

Highlights from the TIMSS-L International Report and Results

Matthias von Davier
TIMSS & PIRLS International Study Center, Boston College

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TIMSS Longitudinal 2023/2024 Overview

- **TIMSS-L** is an outstanding success and will provide insights for years!
 - Enabled by all TIMSS-L participants
 - A very successful collaboration between all project partners
- **Today** we celebrate the international release of the results
- This study uses state-of-the-art methods to combine the TIMSS 2023 achievement data with the follow-up assessment in 2024

TIMSS Longitudinal 2023/2024 Overview

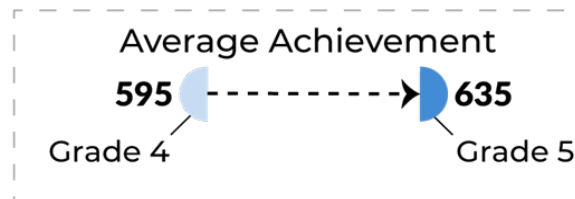
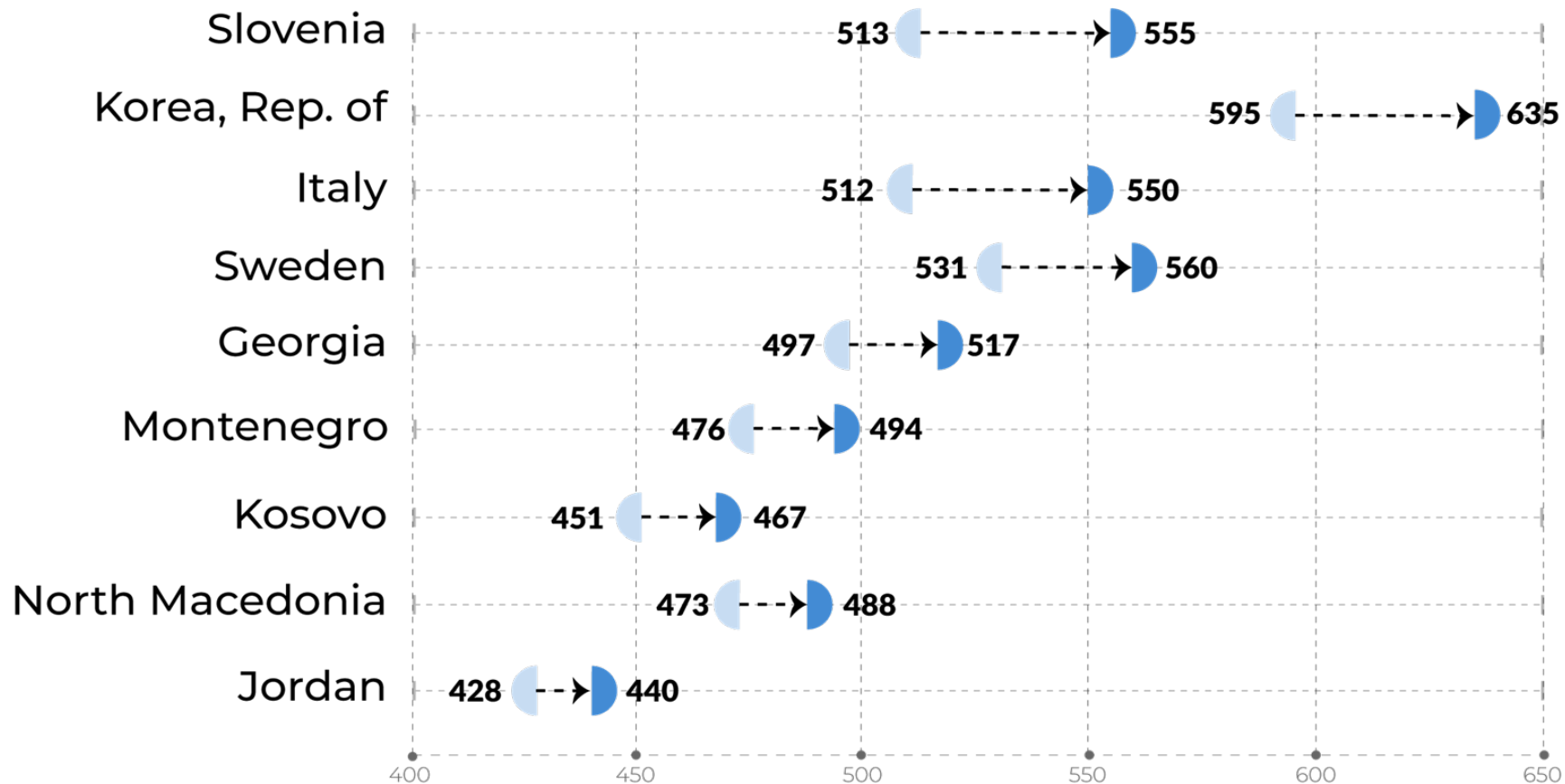
- **9 Participants** (Georgia, Italy, Jordan, Korea, Kosovo, Montenegro, North Macedonia, Slovenia, Sweden) in Grades 4 and 5
- **3 Participants** (Jordan, Korea, Sweden) in Grades 8 and 9
- The TIMSS 2023 Longitudinal target population included all students enrolled in selected and participating classes in TIMSS 2023
- The achieved samples are of high quality, and all participating countries were able to reassess a very large proportion of the students sampled in the earlier grade
- Having data from two assessments enables advanced analyses that would not be possible otherwise

TIMSS Longitudinal 2023/2024 Overview

- The TIMSS-L report is web-based and interactive, downloads in more traditional formats (Excel, PDFs by report section) are available.
- The international report released today shows achievement results by country, by grade, and subject, and compares growth measures for girls and boys.
- Contextual data is used to further delve into the results
 - examine how observed gains relate to student variables such as socioeconomic status, student attitudes, absenteeism, etc.
 - explore data from parents, teachers, and school principals to broaden understanding of students' learning experiences

