

# Appendix B

SUPPLEMENTARY TABLES FOR CHAPTERS 5 AND 6,  
SCHOOL RESOURCES AND ATMOSPHERE

**Table B.1**

**School-Wide Shortages or Inadequacies in Facilities and Materials that Affect General Capacity to Provide Instruction "Some" or "A Lot"<sup>1</sup> – Fourth Grade\***

Country	Percent of Schools by Shortage or Inadequacy				
	Instructional Materials	Budget for Supplies	School Buildings / Grounds	Heating / Cooling and Lighting	Instructional Space
<i>Australia</i>	19 (4.1)	20 (4.3)	27 (4.8)	16 (3.7)	29 (4.9)
<i>Austria</i>	4 (2.2)	5 (1.5)	16 (3.7)	11 (3.6)	22 (4.3)
<b>Canada</b>	25 (3.7)	26 (3.6)	29 (3.9)	14 (2.8)	25 (3.2)
<b>Cyprus</b>	r 24 (2.6)	r 10 (2.6)	r 26 (3.1)	r 43 (3.5)	r 20 (3.5)
<b>Czech Republic</b>	15 (3.3)	44 (4.5)	21 (3.2)	10 (2.5)	20 (3.6)
<b>England</b>	25 (4.9)	31 (4.9)	45 (5.0)	15 (3.5)	33 (5.0)
<b>Greece</b>	49 (6.7)	39 (6.3)	44 (6.6)	37 (6.4)	40 (6.0)
<b>Hong Kong</b>	27 (5.1)	25 (4.8)	41 (6.0)	28 (4.7)	43 (6.5)
<i>Hungary</i>	53 (5.4)	50 (5.0)	35 (4.7)	48 (4.6)	35 (4.6)
<b>Iceland</b>	39 (0.6)	17 (0.2)	59 (0.5)	9 (0.7)	59 (0.5)
<b>Iran, Islamic Rep.</b>	52 (5.2)	71 (4.6)	65 (5.0)	58 (5.2)	63 (5.1)
<b>Ireland</b>	24 (3.6)	41 (3.9)	39 (4.0)	11 (1.9)	33 (3.9)
<i>Israel</i>	s 11 (4.5)	s 14 (4.6)	s 43 (10.0)	s 50 (7.1)	s 44 (6.5)
<b>Japan</b>	25 (3.9)	30 (3.9)	37 (5.2)	37 (5.3)	32 (4.6)
<b>Korea</b>	25 (7.0)	26 (7.1)	44 (7.3)	58 (8.6)	37 (6.3)
<i>Kuwait</i>	s 100 (0.0)	s 100 (0.0)	s 98 (0.0)	s 95 (0.1)	s 97 (0.0)
<i>Latvia (LSS)</i>	92 (2.6)	97 (1.5)	79 (5.3)	67 (6.6)	72 (6.1)
<i>Netherlands</i>	44 (4.4)	33 (5.0)	23 (4.4)	11 (3.2)	27 (3.9)
<b>New Zealand</b>	29 (5.5)	28 (4.9)	28 (7.1)	11 (4.7)	34 (7.0)
<b>Norway</b>	25 (4.7)	7 (2.9)	25 (3.9)	16 (3.5)	24 (4.2)
<b>Portugal</b>	63 (4.4)	69 (4.4)	54 (4.9)	32 (3.9)	35 (5.5)
<b>Scotland</b>	--	--	--	--	--
<b>Singapore</b>	8 (0.1)	4 (0.0)	30 (0.2)	13 (0.1)	35 (0.4)
<i>Slovenia</i>	74 (5.2)	64 (5.7)	54 (6.6)	44 (6.0)	68 (5.8)
<i>Thailand</i>	97 (1.4)	95 (1.9)	89 (2.9)	73 (3.4)	79 (3.9)
<b>United States</b>	13 (3.8)	17 (4.1)	31 (6.0)	9 (2.9)	32 (6.3)
<b>International Average</b>	38 (0.8)	39 (0.8)	43 (1.0)	33 (0.9)	42 (1.0)

SOURCE: IEA Third International Mathematics and Science Study (TIMSS), 1994-95.

<sup>1</sup> Used to compute scale of school-wide shortages or inadequacies in facilities and materials that affect general capacity to provide instruction (see Figure 5.1).

\* See Table 1.2 for more information about the grades tested in each country.

( ) Standard errors appear in parentheses. Because results are rounded to the nearest whole number, some totals may appear inconsistent.

Countries shown in italics did not satisfy one or more guidelines for sample participation rates, age/grade specifications, or classroom sampling procedures (see Appendix A).

Because population coverage falls below 65%, Latvia is annotated LSS for Latvian Speaking Schools only.

A dash (–) indicates data are not available.

An "r" indicates school data available for 70-84% of schools. An "s" indicates school data available for 50-69% of schools.

**Table B.2**

**Shortages or Inadequacies that Affect Capacity to Provide Instruction in Mathematics "Some" or "A Lot" <sup>1</sup> – Fourth Grade \***

Country	Percent of Schools by Shortage or Inadequacy				
	Computers for Mathematics Instruction	Computer Software for Mathematics Instruction	Calculators for Mathematics Instruction	Library Materials Relevant to Mathematics Instruction	Audio-Visual Resources for Mathematics Instruction
<i>Australia</i>	43 (6.2)	54 (6.3)	12 (3.1)	30 (5.6)	34 (5.8)
<sup>2</sup> <i>Austria</i>	13 (3.3)	10 (2.8)	4 (1.5)	8 (2.8)	11 (2.8)
<b>Canada</b>	45 (4.7)	55 (3.9)	23 (3.2)	37 (3.3)	35 (3.6)
<b>Cyprus</b>	r 42 (3.9)	r 34 (4.1)	r 24 (3.4)	r 26 (3.3)	r 35 (3.6)
<b>Czech Republic</b>	52 (4.2)	45 (4.2)	9 (2.0)	9 (2.1)	17 (3.7)
<b>England</b>	28 (4.0)	46 (4.7)	9 (2.7)	36 (5.1)	39 (5.5)
<b>Greece</b>	57 (6.2)	58 (6.2)	40 (6.0)	56 (6.2)	72 (5.0)
<b>Hong Kong</b>	32 (5.2)	33 (5.4)	24 (5.6)	37 (6.1)	33 (5.0)
<i>Hungary</i>	19 (3.4)	13 (3.0)	18 (3.3)	50 (4.6)	42 (4.7)
<b>Iceland</b>	45 (0.5)	44 (0.5)	18 (0.6)	27 (0.6)	12 (0.1)
<b>Iran, Islamic Rep.</b>	67 (4.4)	67 (4.4)	56 (4.8)	68 (4.5)	79 (3.7)
<b>Ireland</b>	70 (4.1)	74 (4.4)	54 (4.0)	61 (4.3)	72 (3.9)
<i>Israel</i>	s 79 (6.1)	s 75 (5.7)	s 41 (6.2)	s 57 (6.1)	s 48 (6.6)
<b>Japan</b>	36 (5.2)	41 (5.3)	21 (3.7)	19 (3.7)	31 (4.6)
<b>Korea</b>	67 (6.7)	71 (7.2)	52 (7.0)	50 (6.6)	78 (5.6)
<i>Kuwait</i>	s 5 (0.1)	s 8 (0.1)	s 8 (0.1)	s 4 (0.1)	s 28 (1.0)
<i>Latvia (LSS)</i>	r 77 (5.3)	r 79 (5.0)	59 (4.5)	68 (5.5)	73 (5.9)
<i>Netherlands</i>	38 (4.9)	41 (5.3)	16 (3.4)	19 (3.3)	21 (3.7)
<b>New Zealand</b>	49 (5.6)	57 (6.3)	18 (4.4)	32 (7.0)	45 (6.4)
<b>Norway</b>	46 (6.3)	52 (6.4)	r 11 (2.4)	r 18 (4.3)	r 29 (4.7)
<b>Portugal</b>	72 (4.2)	69 (4.6)	67 (4.3)	64 (5.2)	82 (3.8)
<b>Scotland</b>	--	--	--	--	--
<b>Singapore</b>	33 (0.2)	33 (0.4)	9 (0.1)	21 (0.2)	17 (0.1)
<i>Slovenia</i>	r 51 (5.7)	r 55 (6.0)	r 23 (5.5)	39 (5.7)	45 (5.0)
<i>Thailand</i>	54 (4.7)	52 (4.7)	50 (4.5)	90 (2.6)	87 (2.8)
<b>United States</b>	45 (5.4)	47 (6.4)	15 (3.9)	29 (5.8)	25 (4.3)
<b>International Average</b>	47 (1.0)	49 (1.0)	27 (0.8)	38 (0.9)	44 (0.9)

SOURCE: IEA Third International Mathematics and Science Study (TIMSS), 1994-95.

