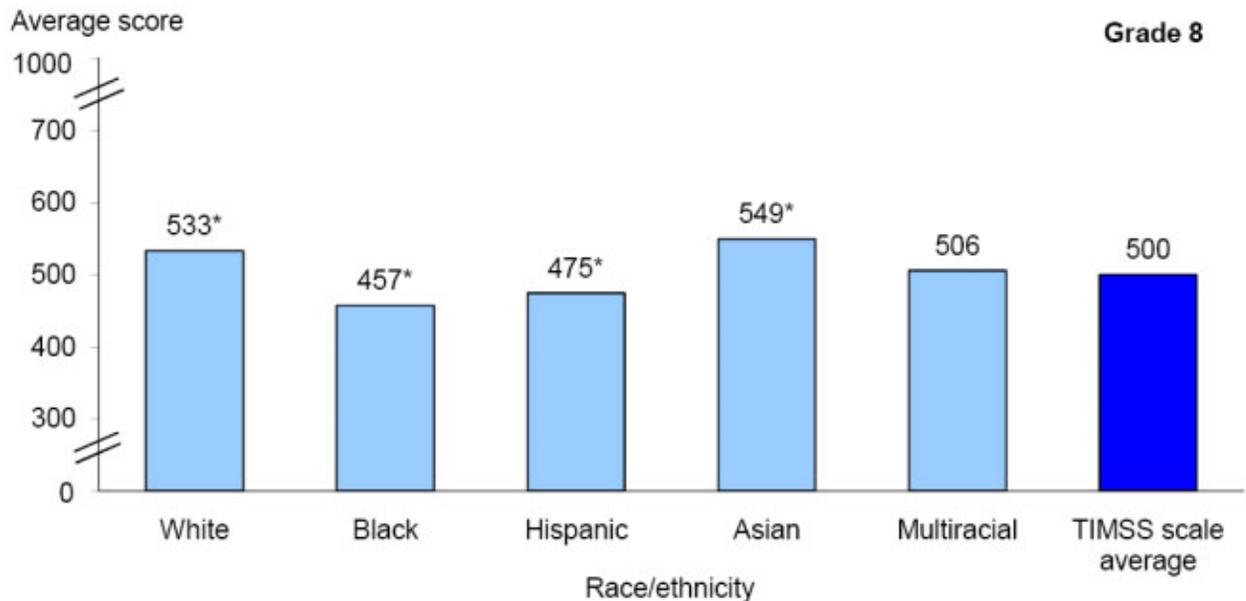
Average mathematics scores of U.S. fourth-grade students compared with TIMSS scale average, by race/ethnicity: 2007



NOTE: Reporting standards were not met for American Indian/Alaska Native and Native Hawaiian/Other Pacific Islander. Black includes African American. Racial categories exclude Hispanic origin. Students who identified themselves as being of Hispanic origin were classified as Hispanic, regardless of their race. Although data for some race/ethnicities are not shown separately because the reporting standards were not met, they are included in the U.S. totals shown throughout the report. The United States met guidelines for sample participation rates only after substitute schools were included. The National Defined Population covered 90 percent to 95 percent of the National Target Population. The standard errors of the estimates are shown in table E-14 available at <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2009001>.

SOURCE: International Association for the Evaluation of Educational Achievement (IEA), Trends in International Mathematics and Science Study (TIMSS), 2007.

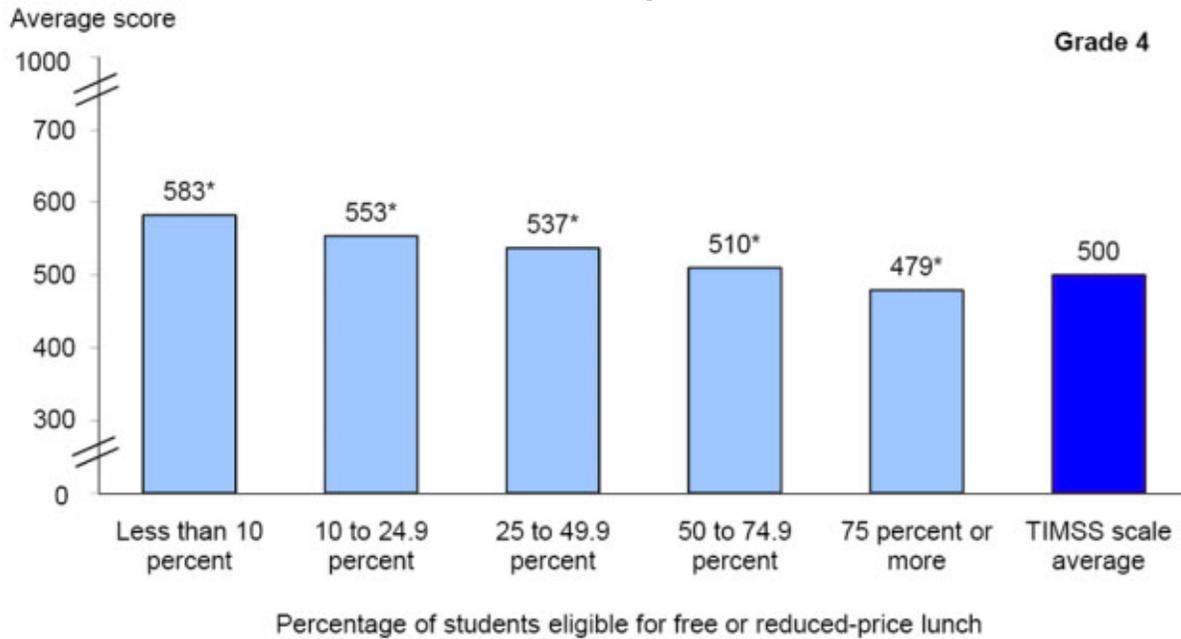
Average mathematics scores of U.S. eighth-grade students compared with TIMSS scale average, by race/ethnicity: 2007



NOTE: Reporting standards were not met for American Indian/Alaska Native and Native Hawaiian/Other Pacific Islander. Black includes African American. Racial categories exclude Hispanic origin. Students who identified themselves as being of Hispanic origin were classified as Hispanic, regardless of their race. Although data for some race/ethnicities are not shown separately because the reporting standards were not met, they are included in the U.S. totals shown throughout the report. The United States met guidelines for sample participation rates only after substitute schools were included. The National Defined Population covered 90 percent to 95 percent of the National Target Population. The standard errors of the estimates are shown in table E-14 available at <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2009001>.

SOURCE: International Association for the Evaluation of Educational Achievement (IEA), Trends in International Mathematics and Science Study (TIMSS), 2007.