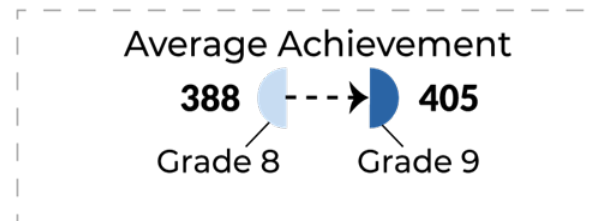
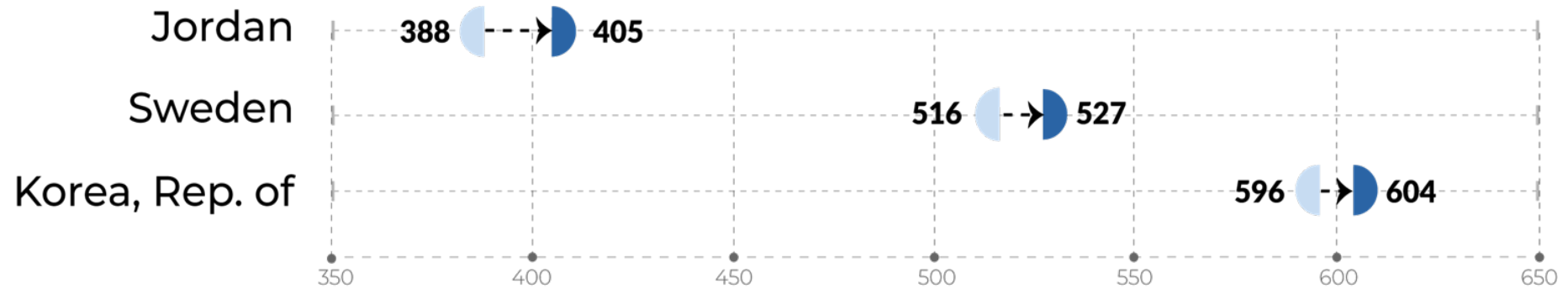
TIMSS 2023 Longitudinal Selected Achievement Results

Average Growth in Mathematics Achievement



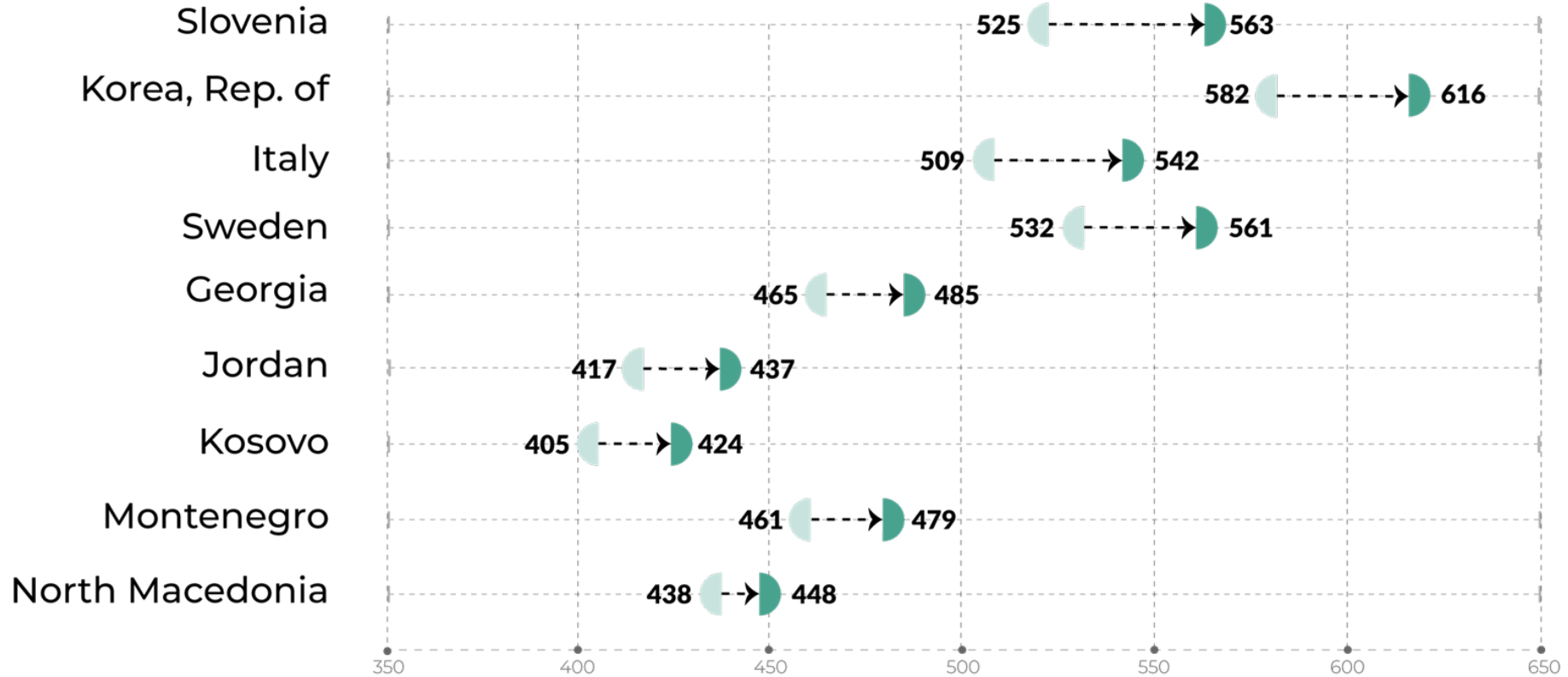
Average Growth in Mathematics Achievement

GRADES
8-9
Mathematics



Average Growth in Science Achievement

GRADES
4-5
Science

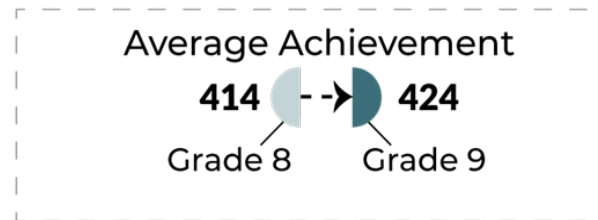
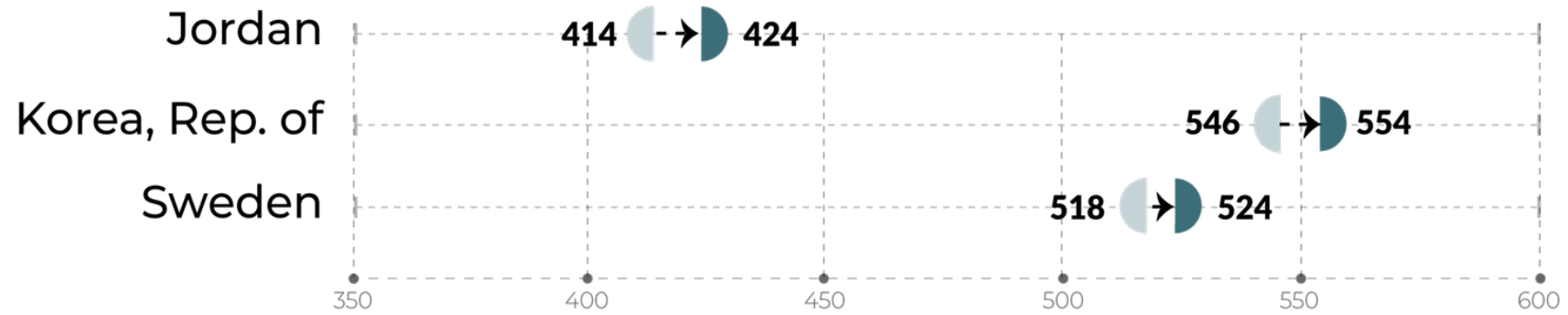


