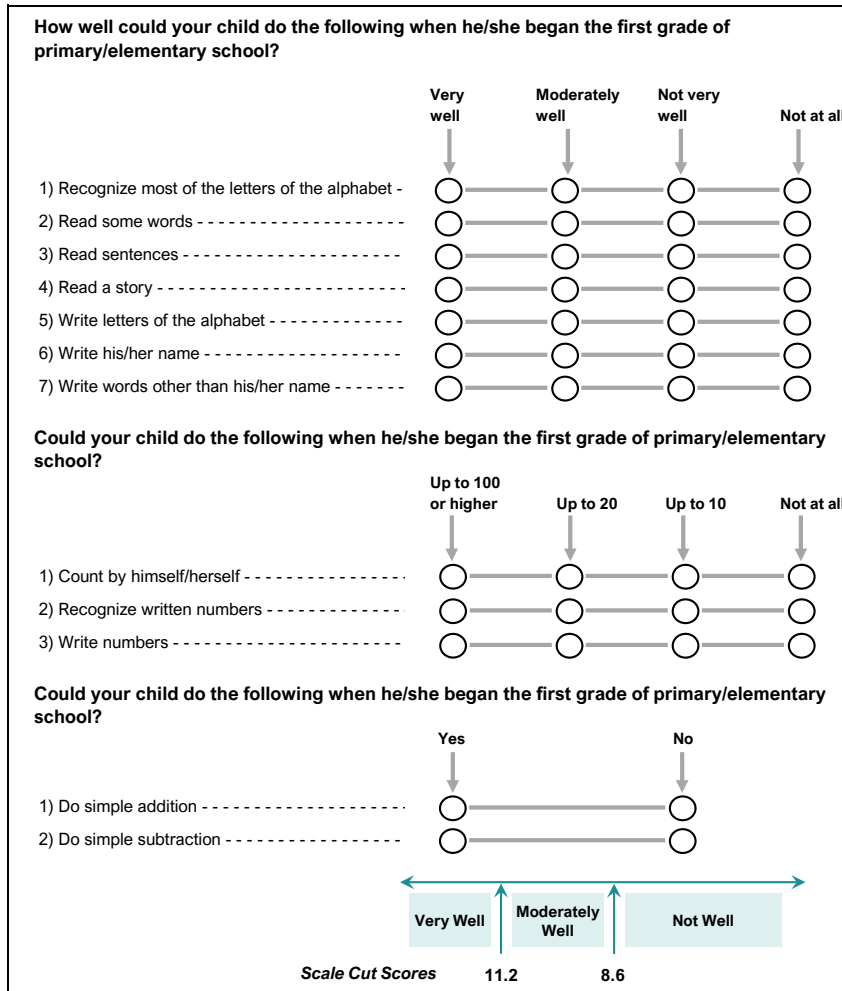


**Exhibit 5.18: Could Do Literacy and Numeracy Tasks When Beginning Primary School**

Students' Results based on Parents' Reports

**About the Scale**

Students were scored according to their parents' reports regarding how well their children could do the twelve tasks on the *Early Literacy and Numeracy Tasks* scale when they began primary school. Cut scores divide the scale into three categories. Students who could do the tasks **Very Well** had a score at or above the cut score corresponding to their parents reporting the students could do all twelve tasks (five of the tasks at the highest level, five at the second highest level, and simple addition and simple subtraction), on average. Students who could do the tasks **Not Well** had a score at or below the cut score corresponding to their parents reporting the students could do the twelve tasks at a minimal level (five of the tasks at the second lowest level, five at the second highest level, and not simple addition or simple subtraction), on average. All other students could do the literacy and numeracy tasks **Moderately Well** when they began primary school.



