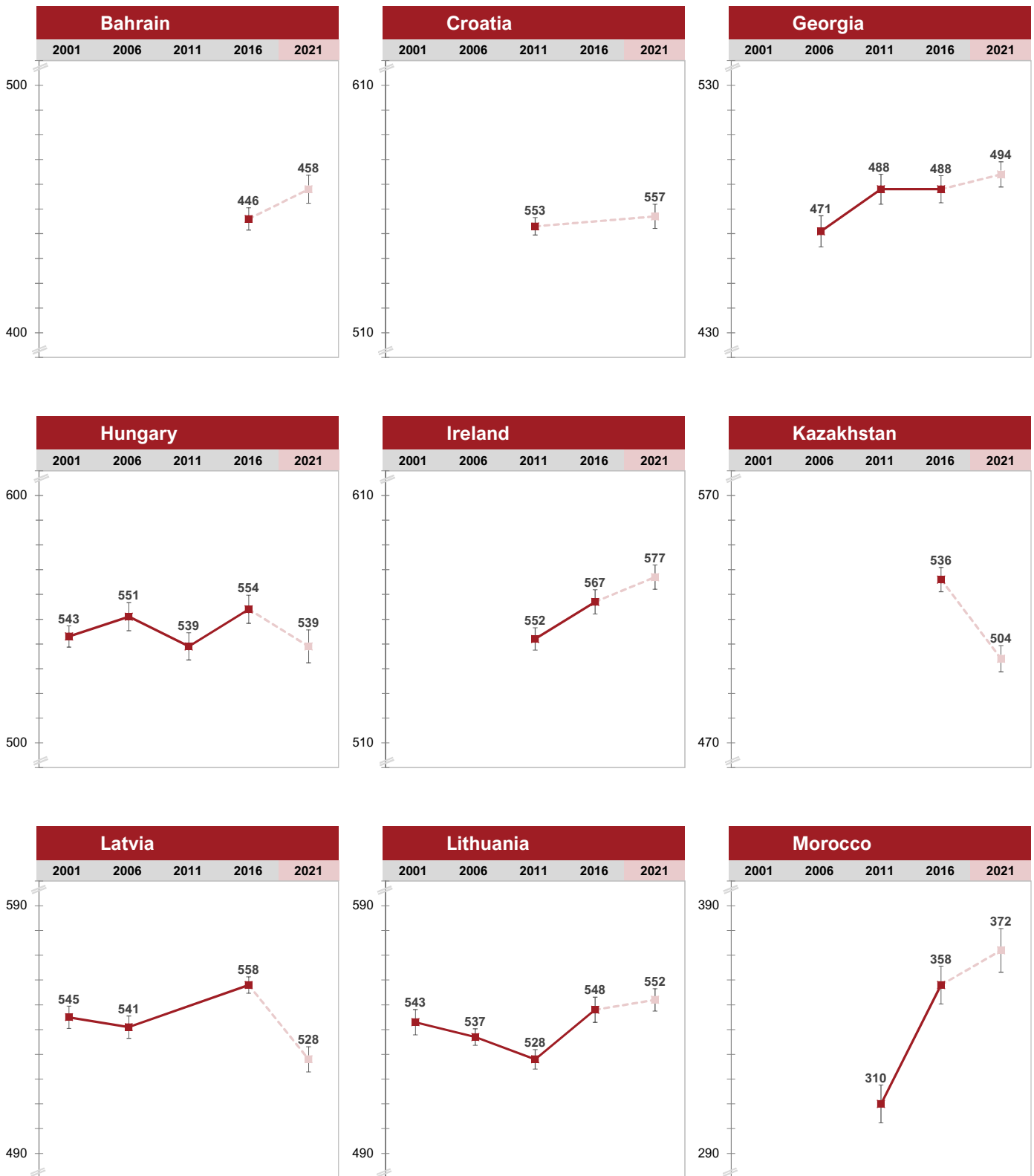


## Exhibit 2.2.1: Trend Plots of Average Reading Achievement

■ Delayed Assessment of Fourth Grade Cohort at the Beginning of Fifth Grade

This exhibit displays changes in achievement for the countries and benchmarking participants that assessed the fourth grade cohort at the beginning of the fifth grade school year and have data from previous PIRLS assessments. Students in previous assessments were assessed at the end of the fourth year of schooling. Exhibit 2.2.2 provides details, including statistical significance. See Appendix A for country participation in previous assessments.

■ Prior to COVID-19 pandemic    ■ During COVID-19 pandemic and at least 4 months older



See Appendix A for country participation in previous PIRLS assessments.

The scale interval is 10 points for each country, but a different part of the scale is shown according to each country's average achievement.