Average Achievement

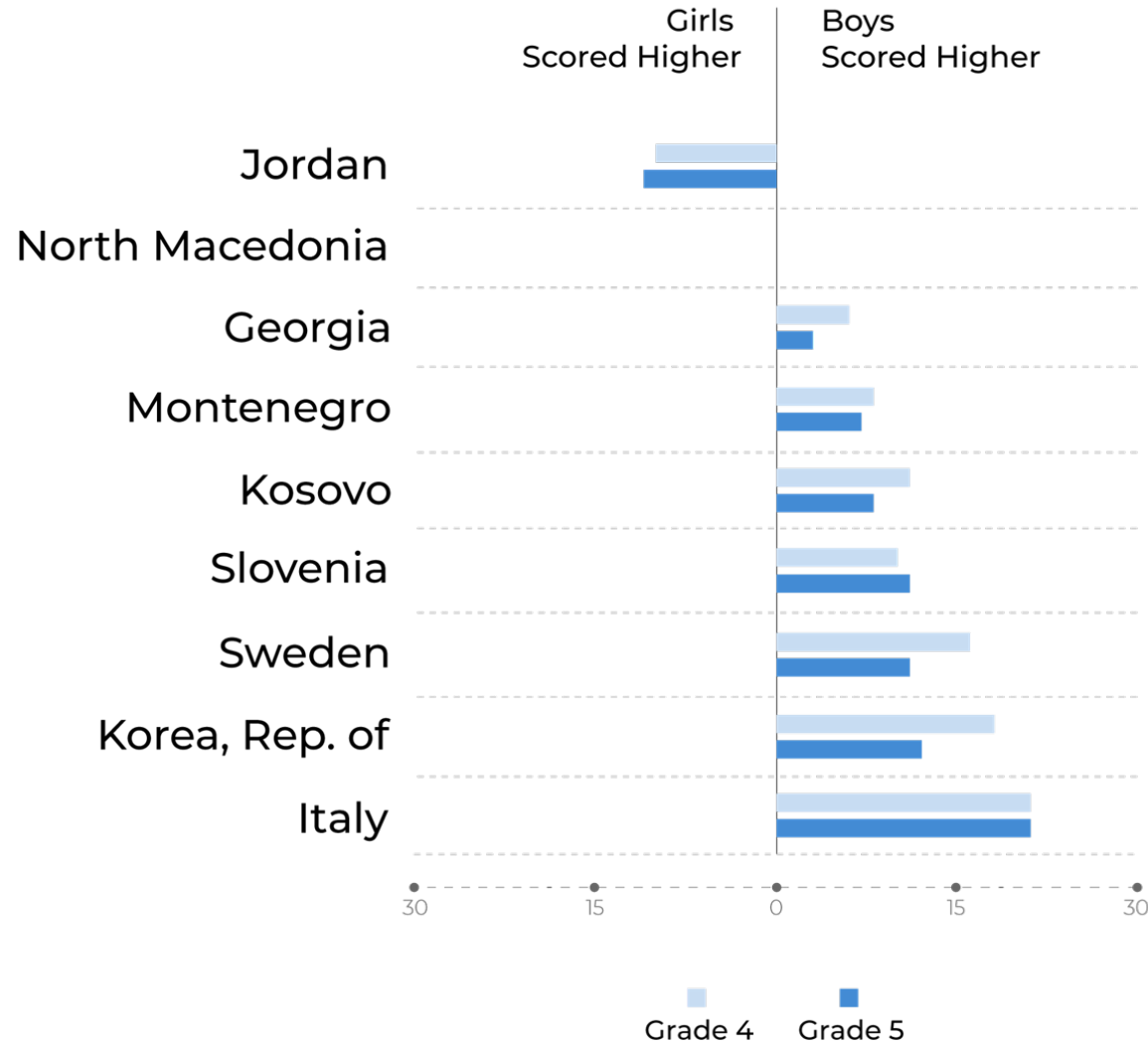
525 Grade 4 → 563 Grade 5

Average Growth in Science Achievement

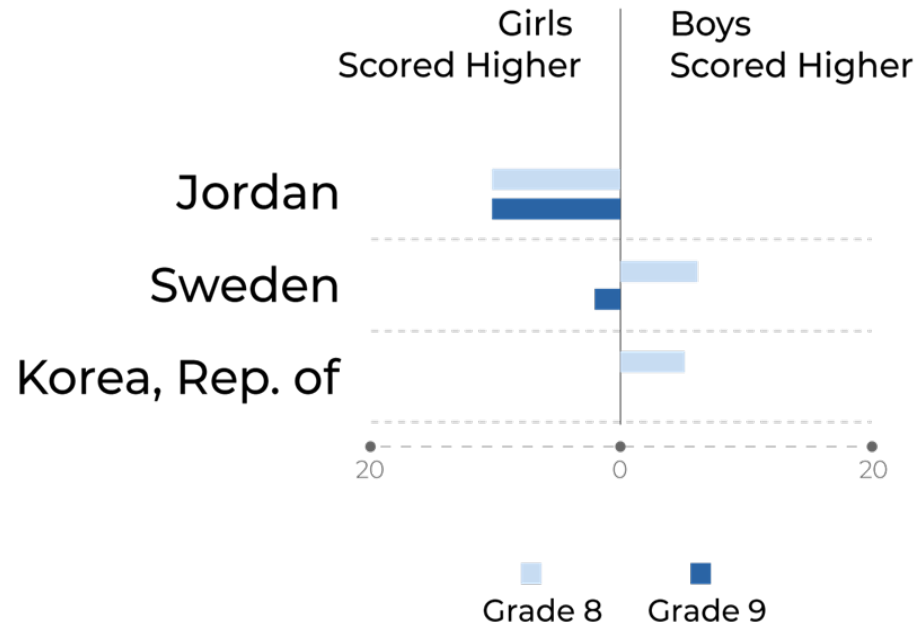
GRADES
8-9
Science



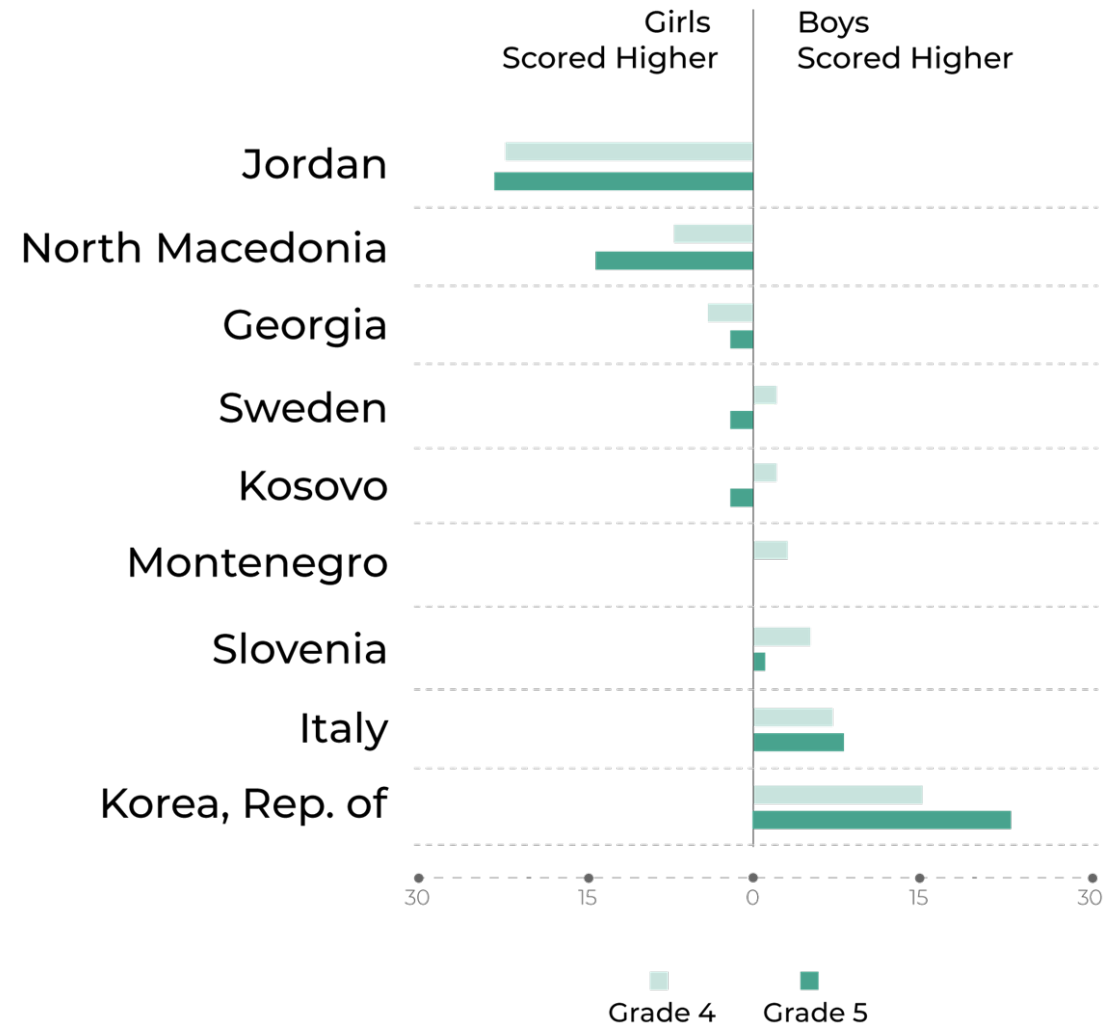