1 Used to compute scale of school-wide shortages or inadequacies in resources that affect capacity to provide mathematics instruction (see Figure 5.1).

2 Data included for "Computers for Mathematics Instruction" are based on a single question regarding shortage of computers for instruction in general; the same data are used for both the mathematics and science scales regarding shortages or inadequacies affecting instruction.

\* See Table 1.2 for more information about the grades tested in each country.

( ) Standard errors appear in parentheses. Because results are rounded to the nearest whole number, some totals may appear inconsistent.

Countries shown in italics did not satisfy one or more guidelines for sample participation rates, age/grade specifications, or classroom sampling procedures (see Appendix A).

Because population coverage falls below 65%, Latvia is annotated LSS for Latvian Speaking Schools only.

A dash (–) indicates data are not available.

An "r" indicates school data available for 70-84% of schools. An "s" indicates school data available for 50-69% of schools.

**Table B.3**

**Shortages or Inadequacies that Affect Capacity to Provide Instruction in Science "Some" or "A Lot" <sup>1</sup> – Fourth Grade \***

Country	Percent of Schools by Shortage or Inadequacy					
	Computers for Science Instruction	Computer Software for Science Instruction	Calculators for Science Instruction	Library Materials Relevant to Science Instruction	Audio-Visual Resources for Science Instruction	Science Laboratory Equipment and Materials
<i>Australia</i>	52 (5.8)	61 (6.0)	18 (4.1)	28 (4.8)	34 (5.3)	51 (6.1)
<sup>2</sup> <i>Austria</i>	13 (3.3)	12 (3.1)	4 (1.6)	18 (3.9)	17 (4.0)	37 (7.3)
<b>Canada</b>	49 (4.9)	62 (4.5)	27 (3.5)	43 (3.7)	42 (4.0)	60 (4.0)
<b>Cyprus</b>	r 43 (3.8)	r 36 (4.0)	r 26 (3.5)	r 36 (3.7)	r 45 (3.6)	r 61 (3.6)
<b>Czech Republic</b>	46 (4.6)	44 (4.5)	8 (1.9)	10 (2.5)	18 (3.3)	28 (4.3)
<b>England</b>	39 (5.1)	60 (5.0)	14 (3.2)	23 (3.9)	39 (6.0)	29 (5.1)
<b>Greece</b>	63 (6.1)	65 (6.0)	38 (5.9)	72 (5.0)	84 (3.2)	91 (2.3)
<b>Hong Kong</b>	34 (5.4)	37 (5.7)	26 (4.7)	38 (5.5)	45 (5.5)	61 (6.2)
<i>Hungary</i>	12 (3.2)	11 (2.8)	11 (3.2)	56 (4.5)	51 (4.8)	45 (5.0)
<b>Iceland</b>	47 (0.5)	53 (0.5)	18 (0.6)	38 (0.7)	18 (0.6)	61 (0.4)
<b>Iran, Islamic Rep.</b>	63 (4.6)	61 (4.4)	53 (4.8)	71 (4.7)	83 (3.0)	72 (4.3)
<b>Ireland</b>	74 (4.0)	76 (4.0)	66 (4.5)	67 (4.1)	77 (4.5)	82 (3.5)
<i>Israel</i>	s 76 (6.1)	s 72 (6.5)	s 52 (7.3)	s 49 (10.3)	s 49 (10.6)	s 60 (9.1)
<b>Japan</b>	36 (4.8)	39 (4.8)	14 (3.2)	25 (3.9)	40 (4.8)	48 (5.2)
<b>Korea</b>	59 (7.4)	75 (6.7)	57 (7.2)	63 (8.7)	71 (8.2)	59 (7.8)
<i>Kuwait</i>	s 10 (1.1)	s 9 (0.2)	s 4 (0.1)	s 23 (0.4)	s 34 (1.3)	s 86 (1.1)
<i>Latvia (LSS)</i>	r 75 (5.2)	r 77 (5.3)	r 46 (5.4)	82 (4.5)	r 84 (4.6)	r 90 (2.9)
<i>Netherlands</i>	34 (4.1)	43 (5.0)	21 (3.8)	37 (4.0)	37 (3.9)	56 (4.2)
<b>New Zealand</b>	46 (7.6)	59 (6.9)	36 (6.5)	35 (7.6)	45 (7.9)	53 (7.7)
<b>Norway</b>	r 45 (5.1)	r 49 (5.3)	r 8 (2.6)	r 29 (5.6)	r 47 (4.6)	r 58 (5.9)
<b>Portugal</b>	70 (4.7)	72 (4.7)	55 (4.7)	76 (4.5)	92 (2.3)	87 (3.0)
<b>Scotland</b>	--	--	--	--	--	--
<b>Singapore</b>	38 (0.3)	48 (0.4)	13 (0.1)	21 (0.2)	19 (0.1)	15 (0.1)
<i>Slovenia</i>	59 (6.2)	r 64 (5.8)	24 (5.7)	54 (5.4)	66 (6.1)	r 84 (4.1)
<i>Thailand</i>	61 (4.2)	59 (4.4)	54 (4.4)	90 (2.9)	86 (3.1)	92 (2.4)
<b>United States</b>	52 (5.2)	62 (4.9)	23 (4.6)	31 (5.4)	40 (6.4)	53 (6.0)
<b>International Average</b>	48 (1.0)	52 (1.0)	29 (0.9)	45 (1.0)	51 (1.0)	61 (1.0)

SOURCE: IEA Third International Mathematics and Science Study (TIMSS), 1994-95.

<sup>1</sup> Used to compute scale of school-wide shortages or inadequacies in resources that affect capacity to provide science instruction (see Figure 5.1).

<sup>2</sup> Data included for "Computers for Science Instruction" are based on a single question regarding shortage of computers for instruction in general; the same data are used for both the mathematics and science scales regarding shortages or inadequacies affecting instruction.

\* See Table 1.2 for more information about the grades tested in each country.

( ) Standard errors appear in parentheses. Because results are rounded to the nearest whole number, some totals may appear inconsistent.

Countries shown in italics did not satisfy one or more guidelines for sample participation rates, age/grade specifications, or classroom sampling procedures (see Appendix A).

Because population coverage falls below 65%, Latvia is annotated LSS for Latvian Speaking Schools only.

A dash (–) indicates data are not available.

An "r" indicates school data available for 70-84% of schools. An "s" indicates school data available for 50-69% of schools.

**Table B.4****School-Wide Shortages or Inadequacies in Facilities and Materials that Affect General Capacity to Provide Instruction "Some" or "A Lot" <sup>1</sup> – Eighth Grade \***