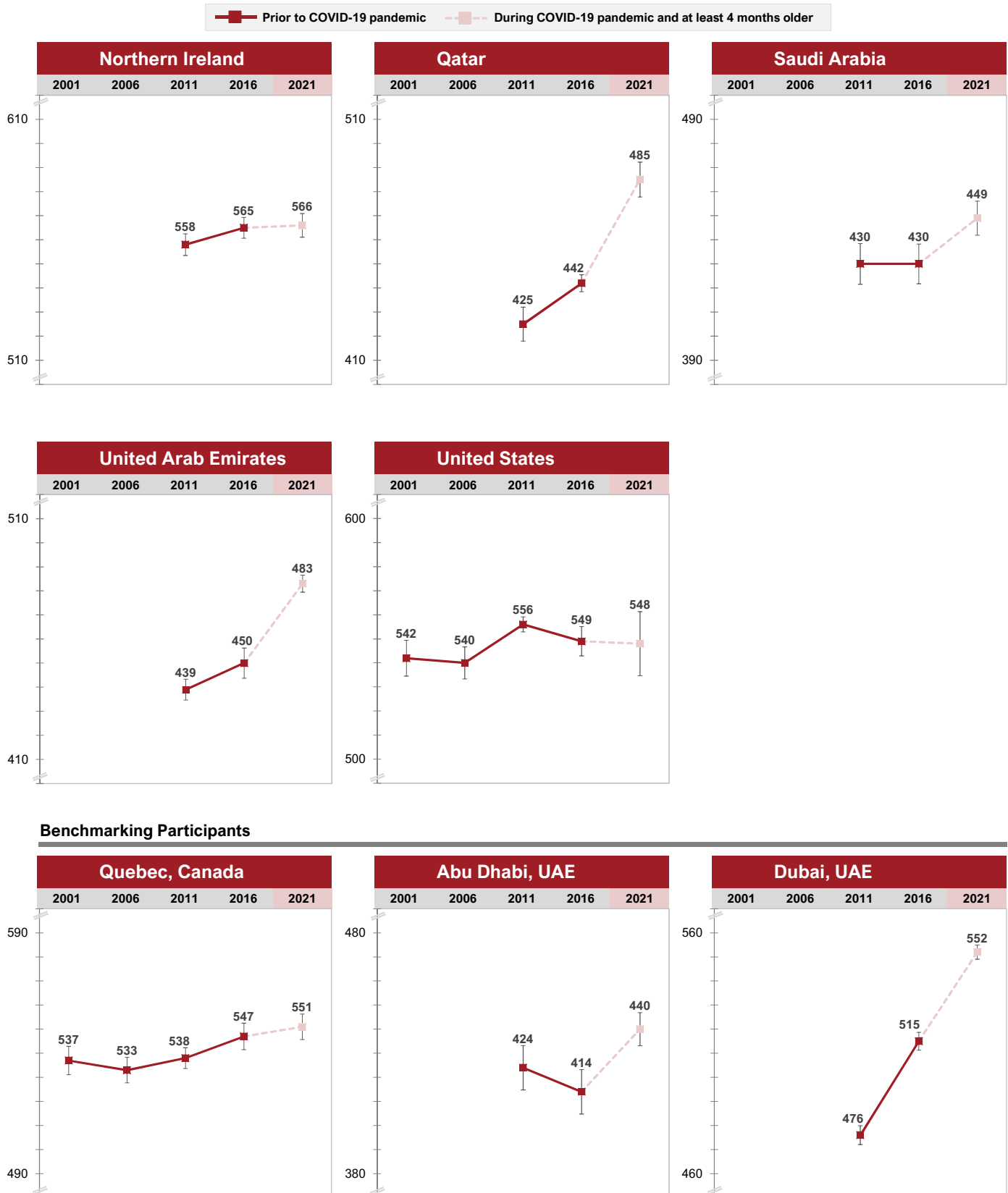
I. The black bars represent the 95% confidence interval.