Average Mathematics Achievement Differences for Girls and Boys



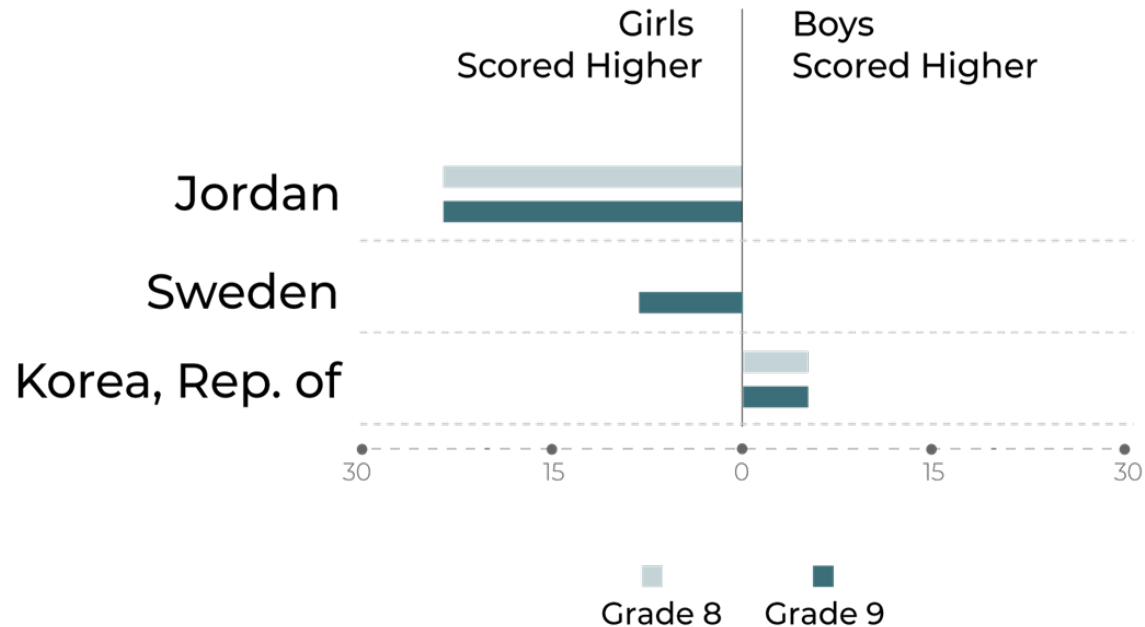
Average Mathematics Achievement Differences for Girls and Boys



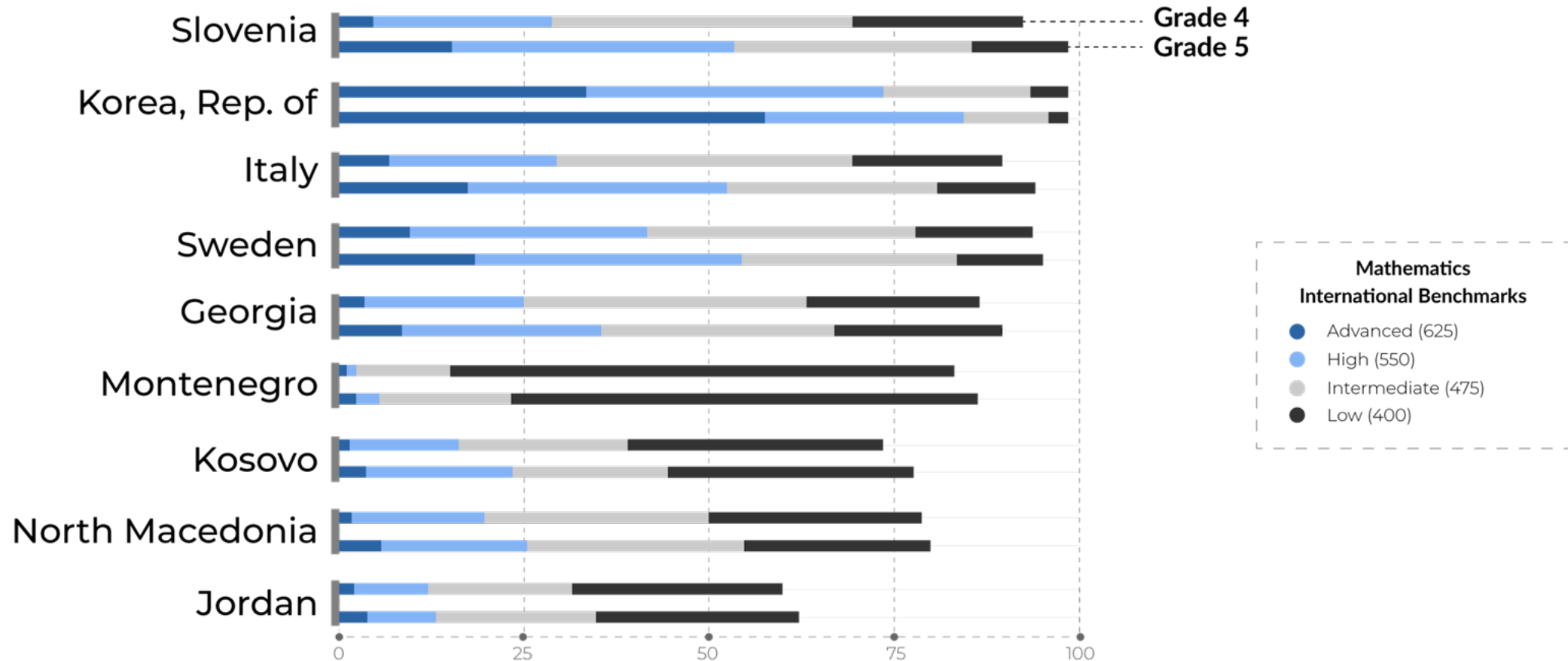
Average Science Achievement Differences for Girls and Boys



