

SECTION 2

Trends in Reading Achievement

Measuring trends in achievement of student populations from one assessment cycle to the next is always an extremely complicated endeavor. PIRLS 2021 is the fifth assessment of PIRLS since its inception in 2001, providing 20 years of trend data. With each new assessment cycle, PIRLS has taken the utmost care to keep the majority of the assessment the same from cycle to cycle, to evolve carefully, and to document any differences. For PIRLS 2021, however, onset of the COVID-19 pandemic disrupted school operations often through school closures (see Exhibit 3 in [About PIRLS 2021](#)), which necessitated adjustments in the data collection schedules (see Exhibit 5 in [About PIRLS 2021](#)).

Data collected across the PIRLS 2021 countries to examine the impact of COVID-19 on students' learning and their reading achievement at the end of fourth grade is somewhat limited. The situation in each country and how the pandemic was handled was monitored and documented to the extent possible, while ensuring that the PIRLS assessment remained largely unchanged. Among these efforts, PIRLS 2021 reports from school principals are valuable and describe the extent of school closures. Exhibit 3 in [About PIRLS 2021](#) shows how closures varied from country to country as did the responses to school closures in terms of providing out-of-school learning opportunities. Parents' reports about the impact of the pandemic on their children's learning also varied across countries (Exhibit 4 in [About PIRLS 2021](#)), although parents reported that two-thirds of their children were negatively impacted in their learning to some degree.

Trends in Average Reading Achievement

Considering the PIRLS 2021 trend measures, it is well established that the COVID-19 pandemic, which happened after the 2016 cycle, made a major difference in school-based learning in many countries between 2016 and 2021. It also is well known that previous trend cycles were not affected by such a pandemic, so to represent this major difference for the most recent cycle in this report, the trends between 2016 and 2021 are shown with dotted lines. The dotted line is meant to call attention to the fact that the worldwide COVID-19 pandemic occurred after 2016, but the annotation does not indicate the size of the impact or even that there definitely was an impact in each country. The considerable variation in the extent and response to the pandemic

within and across countries makes it impossible to estimate the magnitude of a COVID-19 effect uniformly across countries or country by country at this time. It is more defensible to use ancillary national, regional, and local data to study the impact of the pandemic on student achievement within a country.

Analyzing trend results requires comparable cycle-to-cycle data of the estimates of average achievement that can be considered persistent rather than being the reflection of a particular circumstance. Country trend graphs are therefore generated only if there are comparable data points from at least one previous cycle and the current cycle. This leads to some attrition in the 57 countries and 8 benchmarking entities that participated in PIRLS 2021. As previously explained, 14 countries and 3 benchmarking entities delayed their PIRLS 2021 data collection so that they did not have comparable data in 2021. Next, 8 of the 43 countries that collected their PIRLS 2021 data at the end of the fourth grade school year had other reasons for not having comparable trend data from at least one previous cycle (e.g., 2021 was their first time participating in PIRLS, there was a major change in population definition, or they made numerous changes in translations of material reserved for trend).

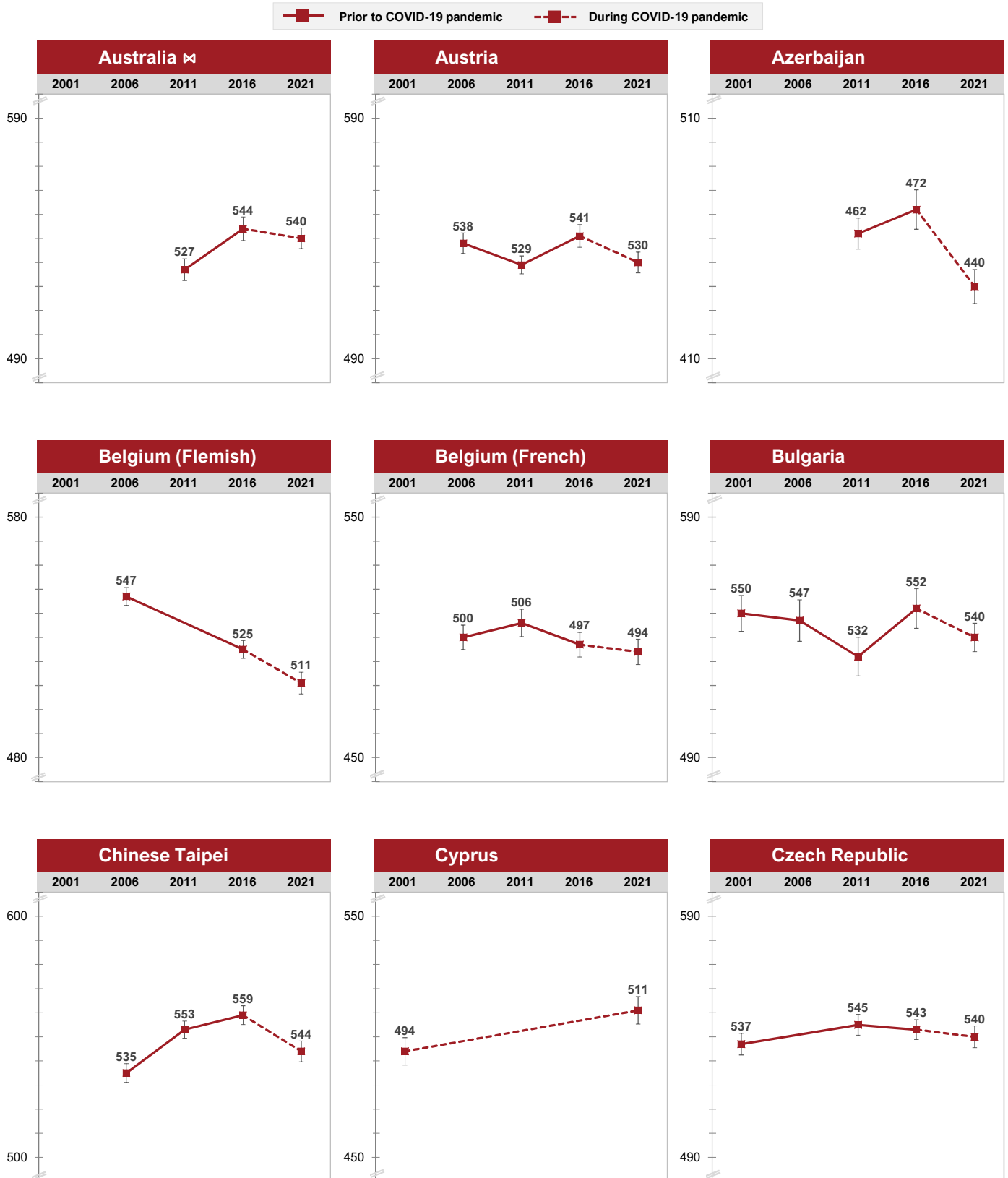
For the 35 countries and three benchmarking entities that met the requirement for comparable trend data across two cycles or more, the results are presented in Exhibits 2.1.1 and 2.1.2. Exhibit 2.1.1 presents graphical representations of the differences in average reading achievement between PIRLS assessments. The data in Exhibit 2.1.2 provides the details documenting the changes in average achievement between specific assessments.

Exhibit 2.1.1: Trend Plots of Average Reading Achievement

Assessed Fourth Grade Students at the End of the School Year

☒ Assessed one year later than originally scheduled – six year trend from PIRLS 2016

This exhibit displays changes in achievement for the countries and benchmarking participants that assessed fourth grade students at the end of the school year and have comparable data from previous PIRLS assessments. Exhibit 2.1.2 provides details, including statistical significance. See Appendix A for country participation in previous assessments.



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.

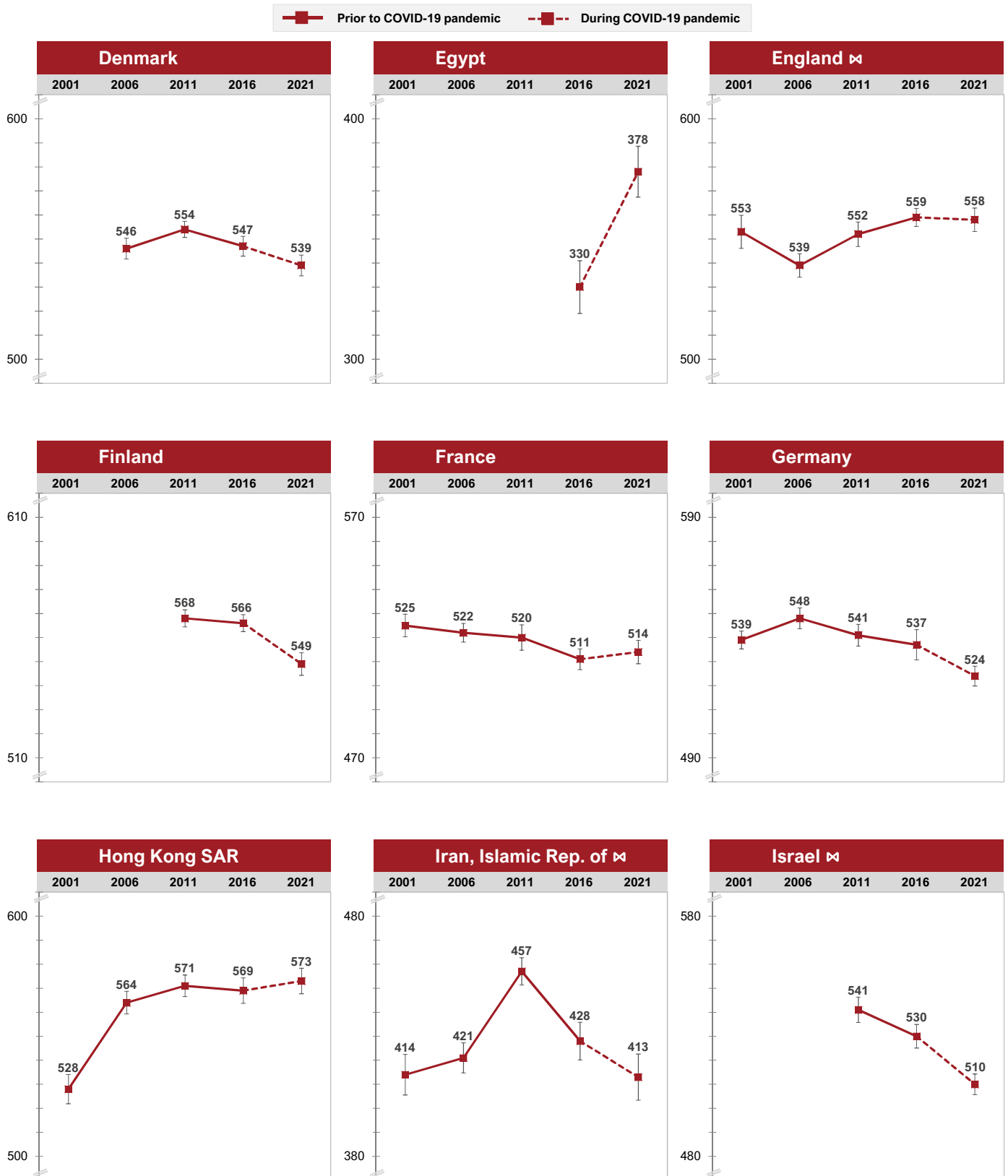
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Assessed Fourth Grade Students at the End of the School Year