Average mathematics scores of U.S. fourth-grade students compared with TIMSS scale average, by percentage of students in public school eligible for free or reduced-price lunch: 2007

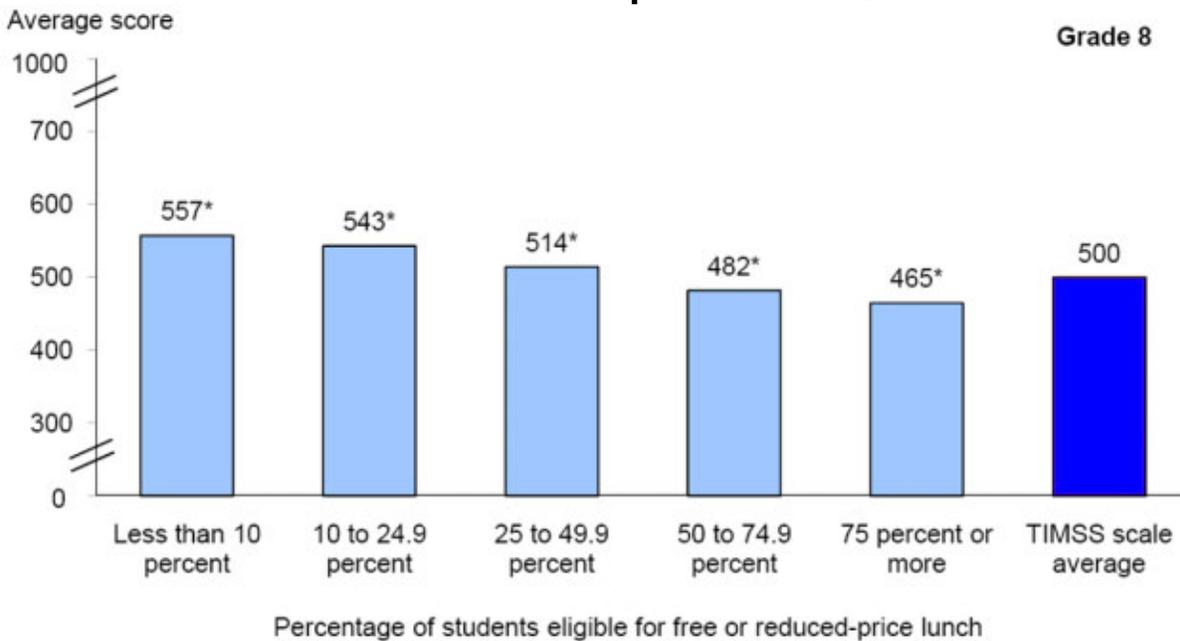


* $p < .05$. Average score significantly different from TIMSS scale average.

NOTE: Analyses are limited to public schools only, based on school reports of the percentage of students in public school eligible for the federal free or reduced-price lunch program. The United States met guidelines for sample participation rates only after substitute schools were included. The National Defined Population covered 90 percent to 95 percent of the National Target Population. The standard errors of the estimates are shown in table E-16 available at <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2009001>.

SOURCE: International Association for the Evaluation of Educational Achievement (IEA), Trends in International Mathematics and Science Study (TIMSS), 2007.

Average mathematics scores of U.S. eighth-grade students compared with TIMSS scale average, by percentage of students in public school eligible for free or reduced-price lunch: 2007



NOTE: Analyses are limited to public schools only, based on school reports of the percentage of students in public school eligible for the federal free or reduced-price lunch program. The United States met guidelines for sample participation rates only after substitute schools were included. The National Defined Population covered 90 percent to 95 percent of the National Target Population. The standard errors of the estimates are shown in table E-16 available at <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2009001>.

SOURCE: International Association for the Evaluation of Educational Achievement (IEA), Trends in International Mathematics and Science Study (TIMSS), 2007.

TIMSS 2007 science average scores grade 4

| Country | Average score |
|------------------------------------|---------------|
| TIMSS scale average | 500 |
| Singapore | 587 |
| Chinese Taipei | 557 |
| Hong Kong SAR ¹ | 554 |
| Japan | 548 |
| Russian Federation | 546 |
| Latvia ² | 542 |
| England | 542 |
| United States^{3,4} | 539 |
| Hungary | 536 |
| Italy | 535 |
| Kazakhstan ² | 533 |
| Germany | 528 |
| Australia | 527 |
| Slovak Republic | 526 |
| Austria | 526 |
| Sweden | 525 |
| Netherlands ⁵ | 523 |
| Slovenia | 518 |
| Denmark ³ | 517 |
| Czech Republic | 515 |
| Lithuania ² | 514 |
| New Zealand | 504 |
| Scotland ³ | 500 |
| Armenia | 484 |
| Norway | 477 |
| Ukraine | 474 |
| Iran, Islamic Rep. of | 436 |
| Georgia ² | 418 |
| Colombia | 400 |
| El Salvador | 390 |
| Algeria | 354 |
| Kuwait ⁶ | 348 |
| Tunisia | 318 |
| Morocco | 297 |
| Qatar | 294 |
| Yemen | 197 |

U.S. average score:

- Higher than TIMSS scale average
- Higher than average scores of 25 countries
- Lower than average scores of 4 countries

Top countries in Asia

- Average score is higher than U.S. average score
- Average is not measurably different from U.S. average
- Average score is lower than U.S. average score

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³Met guidelines for sample participation rates only after substitute schools were included.

⁴National Defined Population covers 90 percent to 95 percent of National Target Population.

⁵Nearly satisfied guidelines for sample participation rates only after substitute schools were included.

⁶Kuwait tested the same cohort of students as other countries, but later in 2007, at the beginning of the next school year.

NOTE: Countries are ordered by 2007 average score. The tests for significance take into account the standard error for the reported difference. Thus, a small difference between the United States and one country may be significant while a large difference between the United States and another country may not be significant. The standard errors of the estimates are shown in table E-20 available at <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2009001>.

SOURCE: International Association for the Evaluation of Educational Achievement (IEA), Trends in International Mathematics and Science Study (TIMSS), 2007.

TIMSS 2007 science average scores grade 8

| Country | Average score |
|------------------------------|---------------|
| TIMSS scale average | 500 |
| Singapore | 567 |
| Chinese Taipei | 561 |
| Japan | 554 |
| Korea, Rep. of | 553 |
| England ¹ | 542 |
| Hungary | 539 |
| Czech Republic | 539 |
| Slovenia | 538 |
| Hong Kong SAR ^{1,2} | 530 |
| Russian Federation | 530 |
| United States ^{1,3} | 520 |
| Lithuania ⁴ | 519 |
| Australia | 515 |
| Sweden | 511 |
| Scotland ¹ | 496 |
| Italy | 495 |
| Armenia | 488 |
| Norway | 487 |
| Ukraine | 485 |
| Jordan | 482 |
| Malaysia | 471 |
| Thailand | 471 |
| Serbia ^{3,4} | 470 |
| Bulgaria ⁵ | 470 |
| Israel ⁵ | 468 |
| Bahrain | 467 |
| Bosnia and Herzegovina | 466 |
| Romania | 462 |
| Iran, Islamic Rep. of | 459 |
| Malta | 457 |
| Turkey | 454 |
| Syrian Arab Republic | 452 |
| Cyprus | 452 |
| Tunisia | 445 |
| Indonesia | 427 |
| Oman | 423 |
| Georgia ⁴ | 421 |
| Kuwait ⁶ | 418 |
| Colombia | 417 |
| Lebanon | 414 |
| Egypt | 408 |
| Algeria | 408 |
| Palestinian Nat'l Auth. | 404 |
| Saudi Arabia | 403 |
| El Salvador | 387 |
| Botswana | 355 |
| Qatar | 319 |
| Ghana | 303 |

U.S. average score:

- Higher than TIMSS scale average
- Higher than average scores of 35 countries
- Lower than average scores of 9 countries

Top countries in Asia and Europe

- Average score is higher than U.S. average score
- Average is not measurably different from U.S. average
- Average score is lower than U.S. average score

21

¹Met guidelines for sample participation rates only after substitute schools were included.

²Hong Kong is a Special Administrative Region (SAR) of the People's Republic of China.

³National Defined Population covers 90 percent to 95 percent of National Target Population.

⁴National Target Population does not include all of the International Target Population defined by the Trends in International Mathematics and Science Study (TIMSS).