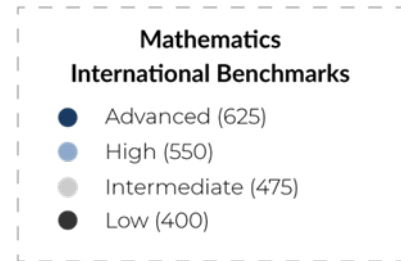
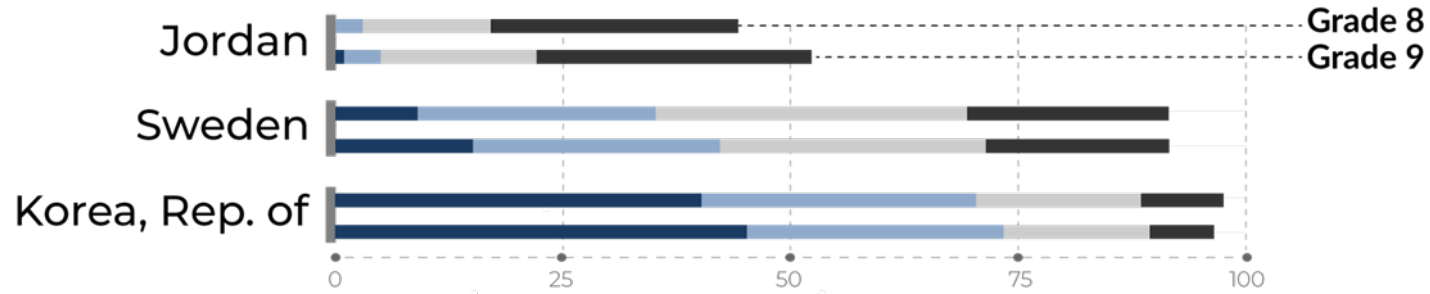
Average Science Achievement Differences for Girls and Boys



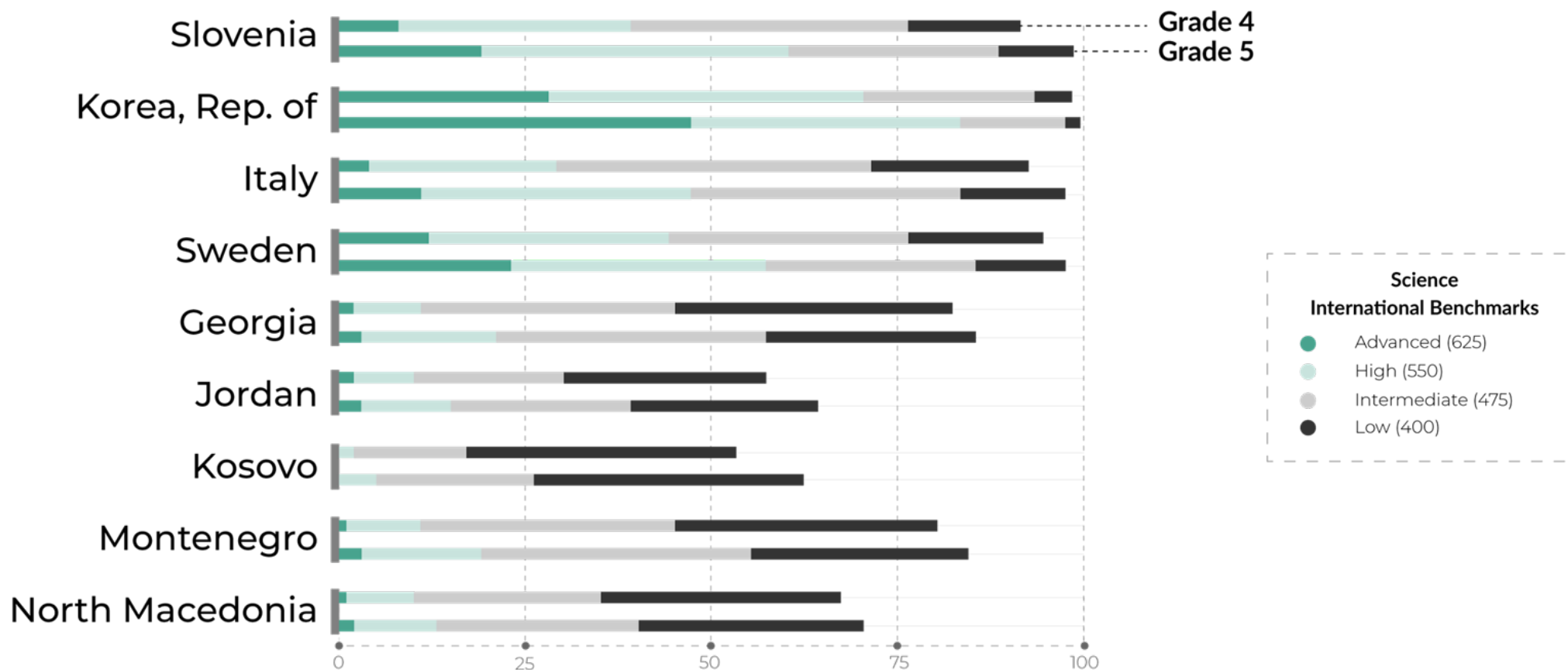
Percentages of Students Reaching International Benchmarks