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(Continued)

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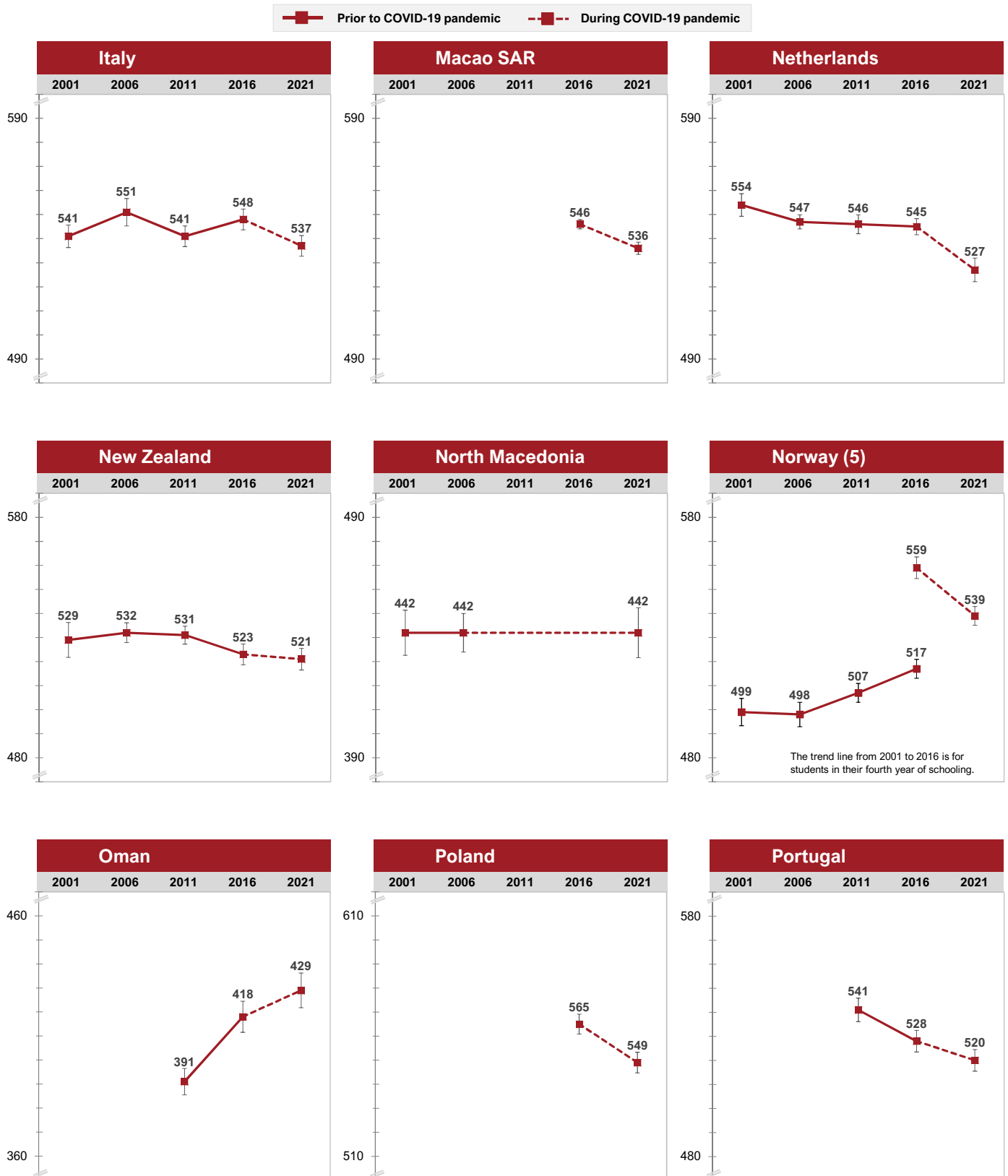
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Assessed Fourth Grade Students at the End of the School Year

☒ Assessed one year later than originally scheduled – six year trend from PIRLS 2016

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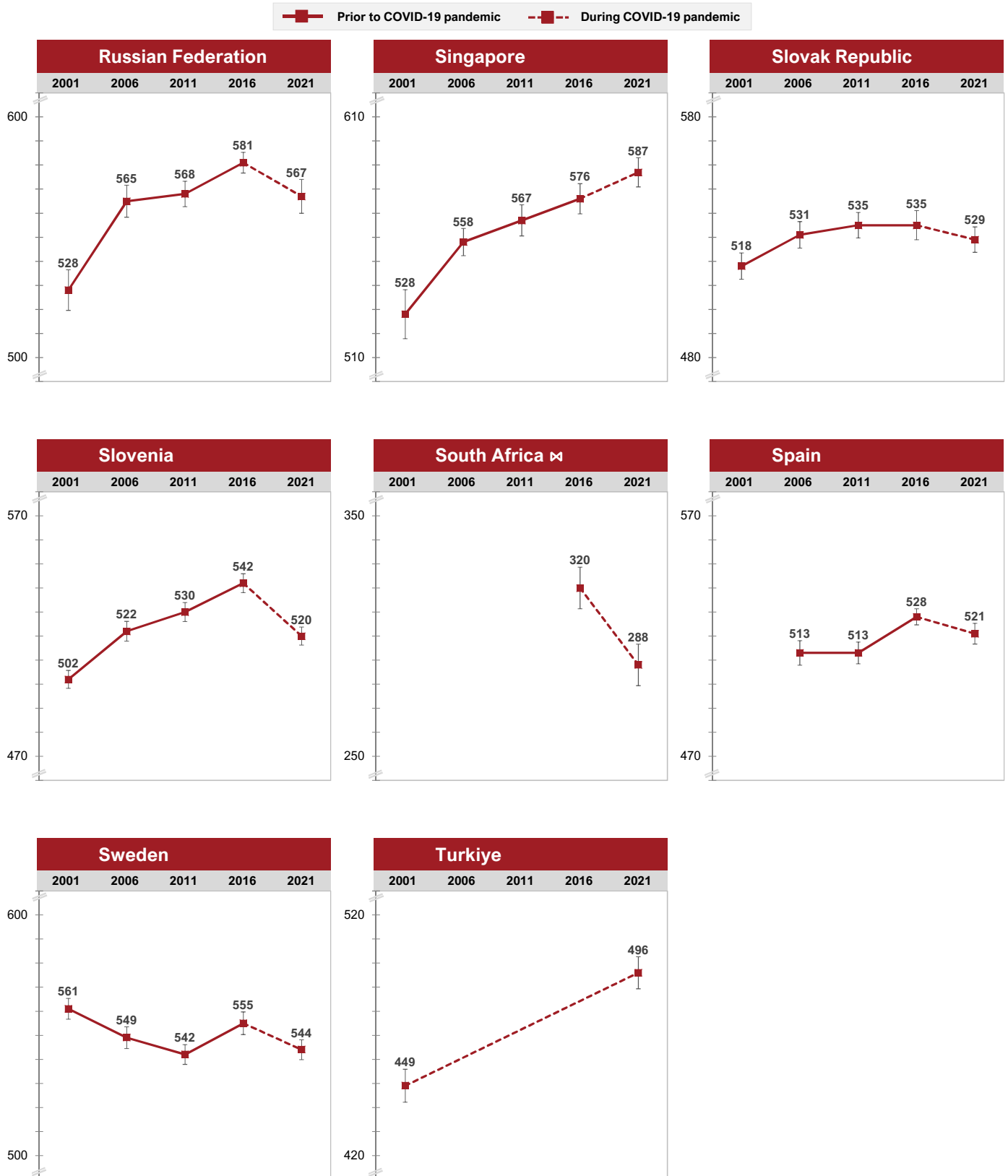
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Assessed Fourth Grade Students at the End of the School Year

⌘ Assessed one year later than originally scheduled – six year trend from PIRLS 2016

(Continued)

This exhibit displays changes in achievement for the countries and benchmarking participants that assessed fourth grade students at the end of the school year and have comparable data from previous PIRLS assessments. Exhibit 2.1.2 provides details, including statistical significance. See Appendix A for country participation in previous assessments.



