

D

Percentiles and
Standard Deviations
of Mathematics
Achievement

Exhibit D.2 Standard Deviations of Achievement in Mathematics

TIMSS 1999
8th grade
Mathematics

| | Overall | | Girls | | Boys | |
|--------------------|-----------|--------------------|-----------|--------------------|-----------|--------------------|
| | Mean | Standard Deviation | Mean | Standard Deviation | Mean | Standard Deviation |
| Australia | 525 (4.8) | 80 (2.9) | 524 (5.7) | 77 (3.8) | 526 (5.7) | 83 (3.3) |
| Belgium (Flemish) | 558 (3.3) | 77 (2.8) | 560 (7.2) | 74 (4.8) | 556 (8.3) | 79 (5.6) |
| Bulgaria | 511 (5.8) | 86 (3.8) | 510 (5.9) | 84 (3.5) | 511 (6.9) | 88 (4.7) |
| Canada | 531 (2.5) | 73 (1.7) | 529 (2.5) | 72 (1.9) | 533 (3.2) | 74 (1.7) |
| Chile | 392 (4.4) | 85 (3.5) | 388 (4.3) | 82 (2.9) | 397 (5.8) | 89 (4.2) |
| Chinese Taipei | 585 (4.0) | 104 (1.8) | 583 (3.9) | 98 (2.4) | 587 (5.3) | 110 (2.1) |
| Cyprus | 476 (1.8) | 82 (1.7) | 479 (2.1) | 77 (2.2) | 474 (2.7) | 85 (1.9) |
| Czech Republic | 520 (4.2) | 79 (2.4) | 512 (4.0) | 78 (2.6) | 528 (5.8) | 80 (2.9) |
| England | 496 (4.1) | 83 (2.2) | 487 (5.4) | 79 (3.5) | 505 (5.0) | 86 (2.8) |
| Finland | 520 (2.7) | 65 (1.3) | 519 (3.0) | 63 (1.7) | 522 (3.5) | 68 (1.7) |
| Hong Kong, SAR | 582 (4.3) | 73 (3.0) | 583 (4.7) | 69 (2.8) | 581 (5.9) | 77 (4.4) |
| Hungary | 532 (3.7) | 85 (2.0) | 529 (4.0) | 82 (2.3) | 535 (4.3) | 88 (2.6) |
| Indonesia | 403 (4.9) | 101 (2.9) | 401 (5.4) | 102 (3.4) | 405 (5.0) | 101 (3.1) |
| Iran, Islamic Rep. | 422 (3.4) | 83 (2.3) | 408 (4.2) | 81 (2.5) | 432 (4.8) | 83 (2.5) |
| Israel | 466 (3.9) | 96 (2.6) | 459 (4.2) | 90 (2.4) | 474 (4.8) | 100 (3.8) |
| Italy | 479 (3.8) | 87 (2.3) | 475 (4.5) | 85 (2.8) | 484 (4.3) | 88 (2.8) |
| Japan | 579 (1.7) | 80 (1.1) | 575 (2.4) | 76 (2.1) | 582 (2.3) | 82 (1.3) |
| Jordan | 428 (3.6) | 103 (1.6) | 431 (4.7) | 96 (2.3) | 425 (5.9) | 109 (2.2) |
| Korea, Rep. of | 587 (2.0) | 79 (1.0) | 585 (3.1) | 79 (1.3) | 590 (2.2) | 80 (1.6) |
| Latvia (LSS) | 505 (3.4) | 78 (2.0) | 502 (3.8) | 75 (2.6) | 508 (4.4) | 81 (2.4) |
| Lithuania | 482 (4.3) | 78 (2.6) | 480 (4.7) | 76 (3.2) | 483 (4.8) | 80 (3.2) |
| Macedonia, Rep. of | 447 (4.2) | 93 (2.5) | 446 (5.3) | 92 (3.0) | 447 (4.3) | 94 (2.8) |
| Malaysia | 519 (4.4) | 81 (2.0) | 521 (4.7) | 79 (2.2) | 517 (6.0) | 83 (2.6) |
| Moldova | 469 (3.9) | 85 (2.1) | 468 (4.1) | 83 (2.6) | 471 (4.7) | 87 (2.6) |
| Morocco | 337 (2.6) | 91 (2.0) | 326 (5.3) | 90 (3.5) | 344 (4.1) | 91 (2.0) |
| Netherlands | 540 (7.1) | 73 (4.2) | 538 (7.6) | 73 (4.4) | 542 (7.0) | 74 (4.3) |
| New Zealand | 491 (5.2) | 89 (2.3) | 495 (5.5) | 87 (2.9) | 487 (7.6) | 91 (3.0) |
| Philippines | 345 (6.0) | 97 (2.8) | 352 (6.9) | 96 (4.1) | 337 (6.5) | 98 (2.8) |
| Romania | 472 (5.8) | 93 (3.5) | 475 (6.3) | 90 (3.8) | 470 (6.2) | 96 (3.8) |
| Russian Federation | 526 (5.9) | 86 (3.0) | 526 (6.0) | 83 (3.0) | 526 (6.4) | 90 (3.8) |
| Singapore | 604 (6.3) | 79 (2.9) | 603 (6.1) | 76 (3.0) | 606 (7.5) | 82 (3.3) |
| Slovak Republic | 534 (4.0) | 75 (1.6) | 532 (4.2) | 72 (1.9) | 536 (4.5) | 79 (2.3) |
| Slovenia | 530 (2.8) | 83 (2.0) | 529 (3.0) | 79 (1.9) | 531 (3.6) | 86 (2.8) |
| South Africa | 275 (6.8) | 109 (4.7) | 267 (7.5) | 110 (5.1) | 283 (7.3) | 108 (4.7) |
| Thailand | 467 (5.1) | 85 (2.5) | 469 (5.7) | 84 (2.8) | 465 (5.5) | 86 (2.9) |
| Tunisia | 448 (2.4) | 64 (0.9) | 436 (2.4) | 64 (1.2) | 460 (2.9) | 61 (1.3) |
| Turkey | 429 (4.3) | 86 (2.0) | 428 (4.7) | 83 (2.1) | 429 (4.4) | 87 (2.4) |
| United States | 502 (4.0) | 88 (2.4) | 498 (3.9) | 84 (2.1) | 505 (4.8) | 91 (3.0) |

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

() Standard errors appear in parentheses.