Percentages of Students Reaching International Benchmarks

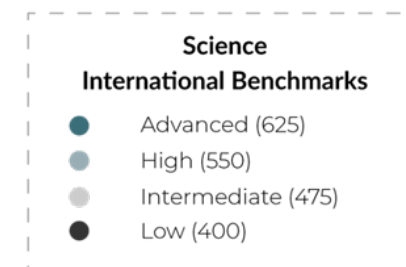
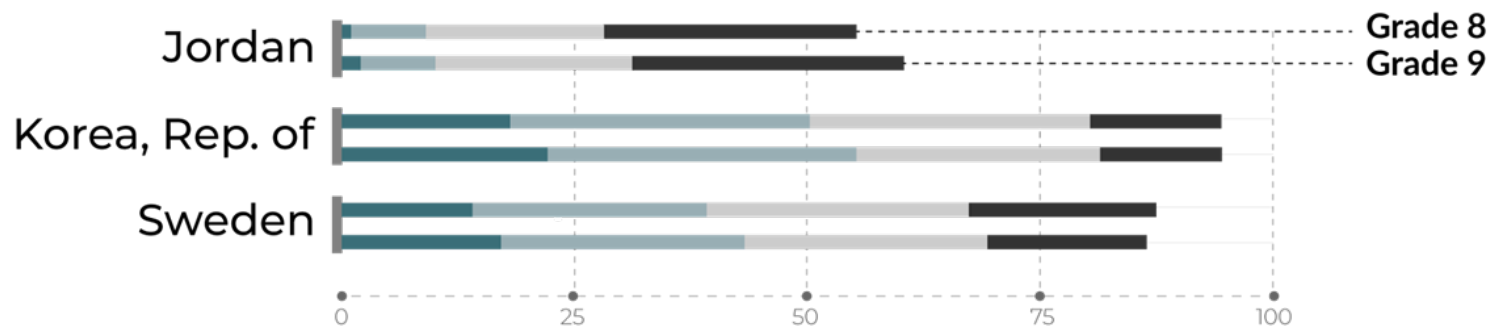


Percentages of Students Reaching International Benchmarks



Percentages of Students Reaching International Benchmarks

GRADES
8-9
Science



TIMSS 2023 Longitudinal Achievement Results

- All participating countries showed country-level growth, at different rates, in mathematics and science achievement.
- Boys and girls have relatively comparable rates of growth between Grades 4 and 5.
- More pronounced learning gains are found between Grades 4 and 5 than between Grades 8 and 9.
- Students do not learn at the same rate; there is variation in the distributions of student achievement and growth
 - Across countries
 - Within countries by contexts of learning

Exploring the Achievement Results Online



Exploring the Achievement Results Online

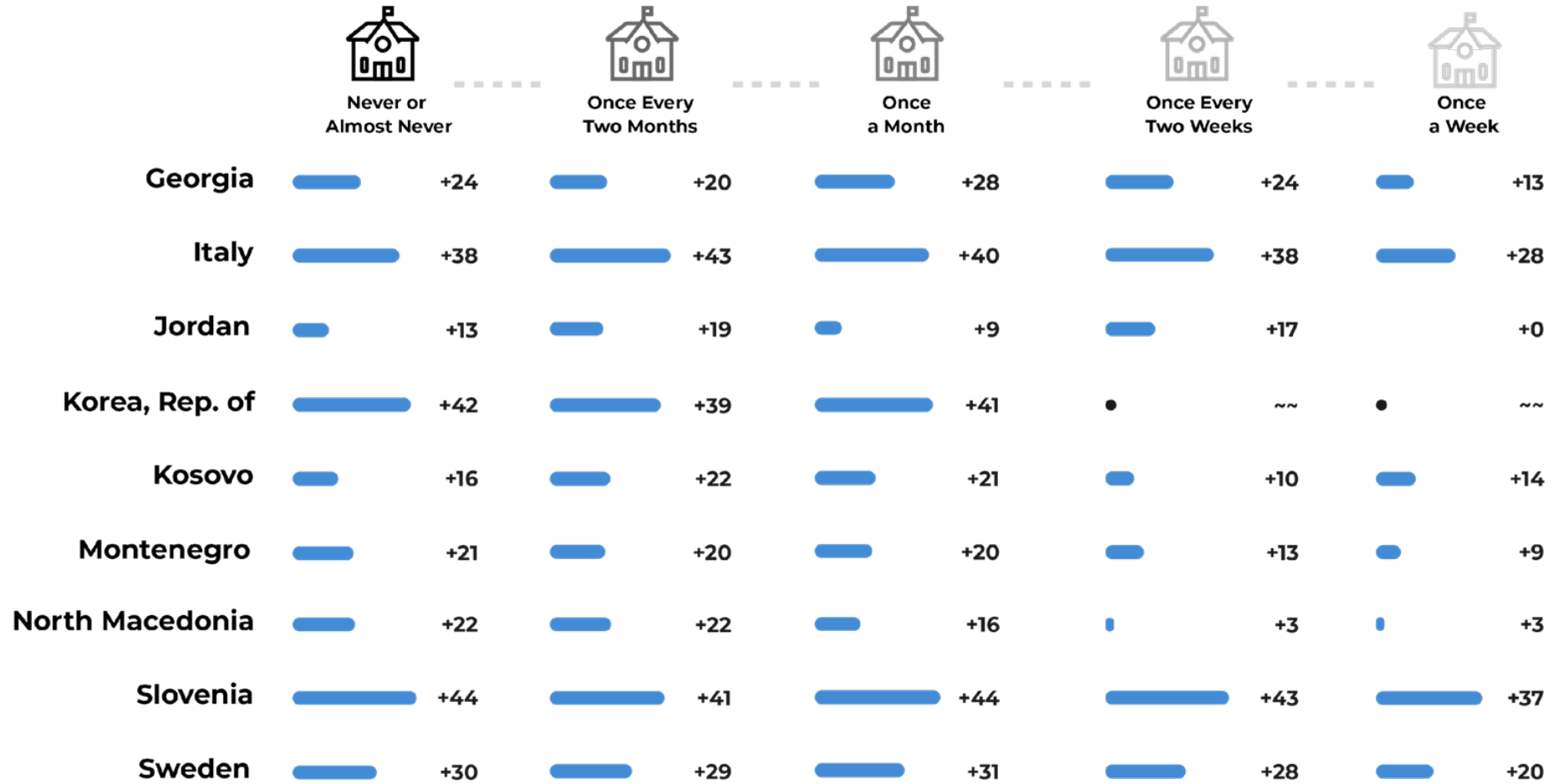


TIMSS 2023 Longitudinal Selected Contextual Results

TIMSS 2023 Longitudinal Contextual Results

- Several factors are associated with student growth and achievement in mathematics and science.
- Two examples:
 - Reports of Absenteeism
 - Reports of Bullying
- Relationships between context variables and growth vary by country.
- Relationships observed between Grades 4 and 5 may not be the same as between Grades 8 and 9.