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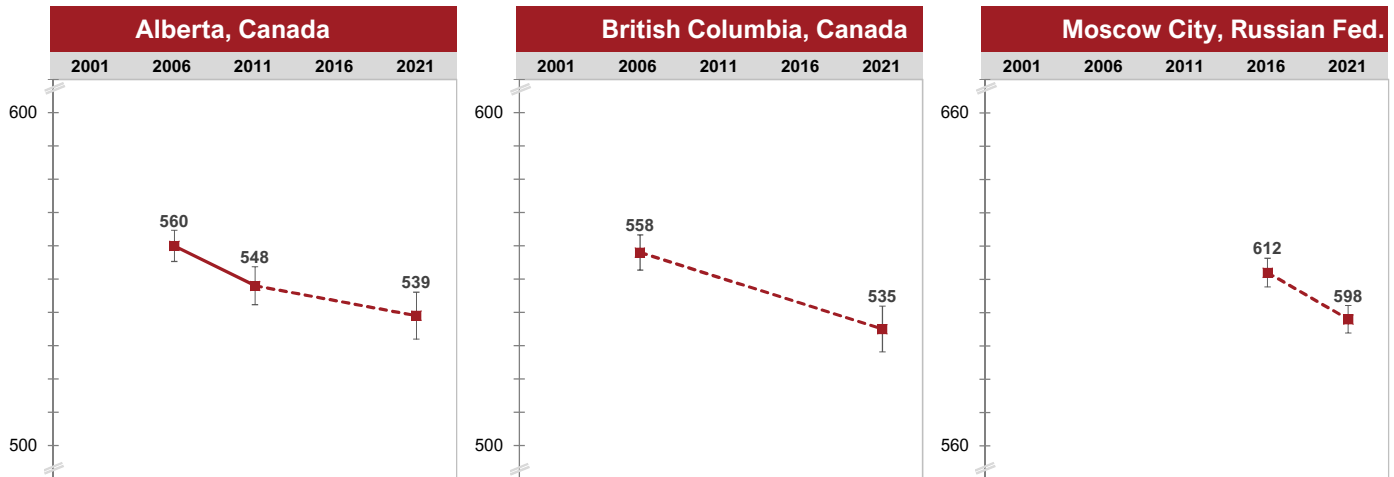
Exhibit 2.1.1: Trend Plots of Average Reading Achievement**Assessed Fourth Grade Students at the End of the School Year**

☒ Assessed one year later than originally scheduled – six year trend from PIRLS 2016

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This exhibit displays changes in achievement for the countries and benchmarking participants that assessed fourth grade students at the end of the school year and have comparable data from previous PIRLS assessments. Exhibit 2.1.2 provides details, including statistical significance. See Appendix A for country participation in previous assessments.

—■— Prior to COVID-19 pandemic - - - ■ - - - During COVID-19 pandemic

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.

SOURCE: IEA's Progress in International Reading Literacy Study - PIRLS 2021
Downloaded from <https://pirs2021.org/results>

Exhibit 2.1.2: Differences in Average Reading Achievement Across Assessment Years

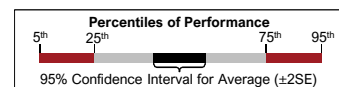
Assessed Fourth Grade Students at the End of the School Year

⌘ Assessed one year later than originally scheduled – six year trend from PIRLS 2016

This exhibit reports differences in achievement across assessment years for the countries and benchmarking participants that assessed fourth grade students at the end of the school year and have comparable 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. See Appendix A for country participation in previous PIRLS assessments.

Country	Average Scale Score	Differences Between Years				Reading Achievement Distribution
		2016	2011	2006	2001	
Australia ⌘						
2021	540 (2.2)	-4	13 ▲			
2016	544 (2.5)		17 ▲			
2011	527 (2.3)					
Austria						
2021	530 (2.2)	-11 ▼	1	-9 ▼		
² 2016	541 (2.4)		12 ▲	2		
2011	529 (1.9)			-9 ▼		
2006	538 (2.2)					
Azerbaijan						
2021	440 (3.6)	-32 ▼	-22 ▼			
2016	472 (4.2)		10			
² 2011	462 (3.3)					
Belgium (Flemish)						
2021	511 (2.3)	-14 ▼		-36 ▼		
2016	525 (1.9)			-22 ▼		
² † 2006	547 (1.9)					
Belgium (French)						
² 2021	494 (2.7)	-3	-12 ▼	-5		
² 2016	497 (2.6)		-9 ▼	-2		
² † 2011	506 (2.9)			6		
2006	500 (2.6)					
Bulgaria						
2021	540 (3.0)	-12 ▼	8	-7	-11 ▼	
2016	552 (4.2)		20 ▲	5	1	
2011	532 (4.1)			-15 ▼	-19 ▼	
² 2006	547 (4.4)				-3	
2001	550 (3.8)					
Chinese Taipei						
2021	544 (2.2)	-15 ▼	-9 ▼	8 ▲		
2016	559 (2.0)		6 ▲	24 ▲		
2011	553 (1.8)			18 ▲		
2006	535 (2.0)					
Cyprus						
2021	511 (2.9)				17 ▲	
2001	494 (2.9)					
Czech Republic						
2021	540 (2.3)	-4	-6		3	
2016	543 (2.1)		-2		6 ▲	
2011	545 (2.2)				9 ▲	
2001	537 (2.3)					
Denmark						
² † 2021	539 (2.2)	-8 ▼	-15 ▼	-7 ▼		
² 2016	547 (2.1)		-7 ▼	1		
² 2011	554 (1.7)			8 ▲		
² 2006	546 (2.2)					
Egypt						
² ψ 2021	378 (5.4)	48 ▲				
+ 2016	330 (5.6)					
England ⌘						
2021	558 (2.5)	-1	6	18 ▲	5	
2016	559 (1.9)		7 ▲	19 ▲	6	
† 2011	552 (2.6)			12 ▲	-1	
2006	539 (2.5)				-13 ▼	
² † 2001	553 (3.5)					
Finland						
2021	549 (2.4)	-17 ▼	-19 ▼			
2016	566 (1.8)		-2			
2011	568 (1.8)					

▲ 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 ±.

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

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

+ Participated in Literacy version of PIRLS 2016.

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

Exhibit 2.1.2: Differences in Average Reading Achievement Across Assessment Years

Assessed Fourth Grade Students at the End of the School Year

⌘ Assessed one year later than originally scheduled – six year trend from PIRLS 2016

(Continued)

Country	Average Scale Score	Differences Between Years				Reading Achievement Distribution
		2016	2011	2006	2001	
France						
2021	514 (2.5)	2	-6	-8 ▼	-11 ▼	
2016	511 (2.2)		-9 ▼	-10 ▼	-14 ▼	
2011	520 (2.7)			-2	-5	
2006	522 (2.0)				-4	
2001	525 (2.4)					
Germany						
2021	524 (2.1)	-13 ▼	-17 ▼	-24 ▼	-15 ▼	
2016	537 (3.2)		-4	-10 ▼	-2	
2011	541 (2.3)			-7 ▼	2	
2006	548 (2.2)				9 ▲	
2001	539 (1.9)					
Hong Kong SAR						
² † 2021	573 (2.7)	4	2	9 ▲	45 ▲	
² † 2016	569 (2.7)		-2	5	41 ▲	
³ 2011	571 (2.3)			7 ▲	43 ▲	
2006	564 (2.4)				36 ▲	
2001	528 (3.1)					
Iran, Islamic Rep. of ⌘						
2021	413 (4.9)	-15 ▼	-45 ▼	-8	-1	
[±] 2016	428 (4.0)		-29 ▼	7	14 ▲	
2011	457 (2.9)			36 ▲	44 ▲	
2006	421 (3.2)				7	
2001	414 (4.3)					
Israel ⌘						
³ 2021	510 (2.2)	-20 ▼	-31 ▼			
³ 2016	530 (2.5)		-11 ▼			
³ 2011	541 (2.7)					
Italy						
² 2021	537 (2.2)	-11 ▼	-4	-14 ▼	-4	
2016	548 (2.2)		7 ▲	-3	7 ▲	
2011	541 (2.2)			-10 ▼	1	
2006	551 (2.9)				11 ▲	
2001	541 (2.4)					
Macao SAR						
2021	536 (1.3)	-10 ▼				
2016	546 (1.0)					
Netherlands						
[≠] 2021	527 (2.5)	-18 ▼	-19 ▼	-20 ▼	-27 ▼	
[†] 2016	545 (1.7)		-1	-2	-9 ▼	
[†] 2011	546 (2.0)			-1	-8 ▼	
[†] 2006	547 (1.5)				-7 ▼	
[†] 2001	554 (2.4)					
New Zealand						
[†] 2021	521 (2.3)	-1	-10 ▼	-10 ▼	-7	
2016	523 (2.2)		-8 ▼	-9 ▼	-6	
2011	531 (1.9)			-1	2	
2006	532 (2.1)				3	
2001	529 (3.7)					
North Macedonia						
2021	442 (5.3)			0	1	
2006	442 (4.1)				1	
2001	442 (4.8)					
Norway (5)						
2021	539 (2.0)	-20 ▼				
2016	559 (2.3)					
Oman						
2021	429 (3.7)	11 ▲	39 ▲			
2016	418 (3.3)		28 ▲			
^ψ 2011	391 (2.8)					
Poland						
2021	549 (2.2)	-16 ▼				
2016	565 (2.1)					
Portugal						
² 2021	520 (2.3)	-8 ▼	-21 ▼			
² 2016	528 (2.3)		-13 ▼			
2011	541 (2.5)					