SOURCE: IEA's Trends in International Mathematics and Science Study - TIMSS 2019  
 Downloaded from <http://timss2019.org/download>

### Exhibit 5.19: Could Do Literacy and Numeracy Tasks When Beginning Primary School

Students' Results based on Parents' Reports

Country	Very Well		Moderately Well		Not Well		Average Scale Score
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	
Ireland	55 (1.0)	572 (2.8)	39 (0.9)	529 (3.3)	5 (0.5)	497 (7.5)	11.7 (0.04)
Korea, Rep. of	54 (1.0)	618 (2.5)	43 (0.9)	583 (2.8)	3 (0.3)	538 (9.2)	12.0 (0.04)
Bahrain	51 (0.9)	493 (3.3)	42 (0.8)	471 (3.0)	8 (0.4)	459 (6.2)	11.3 (0.04)
Singapore	50 (1.3)	655 (3.5)	44 (1.1)	605 (3.9)	6 (0.4)	545 (7.4)	11.4 (0.06)
Albania	41 (1.4)	517 (3.6)	47 (1.2)	490 (3.9)	12 (1.2)	440 (8.9)	10.7 (0.07)
Oman	40 (0.9)	465 (4.1)	48 (0.7)	418 (4.0)	12 (0.6)	380 (7.3)	10.8 (0.04)
Spain	40 (1.2)	534 (2.6)	49 (1.1)	496 (2.9)	11 (0.5)	460 (4.3)	10.8 (0.04)
Latvia	38 (1.0)	576 (2.5)	54 (1.0)	534 (2.8)	8 (0.6)	492 (6.5)	10.9 (0.03)
Qatar	38 (1.1)	480 (3.8)	50 (1.0)	443 (4.3)	12 (0.7)	412 (6.2)	10.7 (0.05)
Kosovo	36 (1.0)	462 (3.5)	53 (0.9)	442 (3.5)	11 (0.8)	410 (5.7)	10.6 (0.05)
Hong Kong SAR	35 (1.1)	629 (3.6)	59 (1.0)	594 (3.2)	6 (0.6)	554 (8.0)	10.9 (0.05)
Poland	35 (0.8)	551 (2.9)	51 (0.9)	511 (3.1)	15 (0.6)	486 (5.0)	10.5 (0.03)
Croatia	34 (1.0)	538 (2.9)	53 (1.1)	500 (2.2)	13 (0.9)	478 (6.7)	10.6 (0.05)
Japan	33 (0.8)	622 (2.5)	57 (0.7)	587 (1.9)	11 (0.5)	545 (4.9)	10.7 (0.04)
Philippines	32 (1.5)	347 (6.7)	58 (1.2)	282 (6.3)	10 (0.8)	230 (8.1)	10.5 (0.06)
Chinese Taipei	31 (0.8)	621 (2.7)	60 (0.8)	593 (2.3)	9 (0.5)	563 (4.7)	10.7 (0.03)
Kazakhstan	31 (1.3)	530 (3.2)	57 (1.1)	506 (2.6)	12 (0.8)	496 (4.4)	10.5 (0.06)
Canada	30 (0.8)	552 (2.9)	51 (0.8)	519 (2.4)	19 (0.8)	490 (3.0)	10.3 (0.04)
Saudi Arabia	29 (0.9)	431 (3.9)	52 (0.9)	392 (4.5)	19 (1.0)	373 (6.9)	10.3 (0.05)
Finland	29 (0.9)	579 (2.8)	47 (0.8)	531 (2.6)	24 (0.8)	493 (3.5)	10.2 (0.05)
Sweden	29 (1.2)	561 (4.1)	52 (1.4)	523 (2.9)	19 (0.8)	487 (3.9)	10.3 (0.05)
Azerbaijan	27 (0.9)	543 (3.2)	50 (0.9)	521 (2.8)	23 (1.1)	497 (3.9)	10.0 (0.06)
Kuwait	27 (0.9)	429 (5.4)	55 (0.8)	385 (5.5)	18 (0.8)	330 (6.4)	10.2 (0.04)
North Macedonia	25 (1.1)	501 (6.7)	53 (1.2)	474 (5.5)	22 (1.2)	441 (7.6)	10.1 (0.06)
Lithuania	25 (1.1)	590 (3.5)	58 (1.1)	535 (2.8)	17 (0.8)	497 (5.6)	10.3 (0.04)
South Africa (5)	24 (0.7)	413 (4.1)	60 (0.8)	368 (3.6)	15 (0.5)	340 (5.3)	10.2 (0.03)
Russian Federation	24 (1.1)	599 (2.9)	53 (1.0)	565 (3.4)	23 (1.4)	540 (5.8)	10.0 (0.07)
Cyprus	24 (0.7)	566 (3.9)	54 (0.8)	531 (2.9)	22 (0.7)	509 (3.7)	10.0 (0.04)
Serbia	24 (0.9)	555 (4.0)	55 (1.1)	509 (2.9)	22 (1.0)	459 (5.9)	10.0 (0.04)