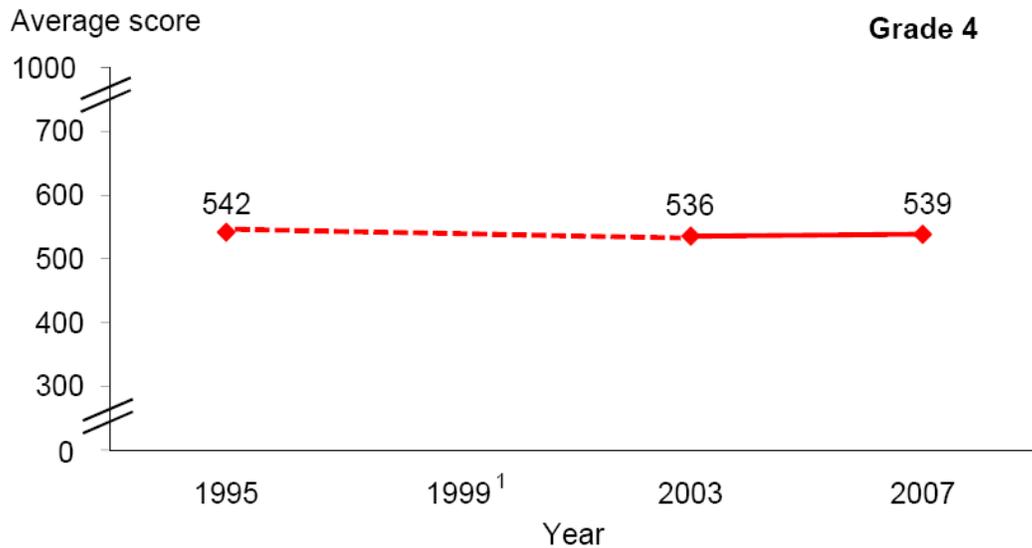
⁵National Defined Population covers less than 90 percent of National Target Population (but at least 77 percent).

⁶Kuwait tested the same cohort of students as other countries, but later in 2007, at the beginning of the next school year.

NOTE: Countries are ordered by 2007 average score. The tests for significance take into account the standard error for the reported difference. Thus, a small difference between the United States and one country may be significant while a large difference between the United States and another country may not be significant. The standard errors of the estimates are shown in table E-21 available at <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2009001>.

SOURCE: International Association for the Evaluation of Educational Achievement (IEA), Trends in International Mathematics and Science Study (TIMSS), 2007.

Trends in average science scores of U.S. fourth-grade students: 1995, 2003, and 2007



* $p < .05$. Score significantly different from 2007 score.

¹ No fourth-grade assessment was conducted in 1999.

NOTE: In 2007, the United States met guidelines for sample participation rates only after substitute schools were included. The National Defined Population covers 90 percent to 95 percent of National Target Population. The standard errors of the estimates are shown in table E-40 available at <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2009001>.

SOURCE: International Association for the Evaluation of Educational Achievement (IEA), Trends in International Mathematics and Science Study (TIMSS), 1995, 2003 and 2007.

Trends in average science scores of fourth-grade students, by country: 1995 to 2007

| Country | Average score | | Difference ¹ | |
|------------------------------------|---------------|------------|-------------------------|--|
| | 1995 | 2007 | 2007-1995 | |
| Singapore | 523 | 587 | 63 * | <input checked="" type="checkbox"/> Country difference in scores between 1995 and 2007 is greater than U.S. <input type="checkbox"/> Country difference in scores between 1995 and 2007 is not measurably different from U.S. <input checked="" type="checkbox"/> Country difference in scores between 1995 and 2007 is less than U.S. |
| Latvia ² | 486 | 542 | 56 * | |
| Iran, Islamic Rep. of | 380 | 436 | 55 * | |
| Slovenia | 464 | 518 | 54 * | |
| Hong Kong SAR ³ | 508 | 554 | 46 * | |
| Hungary | 508 | 536 | 28 * | |
| England | 528 | 542 | 14 * | |
| Australia | 521 | 527 | 6 | |
| New Zealand | 505 | 504 | -1 | |
| United States^{4,5} | 542 | 539 | -3 | |
| Japan | 553 | 548 | -5 * | <input checked="" type="checkbox"/> Country difference in scores between 1995 and 2007 is less than U.S. |
| Netherlands ⁶ | 530 | 523 | -7 | |
| Austria | 538 | 526 | -12 * | |
| Scotland | 514 | 500 | -14 * | |
| Czech Republic | 532 | 515 | -17 * | |
| Norway | 504 | 477 | -27 * | |

* $p < .05$. Within-country difference between 1995 and 2007 average scores is significant.

¹Difference calculated by subtracting 1995 from 2007 estimate using unrounded numbers.

²In 2007, National Target Population did not include all of the International Target Population defined by the Trends in International Mathematics and Science Study (TIMSS).

³Hong Kong is a Special Administrative Region (SAR) of the People's Republic of China.

⁴In 2007, met guidelines for sample participation rates only after substitute schools were included.

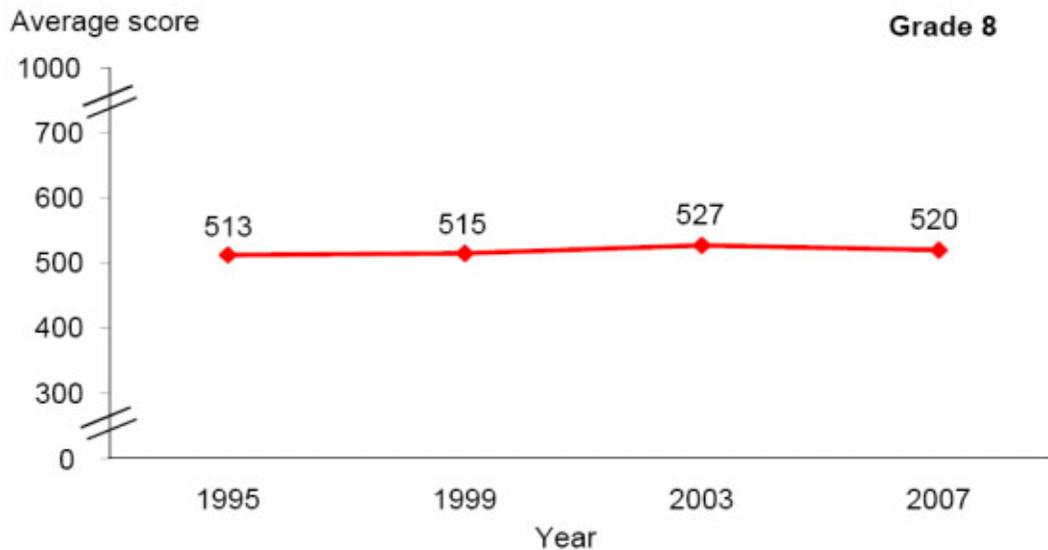
⁵In 2007, National Defined Population covered 90 percent to 95 percent of National Target Population.

⁶In 2007, nearly satisfied guidelines for sample participation rates only after substitute schools were included.

NOTE: Bulgaria collected data in 1995 and 2007, but due to a structural change in its education system, comparable science data from 1995 are not available. Countries are ordered by the difference between 1995 and 2007 overall average scores. All countries met international sampling and other guidelines in 2007, except as noted. Data are not shown for some countries, because comparable data from previous cycles are not available. The tests for significance take into account the standard error for the reported difference. Thus, a small difference between the United States and one country may be significant while a large difference between the United States and another country may not be significant. Detail may not sum to totals because of rounding. The standard errors of the estimates are shown in table E-20 available at <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2009001>.