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

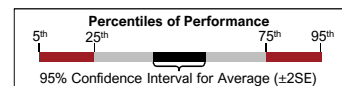
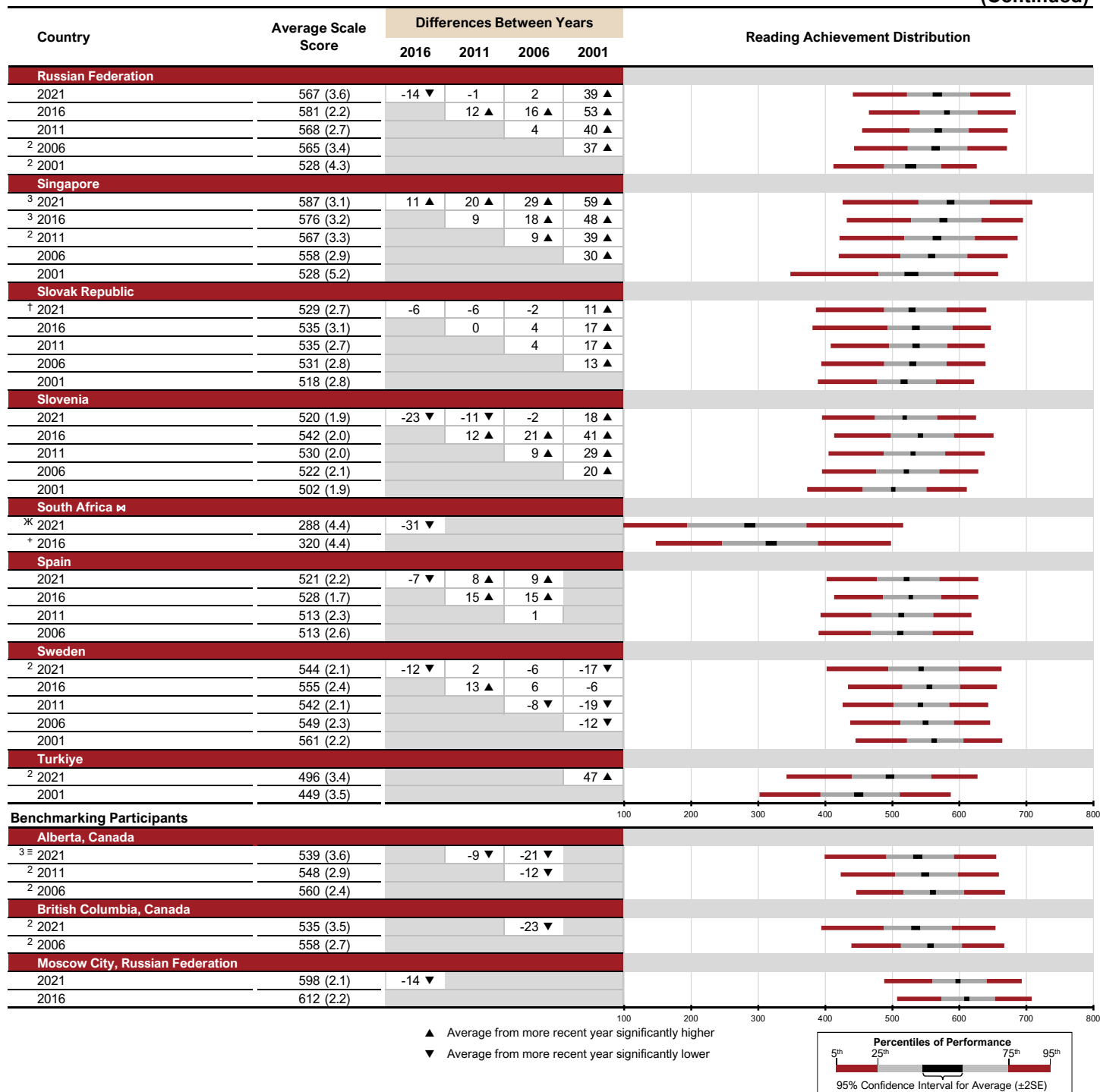


Exhibit 2.1.2: Differences in Average Reading Achievement Across Assessment Years

Assessed Fourth Grade Students at the End of the School Year

⌘ Assessed one year later than originally scheduled – six year trend from PIRLS 2016

(Continued)

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

Because the COVID-19 pandemic could have impacted recent trends between PIRLS 2021 and PIRLS 2016, those trends are discussed first. Of the 32 countries and 1 benchmarking participant with data in both 2016 and 2021, 21 countries (and the 1 benchmarking entity) had lower average reading achievement in 2021 than in 2016, 8 had no or little change, and only 3 had higher average achievement. That two-thirds of the PIRLS 2021 countries had a decline in average reading achievement between 2016 and 2021 suggests at least some widespread negative impact from the pandemic on reading achievement at the fourth grade. Also, looking only at the 21 countries with lower achievement in 2021 compared to 2016, 8 showed an improvement in 2016 compared to 2011 and 3 had no change. That is, in a number of countries an upward or stable trend from 2011 to 2016 changed to a downward trend in 2021.

The prevalence of downward trends in 2021 compared to 2016 also influenced the trends between 2021 and the previous cycles, complicating the picture of long-term trends. Singapore was the only country that showed steady improvement with each of the five PIRLS assessments. Slovenia posted improvements across the first four consecutive assessments until the recent decline in 2021. However, in general, the 15 countries that have comparable data across four or five assessments since 2001 have had their “ups and downs.”

Interestingly, despite the enormous challenge of maintaining educational improvement and the recent COVID-19 global pandemic, comparing just the 20-year trend results from start to finish between 2001 and 2021 for the 18 countries that participated in both assessments, there were 7 increases in average reading achievement, 6 with about the same achievement, and only 5 decreases in achievement. Also, considering this relative stability in achievement over the past 20 years and the enormous growth in the amount and variety of reading materials that today’s fourth grade students encounter in their daily lives due to the internet, perhaps there are some positive notes in the PIRLS 2021 long-term trends. This means that while countries see some changes in their achievement over time on a grand scale, at least for the set of 18 countries from which we have long term data, there is long term stability in achievement over time.

The trend results for the 14 countries that needed to delay the assessment of the fourth grade cohort until the beginning of the fifth grade are shown in Exhibit 2.2.1 (trend plots) and Exhibit 2.2.2 (differences in average achievement between the assessment cycles). The results show that 6 of the 13 countries with data from PIRLS 2016 had higher achievement in 2021 than in 2016. As explained previously (see earlier subsection: [Impacts of Modifying the Assessment Schedule on Students’ Achievement](#)), the high level of achievement for these countries in PIRLS 2021 may be partly due to the advantage of collecting data on somewhat older students (half a

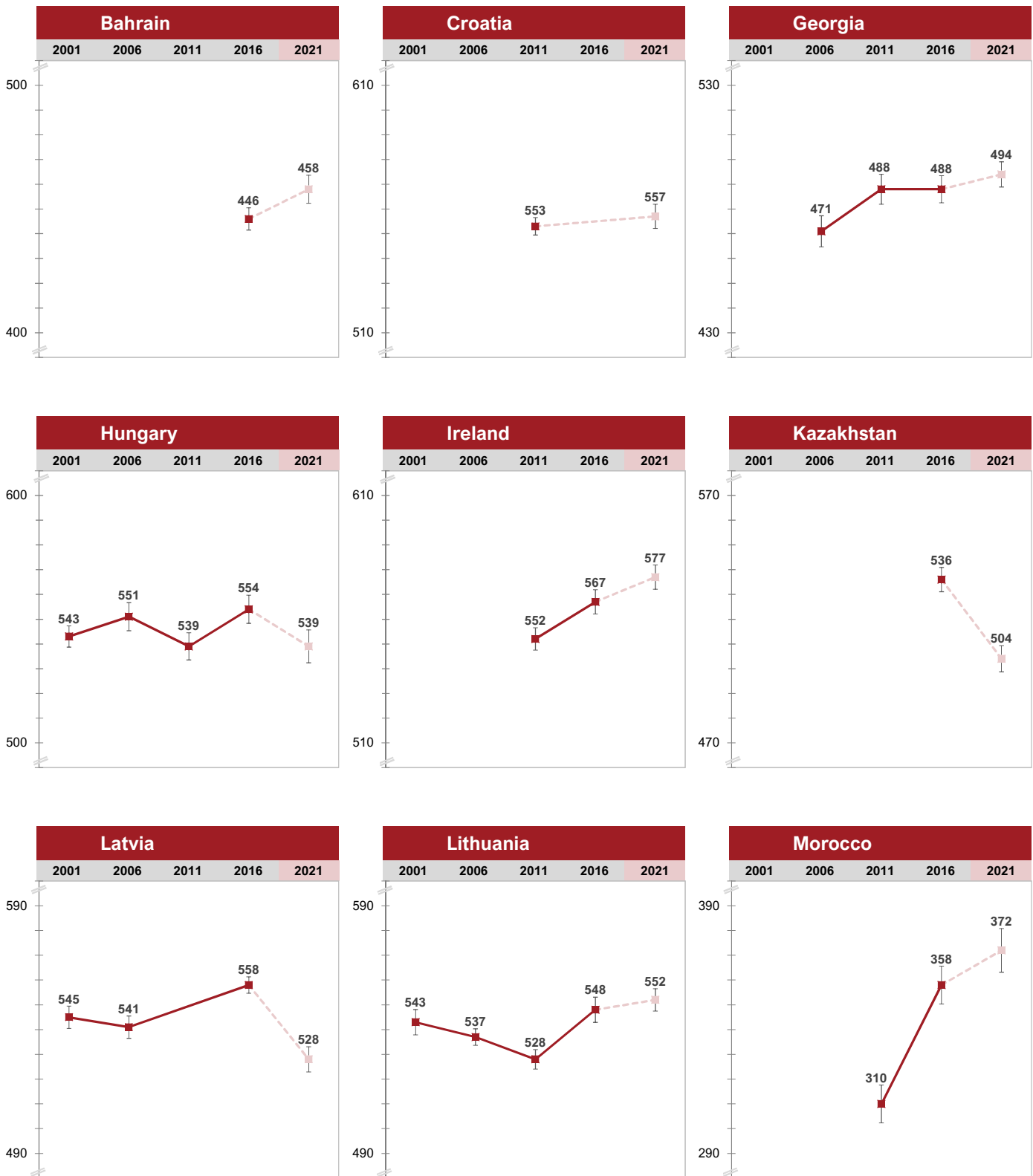
year older on average). The delay in the assessment for these PIRLS 2021 countries may have increased the size of the gains in achievement to an unknown degree. However, age alone cannot be made responsible or separated out. Precise comparisons cannot be made back to PIRLS 2016, and it is noteworthy that a number of these countries also had high levels of reading achievement in 2016.

