

APPENDIX

C

Percentiles and
Standard Deviations
of Science Achievement



	5th Percentile	25th Percentile	50th Percentile	75th Percentile	95th Percentile
United States	349 (5.5)	450 (5.4)	520 (5.3)	583 (4.6)	667 (3.4)
Australia	391 (5.9)	485 (7.8)	544 (4.4)	601 (5.6)	675 (3.8)
Belgium (Flemish)	415 (10.9)	490 (4.5)	539 (3.4)	583 (3.3)	642 (6.2)
Bulgaria	356 (9.9)	459 (5.4)	521 (4.5)	581 (7.4)	663 (9.8)
Canada	403 (4.9)	482 (3.2)	534 (2.5)	586 (2.5)	657 (3.6)
Chile	272 (5.8)	363 (3.6)	423 (3.3)	480 (6.1)	561 (7.8)
Chinese Taipei	414 (7.0)	514 (4.2)	574 (5.6)	630 (4.2)	704 (4.8)
Cyprus	315 (4.4)	407 (3.4)	464 (2.7)	518 (2.8)	593 (5.4)
Czech Republic	410 (6.8)	485 (5.4)	539 (4.5)	593 (7.2)	672 (4.0)
England	388 (4.5)	479 (6.8)	540 (6.2)	598 (5.8)	686 (8.4)
Finland	407 (8.3)	485 (3.7)	536 (3.8)	587 (2.6)	662 (8.6)
Hong Kong, SAR	410 (9.3)	488 (5.0)	533 (4.1)	576 (4.6)	637 (4.5)
Hungary	411 (10.1)	499 (4.7)	556 (3.5)	609 (4.1)	686 (4.1)
Indonesia	291 (11.6)	383 (4.4)	439 (4.5)	492 (4.0)	568 (6.7)
Iran, Islamic Rep.	307 (8.6)	392 (4.3)	449 (3.9)	505 (6.2)	584 (4.9)
Israel	282 (9.6)	400 (7.6)	476 (4.5)	543 (3.7)	627 (4.6)
Italy	344 (5.6)	436 (4.8)	496 (5.1)	554 (4.4)	631 (4.3)
Japan	421 (5.2)	501 (1.8)	553 (2.3)	602 (3.2)	667 (3.8)
Jordan	276 (10.6)	380 (3.5)	454 (3.9)	524 (4.8)	611 (4.6)
Korea, Rep. of	406 (4.1)	493 (2.8)	550 (3.6)	607 (3.9)	684 (4.7)
Latvia (LSS)	371 (12.6)	452 (4.5)	504 (4.2)	555 (5.6)	627 (7.7)
Lithuania	352 (9.6)	434 (5.9)	490 (4.2)	543 (3.5)	622 (6.5)
Macedonia, Rep. of	289 (8.2)	394 (8.0)	464 (3.8)	527 (5.3)	607 (5.8)
Malaysia	356 (7.7)	440 (4.7)	493 (4.5)	547 (4.3)	626 (4.8)
Moldova	299 (7.1)	396 (4.2)	462 (4.0)	525 (4.8)	611 (3.2)
Morocco	147 (8.5)	256 (5.6)	326 (5.8)	395 (3.7)	483 (5.1)
Netherlands	411 (14.5)	500 (9.0)	551 (5.7)	595 (5.3)	662 (9.9)
New Zealand	348 (11.2)	451 (5.7)	515 (6.7)	574 (4.4)	652 (9.3)
Philippines	144 (9.2)	261 (7.2)	347 (8.1)	431 (10.3)	539 (7.7)
Romania	306 (8.3)	409 (9.1)	476 (7.4)	539 (8.2)	624 (5.2)
Russian Federation	374 (5.9)	468 (8.0)	529 (5.6)	591 (7.5)	683 (11.8)
Singapore	395 (15.2)	507 (9.8)	574 (8.9)	635 (8.0)	718 (9.3)
Slovak Republic	406 (4.6)	485 (4.5)	537 (3.0)	586 (5.5)	659 (8.8)
Slovenia	392 (5.9)	477 (3.3)	534 (4.4)	590 (2.6)	670 (6.1)
South Africa	53 (4.4)	149 (5.1)	223 (6.2)	316 (12.9)	504 (12.1)
Thailand	362 (4.7)	435 (2.9)	483 (4.8)	532 (6.3)	602 (6.6)
Tunisia	318 (5.3)	385 (4.5)	431 (3.1)	474 (3.2)	538 (6.3)
Turkey	302 (8.1)	380 (5.6)	434 (5.0)	487 (4.4)	562 (4.6)

SOURCE: IEA Third International Mathematics and Science Study (TIMSS), 1998-1999.