## Exhibit 2.2.1: Trend Plots of Average Reading Achievement

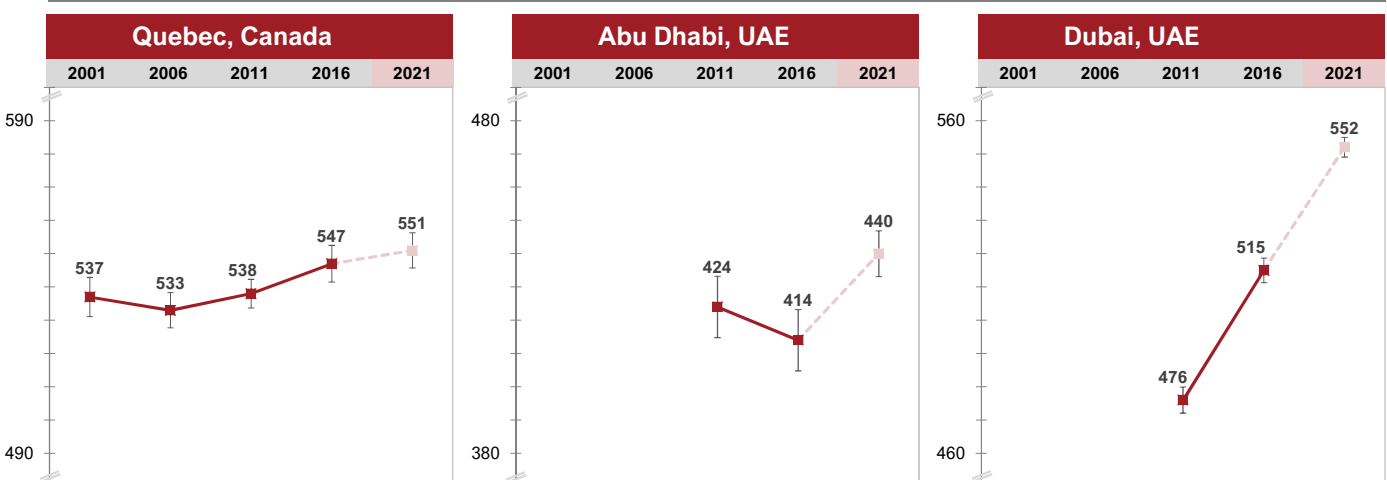
■ Delayed Assessment of Fourth Grade Cohort at the Beginning of Fifth Grade

(Continued)

This exhibit displays changes in achievement for the countries and benchmarking participants that assessed the fourth grade cohort at the beginning of the fifth grade school year and have data from previous PIRLS assessments. Students in previous assessments were assessed at the end of the fourth year of schooling. Exhibit 2.2.2 provides details, including statistical significance. See Appendix A for country participation in previous assessments.



## Benchmarking Participants



See Appendix A for country participation in previous PIRLS assessments.

The scale interval is 10 points for each country, but a different part of the scale is shown according to each country's average achievement.

I. The black bars represent the 95% confidence interval.

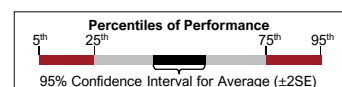
## Exhibit 2.2.2: Differences in Average Reading Achievement Across Assessment Years

## Delayed Assessment of Fourth Grade Cohort at the Beginning of Fifth Grade

This exhibit reports differences in achievement across assessment years for the countries and benchmarking participants that assessed the fourth grade cohort at the beginning of the fifth grade school year and have data from previous PIRLS assessments. Read across the row to determine if the difference in performance between years is statistically significant. Symbols indicate if the row year is significantly higher (▲) or significantly lower (▼) than the performance in the column year. Students in previous assessments were assessed at the end of the fourth year of schooling. See Appendix A for country participation in previous PIRLS assessments.

Country	Average Scale Score	Differences Between Years				Reading Achievement Distribution
		2016	2011	2006	2001	
<b>Bahrain</b>						
2021	458 (2.9)	12 ▲				
2016	446 (2.3)					
<b>Croatia</b>						
<sup>†</sup> 2021	557 (2.5)		4			
<sup>2</sup> 2011	553 (1.8)					
<b>Georgia</b>						
<sup>1</sup> 2021	494 (2.6)	6	6	23 ▲		
<sup>1</sup> 2016	488 (2.8)		1	17 ▲		
<sup>1</sup> 2011	488 (3.1)			17 ▲		
<sup>1 2</sup> 2006	471 (3.2)					
<b>Hungary</b>						
2021	539 (3.4)	-15 ▼	0	-11 ▼	-4	
2016	554 (2.9)		15 ▲	3	11 ▲	
2011	539 (2.8)			-12 ▼	-4	
2006	551 (2.9)				8 ▲	
2001	543 (2.2)					
<b>Ireland</b>						
2021	577 (2.5)	11 ▲	26 ▲			
2016	567 (2.5)		15 ▲			
2011	552 (2.3)					
<b>Kazakhstan</b>						
2021	504 (2.7)	-32 ▼				
2016	536 (2.5)					
<b>Latvia</b>						
2021	528 (2.6)	-30 ▼		-13 ▼	-17 ▼	
<sup>2</sup> 2016	558 (1.7)			17 ▲	13 ▲	
2006	541 (2.3)				-4	
2001	545 (2.3)					
<b>Lithuania</b>						
2021	552 (2.3)	4	24 ▲	15 ▲	9 ▲	
2016	548 (2.6)		20 ▲	11 ▲	5	
<sup>1 2</sup> 2011	528 (2.0)			-9 ▼	-15 ▼	
<sup>1</sup> 2006	537 (1.7)				-6 ▼	
<sup>1</sup> 2001	543 (2.6)					
<b>Morocco</b>						
2021	372 (4.5)	15 ▲	62 ▲			
<sup>±</sup> 2016	358 (3.9)		47 ▲			
<sup>✱</sup> 2011	310 (3.9)					
<b>Northern Ireland</b>						
<sup>2 †</sup> 2021	566 (2.5)	1	7 ▲			
2016	565 (2.2)		6			
<sup>†</sup> 2011	558 (2.3)					
<b>Qatar</b>						
2021	485 (3.7)	42 ▲	60 ▲			
2016	442 (1.8)		17 ▲			
<sup>2</sup> 2011	425 (3.6)					
<b>Saudi Arabia</b>						
<sup>3</sup> 2021	449 (3.6)	18 ▲	19 ▲			
2016	430 (4.2)		0			
2011	430 (4.3)					
<b>United Arab Emirates</b>						
2021	483 (1.8)	33 ▲	44 ▲			
2016	450 (3.2)		12 ▲			
2011	439 (2.2)					
<b>United States</b>						
<sup>2 =</sup> 2021	548 (6.8)	-2	-9	8	5	
<sup>†</sup> 2016	549 (3.1)		-7 ▼	10 ▲	7	
<sup>2</sup> 2011	556 (1.6)			16 ▲	14 ▲	
<sup>2 †</sup> 2006	540 (3.4)				-2	
<sup>†</sup> 2001	542 (3.8)					

