

Mathematics Instructional Time in Grade 8

Nations Reporting Data: 36 Nations

In 1999, eighth-grade mathematics teachers in five nations participating in the Third International Mathematics and Science Study (TIMSS 1999) reported providing at least 150 hours of mathematical instruction per year on average: Indonesia, Morocco, Thailand, Chile, and Canada (table 1). In the United States, eighth-grade mathematics teachers reported providing 144 hours of mathematical instruction per year on average. Nations providing no more than 99 hours on average were Bulgaria, Turkey, the Netherlands, Finland, Macedonia, and Cyprus. The percentage of instructional time at the eighth-grade that was devoted to mathematics ranged from 9 percent in Chinese Taipei, Cyprus, and the Netherlands to 17 percent in Indonesia and the Russian Federation.

Definition and Methodology

Since different systems have school years of different lengths and different arrangements of weekly and daily instruction, the comparisons are given in terms of the average number of hours of mathematics instruction over the school year as reported by mathematics teachers and total instructional time provided by schools.

Nations participating in TIMSS 1999 were asked to identify eligible students based on a common set of criteria, allowing for adaptation to nation-specific situations. The international desired population consisted of all students in the nation who were enrolled in the upper of the two adjacent grades that contained the greatest proportion of thirteen-year-olds at the time of testing. In the United States and most other nations, this corresponds to grade 8.

Table 1. Eighth-graders' average yearly mathematics instructional time in hours and mathematics instructional time as a percent of total instructional time, by nation: 1999

Nation	Mathematics	
	Average yearly hours	Percentage of total instruction time ¹
International average	129	13
Indonesia	222 ²	17 ²
Morocco	207 ³	—
Thailand	177 ³	14 ³
Chile	161 ²	15 ³
Canada	150 ²	15 ²
Hong Kong, SAR	149 ²	15 ³
Philippines	148 ³	—
United States	144 ³	—
Russian Federation	142 ²	17 ³
Czech Republic	139	15
Australia	138 ²	13 ³
Slovak Republic	137 ²	14 ³
Latvia (LSS)	137 ²	16 ³
South Africa	136 ³	—
New Zealand	134 ²	14 ²
Tunisia	132 ²	14 ³
Italy	130	12
Malaysia	127	12
Moldova	127 ²	13 ³
Japan	127	12
Chinese Taipei	126	9
Singapore	126	15
Jordan	120	12 ²
Korea, Republic of	118	11
Hungary	117	13
Belgium (Flemish)	116	12
England	115 ³	12 ³
Slovenia	114	15
Romania	107	11 ²
Iran, Islamic Republic	105 ³	—
Bulgaria	99 ²	10 ³
Turkey	99 ³	—
Netherlands	94 ³	9 ³
Finland	93	10 ²
Macedonia, Republic of	75 ²	10 ³
Cyprus	73 ²	9 ²

— Not available.

¹ Computed as the ratio of science instructional time to total instructional time averaged across students.

² Response rate is below 85 percent. Data are available for 70 to 84 percent of students, with missing data having not been explicitly accounted for in the data.

³ Response rate is below 70 percent. Data are available for 50 to 69 percent of students, with missing data having not been explicitly accounted for in the data.

NOTE: Nations are ordered by average yearly hours of mathematics instruction. Mathematics instructional time provided by teachers, and total instructional time provided by schools. Detail may not sum to totals because of rounding.

SOURCE: International Association for the Evaluation of Educational Achievement (IEA) Third International Mathematics and Science Study (TIMSS), 1998–99.

Table A-1. Eighth-graders' average yearly mathematics instructional time in hours and mathematics instructional time as a percent of total instructional time, by nation: 1999

Nation	Mathematics		Percentage of total instructional time ¹	
	Average yearly hours			
International average	129	(0.7)	13	(0.1)
Indonesia	222 ²	(9.3)	17 ²	(0.9)
Morocco	207 ³	(3.8)	—	—
Thailand	177 ³	(12.1)	14 ³	(1.2)
Chile	161 ²	(2.9)	15 ³	(0.3)
Canada	150 ²	(2.3)	15 ²	(0.2)
Hong Kong, SAR	149 ²	(5.4)	15 ³	(0.5)
Philippines	148 ³	(4.8)	—	—
United States	144 ³	(4.5)	—	—
Russian Federation	142 ²	(3.3)	17 ³	(0.6)
Czech Republic	139	(2.4)	15	(0.2)
Australia	138 ²	(3.3)	13 ³	(0.3)
Slovak Republic	137 ²	(3.3)	14 ³	(0.4)
Latvia (LSS)	137 ²	(2.6)	16 ³	(0.5)
South Africa	136 ³	(5.7)	—	—
New Zealand	134 ²	(1.9)	14 ²	(0.2)
Tunisia	132 ²	(2.8)	14 ³	(0.3)
Italy	130	(3.2)	12	(0.3)
Malaysia	127	(4.0)	12	(0.4)
Moldova	127 ²	(2.8)	13 ³	(0.6)
Japan	127	(1.8)	12	(0.2)
Chinese Taipei	126	(1.9)	9	(0.1)
Singapore	126	(3.8)	15	(0.5)
Jordan	120	(3.6)	12 ²	(0.3)
Korea, Republic of	118	(3.5)	11	(0.3)
Hungary	117	(1.9)	13	(0.3)
Belgium (Flemish)	116	(3.5)	12	(0.4)
England	115 ³	(2.7)	12 ³	(0.3)
Slovenia	114	(1.6)	15	(0.2)
Romania	107	(3.6)	11 ²	(0.4)
Iran, Islamic Republic	105 ³	(7.0)	—	—
Bulgaria	99 ²	(3.9)	10 ³	(0.4)
Turkey	98 ³	(4.6)	—	—
Netherlands	94 ³	(1.6)	9 ³	(0.1)
Finland	93	(2.5)	10 ²	(0.3)
Macedonia, Republic of	75 ²	(1.2)	10 ³	(0.2)
Cyprus	73 ²	(1.0)	9 ²	(0.1)

— Not available.

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NOTE: Nations are ordered by average yearly hours of mathematics instruction. Mathematics instructional time provided by teachers, and total instructional time provided by schools. Detail may not sum to totals because of rounding. Standard errors appear in parentheses.

SOURCE: International Association for the Evaluation of Educational Achievement (IEA) Third International Mathematics and Science Study (TIMSS), 1998–99.