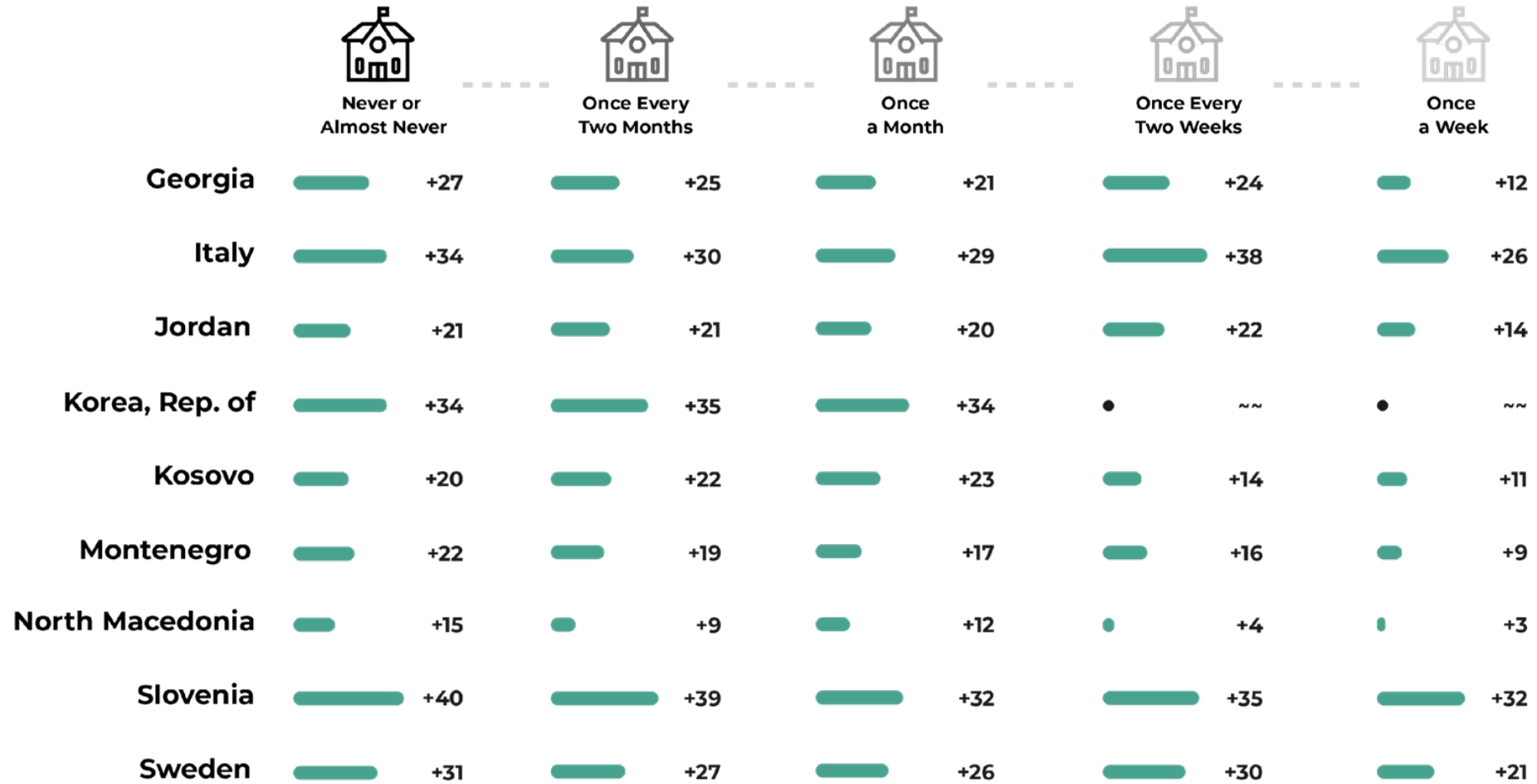
Frequency of Student Absences and Growth in Mathematics Achievement



+24
 Average Change in Achievement
 A tilde (~) indicates insufficient data to report result.

Frequency of Student Absences and Growth in Science Achievement

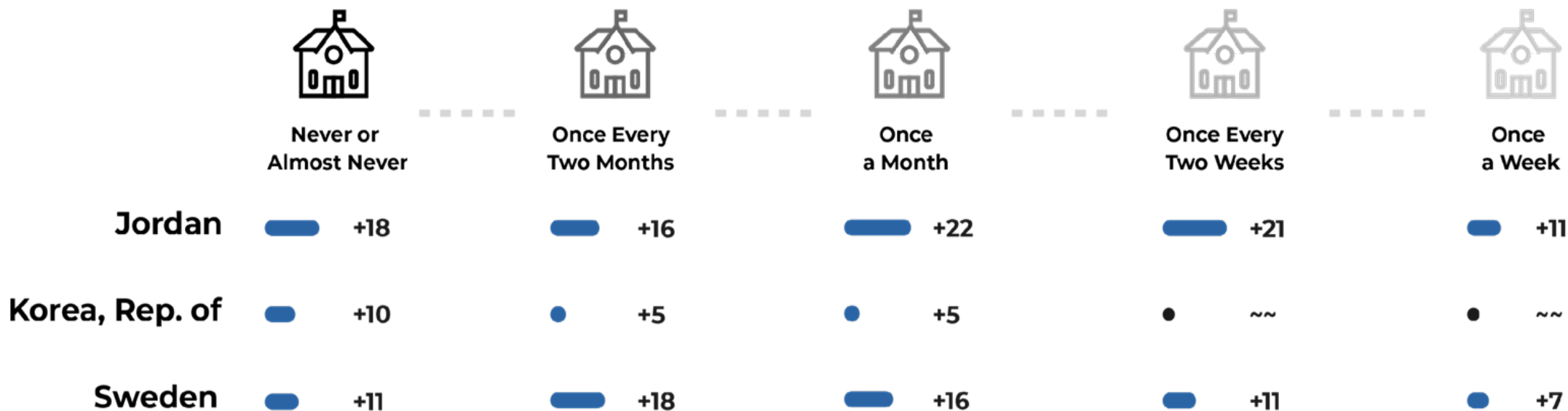
GRADES
4-5
Science



+27 Average Change in Achievement
 A tilde (~) indicates insufficient data to report result.