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.

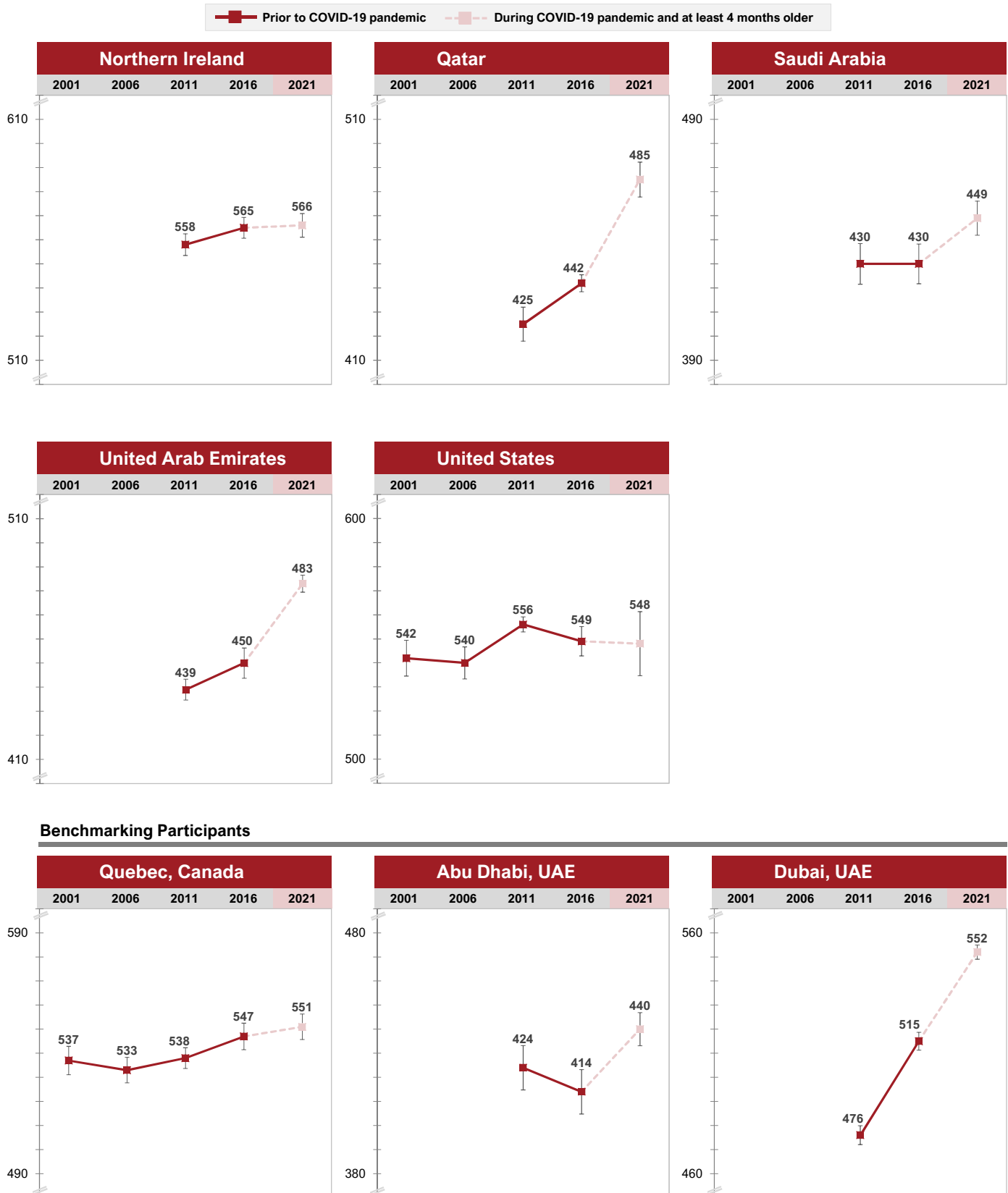
I. The black bars represent the 95% confidence interval.

Exhibit 2.2.1: Trend Plots of Average Reading Achievement

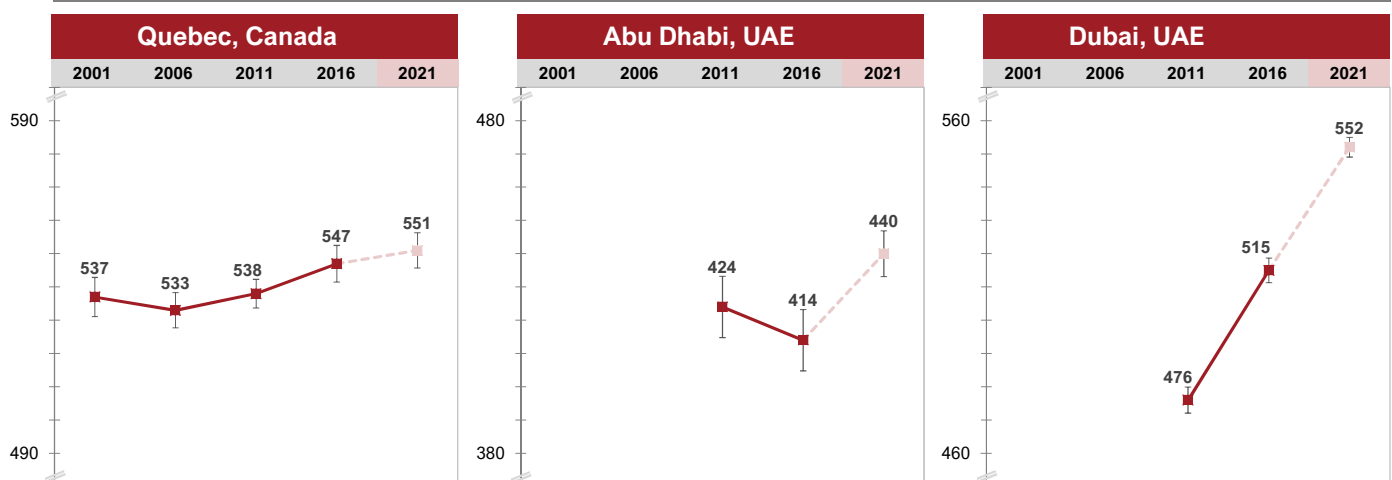
■ Delayed Assessment of Fourth Grade Cohort at the Beginning of Fifth Grade

(Continued)

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Benchmarking Participants



See Appendix A for country participation in previous PIRLS assessments.

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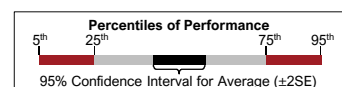
Exhibit 2.2.2: Differences in Average Reading Achievement Across Assessment Years

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

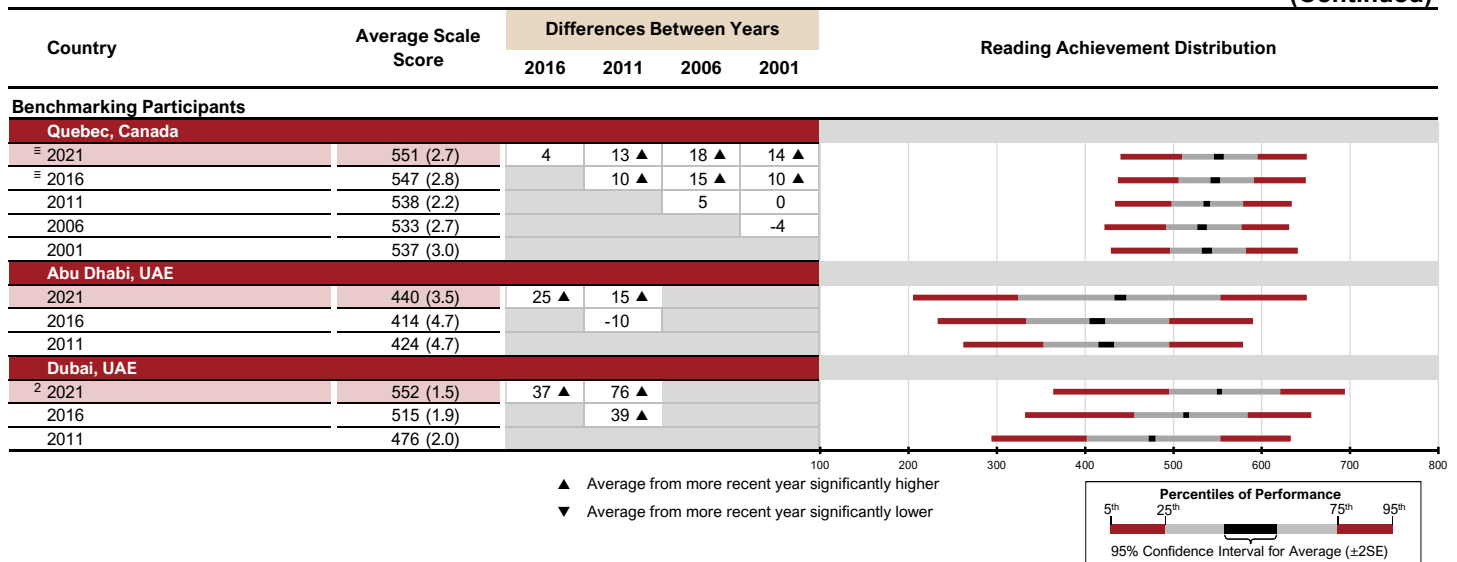
✱ Reservations about reliability because the percentage of students with achievement too low for estimation exceeds 25%.