Country	Percent of Schools by Shortage or Inadequacy				
	Instructional Materials	Budget for Supplies	School Buildings / Grounds	Heating / Cooling and Lighting	Instructional Space
<i>Australia</i>	19 (4.2)	22 (4.5)	r 32 (5.0)	r 18 (3.5)	26 (4.6)
<i>Austria</i>	6 (2.9)	15 (4.2)	26 (4.7)	r 9 (2.6)	46 (6.2)
<b>Belgium (Fl)</b>	3 (2.2)	9 (3.4)	39 (7.8)	6 (4.4)	33 (6.6)
<i>Belgium (Fr)</i>	r 51 (6.7)	r 31 (7.0)	r 82 (4.6)	r 48 (6.5)	r 76 (4.8)
<b>Canada</b>	24 (3.5)	23 (3.0)	23 (3.1)	12 (2.4)	20 (2.3)
<i>Colombia</i>	52 (4.7)	48 (5.1)	42 (5.5)	40 (5.4)	32 (5.0)
<b>Cyprus</b>	r 15 (0.0)	r 15 (0.0)	r 53 (0.0)	r 43 (0.0)	r 41 (0.0)
<b>Czech Republic</b>	22 (3.9)	37 (5.2)	24 (3.5)	3 (1.2)	34 (4.5)
<i>Denmark</i>	r 70 (4.7)	r 39 (4.7)	r 72 (4.5)	r 61 (4.7)	r 80 (4.0)
<b>England</b>	r 36 (5.5)	r 26 (4.3)	r 40 (6.5)	r 13 (4.1)	r 39 (6.0)
<b>France</b>	36 (6.0)	19 (4.0)	41 (5.6)	43 (8.8)	45 (6.3)
<i>Germany</i>	s 23 (5.4)	s 22 (5.8)	s 36 (5.6)	s 11 (3.9)	s 34 (5.9)
<i>Greece</i>	33 (4.7)	30 (5.2)	57 (5.9)	37 (5.8)	52 (5.8)
<b>Hong Kong</b>	23 (5.0)	16 (4.2)	51 (5.7)	27 (5.0)	72 (6.1)
<b>Hungary</b>	53 (5.4)	50 (5.0)	36 (4.7)	48 (4.6)	35 (4.6)
<b>Iceland</b>	37 (0.0)	16 (0.0)	58 (0.0)	10 (0.0)	55 (0.0)
<b>Iran, Islamic Rep.</b>	60 (4.8)	74 (4.6)	63 (5.4)	73 (3.9)	64 (5.1)
<b>Ireland</b>	20 (3.8)	33 (4.4)	51 (4.7)	13 (3.4)	43 (5.3)
<i>Israel</i>	s 5 (2.5)	s 8 (3.4)	s 35 (11.2)	s 36 (10.2)	s 48 (12.2)
<b>Japan</b>	17 (3.5)	24 (3.9)	31 (4.4)	35 (3.9)	30 (3.9)
<b>Korea</b>	39 (5.3)	26 (5.3)	53 (6.2)	66 (6.5)	52 (6.2)
<i>Kuwait</i>	x x	x x	x x	x x	x x
<b>Latvia (LSS)</b>	85 (4.4)	97 (2.0)	70 (4.6)	58 (5.7)	66 (4.9)
<b>Lithuania</b>	85 (5.6)	58 (5.2)	40 (6.6)	49 (5.9)	46 (6.1)
<i>Netherlands</i>	r 11 (4.2)	r 12 (4.5)	r 33 (5.5)	r 8 (3.7)	r 19 (5.2)
<b>New Zealand</b>	29 (5.4)	35 (6.1)	36 (6.3)	12 (4.1)	36 (5.8)
<b>Norway</b>	24 (4.1)	9 (3.1)	33 (6.2)	18 (4.4)	25 (4.6)
<b>Portugal</b>	33 (5.7)	40 (5.3)	56 (5.6)	49 (4.0)	55 (5.7)
<i>Romania</i>	39 (5.9)	62 (4.8)	39 (4.8)	35 (4.1)	25 (4.6)
<b>Russian Federation</b>	90 (3.0)	89 (3.0)	76 (5.3)	51 (5.1)	75 (4.9)
<i>Scotland</i>	--	--	--	--	--
<b>Singapore</b>	10 (0.0)	5 (0.0)	32 (0.0)	17 (0.0)	36 (0.0)
<b>Slovak Republic</b>	18 (3.6)	69 (5.4)	28 (5.0)	6 (2.8)	25 (4.4)
<i>Slovenia</i>	74 (5.2)	64 (5.8)	54 (6.3)	r 43 (5.9)	68 (5.3)
<b>Spain</b>	22 (3.6)	34 (3.9)	41 (4.1)	23 (3.8)	34 (3.5)
<b>Sweden</b>	32 (5.5)	20 (4.6)	38 (4.7)	16 (4.0)	42 (5.8)
<sup>2</sup> <b>Switzerland</b>	--	--	--	--	--
<i>Thailand</i>	84 (3.6)	81 (3.7)	88 (2.5)	73 (3.9)	84 (3.1)
<b>United States</b>	26 (5.9)	r 17 (4.3)	43 (6.2)	15 (4.0)	46 (6.2)
<b>International Average</b>	36 (0.7)	36 (0.7)	46 (0.9)	31 (0.8)	46 (0.9)

SOURCE: IEA Third International Mathematics and Science Study (TIMSS), 1994-95.

1 Used to compute scale of school-wide shortages or inadequacies in facilities and materials that affect general capacity to provide instruction (see Figure 5.2).

2 Percentages based on total school weights cannot be computed for Switzerland; sampling based on tracks within schools at grade 8.

\* See Table 1.2 for more information about the grades tested in each country.

( ) Standard errors appear in parentheses. Because results are rounded to the nearest whole number, some totals may appear inconsistent.

Countries shown in italics did not satisfy one or more guidelines for sample participation rates, age/grade specifications, or classroom sampling procedures (see Appendix A).

Because population coverage falls below 65%, Latvia is annotated LSS for Latvian Speaking Schools only.

School background data for Bulgaria and South Africa are unavailable.

A dash (–) indicates data are not available.

An "r" indicates school data available for 70-84% of schools. An "s" indicates school data available for 50-69% of schools.

An "x" indicates school data available for <50% of schools.

**Table B.5**

**Shortages or Inadequacies that Affect Capacity to Provide Instruction in Mathematics "Some" or "A Lot"<sup>1</sup> – Eighth Grade\***

Country	Percent of Schools by Shortage or Inadequacy				
	Computers for Mathematics Instruction	Computer Software for Mathematics Instruction	Calculators for Mathematics Instruction	Library Materials Relevant to Mathematics Instruction	Audio-Visual Resources for Mathematics Instruction
<i>Australia</i>	r 41 (5.2)	r 47 (5.5)	r 6 (2.0)	r 18 (3.4)	r 29 (5.1)
<i>Austria</i>	36 (4.7)	35 (4.9)	10 (3.9)	19 (4.9)	24 (5.0)
<b>Belgium (Fl)</b>	39 (6.2)	33 (5.6)	2 (1.1)	10 (4.9)	20 (7.5)
<i>Belgium (Fr)</i>	r 38 (5.6)	r 39 (5.9)	r 47 (6.9)	r 40 (5.8)	r 39 (5.6)
<b>Canada</b>	52 (3.5)	63 (3.6)	24 (3.1)	40 (3.8)	39 (3.8)
<i>Colombia</i>	76 (4.7)	80 (5.1)	r 60 (6.2)	70 (3.8)	79 (4.3)
<b>Cyprus</b>	r 41 (0.0)	r 21 (0.0)	r 13 (0.0)	s 29 (0.0)	r 23 (0.0)
<b>Czech Republic</b>	54 (5.2)	53 (5.0)	4 (1.5)	6 (2.3)	14 (3.5)
<i>Denmark</i>	r 67 (4.5)	r 71 (4.3)	r 55 (5.2)	r 32 (4.4)	r 54 (4.4)
<b>England</b>	r 43 (6.8)	r 48 (7.1)	r 9 (2.6)	r 30 (5.6)	r 29 (5.6)
<b>France</b>	39 (8.1)	40 (8.9)	25 (3.9)	22 (4.1)	18 (3.6)
<i>Germany</i>	s 40 (6.7)	s 39 (6.8)	s 11 (4.3)	s 14 (4.0)	s 25 (5.5)
<i>Greece</i>	47 (5.6)	49 (5.4)	31 (4.4)	52 (6.1)	62 (6.1)
<b>Hong Kong</b>	37 (6.4)	41 (6.4)	13 (4.1)	28 (5.4)	29 (5.0)
<b>Hungary</b>	18 (3.4)	12 (3.0)	18 (3.3)	50 (4.6)	42 (4.7)
<b>Iceland</b>	42 (0.0)	41 (0.0)	17 (0.0)	26 (0.0)	14 (0.0)
<b>Iran, Islamic Rep.</b>	75 (4.1)	71 (4.4)	63 (4.9)	72 (4.5)	81 (3.9)
<b>Ireland</b>	52 (5.6)	64 (5.6)	16 (3.3)	48 (5.3)	51 (5.6)
<i>Israel</i>	s 47 (11.4)	s 74 (8.1)	s 38 (11.5)	s 44 (11.8)	s 41 (11.9)
<b>Japan</b>	23 (3.6)	47 (4.7)	14 (3.4)	17 (2.5)	26 (3.1)
<b>Korea</b>	65 (5.7)	67 (6.1)	55 (5.6)	58 (5.0)	69 (4.6)
<i>Kuwait</i>	x x	x x	x x	x x	x x
<b>Latvia (LSS)</b>	74 (3.6)	76 (3.9)	65 (5.3)	71 (3.5)	80 (4.1)
<b>Lithuania</b>	63 (8.8)	65 (9.1)	57 (8.4)	65 (4.3)	83 (2.9)
<i>Netherlands</i>	r 31 (7.1)	r 32 (7.1)	r 9 (4.0)	r 22 (6.3)	r 13 (5.2)
<b>New Zealand</b>	60 (6.6)	63 (7.1)	23 (5.3)	24 (5.1)	39 (7.3)
<b>Norway</b>	45 (7.3)	50 (5.8)	5 (1.7)	6 (2.8)	19 (3.3)
<b>Portugal</b>	71 (6.2)	67 (6.5)	35 (4.9)	37 (5.2)	55 (5.3)
<i>Romania</i>	83 (5.1)	83 (5.0)	74 (5.3)	53 (6.0)	76 (5.5)
<b>Russian Federation</b>	86 (3.3)	89 (2.8)	75 (3.7)	69 (4.3)	79 (3.9)
<i>Scotland</i>	--	--	--	--	--
<b>Singapore</b>	26 (0.0)	36 (0.0)	5 (0.0)	16 (0.0)	22 (0.0)
<b>Slovak Republic</b>	69 (4.9)	71 (5.5)	15 (3.6)	31 (5.1)	46 (5.6)
<i>Slovenia</i>	r 50 (5.7)	r 55 (5.9)	r 23 (5.6)	40 (5.9)	r 45 (5.2)
<b>Spain</b>	36 (4.9)	39 (5.1)	23 (4.1)	37 (4.7)	36 (4.7)
<b>Sweden</b>	51 (5.5)	56 (5.4)	11 (3.5)	18 (3.9)	12 (3.4)
<sup>2</sup> <b>Switzerland</b>	--	--	--	--	--
<i>Thailand</i>	64 (4.3)	63 (4.3)	55 (4.4)	79 (3.6)	82 (3.5)
<b>United States</b>	68 (5.6)	67 (6.2)	32 (8.2)	49 (5.9)	50 (7.8)
<b>International Average</b>	51 (0.9)	54 (0.9)	29 (0.8)	37 (0.8)	43 (0.8)

SOURCE: IEA Third International Mathematics and Science Study (TIMSS), 1994-95.