SOURCE: International Association for the Evaluation of Educational Achievement (IEA), Trends in International Mathematics and Science Study (TIMSS), 1995 and 2007.

Trends in average science scores of U.S. eighth-grade students: 1995, 1999, 2003, and 2007



* $p < .05$. Score significantly different from 2007 score.

NOTE: In 2007, the United States met guidelines for sample participation rates only after substitute schools were included. The National Defined Population covers 90 percent to 95 percent of National Target Population. The standard errors of the estimates are shown in table E-40 available at <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2009001>.

SOURCE: International Association for the Evaluation of Educational Achievement (IEA), Trends in International Mathematics and Science Study (TIMSS), 1995, 1999, 2003 and 2007.

Trends in average science scores of eighth-grade students, by country: 1995 to 2007

| Country | Average score | | Difference ¹ | |
|------------------------------------|---------------|------------|-------------------------|--|
| | 1995 | 2007 | 2007-1995 | |
| Lithuania ² | 464 | 519 | 55 * | ■ Country difference in scores between 1995 and 2007 is greater than U.S. |
| Colombia | 365 | 417 | 52 * | |
| Slovenia | 514 | 538 | 24 * | |
| Hong Kong SAR ^{3,4} | 510 | 530 | 20 * | □ Country difference in scores between 1995 and 2007 is not measurably different from U.S. |
| England ⁴ | 533 | 542 | 8 | |
| United States^{4,5} | 513 | 520 | 7 | ■ Country difference in scores between 1995 and 2007 is less than U.S. |
| Korea, Rep. of | 546 | 553 | 7 * | |
| Russian Federation | 523 | 530 | 7 | |
| Hungary | 537 | 539 | 2 | |
| Australia | 514 | 515 | 1 | |
| Cyprus | 452 | 452 | # | |
| Japan | 554 | 554 | -1 | |
| Iran, Islamic Rep. of | 463 | 459 | -4 | |
| Scotland ⁴ | 501 | 496 | -5 | |
| Romania | 471 | 462 | -9 | |
| Singapore | 580 | 567 | -13 | ■ Country difference in scores between 1995 and 2007 is less than U.S. |
| Czech Republic | 555 | 539 | -16 * | |
| Norway | 514 | 487 | -28 * | |
| Sweden | 553 | 511 | -42 * | |

Rounds to zero.

* $p < .05$. Within-country difference between 1995 and 2007 average scores is significant.

¹Difference calculated by subtracting 1995 from 2007 estimate using unrounded numbers.

²In 2007, National Target Population did not include all of the International Target Population defined by the Trends in International Mathematics and Science Study (TIMSS).

³Hong Kong is a Special Administrative Region (SAR) of the People's Republic of China.

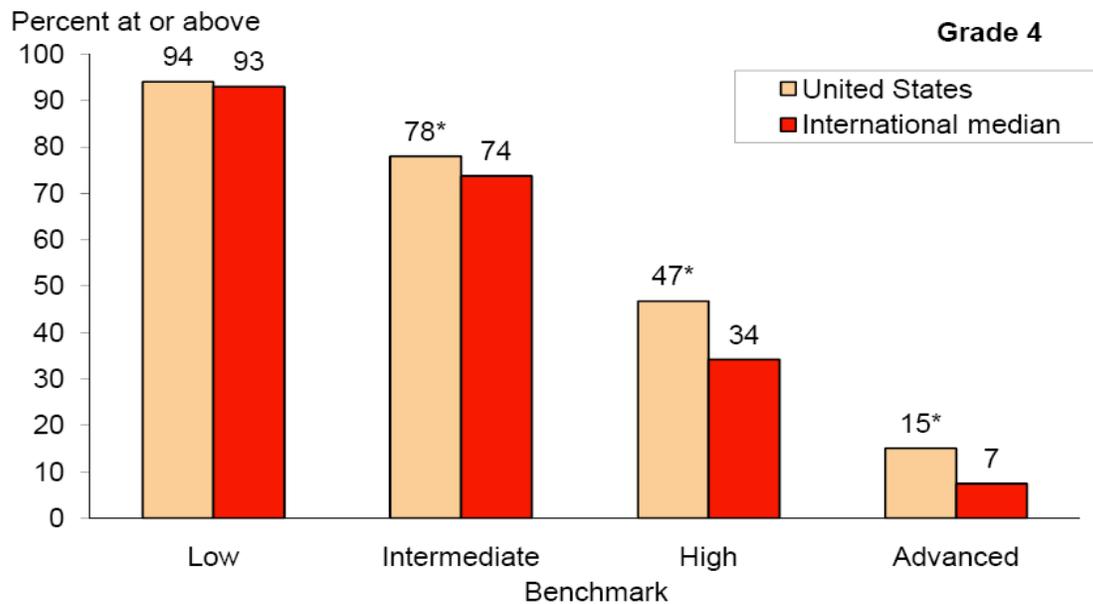
⁴In 2007, met guidelines for sample participation rates only after substitute schools were included.

⁵In 2007, National Defined Population covered 90 percent to 95 percent of National Target Population.

NOTE: Bulgaria collected data in 1995 and 2007, but due to a structural change in its education system, comparable science data from 1995 are not available. Countries are ordered by the difference between 1995 and 2007 overall average scores. All countries met international sampling and other guidelines in 2007, except as noted. Data are not shown for some countries, because comparable data from previous cycles are not available. The tests for significance take into account the standard error for the reported difference. Thus, a small difference between the United States and one country may be significant while a large difference between the United States and another country may not be significant. Detail may not sum to totals because of rounding. The standard errors of the estimates are shown in table E-21 available at <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2009001>.

SOURCE: International Association for the Evaluation of Educational Achievement (IEA), Trends in International Mathematics and Science Study (TIMSS), 1995 and 2007.

Percentage of U.S. fourth-grade students who reached each TIMSS international science benchmark compared with the international median percentage: 2007

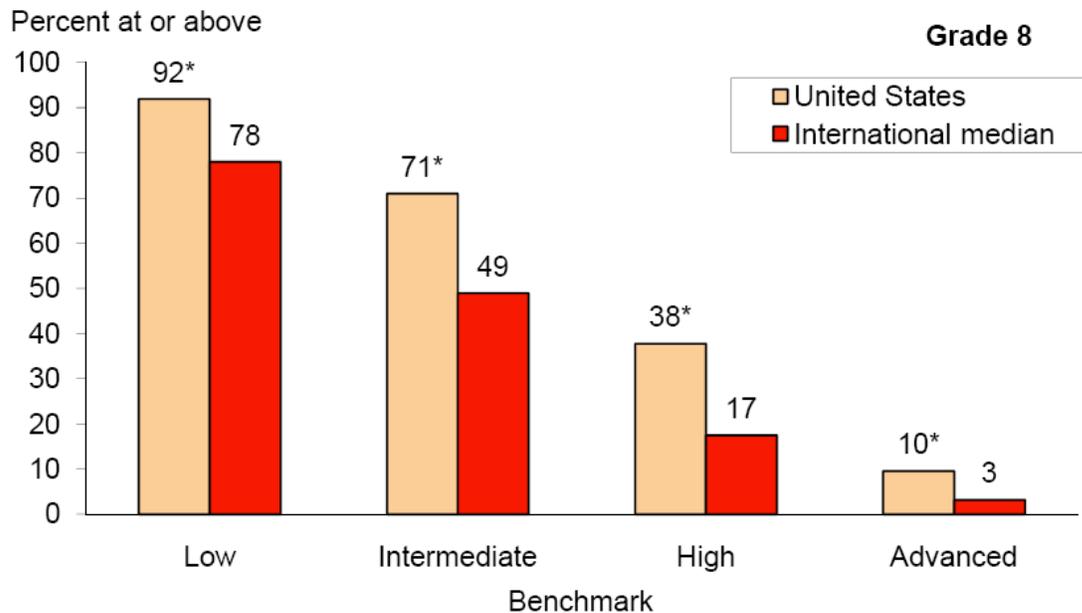


* $p < .05$. U.S. percentage significantly higher than TIMSS international median percentage.