± 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>

Trends in Average Achievement by Gender

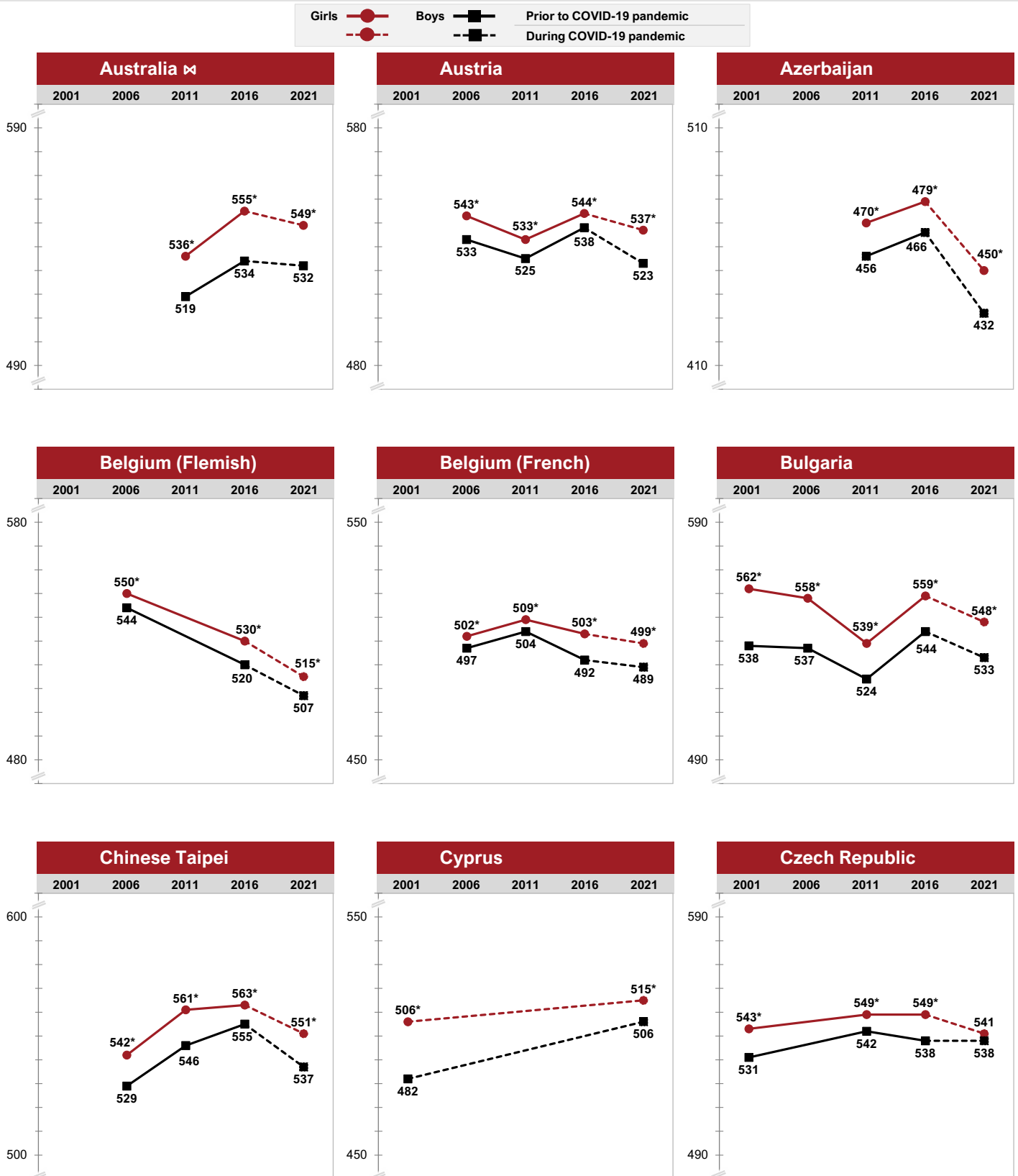
Exhibit 2.3 contains the trend results by gender for the 43 countries that assessed fourth grade students at the same time of year as in previous assessments. Although 21 countries had lower average achievement in 2021 than in 2016, for the most part the decreases in achievement were similar for girls and boys such that there was little narrowing (or widening) in the gender gap favoring girls. The Czech Republic, Iran, Israel, and Spain narrowed their gender gaps, while Macao SAR and Portugal showed a small gap in 2021.

Exhibit 2.3: Trend Plots of Average Reading Achievement by Gender

Assessed Fourth Grade Students at the End of the School Year

Assessed one year later than originally scheduled – six year trend from PIRLS 2016

This exhibit displays changes in achievement for girls and boys in each country and benchmarking participant that assessed fourth grade students at the end of the school year and have comparable data from previous assessments. See Appendix A for country participation in previous assessments.



* Average significantly higher than other gender

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.

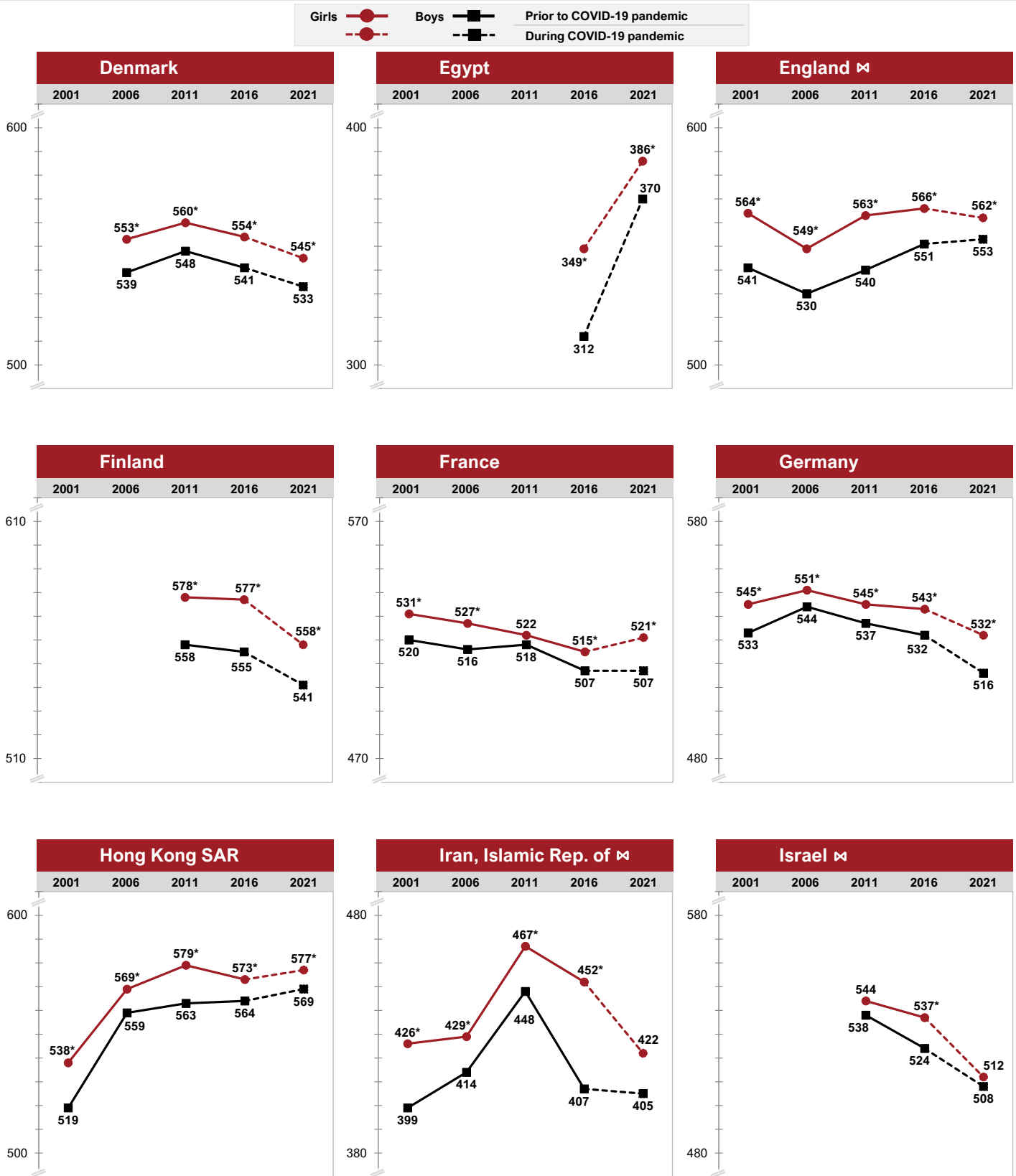
Exhibit 2.3: Trend Plots of Average Reading Achievement by Gender

Assessed Fourth Grade Students at the End of the School Year

⊗ Assessed one year later than originally scheduled – six year trend from PIRLS 2016

(Continued)

This exhibit displays changes in achievement for girls and boys in each country and benchmarking participant that assessed fourth grade students at the end of the school year and have comparable data from previous assessments. See Appendix A for country participation in previous assessments.



* Average significantly higher than other gender

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.