1 Used to compute scale of school-wide shortages or inadequacies in resources that affect capacity to provide mathematics instruction (see Figure 5.2).

2 Percentages based on total school weights cannot be computed for Switzerland; sampling based on tracks within schools at grade 8.

\* See Table 1.2 for more information about the grades tested in each country.

( ) Standard errors appear in parentheses. Because results are rounded to the nearest whole number, some totals may appear inconsistent.

Countries shown in italics did not satisfy one or more guidelines for sample participation rates, age/grade specifications, or classroom sampling procedures (see Appendix A).

Because population coverage falls below 65%, Latvia is annotated LSS for Latvian Speaking Schools only.

School background data for Bulgaria and South Africa are unavailable.

A dash (–) indicates data are not available

An "r" indicates school data available for 70-84% of schools. An "s" indicates school data available for 50-69% of schools.

An "x" indicates school data available for <50% of schools.

**Table B.6****Shortages or Inadequacies that Affect Capacity to Provide Instruction in Science "Some" or "A Lot" <sup>1</sup> – Eighth Grade \***

Country	Percent of Schools by Shortage or Inadequacy					
	Computers for Science Instruction	Computer Software for Science Instruction	Calculators for Science Instruction	Library Materials Relevant to Science Instruction	Audio-Visual Resources for Science Instruction	Science Laboratory Equipment and Materials
<i>Australia</i>	r 52 (5.7)	r 53 (5.4)	r 10 (2.2)	r 28 (5.2)	r 34 (5.2)	r 29 (5.6)
<i>Austria</i>	37 (5.1)	50 (5.6)	11 (4.0)	29 (5.8)	23 (4.7)	39 (5.2)
<b>Belgium (Fl)</b>	29 (5.3)	30 (5.3)	3 (2.0)	9 (4.6)	14 (5.4)	23 (5.6)
<i>Belgium (Fr)</i>	r 51 (5.7)	r 54 (5.7)	r 38 (5.7)	r 43 (5.1)	r 57 (6.3)	r 69 (5.7)
<b>Canada</b>	55 (3.2)	67 (3.4)	29 (3.0)	41 (3.5)	41 (3.9)	45 (3.7)
<i>Colombia</i>	83 (4.4)	r 83 (4.7)	65 (5.8)	66 (5.9)	65 (6.2)	68 (5.5)
<b>Cyprus</b>	r 36 (0.0)	s 32 (0.0)	r 10 (0.0)	r 28 (0.0)	r 44 (0.0)	r 38 (0.0)
<b>Czech Republic</b>	52 (5.2)	51 (5.4)	7 (2.4)	10 (2.4)	15 (3.3)	20 (3.2)
<i>Denmark</i>	r 73 (4.5)	r 72 (4.6)	r 37 (5.2)	r 54 (5.3)	r 64 (4.8)	r 71 (4.3)
<b>England</b>	r 47 (6.3)	r 50 (6.4)	r 16 (3.3)	r 41 (6.3)	r 19 (5.1)	r 39 (6.5)
<b>France</b>	41 (8.2)	41 (8.3)	19 (3.7)	30 (4.2)	34 (4.5)	71 (4.7)
<i>Germany</i>	s 44 (6.6)	s 47 (6.5)	s 10 (4.1)	s 22 (5.1)	s 27 (5.5)	s 32 (6.0)
<i>Greece</i>	59 (5.8)	58 (5.8)	30 (4.5)	56 (6.3)	71 (6.0)	74 (5.9)
<b>Hong Kong</b>	38 (6.4)	43 (6.8)	10 (3.7)	32 (5.5)	32 (5.5)	27 (5.0)
<b>Hungary</b>	12 (3.2)	11 (2.9)	11 (3.2)	55 (4.6)	51 (4.9)	45 (5.0)
<b>Iceland</b>	42 (0.0)	49 (0.0)	14 (0.0)	34 (0.0)	19 (0.0)	56 (0.0)
<b>Iran, Islamic Rep.</b>	76 (4.2)	75 (4.3)	62 (4.5)	67 (5.1)	74 (4.6)	73 (3.9)
<b>Ireland</b>	51 (5.3)	64 (5.4)	19 (3.7)	52 (6.3)	44 (6.4)	42 (5.9)
<i>Israel</i>	s 49 (13.0)	s 58 (10.5)	s 21 (8.8)	s 48 (11.2)	s 55 (11.8)	s 49 (11.0)
<b>Japan</b>	26 (3.5)	45 (5.0)	11 (3.2)	18 (2.4)	39 (4.3)	41 (4.1)
<b>Korea</b>	74 (5.8)	77 (5.6)	62 (5.1)	62 (4.8)	79 (4.3)	64 (5.5)
<i>Kuwait</i>	x x	x x	x x	x x	x x	x x
<b>Latvia (LSS)</b>	72 (4.4)	73 (4.4)	61 (4.7)	83 (3.8)	83 (4.4)	88 (3.7)
<b>Lithuania</b>	68 (5.8)	68 (6.3)	41 (9.2)	72 (5.9)	90 (2.6)	83 (5.7)
<i>Netherlands</i>	r 19 (4.9)	r 30 (6.6)	r 9 (4.0)	r 22 (6.2)	r 14 (5.1)	r 19 (6.2)
<b>New Zealand</b>	59 (7.5)	66 (5.8)	27 (6.1)	34 (5.2)	42 (6.2)	50 (7.0)
<b>Norway</b>	47 (7.8)	57 (5.8)	7 (4.0)	18 (4.9)	39 (6.7)	36 (6.3)
<b>Portugal</b>	61 (6.0)	66 (6.1)	31 (4.6)	38 (4.2)	42 (3.6)	52 (5.9)
<i>Romania</i>	84 (4.9)	83 (5.2)	70 (5.6)	63 (6.1)	78 (4.9)	66 (6.5)
<b>Russian Federation</b>	84 (3.3)	84 (3.2)	68 (4.3)	72 (4.0)	79 (4.2)	90 (2.1)
<i>Scotland</i>	--	--	--	--	--	--
<b>Singapore</b>	26 (0.0)	38 (0.0)	4 (0.0)	13 (0.0)	18 (0.0)	12 (0.0)
<b>Slovak Republic</b>	70 (4.8)	75 (5.0)	21 (4.2)	31 (5.0)	59 (4.8)	65 (4.5)
<i>Slovenia</i>	r 60 (6.1)	r 64 (5.7)	r 24 (5.9)	55 (5.5)	66 (6.1)	83 (3.9)
<b>Spain</b>	38 (4.9)	40 (4.7)	19 (3.9)	40 (4.5)	45 (4.5)	39 (4.3)
<b>Sweden</b>	54 (5.9)	62 (5.4)	11 (3.5)	30 (5.2)	23 (4.5)	47 (6.3)
<sup>2</sup> <b>Switzerland</b>	--	--	--	--	--	--
<i>Thailand</i>	68 (4.0)	68 (4.2)	58 (4.4)	84 (3.2)	85 (3.1)	90 (2.8)
<b>United States</b>	73 (6.1)	71 (6.5)	47 (7.9)	50 (7.5)	45 (7.6)	63 (7.0)
<b>International Average</b>	53 (0.9)	57 (0.9)	28 (0.8)	43 (0.9)	47 (0.9)	53 (0.9)

SOURCE: IEA Third International Mathematics and Science Study (TIMSS), 1994-95.

1 Used to compute scale of school-wide shortages or inadequacies in resources that affect capacity to provide science instruction (see Figure 5.2).