NOTE: The United States met guidelines for sample participation rates only after substitute schools were included. The National Defined Population covered 90 percent to 95 percent of National Target Population. The TIMSS international median represents all participating TIMSS jurisdictions, including the United States. The international median represents the percentage at which half of the participating countries have that percentage of students at or above the median and half have that percentage of students below the median. The standard errors for the estimates are shown in table E-24 available at <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2009001>.

SOURCE: International Association for the Evaluation of Educational Achievement (IEA), Trends in International Mathematics and Science Study (TIMSS), 2007.

Percentage of U.S. eighth-grade students who reached each TIMSS international science benchmark compared with the international median percentage: 2007



NOTE: The United States met guidelines for sample participation rates only after substitute schools were included. The National Defined Population covered 90 percent to 95 percent of National Target Population. The TIMSS international median represents all participating TIMSS jurisdictions, including the United States. The international median represents the percentage at which half of the participating countries have that percentage of students at or above the median and half have that percentage of students below the median. The standard errors for the estimates are shown in table E-24 available at <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2009001>.

SOURCE: International Association for the Evaluation of Educational Achievement (IEA), Trends in International Mathematics and Science Study (TIMSS), 2007.

TIMSS 2007 science scores defining 10th and 90th percentiles Grade 4

| Country | 90th percentile | 10th percentile |
|------------------------------|-----------------|-----------------|
| International average | 586 | 359 |
| Singapore | 701 | 464 |
| Chinese Taipei | 653 | 457 |
| Russian Federation | 646 | 443 |
| United States ^{1,2} | 643 | 427 |
| England | 641 | 438 |
| Armenia | 640 | 336 |
| Hungary | 637 | 425 |
| Hong Kong SAR ³ | 637 | 466 |
| Italy | 636 | 429 |
| Japan | 633 | 459 |
| Slovak Republic | 627 | 416 |
| Australia | 626 | 423 |
| Latvia ⁴ | 625 | 454 |
| Kazakhstan ⁴ | 623 | 433 |
| Germany | 623 | 427 |
| Austria | 620 | 423 |
| Sweden | 617 | 429 |
| New Zealand | 614 | 382 |
| Denmark ¹ | 610 | 417 |
| Slovenia | 610 | 416 |
| Czech Republic | 610 | 416 |
| Netherlands ⁵ | 598 | 445 |
| Lithuania ⁴ | 595 | 428 |
| Scotland ¹ | 593 | 400 |
| Ukraine | 576 | 364 |
| Norway | 570 | 374 |
| Iran, Islamic Rep. of | 558 | 304 |
| Georgia ⁴ | 524 | 306 |
| Colombia | 522 | 271 |
| El Salvador | 507 | 267 |
| Kuwait ⁶ | 505 | 182 |
| Tunisia | 497 | 119 |
| Algeria | 483 | 220 |
| Morocco | 465 | 139 |
| Qatar | 464 | 121 |
| Yemen | 379 | 20 |

Percentile cutpoint score is higher than U.S. cutpoint score

Percentile cutpoint score is not measurably different from U.S. cutpoint score

Percentile cutpoint score is lower than U.S. cutpoint score

28

¹ Met guidelines for sample participation rates only after substitute schools were included.

² National Defined Population covers 90 percent to 95 percent of National Target Population.

³ Hong Kong is a Special Administrative Region (SAR) of the People's Republic of China.

⁴ National Target Population does not include all of the International Target Population defined by the Trends in International Mathematics and Science Study (TIMSS).

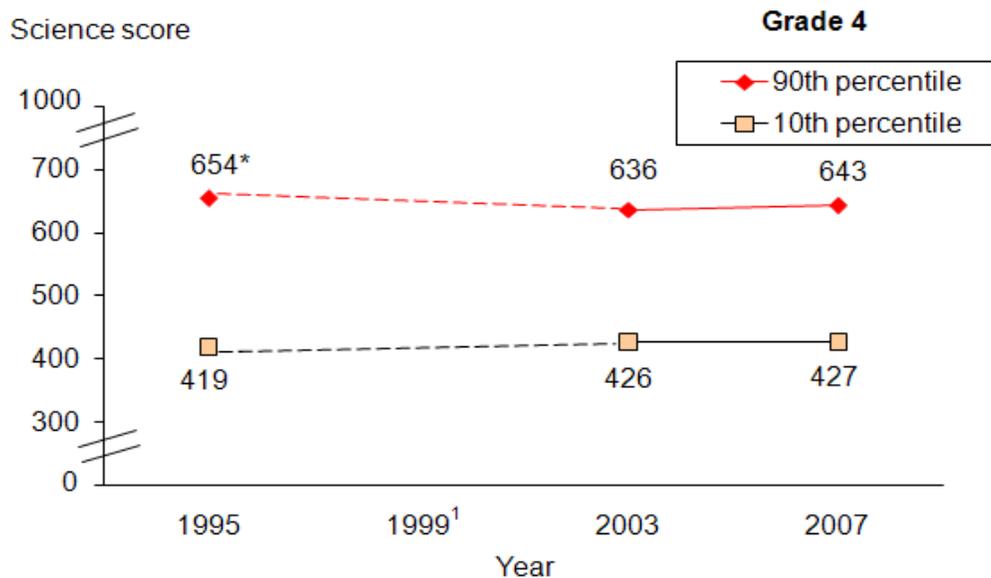
⁵ Nearly satisfied guidelines for sample participation rates only after substitute schools were included.

⁶ Kuwait tested the same cohort of students as other countries, but later in 2007, at the beginning of the next school year.

NOTE: Countries are ordered based on the 90th percentile cutpoint for science scores. Cutpoints are calculated based on distribution of student scores within each country. The international average is the average of the cutpoint scores for all reported countries. The standard errors of the estimates are shown in table E-25 available at <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2009001>.

SOURCE: International Association for the Evaluation of Educational Achievement (IEA), Trends in International Mathematics and Science Study (TIMSS), 2007.

Trends in 10th and 90th percentile science scores of U.S. fourth-grade students: 1995, 2003, and 2007



* $p < .05$. Percentile cutpoint score is significantly different from 2007 percentile cutpoint score.

¹ No fourth-grade assessment was conducted in 1999.

NOTE: In 2007, the United States met guidelines for sample participation rates only after substitute schools were included. The National Defined Population covered 90 percent to 95 percent of National Target Population. Cutpoints are calculated based on distribution of U.S. student scores. The standard errors of the estimates are shown in table E-28 available at <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2009001>.

SOURCE: International Association for the Evaluation of Educational Achievement (IEA), Trends in International Mathematics and Science Study (TIMSS), 1995, 2003, and 2007.

