

**Exhibit 3.9: Achievement in Mathematics Content Domains by Gender**

Country	Number		Geometric Shapes and Measures		Data Display	
	Girls	Boys	Girls	Boys	Girls	Boys
Australia	503 (3.3)	515 (4.2) ▲	523 (3.7)	531 (3.8) ▲	530 (4.6)	535 (5.6)
<sup>2</sup> Bahrain	458 (1.7) ▲	448 (2.5)	458 (2.4) ▲	436 (2.7)	469 (4.1) ▲	440 (2.9)
<sup>†</sup> Belgium (Flemish)	538 (2.5)	548 (2.3) ▲	562 (2.5)	565 (3.0)	525 (2.9)	522 (4.6)
Bulgaria	531 (5.0)	528 (4.6)	530 (6.5) ▲	520 (5.7)	509 (8.7) ▲	500 (7.0)
<sup>1 2 †</sup> Canada	497 (2.6)	509 (2.6) ▲	513 (2.7)	521 (2.8) ▲	526 (2.7)	531 (3.1)
Chile	454 (3.2)	455 (3.2)	459 (3.5)	460 (3.5)	462 (3.7)	464 (4.3)
Chinese Taipei	595 (2.4)	603 (2.3) ▲	597 (3.4)	597 (3.4)	591 (3.3)	592 (2.7)
Croatia	491 (2.3)	505 (2.4) ▲	506 (2.7)	519 (2.9) ▲	494 (3.2)	503 (3.4) ▲
Cyprus	523 (3.0)	534 (2.9) ▲	524 (3.2)	523 (3.4)	506 (4.1)	509 (4.4)
Czech Republic	524 (3.0)	532 (2.5) ▲	529 (3.5)	533 (2.8)	522 (3.4)	528 (3.7)
<sup>2 †</sup> Denmark	530 (3.1)	539 (3.2) ▲	553 (4.1)	557 (3.6)	526 (5.1)	526 (3.1)
England	542 (3.4)	552 (3.9) ▲	538 (3.6)	546 (3.9) ▲	555 (4.1)	549 (3.9)
Finland	536 (2.9) ▲	528 (2.6)	545 (2.5) ▲	534 (2.9)	550 (3.8) ▲	534 (3.6)
France	478 (3.4)	488 (3.1) ▲	500 (4.0)	507 (2.9) ▲	474 (4.6)	477 (4.0)
<sup>1</sup> Georgia	484 (3.8)	482 (4.2)	430 (5.2)	427 (6.0)	443 (5.8)	427 (6.2)
Germany	511 (2.3)	519 (2.4) ▲	531 (2.9)	531 (3.1)	535 (3.2)	535 (3.0)
<sup>†</sup> Hong Kong SAR	610 (4.1)	621 (3.1) ▲	611 (4.5)	622 (3.8) ▲	608 (4.4)	613 (4.3)
Hungary	527 (3.2)	535 (3.8) ▲	530 (4.1)	542 (4.1) ▲	513 (4.0)	512 (4.3)
Indonesia	407 (3.8) ▲	392 (3.8)	394 (4.4)	395 (4.7)	392 (4.6) ▲	378 (4.5)
Iran, Islamic Rep. of	439 (4.7)	431 (4.5)	437 (4.7) ▲	419 (5.0)	423 (4.8) ▲	408 (4.6)
Ireland	549 (2.6)	553 (3.0)	538 (3.2)	546 (3.7) ▲	547 (5.5)	548 (4.1)
<sup>2</sup> Italy	499 (2.6)	520 (2.8) ▲	497 (2.9)	510 (3.5) ▲	490 (3.1)	506 (3.8) ▲
Japan	591 (2.2)	592 (2.7)	605 (3.4)	597 (3.1)	594 (4.1)	593 (2.9)
Jordan	396 (3.4) ▲	380 (5.1)	408 (3.6) ▲	383 (5.2)	401 (3.4) ▲	364 (5.4)
Kazakhstan	553 (4.2)	551 (4.5)	539 (6.0)	540 (6.3)	528 (5.8)	520 (6.1)
Korea, Rep. of	605 (2.7)	614 (2.9) ▲	608 (2.7)	612 (3.0)	606 (2.7)	608 (4.1)
<sup>ψ</sup> Kuwait	360 (5.9)	353 (5.1)	350 (6.0) ▲	325 (5.8)	357 (6.0) ▲	333 (6.4)
<sup>2</sup> Lithuania	539 (3.1)	537 (3.3)	527 (4.0)	524 (3.6)	542 (3.7)	538 (6.4)
Morocco	381 (3.5)	381 (4.0)	387 (3.9)	384 (4.4)	357 (4.4) ▲	345 (4.8)
<sup>†</sup> Netherlands	526 (2.6)	537 (2.6) ▲	518 (2.1)	525 (2.4) ▲	538 (3.3)	540 (4.3)
New Zealand	483 (3.1)	488 (3.1)	487 (3.7)	490 (2.7)	506 (3.3)	506 (3.5)
<sup>‡</sup> Northern Ireland	573 (4.1)	576 (3.1)	564 (4.1)	568 (3.9)	566 (4.5)	567 (4.2)
Norway (5)	543 (2.7)	541 (3.2)	562 (3.3)	556 (4.6)	573 (3.0) ▲	559 (4.0)
Oman	432 (3.6) ▲	413 (2.8)	440 (3.2) ▲	421 (3.3)	428 (3.0) ▲	400 (3.5)
Poland	532 (2.7)	537 (2.8)	535 (2.8)	532 (3.1)	534 (3.6)	542 (3.4)
<sup>2</sup> Portugal	535 (2.5)	546 (2.8) ▲	534 (3.5)	544 (3.3) ▲	542 (2.8)	550 (4.0)
Qatar	445 (4.4)	448 (4.7)	429 (5.0)	417 (6.1)	437 (4.8)	434 (5.9)
Russian Federation	567 (3.8)	567 (3.5)	558 (4.5)	556 (4.8)	572 (4.3)	573 (4.1)
<sup>ψ</sup> Saudi Arabia	401 (4.5) ▲	368 (6.6)	405 (5.1) ▲	358 (8.0)	394 (4.5) ▲	337 (7.1)
<sup>3</sup> Serbia	523 (3.5)	525 (4.6)	504 (4.5)	501 (5.0)	522 (5.1)	512 (4.5)
<sup>2</sup> Singapore	632 (4.3)	628 (4.7)	610 (4.5)	605 (4.5)	603 (4.2)	597 (5.2)
Slovak Republic	496 (2.9)	508 (2.7) ▲	483 (3.1)	498 (2.8) ▲	493 (4.8)	499 (3.7)
Slovenia	507 (2.2)	515 (2.4) ▲	530 (2.5)	530 (2.6)	541 (3.7)	539 (3.5)
South Africa (5)	386 (3.6) ▲	371 (4.3)	367 (3.9) ▲	353 (4.6)	391 (4.3) ▲	371 (4.9)
<sup>2</sup> Spain	497 (2.8)	511 (2.7) ▲	497 (3.1)	508 (3.1) ▲	506 (3.5)	512 (3.6)
<sup>2</sup> Sweden	513 (3.1)	515 (3.1)	524 (3.7)	522 (3.7)	535 (5.1) ▲	523 (3.9)
Turkey	487 (3.3)	491 (3.6)	474 (3.4)	476 (3.5)	478 (4.3)	474 (4.0)
United Arab Emirates	455 (3.9)	455 (3.4)	446 (4.0)	438 (3.7)	458 (4.0)	449 (3.5)
<sup>2 †</sup> United States	542 (2.2)	549 (2.7) ▲	519 (2.5)	532 (3.0) ▲	538 (3.2)	542 (2.8)
International Avg.	505 (0.5)	507 (0.5) ▲	504 (0.5) ▲	503 (0.6)	505 (0.6) ▲	499 (0.6)