2 Percentages based on total school weights cannot be computed for Switzerland; sampling based on tracks within schools at grade 8.

\* See Table 1.2 for more information about the grades tested in each country.

( ) Standard errors appear in parentheses. Because results are rounded to the nearest whole number, some totals may appear inconsistent.

Countries shown in italics did not satisfy one or more guidelines for sample participation rates, age/grade specifications, or classroom sampling procedures (see Appendix A).

Because population coverage falls below 65%, Latvia is annotated LSS for Latvian Speaking Schools only.

School background data for Bulgaria and South Africa are unavailable.

A dash (–) indicates data are not available

An "r" indicates school data available for 70-84% of schools. An "s" indicates school data available for 50-69% of schools.

An "x" indicates school data available for <50% of schools.

**Table B.7**

**School-Wide Shortages or Inadequacies in Facilities and Materials that Affect General Capacity to Provide Instruction "Some" or "A Lot" <sup>1</sup> – Final Year of Secondary School\***

Country	Percent of Schools by Shortage or Inadequacy				
	Instructional Materials	Budget for Supplies	School Buildings / Grounds	Heating / Cooling and Lighting	Instructional Space
<i>Australia</i>	7 (3.6)	17 (8.0)	13 (7.4)	16 (7.5)	7 (2.6)
<sup>2</sup> <i>Austria</i>	--	--	--	--	--
<i>Canada</i>	21 (4.1)	29 (4.8)	23 (8.6)	8 (1.4)	22 (8.5)
<b>Cyprus</b>	16 (0.0)	12 (0.0)	46 (0.0)	50 (0.0)	38 (.0)
<b>Czech Republic</b>	44 (6.8)	20 (4.5)	21 (5.0)	8 (3.0)	23 (5.2)
<i>Denmark</i>	s 46 (5.7)	s 12 (3.8)	s 40 (5.7)	s 28 (5.1)	s 53 (5.8)
<i>France</i>	42 (7.9)	25 (6.2)	41 (7.3)	30 (7.1)	49 (6.7)
<sup>2</sup> <i>Germany</i>	--	--	--	--	--
<b>Hungary</b>	52 (4.2)	39 (5.1)	r 30 (4.3)	r 46 (4.5)	r 36 (4.6)
<i>Iceland</i>	r 52 (0.0)	r 13 (0.0)	r 32 (0.0)	r 0 (0.0)	r 25 (.0)
<i>Italy</i>	30 (5.9)	34 (5.5)	47 (6.4)	39 (6.4)	58 (6.8)
<b>Lithuania</b>	81 (5.2)	55 (6.3)	29 (5.0)	39 (5.4)	42 (5.1)
<b>New Zealand</b>	31 (6.9)	39 (6.9)	24 (6.5)	15 (5.5)	27 (7.0)
<i>Norway</i>	8 (4.2)	0 (0.0)	8 (2.8)	12 (3.6)	14 (3.6)
<b>Russian Federation</b>	69 (3.9)	85 (3.2)	64 (4.4)	38 (4.2)	62 (5.0)
<i>Slovenia</i>	x x	x x	x x	x x	x x
<i>South Africa</i>	x x	x x	x x	x x	x x
<b>Sweden</b>	r 12 (3.3)	r 15 (6.3)	r 15 (3.9)	r 5 (2.0)	r 15 (4.1)
<sup>2</sup> <b>Switzerland</b>	--	--	--	--	--
<i>United States</i>	14 (3.5)	24 (4.5)	28 (5.3)	19 (5.0)	35 (6.0)
<b>International Average</b>	35 (1.3)	28 (1.3)	31 (1.4)	23 (1.2)	34 (1.4)

SOURCE: IEA Third International Mathematics and Science Study (TIMSS), 1994-95.

1 Used to compute scale of school-wide shortages or inadequacies in facilities and materials that affect general capacity to provide instruction (see Figure 5.3).

2 Percentages based on total school weights cannot be computed for Austria, Germany, and Switzerland; sampling based on tracks within schools.

\* See Table 1.2 for more information about the grades tested in each country.

( ) Standard errors appear in parentheses. Because results are rounded to the nearest whole number, some totals may appear inconsistent.

Countries shown in italics did not satisfy one or more guidelines for sample participation rates, age/grade specifications, or classroom sampling procedures (see Appendix A).

The Netherlands did not administer the school questionnaire at the final year of secondary school.

A dash (-) indicates data are not available

An "r" indicates school data available for 70-84% of schools. An "s" indicates school data available for 50-69% of schools.

An "x" indicates school data available for <50% of schools.



**Table B.8**

**Shortages or Inadequacies that Affect Capacity to Provide Instruction in Mathematics "Some" or "A Lot" <sup>1</sup> – Final Year of Secondary School\***

Country	Percent of Schools by Shortage or Inadequacy					
	Computers for Mathematics Instruction	Computer Software for Mathematics Instruction	Calculators for Mathematics Instruction	Library Materials Relevant to Mathematics Instruction	Audio-Visual Resources for Mathematics Instruction	Availability of Suitably Qualified Mathematics Teachers
<i>Australia</i>	41 (6.7)	49 (7.5)	22 (7.7)	25 (8.1)	32 (8.6)	25 (8.0)
<sup>2</sup> <i>Austria</i>	--	--	--	--	--	--
<i>Canada</i>	65 (3.8)	66 (3.7)	24 (2.2)	34 (6.6)	45 (8.6)	17 (4.0)
<b>Cyprus</b>	r 26 (0.0)	13 (0.0)	8 (0.0)	20 (0.0)	32 (0.0)	8 (0.0)
<b>Czech Republic</b>	40 (5.9)	38 (5.2)	6 (2.6)	10 (2.9)	21 (4.4)	5 (2.1)
<i>Denmark</i>	s 45 (5.4)	s 46 (5.5)	s 32 (4.7)	s 33 (5.5)	s 27 (5.0)	r 28 (4.7)
<i>France</i>	45 (7.3)	43 (7.8)	29 (6.6)	27 (6.3)	32 (6.6)	44 (7.5)
<sup>2</sup> <i>Germany</i>	--	--	--	--	--	--
<b>Hungary</b>	40 (4.5)	29 (3.8)	r 33 (4.4)	r 51 (4.5)	r 50 (4.6)	r 36 (4.6)
<i>Iceland</i>	r 40 (0.0)	r 56 (0.0)	r 4 (0.0)	r 16 (0.0)	r 8 (0.0)	--
<i>Italy</i>	36 (6.0)	39 (6.2)	31 (5.8)	36 (5.9)	41 (6.2)	17 (4.4)
<b>Lithuania</b>	70 (4.6)	71 (4.5)	56 (5.5)	59 (6.3)	70 (6.2)	9 (2.9)
<b>New Zealand</b>	63 (6.3)	62 (6.1)	11 (4.2)	28 (6.1)	33 (6.2)	48 (7.1)
<i>Norway</i>	27 (6.1)	32 (6.9)	7 (4.5)	3 (1.6)	5 (1.8)	18 (9.3)
<b>Russian Federation</b>	83 (2.7)	86 (1.9)	68 (4.7)	64 (4.3)	78 (4.0)	41 (3.8)
<i>Slovenia</i>	x x	x x	x x	x x	x x	x x
<i>South Africa</i>	x x	x x	x x	x x	x x	x x
<b>Sweden</b>	r 37 (7.0)	r 32 (6.6)	r 6 (2.1)	r 16 (6.0)	r 12 (3.8)	r 7 (2.4)
<sup>2</sup> <b>Switzerland</b>	--	--	--	--	--	--
<i>United States</i>	67 (6.4)	68 (5.9)	24 (5.6)	48 (6.4)	40 (6.5)	18 (4.4)
<b>International Average</b>	48 (1.4)	49 (1.4)	24 (1.2)	31 (1.4)	35 (1.4)	23 (1.4)

SOURCE: IEA Third International Mathematics and Science Study (TIMSS), 1994-95.

<sup>1</sup> Used to compute scale of school-wide shortages or inadequacies in resources that affect capacity to provide mathematics instruction (see Figure 5.3).

<sup>2</sup> Percentages based on total school weights cannot be computed for Austria, Germany, and Switzerland; sampling based on tracks within schools.

\* See Table 1.2 for characteristics of the student samples.

( ) Standard errors appear in parentheses. Because results are rounded to the nearest whole number, some totals may appear inconsistent. Countries shown in italics did not satisfy one or more guidelines for sample participation rates, age/grade specifications, or classroom sampling procedures (see Appendix A).

The Netherlands did not administer the school questionnaire at the final year of secondary school.

A dash (–) indicates data are not available.