Frequency of Student Absences and Growth in Mathematics Achievement

GRADES
8-9
Mathematics



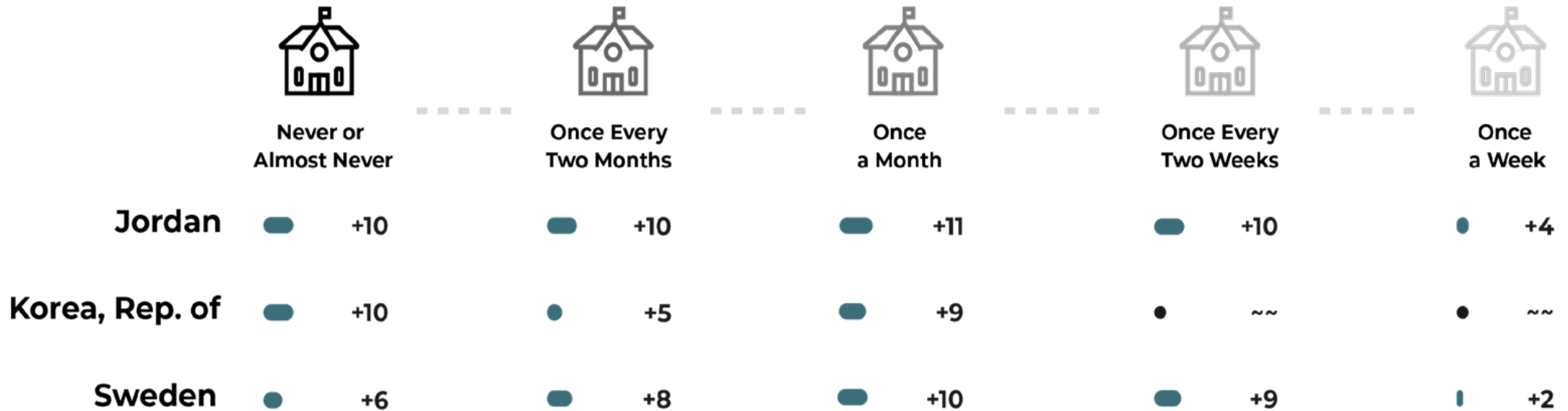
+18

Average Growth
in Achievement

A tilde (~) indicates insufficient data to report result.

Frequency of Student Absences and Growth in Science Achievement

GRADES
8-9
Science



+10 Average Change in Achievement
A tilde (~) indicates insufficient data to report result.

Student Bullying and Growth in Achievement

MATHEMATICS • GRADES 4–5



[View Table](#)

[Exhibit 6.1.6 - About the Scale](#)

[About the Exhibits](#)

Country		Never or Almost Never		About Monthly		About Weekly	
		Percent of Students	Average Growth	Percent of Students	Average Growth	Percent of Students	Average Growth
Georgia	r	69 (1.2)	27 (3.3)	20 (0.9)	17 (4.5)	11 (0.6)	6 (4.5)
Italy		52 (1.2)	38 (2.1)	39 (1.0)	41 (2.4)	9 (0.6)	34 (4.3)
Jordan	r	49 (1.7)	19 (4.9)	26 (1.2)	10 (4.7)	25 (1.5)	-5 (6.3)
Korea, Rep. of	r	75 (0.9)	43 (1.7)	21 (0.8)	38 (2.3)	4 (0.4)	34 (5.6)
Kosovo		57 (1.1)	20 (2.3)	24 (0.9)	17 (2.6)	18 (0.9)	13 (3.2)
Montenegro		65 (0.9)	24 (2.0)	18 (0.6)	22 (2.6)	17 (0.7)	5 (3.2)
North Macedonia	r	53 (1.2)	27 (2.7)	24 (1.0)	15 (4.3)	23 (1.1)	3 (3.7)
Slovenia		65 (1.1)	44 (1.8)	27 (1.0)	42 (2.4)	8 (0.5)	36 (3.2)
Sweden		63 (1.1)	32 (1.5)	31 (0.9)	28 (2.1)	6 (0.6)	14 (3.6)

Student Bullying and Growth in Achievement

SCIENCE • GRADES 4–5



[View Table](#)

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Country		Never or Almost Never		About Monthly		About Weekly	
		Percent of Students	Average Growth	Percent of Students	Average Growth	Percent of Students	Average Growth
Georgia	r	69 (1.2)	28 (2.4)	20 (0.9)	18 (4.2)	11 (0.6)	2 (5.7)
Italy		52 (1.2)	33 (2.0)	39 (1.0)	33 (2.3)	9 (0.6)	28 (4.3)
Jordan	r	49 (1.7)	23 (5.9)	26 (1.2)	22 (4.8)	25 (1.5)	12 (5.8)
Korea, Rep. of	r	75 (0.9)	35 (1.6)	21 (0.8)	34 (2.2)	4 (0.4)	32 (7.9)
Kosovo		57 (1.1)	21 (2.2)	24 (0.9)	23 (3.1)	18 (0.9)	12 (4.6)
Montenegro		65 (0.9)	24 (1.7)	18 (0.6)	24 (3.0)	17 (0.7)	4 (2.4)
North Macedonia	r	53 (1.2)	17 (2.5)	24 (1.0)	12 (3.2)	23 (1.1)	0 (4.1)
Slovenia		65 (1.1)	39 (1.7)	27 (1.0)	37 (2.4)	8 (0.5)	31 (3.5)
Sweden		63 (1.1)	29 (1.8)	31 (0.9)	27 (2.2)	6 (0.6)	29 (4.8)

Student Bullying and Growth in Achievement

MATHEMATICS • GRADES 8–9



View Table		Exhibit 6.1.9 - About the Scale		About the Exhibits			
Country		Never or Almost Never		About Monthly		About Weekly	
		Percent of Students	Average Growth	Percent of Students	Average Growth	Percent of Students	Average Growth
Jordan	r	56 (1.2)	23 (2.9)	21 (0.7)	16 (4.4)	23 (1.1)	9 (4.8)
Korea, Rep. of		85 (0.8)	10 (1.8)	13 (0.7)	2 (4.2)	2 ~	~ ~
Sweden	r	75 (1.0)	17 (1.5)	18 (0.8)	10 (1.9)	7 (0.5)	-13 (3.1)

Student Bullying and Growth in Achievement

SCIENCE • GRADES 8–9



View Table

Exhibit 6.1.9 - About the Scale

About the Exhibits

Country		Never or Almost Never		About Monthly		About Weekly	
		Percent of Students	Average Growth	Percent of Students	Average Growth	Percent of Students	Average Growth
Jordan	r	56 (1.2)	13 (2.9)	21 (0.7)	9 (3.4)	23 (1.1)	-1 (3.9)
Korea, Rep. of		85 (0.8)	9 (1.7)	13 (0.7)	9 (2.3)	2 ~	~ ~
Sweden	r	75 (1.0)	11 (1.9)	18 (0.8)	6 (3.9)	7 (0.5)	-13 (4.6)

Exploring the Contextual Results Online



Exploring the Contextual Results Online



The TIMSS-L Database Offers a Unique Research Opportunity

- Research is only just beginning with the release of the international results.
- The TIMSS-L International Database will be released February 12, 2026.
- Once the data is published, we expect many researchers to pick up the thread and do additional, more detailed analyses.
- The TIMSS & PIRLS International Study Center at Boston College will also work on subsequent research for a TIMSS-L Insights report.

Summary

- The TIMSS-L database is extremely valuable for in depth analyses of growth
- We can explore which contexts of learning are predicting growth
- We can study where growth happens, and how it relates to student, school, and home variables
- We can study the extent to which country differences exist in how they reduce disparities across student groups.
- I expect many interesting research articles to come out in the upcoming years

TIMSS-L Results Online



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