TIMSS 2007 science scores defining 10th and 90th percentiles

Grade 8

| Country | 90th percentile | 10th percentile |
|------------------------------------|-----------------|-----------------|
| International average | 573 | 352 |
| Singapore | 694 | 421 |
| Chinese Taipei | 665 | 439 |
| England ¹ | 649 | 427 |
| Japan | 648 | 454 |
| Korea, Rep. of | 646 | 452 |
| Hungary | 635 | 437 |
| Czech Republic | 630 | 447 |
| Slovenia | 628 | 442 |
| Russian Federation | 627 | 427 |
| Hong Kong SAR ² | 625 | 419 |
| United States^{1,3} | 623 | 410 |
| Australia | 617 | 410 |
| Lithuania ⁴ | 616 | 414 |
| Armenia | 612 | 366 |
| Sweden | 608 | 405 |
| Jordan | 601 | 349 |
| Scotland ¹ | 597 | 388 |
| Bulgaria ⁵ | 595 | 330 |
| Malta | 595 | 298 |
| Israel ⁵ | 591 | 329 |
| Italy | 590 | 393 |
| Ukraine | 588 | 374 |
| Malaysia | 581 | 357 |
| Norway | 578 | 389 |
| Thailand | 578 | 363 |
| Turkey | 577 | 336 |
| Bahrain | 575 | 351 |
| Romania | 572 | 345 |
| Serbia ^{3,4} | 571 | 359 |
| Iran, Islamic Rep. of | 566 | 355 |
| Bosnia and Herzegovina | 565 | 359 |
| Cyprus | 566 | 339 |
| Syrian Arab Republic | 546 | 355 |
| Palestinian Nat'l Auth. | 543 | 255 |
| Oman | 541 | 293 |
| Lebanon | 539 | 284 |
| Egypt | 537 | 275 |
| Kuwait ⁶ | 530 | 298 |
| Georgia ⁴ | 527 | 309 |
| Tunisia | 524 | 367 |
| Indonesia | 520 | 330 |
| Colombia | 514 | 319 |
| Saudi Arabia | 503 | 300 |
| Algeria | 488 | 327 |
| Qatar | 480 | 146 |
| Botswana | 478 | 220 |
| El Salvador | 477 | 298 |
| Ghana | 445 | 163 |



Percentile cutpoint score is higher than U.S. cutpoint score



Percentile cutpoint score is not measurably different from U.S. cutpoint score



Percentile cutpoint score is lower than U.S. cutpoint score

30

¹ Met guidelines for sample participation rates only after substitute schools were included.

² Hong Kong is a Special Administrative Region (SAR) of the People's Republic of China.

³ National Defined Population covers 90 percent to 95 percent of National Target Population.

⁴ National Target Population does not include all of the International Target Population defined by the Trends in International Mathematics and Science Study (TIMSS).

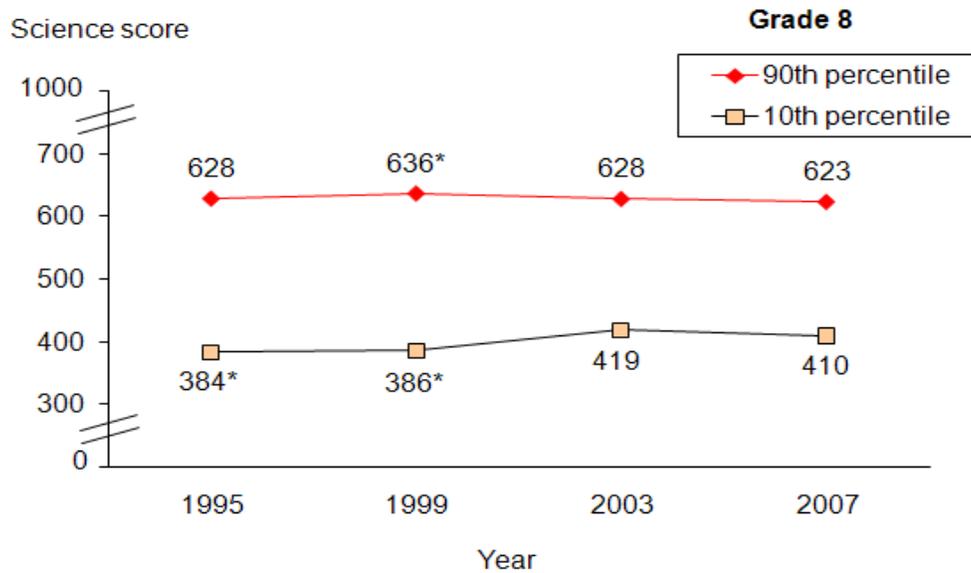
⁵ National Defined Population covers less than 90 percent of National Target Population (but at least 77 percent).

⁶ Kuwait tested the same cohort of students as other countries, but later in 2007, at the beginning of the next school year.

NOTE: Countries are ordered based on the 90th percentile cutpoint for science scores. Cutpoints are calculated based on distribution of student scores within each country. The international average is the average of the cutpoint scores for all reported countries. The standard errors of the estimates are shown in table E-26 available at <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2009001>.

SOURCE: International Association for the Evaluation of Educational Achievement (IEA), Trends in International Mathematics and Science Study (TIMSS), 2007.

Trends in 10th and 90th percentile science scores of U.S. eighth-grade students: 1995, 1999, 2003, and 2007

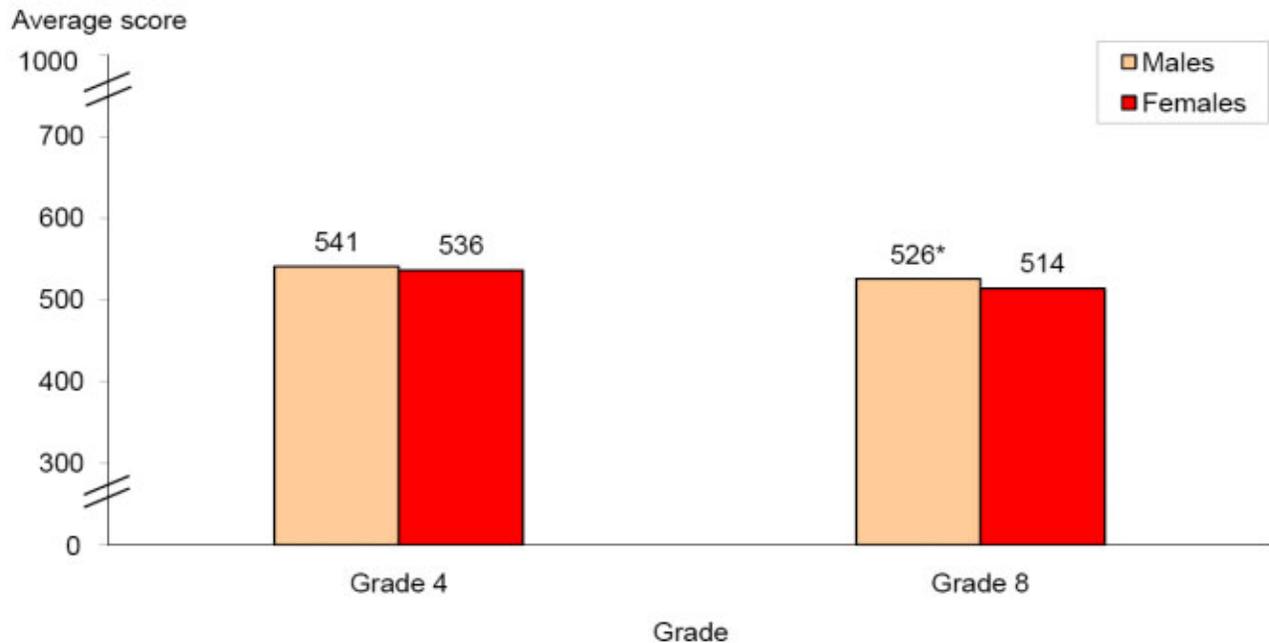


* $p < .05$. Percentile cutpoint score is significantly different from 2007 percentile cutpoint score.