An "r" indicates school data available for 70-84% of schools. An "s" indicates school data available for 50-69% of schools.

An "x" indicates school data available for <50% of schools.

**Table B.9**

**Shortages or Inadequacies that Affect Capacity to Provide Instruction in Science "Some" or "A Lot" <sup>1</sup> – Final Year of Secondary School\***

Country	Percent of Schools by Shortage or Inadequacy						
	Computers for Science Instruction	Computer Software for Science Instruction	Calculators for Science Instruction	Library Materials Relevant to Science Instruction	Audio-Visual Resources for Science Instruction	Science Laboratory Equipment and Materials	Availability of Suitably Qualified Physics Teachers
<i>Australia</i>	41 (7.7)	45 (8.4)	15 (7.5)	18 (7.7)	9 (3.2)	26 (8.0)	25 (7.3)
<sup>2</sup> <i>Austria</i>	--	--	--	--	--	--	--
<i>Canada</i>	67 (6.0)	69 (6.0)	25 (4.0)	39 (8.3)	44 (6.9)	40 (8.6)	18 (6.4)
<b>Cyprus</b>	29 (0.0)	r 35 (0.0)	13 (0.0)	17 (0.0)	33 (.0)	29 (.0)	r 4 (0.0)
<b>Czech Republic</b>	33 (5.2)	33 (5.5)	8 (2.6)	17 (5.0)	27 (6.6)	31 (6.3)	2 (1.0)
<i>Denmark</i>	s 50 (5.8)	s 51 (5.7)	s 21 (4.6)	s 26 (5.0)	s 28 (4.9)	s 48 (5.8)	s 17 (4.0)
<i>France</i>	43 (6.3)	43 (6.3)	25 (5.5)	31 (6.2)	41 (6.7)	49 (7.3)	39 (7.6)
<sup>2</sup> <i>Germany</i>	--	--	--	--	--	--	--
<b>Hungary</b>	r 33 (4.7)	r 27 (4.2)	r 23 (3.9)	r 38 (4.5)	r 47 (4.2)	r 46 (4.3)	r 32 (4.7)
<i>Iceland</i>	r 36 (0.0)	r 40 (0.0)	r 4 (0.0)	r 24 (0.0)	r 8 (.0)	r 40 (.0)	r 20 (0.0)
<i>Italy</i>	41 (6.7)	49 (5.9)	35 (6.0)	38 (5.9)	29 (5.7)	45 (6.0)	25 (5.4)
<b>Lithuania</b>	65 (5.0)	67 (4.7)	43 (5.0)	72 (5.6)	77 (5.1)	72 (5.3)	19 (4.7)
<b>New Zealand</b>	63 (5.8)	67 (5.9)	16 (5.2)	24 (6.3)	26 (5.8)	46 (5.7)	36 (7.6)
<i>Norway</i>	28 (5.9)	47 (7.9)	5 (3.7)	2 (1.1)	6 (2.2)	r 21 (5.2)	r 15 (9.9)
<b>Russian Federation</b>	80 (2.5)	84 (1.9)	61 (3.6)	69 (4.6)	72 (4.6)	87 (2.3)	40 (4.2)
<i>Slovenia</i>	x x	x x	x x	--	--	x x	x x
<i>South Africa</i>	x x	x x	x x	x x	x x	x x	x x
<b>Sweden</b>	s 28 (4.9)	s 27 (5.0)	s 6 (2.1)	s 25 (7.7)	s 14 (5.0)	s 21 (4.8)	r 4 (1.6)
<sup>2</sup> <b>Switzerland</b>	--	--	--	--	--	--	--
<i>United States</i>	65 (6.6)	65 (6.3)	43 (6.0)	56 (5.4)	47 (6.3)	57 (5.5)	30 (5.7)
<b>International Average</b>	47 (1.4)	50 (1.4)	23 (1.2)	33 (1.4)	34 (1.3)	44 (1.4)	22 (1.4)

SOURCE: IEA Third International Mathematics and Science Study (TIMSS), 1994-95.

1 Used to compute scale of school-wide shortages or inadequacies in resources that affect capacity to provide science instruction (see Figure 5.3).

2 Percentages based on total school weights cannot be computed for Austria, Germany, and Switzerland; sampling based on tracks within schools.

\* See Table 1.2 for more information about the grades tested in each country.

( ) Standard errors appear in parentheses. Because results are rounded to the nearest whole number, some totals may appear inconsistent.

Countries shown in italics did not satisfy one or more guidelines for sample participation rates, age/grade specifications, or classroom sampling procedures (see Appendix A).

The Netherlands did not administer the school questionnaire at the final year of secondary school.

A dash (–) indicates data are not available.

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An "x" indicates school data available for <50% of schools.

**Table B.10**

**Percent of Students Who Are Absent on a Typical School Day  
Fourth Grade\***

Country	Average Percent Absent <sup>1</sup>	Schools with 5% or More Absent			Schools with Less than 5% Absent		
		Percent of Students	Mean Mathematics Achievement	Mean Science Achievement	Percent of Students	Mean Mathematics Achievement	Mean Science Achievement
<i>Australia</i>	▲ 4 (0.2)	49 (5.5)	544 (5.9)	561 (6.0)	51 (5.5)	556 (4.7)	569 (4.6)
<i>Austria</i>	● 3 (0.3)	28 (4.2)	555 (4.9)	559 (5.4)	72 (4.2)	561 (4.1)	567 (4.3)
<b>Canada</b>	● 4 (0.3)	37 (3.7)	529 (6.5)	553 (5.3)	63 (3.7)	533 (4.1)	549 (3.3)
<i>Cyprus</i>	r ▼ 2 (0.1)	r 2 (1.2)	~ ~	~ ~	98 (1.2)	503 (3.9)	476 (4.0)
<b>Czech Republic</b>	▲ 7 (0.4)	73 (3.5)	572 (4.3)	563 (4.1)	27 (3.5)	554 (5.9)	541 (5.1)
<b>England</b>	▲ 4 (0.3)	48 (4.9)	504 (5.3)	539 (5.4)	52 (4.9)	525 (5.2)	566 (5.2)
<b>Greece</b>	● 4 (0.7)	28 (3.8)	490 (5.9)	492 (6.3)	72 (3.8)	495 (5.2)	501 (5.0)
<b>Hong Kong</b>	▼ 1 (0.1)	3 (1.7)	591 (16.6)	532 (5.8)	97 (1.7)	588 (4.5)	534 (3.9)
<i>Hungary</i>	▲ 4 (0.2)	47 (4.6)	550 (6.1)	536 (5.6)	53 (4.6)	549 (4.4)	529 (4.4)
<b>Iceland</b>	▼ 2 (0.0)	19 (5.4)	471 (5.1)	511 (8.6)	81 (5.4)	476 (3.1)	503 (3.7)
<b>Iran, Islamic Rep.</b>	▼ 2 (0.2)	17 (3.5)	433 (10.5)	420 (9.3)	83 (3.5)	428 (4.5)	415 (4.9)
<b>Ireland</b>	▲ 5 (0.3)	72 (3.9)	549 (4.4)	537 (4.2)	28 (3.9)	557 (5.7)	547 (5.2)
<i>Israel</i>	s ● 6 (1.8)	s 40 (6.9)	525 (6.3)	497 (8.3)	60 (6.9)	529 (5.3)	501 (6.4)
<b>Japan</b>	▼ 2 (0.2)	4 (1.8)	588 (12.5)	556 (15.2)	96 (1.8)	597 (2.1)	574 (1.7)
<b>Korea</b>	▼ 1 (0.3)	r 3 (1.6)	568 (9.7)	563 (7.1)	97 (1.6)	611 (2.5)	597 (2.1)
<i>Kuwait</i>	s ● 4 (0.1)	x x	x x	x x	x x	x x	x x
<i>Latvia (LSS)</i>	▲ 6 (0.5)	r 60 (4.8)	526 (6.0)	514 (6.1)	40 (4.8)	525 (9.5)	512 (10.9)
<i>Netherlands</i>	▼ 2 (0.2)	13 (3.9)	575 (10.1)	551 (9.4)	87 (3.9)	577 (3.8)	557 (3.5)
<b>New Zealand</b>	● 4 (0.5)	44 (4.4)	484 (7.3)	512 (8.6)	56 (4.4)	512 (5.1)	547 (5.0)
<b>Norway</b>	▼ 2 (0.1)	r 15 (3.5)	493 (8.0)	522 (10.3)	85 (3.5)	501 (3.3)	530 (3.9)
<b>Portugal</b>	▼ 3 (0.2)	23 (4.1)	464 (7.9)	469 (9.0)	77 (4.1)	476 (4.5)	480 (4.9)
<b>Scotland</b>	● 4 (0.3)	49 (5.1)	514 (7.0)	526 (6.8)	51 (5.1)	530 (6.0)	549 (6.0)
<b>Singapore</b>	▼ 1 (0.0)	1 (1.0)	~ ~	~ ~	99 (1.0)	626 (5.3)	547 (5.0)
<i>Slovenia</i>	r ● 3 (0.3)	r 28 (5.2)	553 (6.6)	548 (6.2)	72 (5.2)	546 (4.3)	540 (4.0)
<i>Thailand</i>	r ● 3 (0.3)	r 32 (6.4)	472 (9.6)	457 (8.8)	68 (6.4)	500 (6.4)	485 (6.7)
<b>United States</b>	r ▲ 4 (0.2)	r 39 (4.9)	522 (5.3)	540 (6.6)	61 (4.9)	564 (4.4)	586 (4.0)
<b>International Average</b>	3 (0.1)	31 (0.9)	525 (1.7)	524 (1.6)	69 (0.9)	537 (1.0)	532 (1.0)

SOURCE: IEA Third International Mathematics and Science Study (TIMSS), 1994-95.