Bosnia and Herzegovina	23 (0.7)	480 (3.1)	56 (0.8)	451 (2.6)	21 (0.8)	425 (3.7)	10.0 (0.04)
Bulgaria	20 (0.9)	562 (3.6)	48 (1.5)	529 (3.5)	32 (2.0)	469 (9.1)	9.5 (0.10)
Turkey (5)	19 (1.3)	556 (5.2)	35 (1.2)	543 (5.5)	46 (2.0)	494 (6.1)	9.0 (0.12)
Morocco	19 (0.8)	443 (4.5)	45 (1.3)	385 (4.7)	36 (1.5)	352 (6.8)	9.2 (0.08)
Chile	19 (0.7)	486 (3.2)	54 (1.0)	445 (3.5)	27 (1.0)	408 (3.2)	9.7 (0.04)
Montenegro	18 (0.5)	489 (3.6)	55 (0.8)	456 (2.3)	27 (0.7)	427 (3.0)	9.7 (0.03)
Armenia	18 (0.7)	514 (3.5)	48 (1.2)	498 (2.8)	34 (1.4)	491 (3.4)	9.5 (0.05)
Iran, Islamic Rep. of	16 (1.0)	467 (5.8)	50 (1.2)	446 (4.4)	34 (1.2)	430 (5.7)	9.4 (0.06)
Malta	16 (0.8)	554 (3.2)	55 (0.8)	518 (1.9)	29 (0.8)	490 (2.7)	9.6 (0.04)
Pakistan	15 (2.6)	344 (15.9)	53 (4.0)	338 (15.1)	32 (3.4)	308 (13.6)	9.3 (0.16)
France	14 (0.7)	526 (4.8)	59 (0.8)	491 (3.3)	26 (0.9)	459 (4.3)	9.6 (0.03)
Georgia	13 (0.7)	506 (5.1)	52 (1.1)	483 (4.2)	35 (1.1)	474 (4.8)	9.3 (0.05)
Czech Republic	13 (0.7)	581 (4.8)	51 (0.9)	541 (2.6)	36 (1.0)	527 (3.4)	9.3 (0.04)
Portugal	12 (0.7)	553 (5.5)	55 (0.9)	534 (2.6)	33 (0.7)	508 (3.6)	9.3 (0.03)
Italy	11 (0.6)	547 (4.8)	50 (0.9)	516 (2.9)	39 (1.1)	508 (2.7)	9.2 (0.04)
Austria	10 (0.5)	556 (5.0)	49 (1.0)	544 (2.3)	41 (1.0)	534 (2.8)	9.2 (0.03)
Norway (5)	10 (0.6)	602 (6.0)	46 (1.2)	561 (3.3)	44 (1.2)	532 (3.4)	9.0 (0.03)
Hungary	7 (0.4)	569 (5.9)	31 (0.8)	536 (3.3)	62 (0.9)	515 (3.1)	8.4 (0.04)
Germany	7 (0.6)	558 (6.4)	48 (1.2)	536 (3.0)	45 (1.3)	525 (3.1)	9.0 (0.04)
Slovak Republic	7 (0.6)	552 (8.8)	43 (1.1)	518 (3.8)	50 (1.2)	499 (3.9)	8.7 (0.06)
Belgium (Flemish)	7 (0.4)	553 (5.8)	44 (1.1)	536 (2.5)	49 (1.2)	529 (2.1)	8.8 (0.04)
Denmark	6 (0.6)	587 (6.4)	55 (1.1)	547 (2.9)	39 (1.0)	520 (3.2)	9.1 (0.04)
Australia	--	--	--	--	--	--	--
England	--	--	--	--	--	--	--
Netherlands	--	--	--	--	--	--	--
Northern Ireland	--	--	--	--	--	--	--
United States	--	--	--	--	--	--	--
United Arab Emirates	52 (0.6)	514 (2.3)	40 (0.5)	490 (2.8)	7 (0.3)	467 (4.4)	11.4 (0.02)
New Zealand	11 (0.9)	560 (6.9)	51 (1.3)	514 (4.3)	38 (1.2)	494 (3.9)	9.2 (0.04)
<b>International Average</b>	<b>25 (0.1)</b>	<b>532 (0.7)</b>	<b>51 (0.2)</b>	<b>498 (0.5)</b>	<b>24 (0.1)</b>	<b>468 (0.8)</b>	
<b>Benchmarking Participants</b>							
Dubai, UAE	51 (1.4)	568 (2.9)	41 (1.1)	547 (2.6)	7 (0.7)	540 (5.9)	11.3 (0.04)
Madrid, Spain	44 (1.5)	540 (2.6)	47 (1.3)	510 (2.6)	9 (0.6)	482 (5.5)	11.0 (0.05)
Ontario, Canada	38 (1.3)	555 (4.3)	48 (1.1)	513 (4.6)	14 (1.1)	470 (6.1)	10.8 (0.06)
Moscow City, Russian Fed.	34 (0.9)	618 (2.3)	54 (0.9)	587 (2.5)	12 (0.7)	547 (4.2)	10.6 (0.04)
Quebec, Canada	17 (1.0)	565 (4.8)	55 (1.4)	541 (2.7)	28 (1.3)	516 (3.7)	9.7 (0.04)
Abu Dhabi, UAE	--	--	--	--	--	--	--