NOTE: In 2007, the United States met guidelines for sample participation rates only after substitute schools were included. The National Defined Population covered 90 percent to 95 percent of National Target Population. Cutpoints are calculated based on distribution of U.S. student scores. The standard errors of the estimates are shown in table E-28 available at <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2009001>.

SOURCE: International Association for the Evaluation of Educational Achievement (IEA), Trends in International Mathematics and Science Study (TIMSS), 1995, 1999, 2003, and 2007.

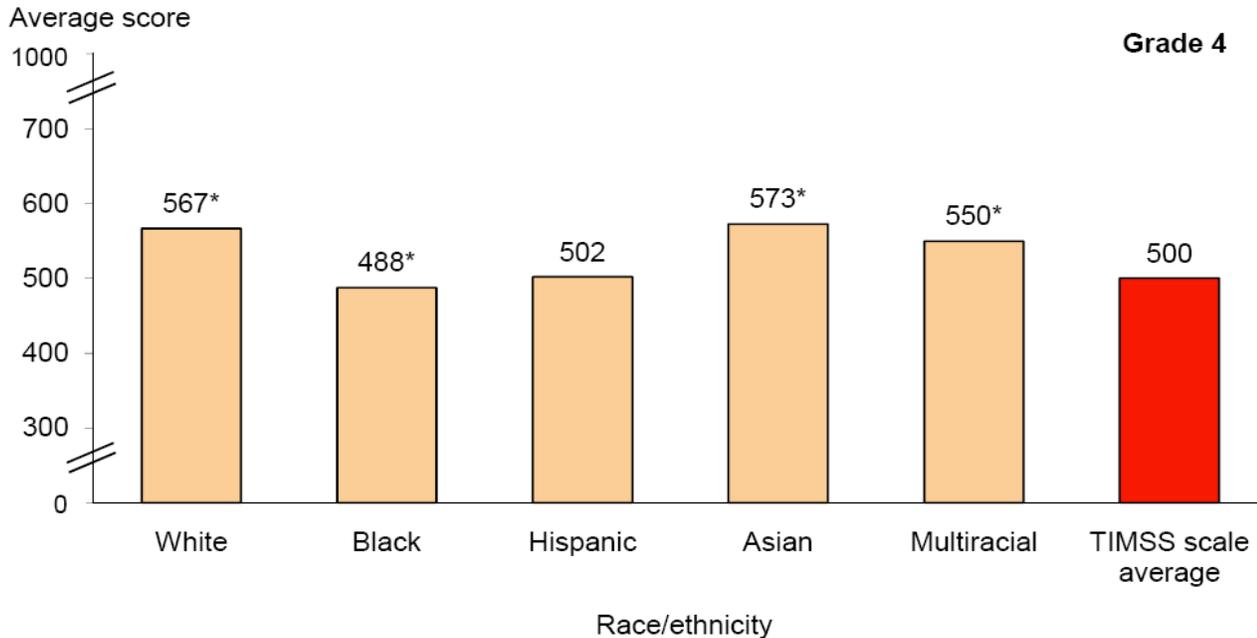
Average science scores of U.S. students, by grade and sex: 2007



NOTE: The United States met guidelines for sample participation rates only after substitute schools were included. The National Defined Population covered 90 percent to 95 percent of National Target Population. The standard errors of the estimates are shown in table E-31 available at <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2009001>.

SOURCE: International Association for the Evaluation of Educational Achievement (IEA), Trends in International Mathematics and Science Study (TIMSS), 2007.

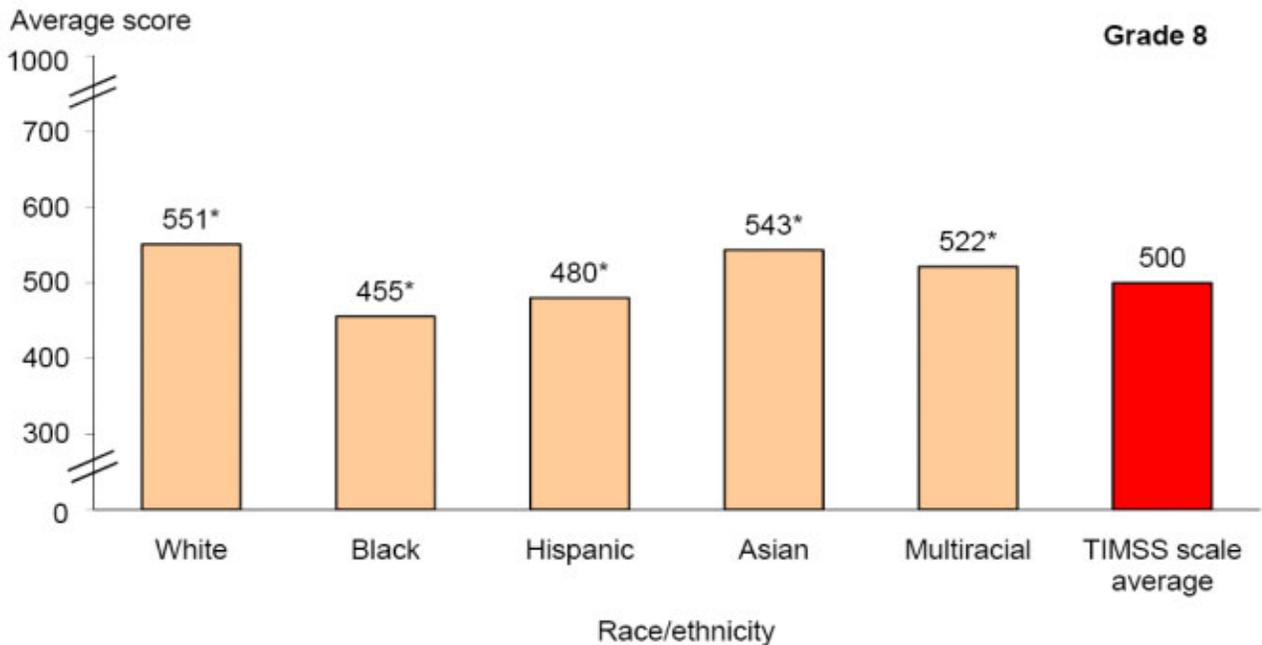
Average science scores of U.S. fourth-grade students compared with TIMSS scale average, by race/ethnicity: 2007



NOTE: Reporting standards were not met for American Indian/Alaska Native and Native Hawaiian/Other Pacific Islander. Black includes African American. Racial categories exclude Hispanic origin. Students who identified themselves as being of Hispanic origin were classified as Hispanic, regardless of their race. Although data for some race/ethnicities are not shown separately because the reporting standards were not met, they are included in the U.S. totals shown throughout the report. The United States met guidelines for sample participation rates only after substitute schools were included. The National Defined Population covered 90 percent to 95 percent of the National Target Population. The standard errors of the estimates are shown in table E-33 available at <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2009001>.

SOURCE: International Association for the Evaluation of Educational Achievement (IEA), Trends in International Mathematics and Science Study (TIMSS), 2007.