▲ = Country mean significantly higher than international mean      ▼ = Country mean significantly lower than international mean      ● = No statistically significant difference between country mean and international mean

<sup>1</sup> Reported percent of students absent on a typical school day averaged across schools.

\* See Table 1.2 for more information about the grades tested in each country.

( ) Standard errors appear in parentheses. Because results are rounded to the nearest whole number, some totals may appear inconsistent.

Countries shown in italics did not satisfy one or more guidelines for sample participation rates, age/grade specifications, or classroom sampling procedures (see Appendix A).

Because population coverage falls below 65%, Latvia is annotated LSS for Latvian Speaking Schools only.

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

An "r" indicates school data available for 70-84% of schools or students, as applicable. An "s" indicates school data available for 50-69% of schools or students, as applicable.

An "x" indicates school data available for <50% of schools or students, as applicable.

**Table B.11**

**Percent of Students Who Are Absent on a Typical School Day  
Eighth Grade\***

Country	Average Percent Absent <sup>1</sup>	Schools with 5% or More Absent			Schools with Less than 5% Absent		
		Percent of Students	Mean Mathematics Achievement	Mean Science Achievement	Percent of Students	Mean Mathematics Achievement	Mean Science Achievement
<i>Australia</i>	r ▲ 7 (0.4)	r 76 (3.9)	519 (4.4)	535 (4.3)	24 (3.9)	556 (9.7)	568 (10.7)
<i>Austria</i>	● 4 (0.2)	46 (5.7)	546 (6.6)	564 (5.7)	54 (5.7)	533 (5.8)	550 (7.2)
<b>Belgium (Fl)</b>	r ▼ 3 (0.3)	17 (6.4)	495 (10.4)	491 (7.7)	83 (6.4)	581 (5.5)	563 (3.1)
<i>Belgium (Fr)</i>	r ● 6 (0.5)	r 52 (6.0)	512 (7.8)	460 (6.7)	48 (6.0)	548 (5.5)	484 (4.5)
<b>Canada</b>	● 5 (0.3)	r 59 (3.8)	523 (4.0)	530 (3.8)	41 (3.8)	533 (4.5)	540 (4.4)
<i>Colombia</i>	r ● 5 (0.6)	37 (5.2)	370 (6.9)	395 (8.4)	63 (5.2)	390 (3.4)	418 (3.8)
<b>Cyprus</b>	r ▼ 3 (0.0)	r 22 (0.5)	477 (3.4)	471 (6.8)	78 (0.5)	471 (2.7)	458 (2.1)
<b>Czech Republic</b>	▲ 8 (0.3)	81 (4.3)	565 (6.0)	575 (5.2)	19 (4.3)	559 (7.3)	569 (4.7)
<i>Denmark</i>	s ▼ 4 (0.2)	r 41 (5.8)	494 (4.6)	476 (4.3)	59 (5.8)	508 (5.2)	483 (5.3)
<b>England</b>	r ● 6 (0.7)	r 76 (4.4)	494 (4.1)	540 (4.9)	24 (4.4)	536 (11.4)	587 (10.7)
<b>France</b>	r ● 4 (0.6)	r 28 (4.6)	539 (7.0)	498 (6.1)	72 (4.6)	540 (4.6)	499 (3.3)
<i>Germany</i>	s ● 4 (0.3)	s 37 (5.5)	515 (10.7)	536 (11.0)	63 (5.5)	512 (8.8)	535 (8.6)
<i>Greece</i>	● 4 (0.4)	31 (3.9)	477 (5.4)	492 (4.4)	69 (3.9)	489 (2.9)	499 (2.4)
<b>Hong Kong</b>	▼ 2 (0.3)	4 (2.2)	504 (27.4)	459 (24.0)	96 (2.2)	589 (7.3)	523 (5.2)
<b>Hungary</b>	● 4 (0.2)	45 (4.2)	538 (5.8)	554 (5.3)	55 (4.2)	535 (3.9)	552 (3.6)
<b>Iceland</b>	▼ 3 (0.0)	12 (4.3)	486 (8.8)	494 (8.3)	88 (4.3)	490 (5.1)	496 (4.8)
<b>Iran, Islamic Rep.</b>	● 3 (0.6)	9 (2.9)	413 (10.4)	457 (8.4)	91 (2.9)	429 (2.0)	471 (2.4)
<b>Ireland</b>	▲ 7 (0.4)	r 77 (4.6)	531 (6.5)	538 (5.7)	23 (4.6)	538 (10.3)	548 (9.6)
<i>Israel</i>	s ● 5 (0.7)	s 55 (11.0)	530 (14.3)	545 (12.7)	45 (11.0)	531 (10.3)	531 (12.0)
<b>Japan</b>	▼ 2 (0.1)	5 (2.3)	598 (26.6)	572 (25.7)	95 (2.3)	605 (1.9)	571 (1.5)
<b>Korea</b>	▼ 1 (0.2)	5 (1.8)	610 (15.3)	555 (9.3)	95 (1.8)	606 (2.6)	564 (2.1)
<i>Kuwait</i>	x x	x x	x x	x x	x x	x x	x x
<b>Latvia (LSS)</b>	▲ 6 (0.5)	r 63 (5.0)	492 (4.7)	484 (3.4)	37 (5.0)	489 (4.7)	483 (4.3)
<b>Lithuania</b>	● 4 (0.5)	59 (5.1)	480 (4.8)	479 (4.7)	41 (5.1)	470 (5.7)	470 (5.3)
<i>Netherlands</i>	s ▼ 3 (0.4)	s 26 (6.8)	506 (29.3)	534 (24.7)	74 (6.8)	556 (7.4)	571 (5.7)
<b>New Zealand</b>	▲ 7 (0.4)	80 (2.9)	507 (4.9)	526 (5.0)	20 (2.9)	524 (11.8)	538 (9.3)
<b>Norway</b>	▼ 3 (0.2)	r 31 (4.1)	503 (4.6)	526 (3.7)	69 (4.1)	502 (3.0)	527 (2.9)
<b>Portugal</b>	● 5 (0.3)	r 44 (4.7)	447 (3.6)	475 (4.0)	56 (4.7)	460 (3.5)	485 (3.3)
<i>Romania</i>	● 4 (0.4)	25 (3.5)	466 (9.9)	461 (9.0)	75 (3.5)	487 (4.8)	495 (5.7)
<b>Russian Federation</b>	● 5 (0.4)	45 (3.9)	527 (6.8)	530 (6.6)	55 (3.9)	542 (8.0)	544 (5.4)
<i>Scotland</i>	r ▲ 8 (0.5)	r 93 (2.8)	494 (5.5)	510 (4.8)	7 (2.8)	515 (13.4)	559 (19.5)
<b>Singapore</b>	▼ 2 (0.0)	2 (1.1)	~ ~	~ ~	98 (1.1)	644 (5.1)	608 (5.7)
<b>Slovak Republic</b>	● 6 (0.6)	60 (4.6)	548 (4.7)	548 (4.3)	40 (4.6)	545 (6.0)	539 (5.3)
<i>Slovenia</i>	r ● 4 (0.5)	r 27 (4.5)	543 (5.6)	561 (4.9)	73 (4.5)	539 (4.6)	557 (3.6)
<b>Spain</b>	▼ 3 (0.2)	26 (3.8)	481 (5.1)	511 (4.1)	74 (3.8)	488 (2.8)	517 (2.1)
<b>Sweden</b>	r ● 4 (0.3)	r 45 (5.2)	518 (5.2)	534 (5.2)	55 (5.2)	520 (4.3)	537 (3.5)
<sup>2</sup> <b>Switzerland</b>	--	r 13 (1.9)	557 (9.3)	527 (8.7)	87 (1.9)	545 (4.1)	520 (3.7)
<i>Thailand</i>	r ▼ 3 (0.3)	r 17 (3.8)	522 (18.7)	523 (9.5)	83 (3.8)	520 (6.5)	524 (4.5)
<b>United States</b>	r ● 5 (0.5)	r 60 (4.6)	497 (5.0)	531 (4.7)	40 (4.6)	516 (6.4)	553 (4.9)
<b>International Average</b>	4 (0.1)	40 (0.7)	509 (1.8)	513 (1.6)	60 (0.7)	525 (1.1)	527 (1.0)

SOURCE: IEA Third International Mathematics and Science Study (TIMSS), 1994-95.