This TIMSS context questionnaire scale was established in 2015 based on the combined response distribution of all countries that participated in TIMSS 2015. To provide a point of reference for country comparisons, the scale centerpoint of 10 was located at the mean of the combined distribution. The units of the scale were chosen so that 2 scale score points corresponded to the standard deviation of the distribution.

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

A dash (-) indicates comparable data not available.

An "r" indicates data are available for at least 70% but less than 85% of the students. An "s" indicates data are available for at least 50% but less than 70% of the students.

An "x" indicates data are available for at least 40% but less than 50% of the students—interpret with caution. A "y" indicates data are available for less than 40% of the students.

## Exhibit 5.20: Could Do Literacy and Numeracy Tasks When Beginning Primary School

Students' Results based on Parents' Reports

Country	Very Well		Moderately Well		Not Well		Average Scale Score
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	
Ireland	55 (1.0)	550 (3.1)	39 (0.9)	510 (4.1)	5 (0.5)	486 (7.5)	11.7 (0.04)
Korea, Rep. of	54 (1.0)	603 (2.1)	43 (0.9)	572 (2.8)	3 (0.3)	546 (8.4)	12.0 (0.04)
Bahrain	51 (0.9)	516 (3.8)	42 (0.8)	480 (3.8)	8 (0.4)	447 (7.7)	11.3 (0.04)
Singapore	50 (1.3)	622 (3.0)	44 (1.1)	575 (3.6)	6 (0.4)	521 (7.0)	11.4 (0.06)
Albania	41 (1.4)	507 (4.1)	47 (1.2)	488 (3.9)	12 (1.2)	440 (9.2)	10.7 (0.07)
Oman	40 (0.9)	481 (4.5)	48 (0.7)	419 (4.2)	12 (0.6)	359 (6.6)	10.8 (0.04)
Spain	40 (1.2)	538 (2.5)	49 (1.1)	505 (2.2)	11 (0.5)	478 (3.8)	10.8 (0.04)
Latvia	38 (1.0)	566 (1.9)	54 (1.0)	533 (2.7)	8 (0.6)	497 (5.5)	10.9 (0.03)
Qatar	38 (1.1)	488 (4.1)	50 (1.0)	442 (4.8)	12 (0.7)	408 (6.6)	10.7 (0.05)
Kosovo	36 (1.0)	429 (4.5)	53 (0.9)	412 (4.1)	11 (0.8)	374 (6.3)	10.6 (0.05)
Hong Kong SAR	35 (1.1)	557 (4.0)	59 (1.0)	523 (3.2)	6 (0.6)	484 (7.8)	10.9 (0.05)
Poland	35 (0.8)	556 (2.7)	51 (0.9)	523 (2.9)	15 (0.6)	506 (5.0)	10.5 (0.03)
Croatia	34 (1.0)	543 (3.2)	53 (1.1)	519 (2.1)	13 (0.9)	497 (6.8)	10.6 (0.05)
Japan	33 (0.8)	585 (2.3)	57 (0.7)	557 (2.0)	11 (0.5)	521 (4.6)	10.7 (0.04)
Philippines	32 (1.5)	300 (8.2)	58 (1.2)	233 (7.3)	10 (0.8)	189 (9.2)	10.5 (0.06)