() Standard errors appear in parentheses.

	5th Percentile	25th Percentile	50th Percentile	75th Percentile	95th Percentile
States					
Connecticut	373 (16.9)	471 (16.1)	533 (10.8)	592 (7.4)	670 (16.3)
Idaho	376 (13.1)	475 (10.0)	533 (7.8)	585 (5.7)	655 (5.0)
Illinois	367 (10.5)	461 (7.5)	524 (7.0)	583 (8.6)	661 (10.6)
Indiana	384 (8.4)	479 (9.0)	539 (6.9)	594 (5.3)	669 (8.1)
Maryland	345 (11.5)	442 (11.4)	510 (8.7)	573 (7.8)	654 (10.3)
Massachusetts	385 (9.5)	476 (7.9)	535 (7.6)	593 (8.7)	674 (15.1)
Michigan	375 (25.7)	489 (11.0)	551 (7.5)	608 (8.6)	687 (7.3)
Missouri	367 (14.4)	466 (9.9)	527 (6.7)	585 (7.4)	659 (9.0)
North Carolina	355 (6.8)	448 (9.8)	512 (6.8)	571 (7.9)	647 (6.7)
Oregon	373 (13.2)	481 (11.6)	543 (3.7)	598 (5.8)	674 (3.9)
Pennsylvania	376 (12.3)	476 (9.1)	532 (8.0)	587 (5.9)	668 (7.3)
South Carolina	349 (8.0)	447 (5.7)	515 (8.1)	579 (5.8)	658 (8.0)
Texas	326 (14.6)	441 (15.5)	518 (13.4)	583 (8.0)	663 (7.8)
Districts and Consortia					
Academy School Dist. #20, CO	428 (9.2)	511 (4.8)	562 (2.5)	611 (3.8)	676 (5.3)
Chicago Public Schools, IL	301 (17.5)	390 (10.0)	451 (8.7)	511 (12.2)	594 (13.2)
Delaware Science Coalition, DE	344 (11.3)	437 (6.7)	503 (9.4)	568 (12.5)	647 (13.6)
First in the World Consort., IL	439 (11.9)	514 (4.6)	565 (6.2)	620 (8.8)	686 (7.4)
Fremont/Lincoln/WestSide PS, NE	346 (8.4)	457 (9.1)	518 (9.3)	573 (5.6)	648 (7.1)
Guilford County, NC	374 (11.3)	470 (9.2)	539 (7.5)	601 (8.1)	677 (4.9)
Jersey City Public Schools, NJ	280 (14.1)	377 (8.5)	441 (8.1)	503 (11.1)	594 (16.6)
Miami-Dade County PS, FL	245 (22.8)	358 (9.6)	430 (6.7)	498 (12.5)	600 (15.3)
Michigan Invitational Group, MI	420 (11.1)	513 (8.0)	566 (6.5)	617 (11.3)	693 (8.2)
Montgomery County, MD	375 (11.5)	473 (5.7)	536 (5.1)	594 (4.2)	674 (5.2)
Naperville Sch. Dist. #203, IL	457 (8.3)	537 (4.6)	585 (3.9)	633 (5.4)	707 (6.8)
Project SMART Consortium, OH	392 (10.5)	483 (9.8)	543 (10.5)	599 (9.7)	674 (8.4)
Rochester City Sch. Dist., NY	310 (11.6)	392 (5.7)	450 (7.4)	510 (10.5)	597 (14.5)
SW Math/Sci. Collaborative, PA	400 (19.2)	488 (10.6)	546 (6.6)	601 (8.1)	679 (18.3)

SOURCE: IEA Third International Mathematics and Science Study (TIMSS), 1998-1999.