▲ Average significantly higher than other gender

ψ Reservations about reliability because the percentage of students with achievement too low for estimation exceeds 15% but does not exceed 25%.

See Appendix C.1 for target population coverage notes 1, 2, and 3. See Appendix C.7 for sampling guidelines and sampling participation notes †, ‡, and §.

( ) Standard errors appear in parentheses. Because of rounding some results may appear inconsistent.

SOURCE: IEA's Trends in International Mathematics and Science Study – TIMSS 2015

**Exhibit 3.9: Achievement in Mathematics Content Domains by Gender  
 (Continued)**

Country	Number		Geometric Shapes and Measures		Data Display	
	Girls	Boys	Girls	Boys	Girls	Boys
<b>Benchmarking Participants</b>						
Buenos Aires, Argentina	442 (3.4)	448 (3.2)	401 (4.2)	405 (3.1)	410 (4.6)	412 (3.6)
Ontario, Canada	495 (3.1)	504 (2.9) ▲	523 (3.0)	530 (3.6) ▲	534 (3.0)	537 (3.0)
‡ Quebec, Canada	526 (4.1)	539 (5.1) ▲	538 (4.5)	547 (5.5) ▲	539 (5.2)	543 (5.7)
Norway (4)	487 (2.6)	491 (3.4)	498 (3.6)	500 (4.1)	495 (3.4)	495 (4.3)
<sup>2</sup> ψ Abu Dhabi, UAE	422 (7.9)	421 (6.5)	416 (8.2)	407 (7.1)	429 (8.1)	418 (6.8)
Dubai, UAE	511 (3.1)	516 (2.9)	503 (3.8)	502 (3.3)	518 (3.9)	516 (3.0)
<sup>1</sup> Florida, US	556 (4.9)	556 (5.4)	531 (5.5)	527 (7.0)	546 (6.3)	536 (7.0)

▲ Average significantly higher than other gender

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