▲ Average from more recent year significantly higher  
▼ Average from more recent year significantly lower



See Appendix A for country participation in previous PIRLS assessments.

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

See Appendix A.2 for population coverage notes 1, 2, and 3. See Appendix A.5 for sampling guidelines and sampling participation notes †, ‡, and ±.

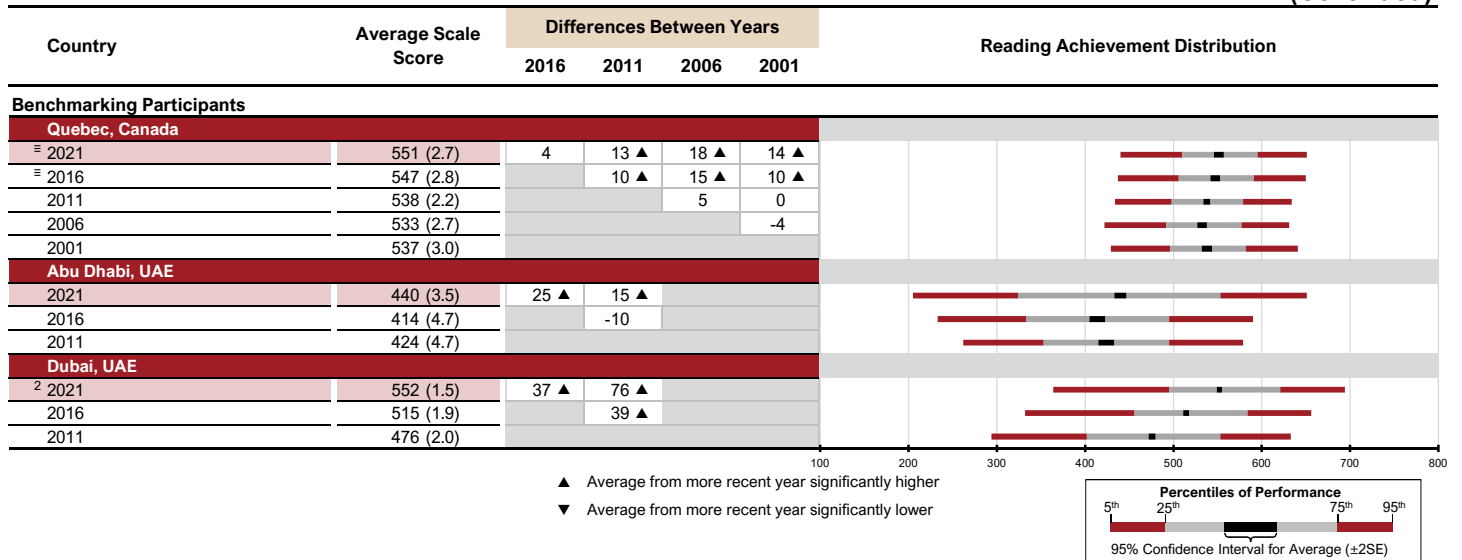
✱ Reservations about reliability because the percentage of students with achievement too low for estimation exceeds 25%.

± Participated in both regular and Literacy versions of PIRLS 2016.

## Exhibit 2.2.2: Differences in Average Reading Achievement Across Assessment Years

□ Delayed Assessment of Fourth Grade Cohort at the Beginning of Fifth Grade

(Continued)



SOURCE: IEA's Progress in International Reading Literacy Study - PIRLS 2021  
Downloaded from <https://pirls2021.org/results>



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