Chinese Taipei	31 (0.8)	580 (2.4)	60 (0.8)	550 (2.2)	9 (0.5)	532 (5.0)	10.7 (0.03)
Kazakhstan	31 (1.3)	515 (4.3)	57 (1.1)	486 (3.4)	12 (0.8)	483 (4.6)	10.5 (0.06)
Canada	30 (0.8)	556 (2.8)	51 (0.8)	529 (2.3)	19 (0.8)	507 (2.7)	10.3 (0.04)
Saudi Arabia	29 (0.9)	438 (4.7)	52 (0.9)	397 (5.2)	19 (1.0)	371 (6.8)	10.3 (0.05)
Finland	29 (0.9)	587 (2.6)	47 (0.8)	553 (2.9)	24 (0.8)	531 (3.5)	10.2 (0.05)
Sweden	29 (1.2)	566 (4.5)	52 (1.4)	539 (3.3)	19 (0.8)	516 (4.2)	10.3 (0.05)
Azerbaijan	27 (0.9)	453 (4.0)	50 (0.9)	434 (3.2)	23 (1.1)	410 (4.3)	10.0 (0.06)
Kuwait	27 (0.9)	443 (6.8)	55 (0.8)	397 (6.4)	18 (0.8)	342 (8.3)	10.2 (0.04)
North Macedonia	25 (1.1)	452 (7.8)	53 (1.2)	429 (6.7)	22 (1.2)	394 (8.0)	10.1 (0.06)
Lithuania	25 (1.1)	578 (3.1)	58 (1.1)	534 (2.9)	17 (0.8)	494 (5.0)	10.3 (0.04)
South Africa (5)	24 (0.7)	372 (5.5)	60 (0.8)	317 (5.0)	15 (0.5)	281 (6.8)	10.2 (0.03)
Russian Federation	24 (1.1)	595 (3.3)	53 (1.0)	566 (3.1)	23 (1.4)	542 (4.9)	10.0 (0.07)
Cyprus	24 (0.7)	542 (3.9)	54 (0.8)	510 (3.1)	22 (0.7)	492 (4.1)	10.0 (0.04)
Serbia	24 (0.9)	557 (4.1)	55 (1.1)	520 (3.1)	22 (1.0)	471 (6.9)	10.0 (0.04)
Bosnia and Herzegovina	23 (0.7)	482 (3.6)	56 (0.8)	458 (3.1)	21 (0.8)	435 (3.9)	10.0 (0.04)
Bulgaria	20 (0.9)	575 (4.0)	48 (1.5)	541 (4.9)	32 (2.0)	463 (9.4)	9.5 (0.10)
Turkey (5)	19 (1.3)	558 (4.8)	35 (1.2)	546 (5.0)	46 (2.0)	497 (6.0)	9.0 (0.12)
Morocco	19 (0.8)	443 (5.7)	45 (1.3)	375 (6.0)	36 (1.5)	338 (9.4)	9.2 (0.08)
Chile	19 (0.7)	509 (2.9)	54 (1.0)	473 (3.0)	27 (1.0)	438 (3.5)	9.7 (0.04)
Montenegro	18 (0.5)	485 (3.2)	55 (0.8)	459 (2.8)	27 (0.7)	429 (3.9)	9.7 (0.03)
Armenia	18 (0.7)	484 (3.9)	48 (1.2)	467 (3.6)	34 (1.4)	457 (4.2)	9.5 (0.05)
Iran, Islamic Rep. of	16 (1.0)	460 (6.0)	50 (1.2)	444 (4.4)	34 (1.2)	429 (6.3)	9.4 (0.06)
Malta	16 (0.8)	535 (3.5)	55 (0.8)	504 (2.1)	29 (0.8)	480 (3.9)	9.6 (0.04)
Pakistan	15 (2.6)	311 (20.2)	53 (4.0)	299 (16.0)	32 (3.4)	270 (14.5)	9.3 (0.16)
France	14 (0.7)	513 (4.7)	59 (0.8)	495 (3.1)	26 (0.9)	468 (4.5)	9.6 (0.03)
Georgia	13 (0.7)	484 (5.7)	52 (1.1)	454 (4.6)	35 (1.1)	446 (5.8)	9.3 (0.05)
Czech Republic	13 (0.7)	569 (4.2)	51 (0.9)	541 (2.8)	36 (1.0)	531 (3.3)	9.3 (0.04)
Portugal	12 (0.7)	529 (5.3)	55 (0.9)	508 (2.5)	33 (0.7)	493 (3.2)	9.3 (0.03)
Italy	11 (0.6)	539 (5.6)	50 (0.9)	508 (3.3)	39 (1.1)	508 (3.3)	9.2 (0.04)
Austria	10 (0.5)	526 (6.0)	49 (1.0)	526 (3.2)	41 (1.0)	523 (3.4)	9.2 (0.03)