	Overall		Girls		Boys	
	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation
United States	515 (4.6)	97 (2.0)	505 (4.6)	92 (2.0)	524 (5.5)	102 (2.6)
Australia	540 (4.4)	87 (2.1)	532 (5.1)	82 (2.6)	549 (6.0)	92 (2.7)
Belgium (Flemish)	535 (3.1)	69 (2.9)	526 (4.6)	67 (3.1)	544 (7.2)	71 (4.7)
Bulgaria	518 (5.4)	93 (3.3)	511 (5.8)	89 (3.6)	525 (6.5)	97 (3.6)
Canada	533 (2.1)	78 (1.5)	526 (3.2)	76 (2.2)	540 (2.4)	79 (1.6)
Chile	420 (3.7)	88 (2.8)	409 (4.3)	84 (3.0)	432 (5.1)	90 (2.9)
Chinese Taipei	569 (4.4)	89 (2.2)	561 (3.9)	83 (2.2)	578 (5.7)	94 (2.7)
Cyprus	460 (2.4)	84 (1.5)	455 (3.1)	78 (2.2)	465 (3.0)	89 (2.5)
Czech Republic	539 (4.2)	80 (2.0)	523 (4.8)	77 (2.5)	557 (4.9)	80 (2.7)
England	538 (4.8)	91 (3.0)	522 (6.2)	87 (4.0)	554 (5.3)	91 (3.4)
Finland	535 (3.5)	78 (2.4)	530 (4.0)	73 (2.4)	540 (4.5)	83 (3.6)
Hong Kong, SAR	530 (3.7)	70 (3.2)	522 (4.4)	64 (3.5)	537 (5.1)	74 (4.3)
Hungary	552 (3.7)	84 (2.4)	540 (4.0)	80 (2.2)	565 (4.5)	86 (3.8)
Indonesia	435 (4.5)	84 (3.3)	427 (6.5)	84 (3.6)	444 (4.8)	84 (3.0)
Iran, Islamic Rep.	448 (3.8)	84 (2.6)	430 (5.7)	81 (2.9)	461 (4.4)	84 (2.6)
Israel	468 (4.9)	105 (3.4)	461 (6.0)	99 (3.2)	476 (5.5)	110 (3.7)
Italy	493 (3.9)	87 (2.0)	484 (4.1)	84 (2.5)	503 (5.6)	90 (2.4)
Japan	550 (2.2)	76 (1.8)	543 (2.8)	72 (2.1)	556 (3.6)	79 (2.3)
Jordan	450 (3.8)	103 (2.9)	460 (5.0)	96 (2.6)	442 (5.9)	107 (3.8)
Korea, Rep. of	549 (2.6)	85 (1.6)	538 (4.0)	84 (2.1)	559 (3.2)	85 (1.4)
Latvia (LSS)	503 (4.8)	78 (2.2)	495 (5.6)	75 (2.1)	510 (4.8)	81 (3.0)
Lithuania	488 (4.1)	83 (2.9)	478 (4.4)	79 (3.7)	499 (5.0)	86 (3.0)
Macedonia, Rep. of	458 (5.2)	97 (2.8)	458 (6.0)	95 (3.2)	458 (5.4)	99 (3.2)
Malaysia	492 (4.4)	82 (2.6)	488 (5.5)	81 (2.8)	498 (5.8)	83 (3.2)
Moldova	459 (4.0)	95 (2.1)	454 (4.4)	93 (2.2)	465 (5.4)	97 (3.5)
Morocco	323 (4.3)	102 (1.9)	312 (5.9)	102 (2.7)	330 (5.9)	102 (2.4)
Netherlands	545 (6.9)	77 (4.1)	536 (7.1)	74 (3.3)	554 (7.3)	78 (5.4)
New Zealand	510 (4.9)	93 (3.1)	506 (5.4)	90 (3.2)	513 (7.0)	96 (3.7)
Philippines	345 (7.5)	121 (3.3)	351 (8.2)	118 (3.5)	339 (8.9)	123 (4.3)
Romania	472 (5.8)	97 (2.7)	468 (6.4)	97 (3.0)	475 (6.5)	98 (3.3)
Russian Federation	529 (6.4)	93 (2.7)	519 (7.1)	91 (3.4)	540 (6.2)	95 (2.7)
Singapore	568 (8.0)	97 (3.9)	557 (7.9)	93 (4.3)	578 (9.7)	100 (4.4)
Slovak Republic	535 (3.3)	78 (2.0)	525 (3.4)	74 (2.5)	546 (4.5)	80 (2.2)
Slovenia	533 (3.2)	84 (2.0)	527 (3.7)	80 (1.4)	540 (3.7)	88 (3.7)
South Africa	243 (7.8)	132 (5.5)	234 (9.2)	133 (6.1)	253 (7.7)	131 (6.0)
Thailand	482 (4.0)	73 (2.4)	481 (4.6)	72 (2.5)	484 (4.4)	75 (2.9)
Tunisia	430 (3.4)	67 (1.3)	417 (3.3)	65 (1.5)	442 (4.3)	67 (1.9)
Turkey	433 (4.3)	80 (2.5)	431 (4.8)	76 (2.8)	434 (4.3)	82 (2.7)

SOURCE: IEA Third International Mathematics and Science Study (TIMSS), 1998-1999.