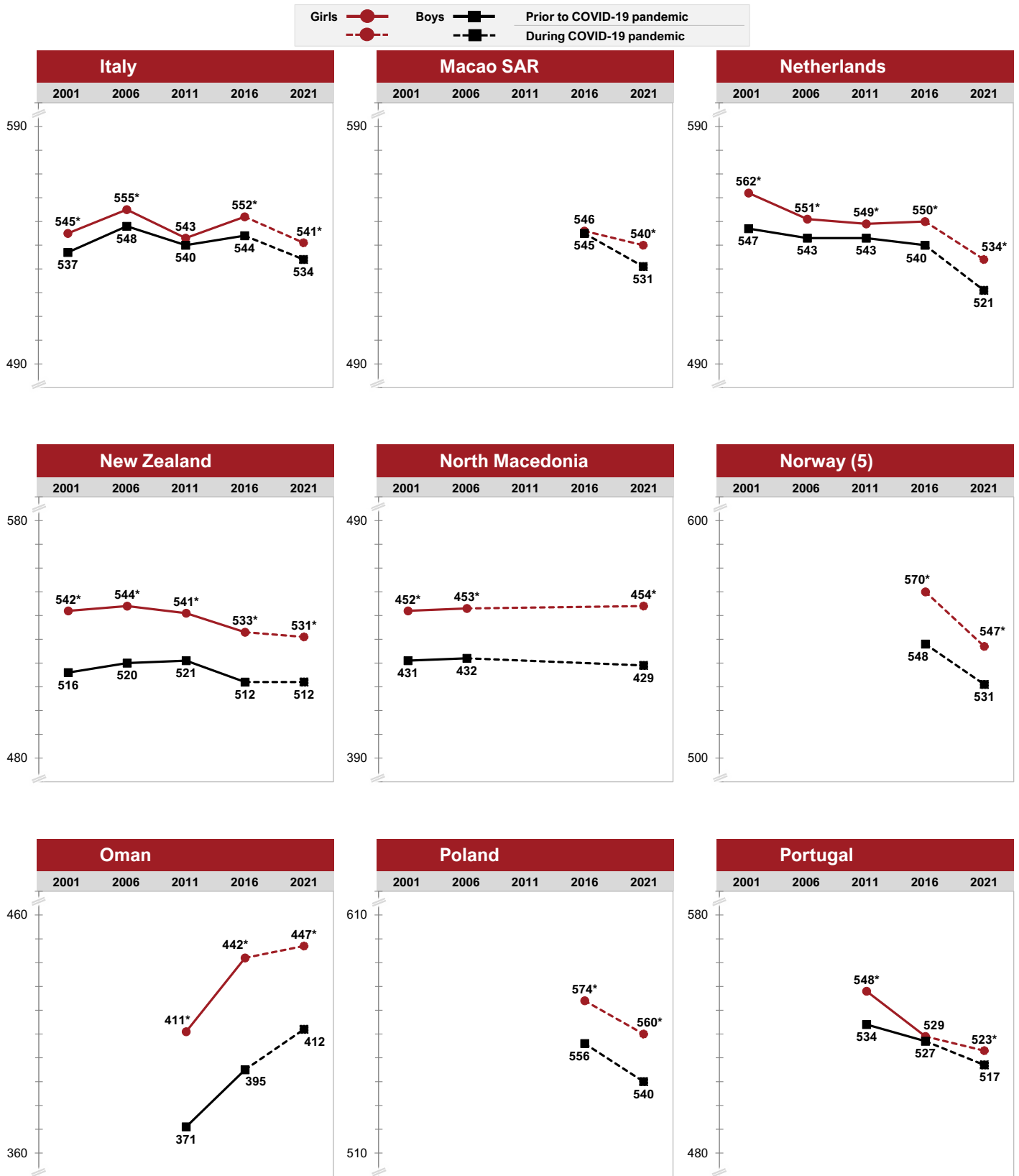
Exhibit 2.3: Trend Plots of Average Reading Achievement by Gender

Assessed Fourth Grade Students at the End of the School Year

☒ Assessed one year later than originally scheduled – six year trend from PIRLS 2016

(Continued)

This exhibit displays changes in achievement for girls and boys in each country and benchmarking participant that assessed fourth grade students at the end of the school year and have comparable data from previous assessments. See Appendix A for country participation in previous assessments.



* Average significantly higher than other gender

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.

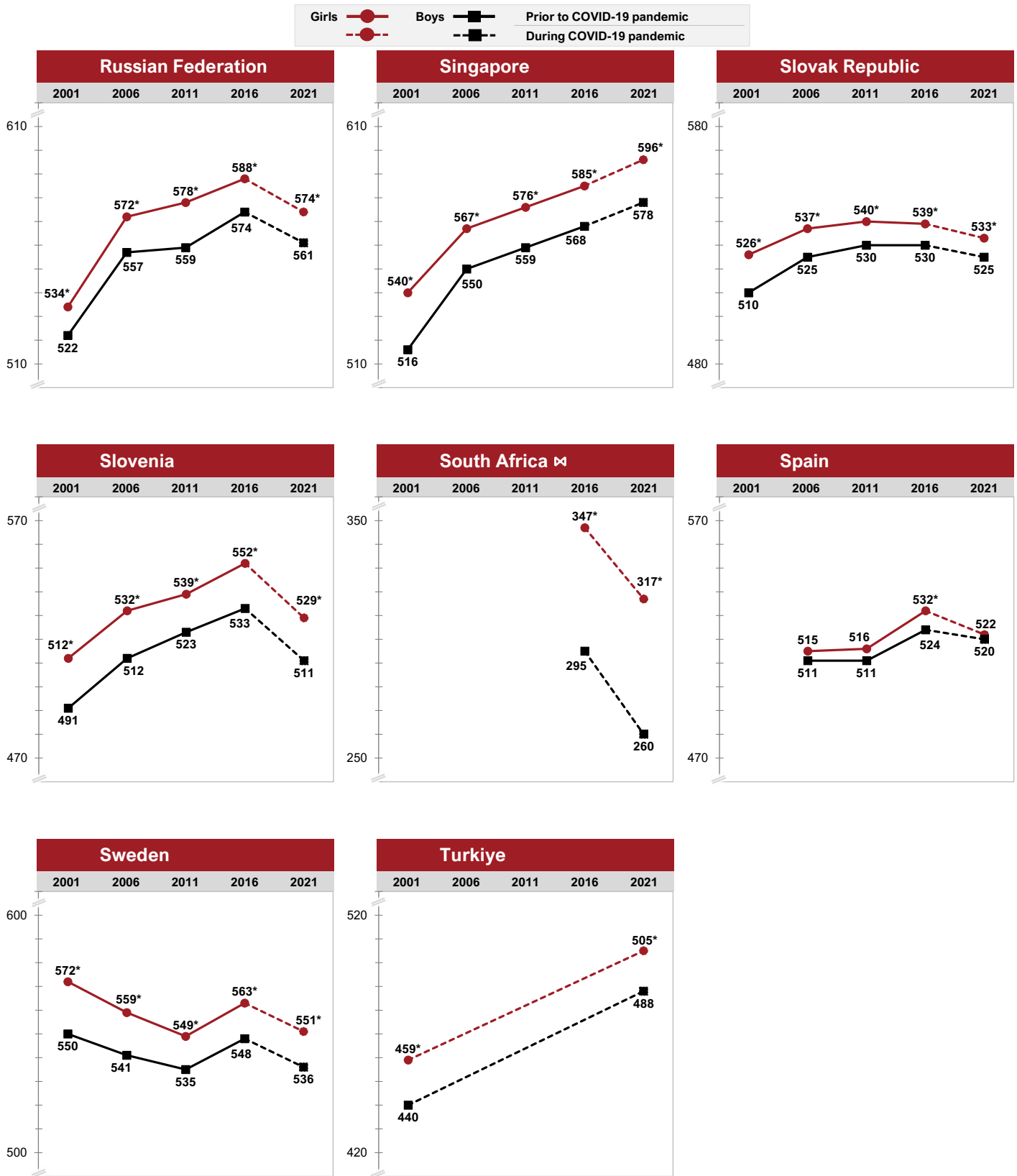
Exhibit 2.3: Trend Plots of Average Reading Achievement by Gender

Assessed Fourth Grade Students at the End of the School Year

⌘ Assessed one year later than originally scheduled – six year trend from PIRLS 2016

(Continued)

This exhibit displays changes in achievement for girls and boys in each country and benchmarking participant that assessed fourth grade students at the end of the school year and have comparable data from previous assessments. See Appendix A for country participation in previous assessments.



* Average significantly higher than other gender

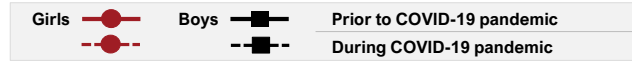
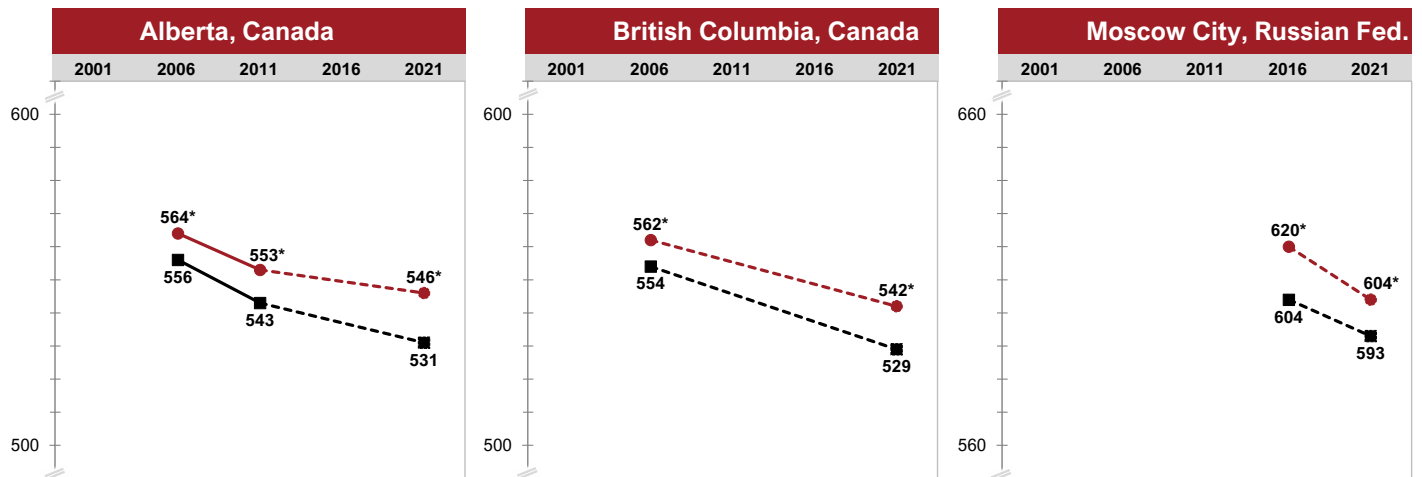
See Appendix A for country participation in previous PIRLS assessments. The scale interval is 10 points for each country, but a different part of the scale is shown according to each country's average achievement.