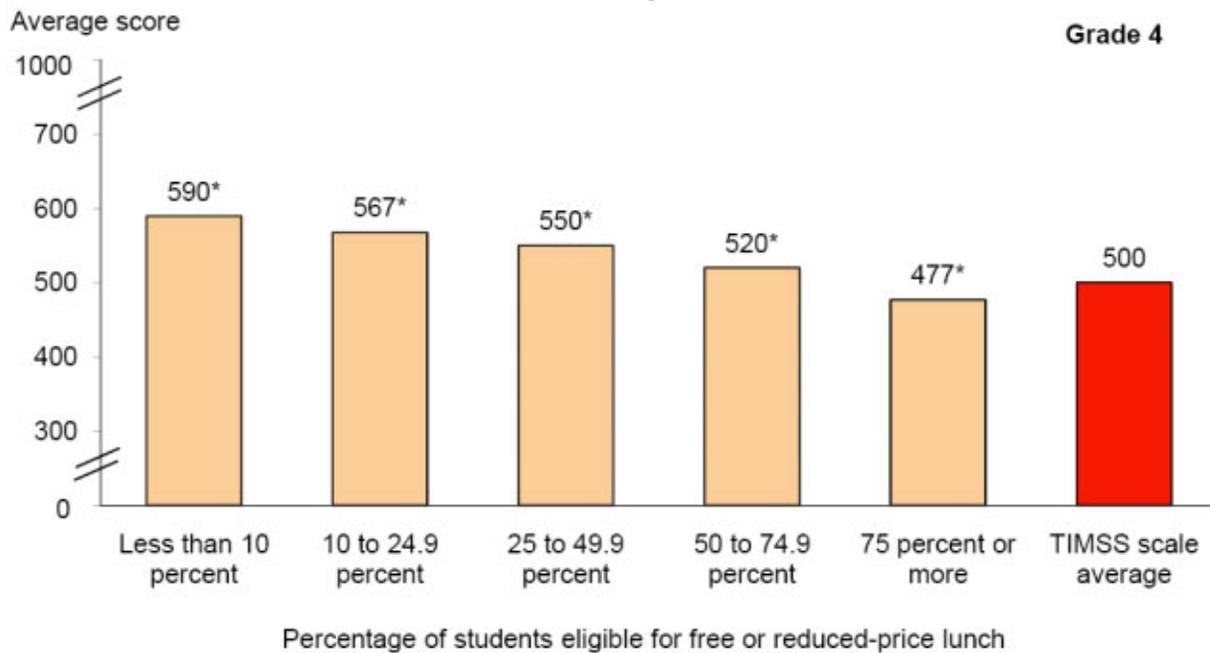
Average science scores of U.S. eighth-grade students compared with TIMSS scale average, by race/ethnicity: 2007



NOTE: Reporting standards were not met for American Indian/Alaska Native and Native Hawaiian/Other Pacific Islander. Black includes African American. Racial categories exclude Hispanic origin. Students who identified themselves as being of Hispanic origin were classified as Hispanic, regardless of their race. Although data for some race/ethnicities are not shown separately because the reporting standards were not met, they are included in the U.S. totals shown throughout the report. The United States met guidelines for sample participation rates only after substitute schools were included. The National Defined Population covered 90 percent to 95 percent of the National Target Population. The standard errors of the estimates are shown in table E-33 available at <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2009001>.

SOURCE: International Association for the Evaluation of Educational Achievement (IEA), Trends in International Mathematics and Science Study (TIMSS), 2007.

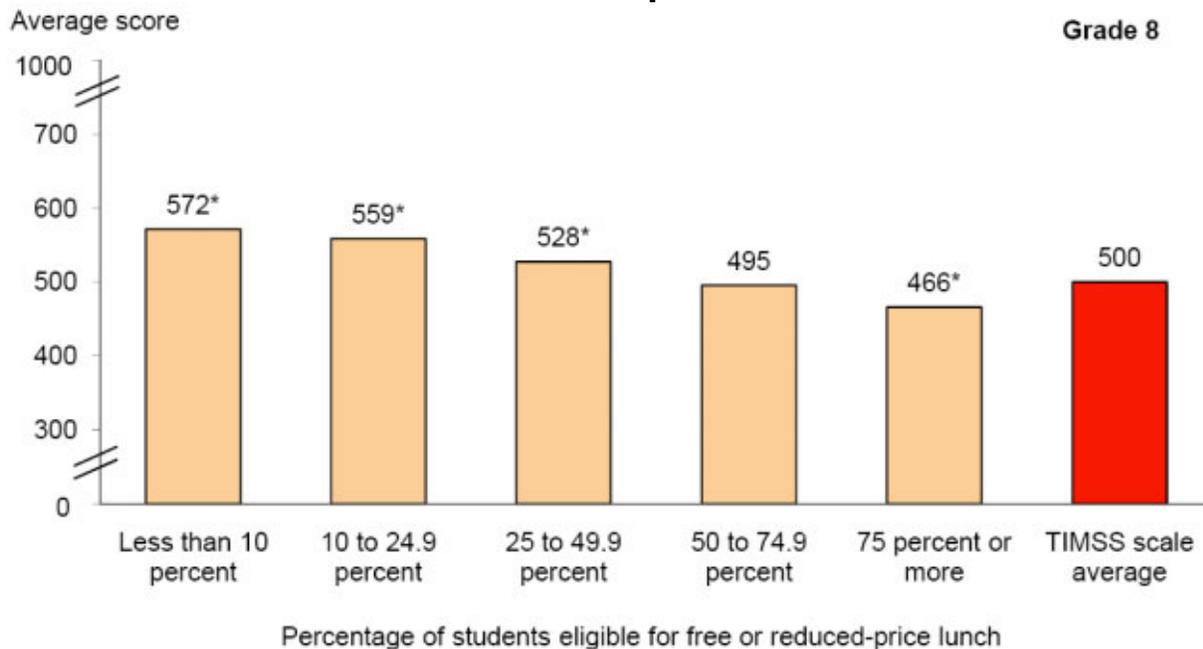
Average science scores of U.S. fourth-grade students compared with TIMSS scale average, by percentage of students in public school eligible for free or reduced-price lunch: 2007



NOTE: Analyses are limited to public schools only, based on school reports of the percentage of students in public school eligible for the federal free or reduced-price lunch program. The United States met guidelines for sample participation rates only after substitute schools were included. The National Defined Population covered 90 percent to 95 percent of the National Target Population. The standard errors of the estimates are shown in table E-35 available at <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2009001>.

SOURCE: International Association for the Evaluation of Educational Achievement (IEA), Trends in International Mathematics and Science Study (TIMSS), 2007.

Average science scores of U.S. eighth-grade students compared with TIMSS scale average, by percentage of students in public school eligible for free or reduced-price lunch: 2007



NOTE: Analyses are limited to public schools only, based on school reports of the percentage of students in public school eligible for the federal free or reduced-price lunch program. The United States met guidelines for sample participation rates only after substitute schools were included. The National Defined Population covered 90 percent to 95 percent of the National Target Population. The standard errors of the estimates are shown in table E-35 available at <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2009001>.

SOURCE: International Association for the Evaluation of Educational Achievement (IEA), Trends in International Mathematics and Science Study (TIMSS), 2007.

For More Information:

TIMSS at NCES:

<http://nces.ed.gov/timss/>

TIMSS & PIRLS International Study Center
at Boston College:

<http://timss.bc.edu/>

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