() Standard errors appear in parentheses.

	Overall		Girls		Boys	
	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation
States						
Connecticut	529 (10.6)	91 (4.6)	518 (10.2)	88 (4.3)	542 (11.7)	93 (5.6)
Idaho	526 (6.6)	85 (3.2)	515 (6.4)	80 (3.3)	537 (7.6)	88 (4.2)
Illinois	521 (6.7)	89 (3.0)	508 (7.6)	87 (3.2)	533 (6.8)	90 (4.0)
Indiana	534 (6.9)	86 (2.9)	523 (7.0)	82 (3.2)	545 (7.3)	89 (3.2)
Maryland	506 (7.7)	95 (3.4)	498 (7.7)	91 (3.3)	516 (8.3)	99 (4.4)
Massachusetts	533 (7.5)	89 (4.1)	527 (7.6)	85 (4.9)	540 (8.1)	92 (4.3)
Michigan	544 (8.6)	94 (4.8)	533 (8.9)	90 (5.0)	556 (9.0)	96 (5.5)
Missouri	523 (6.5)	89 (3.5)	512 (7.1)	86 (3.7)	534 (7.2)	92 (4.1)
North Carolina	508 (4.8)	90 (1.8)	498 (2.8)	87 (4.8)	520 (7.1)	92 (3.0)
Oregon	536 (6.3)	91 (4.4)	524 (7.0)	87 (5.3)	549 (7.6)	94 (4.5)
Pennsylvania	529 (6.7)	87 (3.3)	519 (7.1)	82 (4.6)	540 (7.1)	91 (2.9)
South Carolina	511 (6.2)	95 (3.6)	506 (7.5)	88 (3.9)	517 (6.8)	101 (5.1)
Texas	509 (16.5)	104 (11.1)	499 (9.6)	98 (8.1)	519 (23.8)	109 (15.3)
Districts and Consortia						
Academy School Dist. #20, CO	559 (2.1)	77 (2.2)	554 (3.6)	72 (2.9)	563 (3.4)	81 (3.6)
Chicago Public Schools, IL	449 (9.7)	90 (3.9)	442 (10.2)	90 (4.9)	458 (10.4)	89 (3.9)
Delaware Science Coalition, DE	500 (9.2)	94 (3.6)	491 (9.3)	90 (3.8)	511 (10.5)	96 (5.2)
First in the World Consort., IL	565 (9.0)	78 (3.8)	553 (9.2)	70 (3.3)	578 (9.3)	82 (5.4)
Fremont/Lincoln/WestSide PS, NE	511 (6.6)	91 (3.9)	503 (7.2)	86 (5.7)	519 (8.2)	94 (4.5)
Guilford County, NC	534 (10.0)	93 (3.0)	522 (9.9)	88 (3.8)	547 (11.3)	96 (3.9)
Jersey City Public Schools, NJ	440 (9.9)	96 (5.3)	432 (10.8)	94 (6.4)	448 (10.7)	98 (5.1)
Miami-Dade County PS, FL	426 (10.7)	106 (5.3)	416 (9.1)	100 (6.2)	435 (12.8)	112 (5.6)
Michigan Invitational Group, MI	563 (6.9)	82 (3.6)	555 (8.1)	78 (4.4)	572 (7.3)	85 (4.6)
Montgomery County, MD	531 (4.2)	92 (3.6)	523 (5.7)	91 (6.1)	540 (5.5)	93 (2.9)
Naperville Sch. Dist. #203, IL	584 (5.0)	76 (3.9)	576 (6.3)	74 (4.7)	592 (4.9)	78 (4.1)
Project SMART Consortium, OH	539 (8.4)	86 (3.4)	536 (8.9)	80 (4.0)	543 (9.4)	91 (4.3)
Rochester City Sch. Dist., NY	452 (9.1)	89 (5.3)	443 (9.4)	85 (6.0)	461 (11.2)	93 (5.7)
SW Math/Sci. Collaborative, PA	543 (7.6)	85 (4.8)	529 (7.7)	82 (5.1)	558 (7.9)	87 (4.9)

SOURCE: IEA Third International Mathematics and Science Study (TIMSS), 1998-1999.