Exhibit 2.3: Trend Plots of Average Reading Achievement by Gender*Assessed Fourth Grade Students at the End of the School Year*

✕ Assessed one year later than originally scheduled – six year trend from PIRLS 2016

(Continued)

This exhibit displays changes in achievement for girls and boys in each country and benchmarking participant that assessed fourth grade students at the end of the school year and have comparable data from previous assessments. See Appendix A for country participation in previous assessments.

**Benchmarking Participants**

* Average significantly higher than other gender

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.

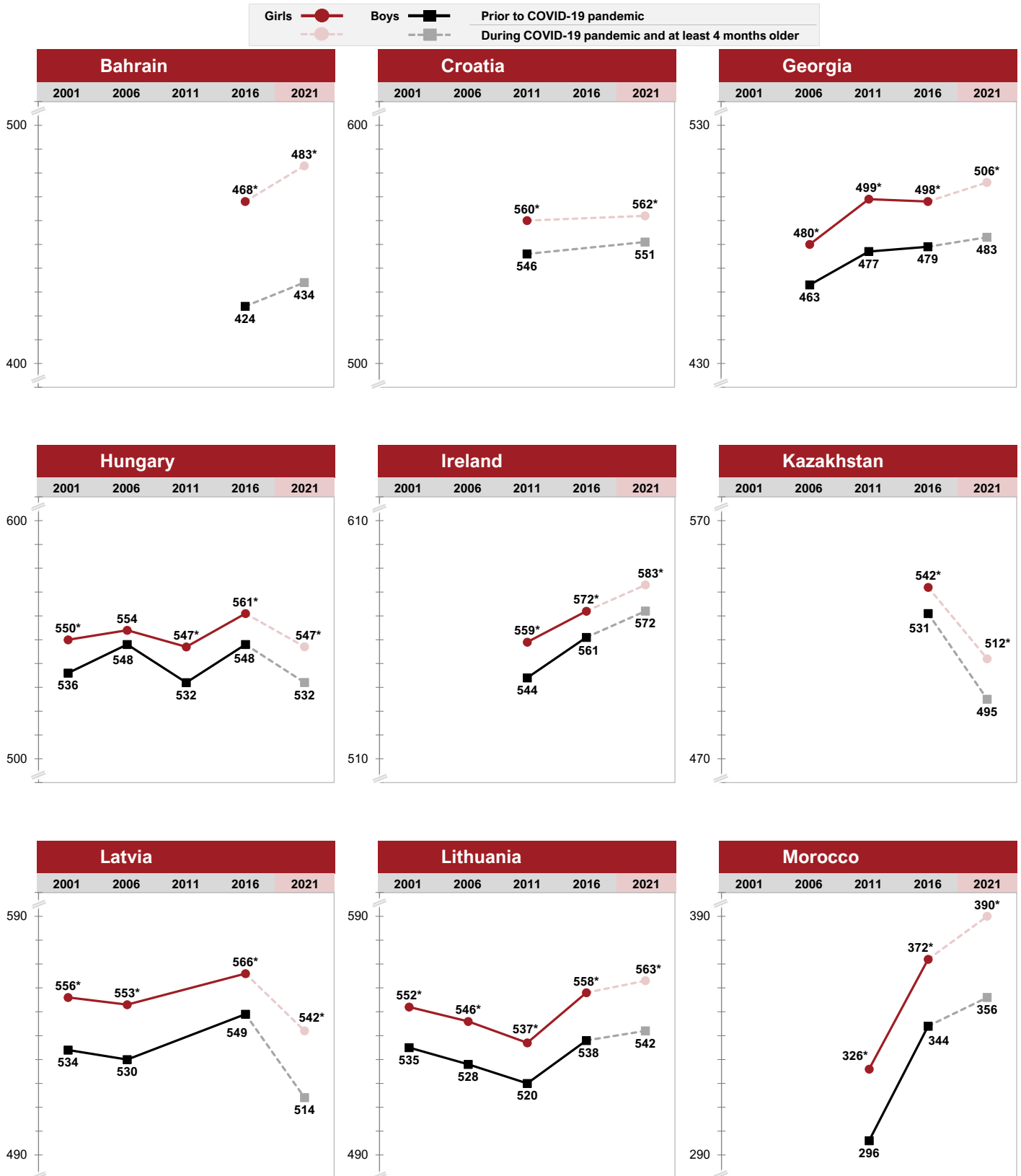
SOURCE: IEA's Progress in International Reading Literacy Study - PIRLS 2021
 Downloaded from <https://pirls2021.org/results>

Exhibit 2.4 contains the trend results by gender for the 14 countries with delayed assessment of the fourth grade cohort at the beginning of the fifth grade. Although nearly half these countries (6 out of 13, see Exhibit 2.2.1) had increased average achievement overall between 2016 and 2021, the gender gaps favoring girls remained relatively stable. Considering the results in both Exhibits 2.3 and 2.4, it seems that little progress has been made in closing the reading achievement gender gap favoring girls.

Exhibit 2.4: Trend Plots of Average Reading Achievement by Gender

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

This exhibit displays changes in achievement for girls and boys in each country and benchmarking participant 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. See Appendix A for country participation in previous assessments.



* Average significantly higher than other gender

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.

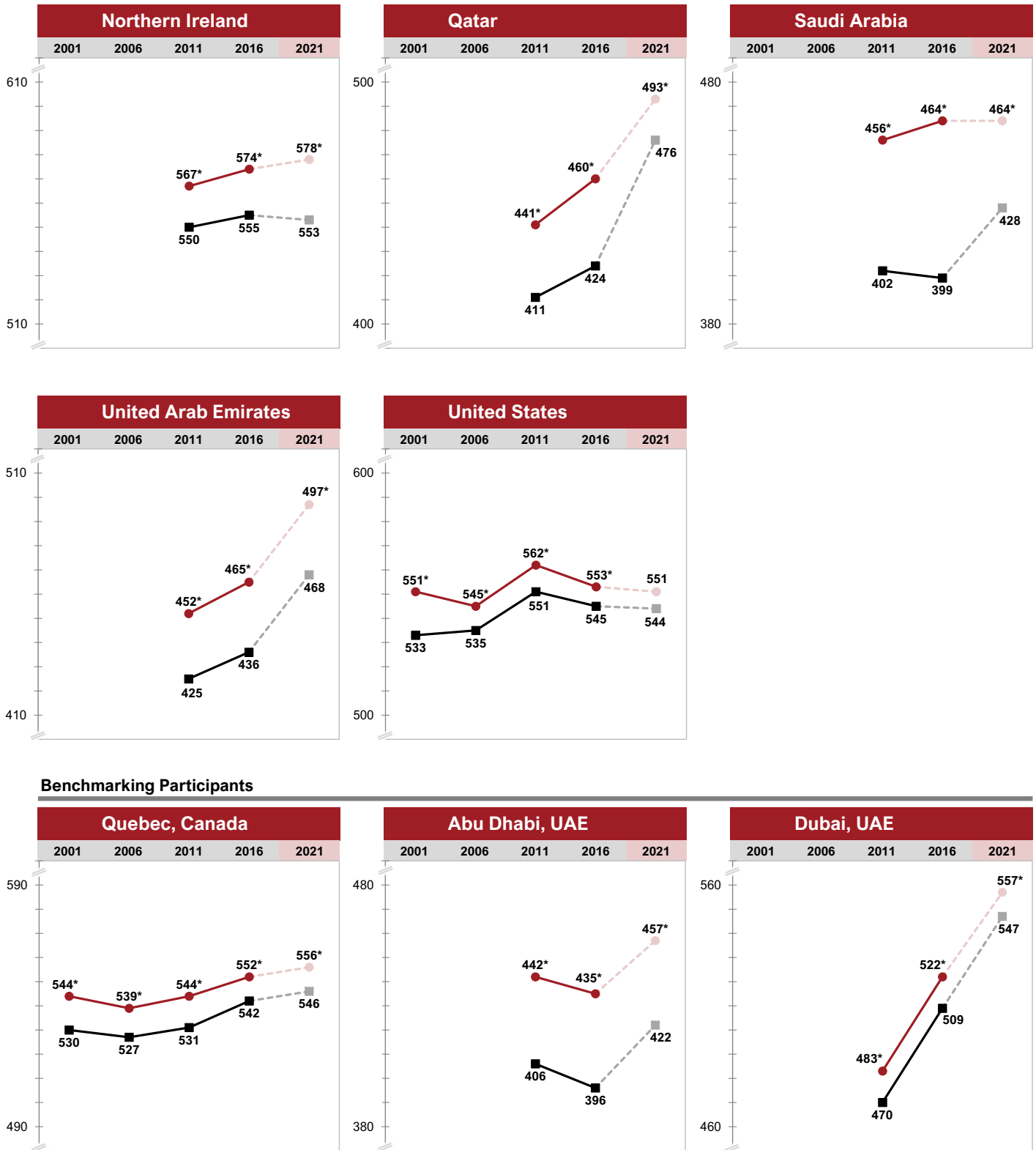
Exhibit 2.4: Trend Plots of Average Reading Achievement by Gender

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

(Continued)

This exhibit displays changes in achievement for girls and boys in each country and benchmarking participant 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. See Appendix A for country participation in previous assessments.

Girls —●— Boys —■— Prior to COVID-19 pandemic
 —●— —■— During COVID-19 pandemic and at least 4 months older



* Average significantly higher than other gender

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.