Norway (5)	10 (0.6)	583 (6.6)	46 (1.2)	555 (3.2)	44 (1.2)	532 (3.9)	9.0 (0.03)
Hungary	7 (0.4)	562 (6.1)	31 (0.8)	538 (3.7)	62 (0.9)	524 (2.9)	8.4 (0.04)
Germany	7 (0.6)	538 (7.9)	48 (1.2)	533 (2.9)	45 (1.3)	528 (3.2)	9.0 (0.04)
Slovak Republic	7 (0.6)	554 (10.5)	43 (1.1)	529 (3.8)	50 (1.2)	511 (4.4)	8.7 (0.06)
Belgium (Flemish)	7 (0.4)	513 (5.7)	44 (1.1)	501 (2.6)	49 (1.2)	503 (2.4)	8.8 (0.04)
Denmark	6 (0.6)	570 (7.9)	55 (1.1)	538 (3.1)	39 (1.0)	522 (3.3)	9.1 (0.04)
Australia	--	--	--	--	--	--	--
England	--	--	--	--	--	--	--
Netherlands	--	--	--	--	--	--	--
Northern Ireland	--	--	--	--	--	--	--
United States	--	--	--	--	--	--	--
United Arab Emirates	52 (0.6)	513 (3.0)	40 (0.5)	485 (3.2)	7 (0.3)	458 (5.1)	11.4 (0.02)
New Zealand	11 (0.9)	553 (5.7)	51 (1.3)	527 (4.1)	38 (1.2)	515 (3.8)	9.2 (0.04)
<b>International Average</b>	<b>25 (0.1)</b>	<b>518 (0.8)</b>	<b>51 (0.2)</b>	<b>488 (0.6)</b>	<b>24 (0.1)</b>	<b>461 (0.8)</b>	
<b>Benchmarking Participants</b>							
Dubai, UAE	51 (1.4)	570 (2.9)	41 (1.1)	550 (2.8)	7 (0.7)	545 (6.6)	11.3 (0.04)
Madrid, Spain	44 (1.5)	542 (2.4)	47 (1.3)	516 (2.3)	9 (0.6)	490 (5.1)	11.0 (0.05)
Ontario, Canada	38 (1.3)	557 (4.1)	48 (1.1)	527 (4.2)	14 (1.1)	496 (5.6)	10.8 (0.06)
Moscow City, Russian Fed.	34 (0.9)	616 (2.5)	54 (0.9)	590 (2.6)	12 (0.7)	555 (4.5)	10.6 (0.04)
Quebec, Canada	17 (1.0)	548 (4.6)	55 (1.4)	528 (3.1)	28 (1.3)	514 (3.5)	9.7 (0.04)
Abu Dhabi, UAE	--	--	--	--	--	--	--

This TIMSS context questionnaire scale was established in 2015 based on the combined response distribution of all countries that participated in TIMSS 2015. To provide a point of reference for country comparisons, the scale centerpoint of 10 was located at the mean of the combined distribution. The units of the scale were chosen so that 2 scale score points corresponded to the standard deviation of the distribution.

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

A dash (-) indicates comparable data not available.

An "r" indicates data are available for at least 70% but less than 85% of the students. An "s" indicates data are available for at least 50% but less than 70% of the students.

An "x" indicates data are available for at least 40% but less than 50% of the students—interpret with caution. A "y" indicates data are available for less than 40% of the students.