▲ = Country mean significantly higher than international mean      ▼ = Country mean significantly lower than international mean      ● = No statistically significant difference between country mean and international mean

1 Reported percent of students absent on a typical school day averaged across schools.

2 Average Percent Absent based on total school weights cannot be computed for Switzerland; sampling based on tracks within schools at grade 8.

\* See Table 1.2 for more information about the grades tested in each country.

( ) Standard errors appear in parentheses. Because results are rounded to the nearest whole number, some totals may appear inconsistent.

Countries shown in italics did not satisfy one or more guidelines for sample participation rates, age/grade specifications, or classroom sampling procedures (see Appendix A).

Because population coverage falls below 65%, Latvia is annotated LSS for Latvian Speaking Schools only.

School background data for Bulgaria and South Africa are unavailable.

A dash (–) indicates data are not available. A tilde (~) indicates insufficient data to report achievement.

An "r" indicates school data available for 70-84% of schools or students, as applicable. An "s" indicates school data available for 50-69% of schools or students, as applicable.

An "x" indicates school data available for <50% of schools or students, as applicable.

**Table B.12**

**Percent of Students Who Are Absent on a Typical School Day  
Final Year of Secondary School\***

Country	Average Percent Absent <sup>1</sup>	Schools with 5% or More Absent			Schools with Less than 5% Absent		
		Percent of Students	Mean Mathematics Achievement	Mean Science Achievement	Percent of Students	Mean Mathematics Achievement	Mean Science Achievement
<i>Australia</i>	r ● 8 (0.4)	r 76 (9.7)	531 (7.2)	533 (8.2)	24 (9.7)	528 (10.4)	542 (11.6)
<sup>2</sup> <i>Austria</i>	– –	67 (5.7)	529 (7.5)	532 (7.9)	33 (5.7)	506 (12.8)	506 (14.0)
<i>Canada</i>	● 8 (0.5)	r 89 (2.0)	517 (3.1)	530 (2.5)	11 (2.0)	531 (5.4)	543 (5.8)
<b>Cyprus</b>	r ▼ 4 (0.0)	r 23 (0.8)	443 (3.9)	451 (4.4)	77 (0.8)	446 (3.0)	446 (3.9)
<b>Czech Republic</b>	▲ 10 (0.5)	95 (2.6)	466 (13.1)	486 (9.4)	5 (2.6)	465 (17.7)	489 (22.7)
<i>Denmark</i>	s ● 7 (0.4)	r 81 (6.2)	550 (4.7)	511 (6.9)	19 (6.2)	547 (5.7)	497 (10.5)
<i>France</i>	▼ 5 (0.5)	46 (8.9)	526 (10.5)	486 (10.6)	54 (8.9)	524 (6.6)	489 (7.1)
<sup>2</sup> <i>Germany</i>	– –	x x	x x	x x	x x	x x	x x
<b>Hungary</b>	r ● 7 (0.3)	68 (3.5)	479 (5.1)	465 (4.3)	32 (3.5)	487 (11.0)	478 (9.7)
<i>Iceland</i>	r ▲ 7 (0.0)	r 91 (0.3)	528 (3.0)	543 (2.0)	9 (0.3)	520 (4.6)	534 (6.9)
<i>Italy</i>	▲ 11 (1.3)	85 (3.9)	472 (5.8)	471 (6.0)	15 (3.9)	496 (15.3)	491 (14.7)
<b>Lithuania</b>	r ● 6 (0.4)	r 66 (5.3)	473 (7.2)	462 (7.4)	34 (5.3)	472 (15.0)	467 (15.0)
<b>New Zealand</b>	● 7 (0.4)	73 (5.6)	518 (6.3)	523 (7.5)	27 (5.6)	531 (8.5)	541 (8.8)
<i>Norway</i>	r ● 5 (0.6)	r 53 (4.9)	532 (6.2)	549 (6.8)	47 (4.9)	531 (8.8)	546 (8.6)
<b>Russian Federation</b>	▼ 5 (0.4)	46 (4.5)	464 (6.5)	474 (5.8)	54 (4.5)	476 (10.2)	487 (9.5)
<i>Slovenia</i>	x x	x x	x x	x x	x x	x x	x x
<i>South Africa</i>	x x	x x	x x	x x	x x	x x	x x
<b>Sweden</b>	s ● 6 (0.4)	r 65 (4.6)	562 (5.7)	569 (5.8)	35 (4.6)	571 (6.8)	576 (7.3)
<sup>2</sup> <i>Switzerland</i>	– –	s 46 (4.8)	536 (9.5)	515 (10.0)	54 (4.8)	545 (8.5)	530 (8.3)
<i>United States</i>	r ● 6 (0.3)	r 75 (4.8)	462 (4.2)	482 (3.8)	25 (4.8)	473 (8.7)	494 (9.5)
<b>International Average</b>	7 (0.1)	67 (1.3)	505 (1.7)	505 (1.7)	33 (1.3)	509 (2.5)	509 (2.7)

SOURCE: IEA Third International Mathematics and Science Study (TIMSS), 1994-95.

▲ = Country mean significantly higher than international mean      ▼ = Country mean significantly lower than international mean      ● = No statistically significant difference between country mean and international mean

1 Reported percent of students absent on a typical school day averaged across schools.

2 Average Percent Absent based on total school weights cannot be computed for Austria, Germany, and Switzerland; sampling based on tracks within schools.

\* See Table 1.2 for characteristics of the student samples.

( ) Standard errors appear in parentheses. Because results are rounded to the nearest whole number, some totals may appear inconsistent.

Countries shown in italics did not satisfy one or more guidelines for sample participation rates, age/grade specifications, or classroom sampling procedures (see Appendix A).

The Netherlands did not administer the school questionnaire at the final year of secondary school.

A dash (–) indicates data are not available.

An "r" indicates school data available for 70-84% of schools or students, as applicable. An "s" indicates school data available for 50-69% of schools or students, as applicable.

An "x" indicates school data available for <50% of schools or students, as applicable.

**Table B.13**

**Percent of Students Leaving School Before the End of the School Year  
Fourth Grade\***

Country	Average Percent Leaving School Before Year End <sup>1</sup>	Schools with 5% or More Leaving Before Year End			Schools with Less than 5% Leaving Before Year End		
		Percent of Students	Mean Mathematics Achievement	Mean Science Achievement	Percent of Students	Mean Mathematics Achievement	Mean Science Achievement
<i>Australia</i>	● 8 (0.8)	r 70 (4.6)	545 (4.3)	562 (4.2)	30 (4.6)	562 (5.9)	572 (6.0)
<i>Austria</i>	● 4 (1.6)	12 (3.5)	546 (13.7)	548 (16.6)	88 (3.5)	561 (3.1)	567 (3.1)
<b>Canada</b>	● 11 (1.7)	61 (3.7)	519 (5.3)	546 (4.5)	39 (3.7)	554 (3.6)	559 (3.0)
<i>Cyprus</i>	r ● 5 (1.1)	r 6 (2.1)	515 (19.1)	484 (11.9)	94 (2.1)	503 (3.8)	475 (4.0)
<b>Czech Republic</b>	● 7 (1.6)	17 (3.2)	577 (9.3)	569 (8.1)	83 (3.2)	565 (3.5)	554 (3.4)
<b>England</b>	▼ 4 (0.3)	34 (3.6)	498 (5.6)	532 (5.8)	66 (3.6)	522 (4.6)	563 (4.5)
<b>Greece</b>	● 7 (3.0)	22 (3.3)	494 (7.6)	495 (7.1)	78 (3.3)	491 (5.7)	497 (5.1)
<b>Hong Kong</b>	● 19 (4.4)	30 (5.5)	585 (9.0)	530 (7.9)	70 (5.5)	589 (5.0)	536 (4.5)
<i>Hungary</i>	● 14 (3.6)	23 (3.2)	539 (8.1)	523 (7.9)	77 (3.2)	551 (4.0)	535 (4.0)
<b>Iceland</b>	▲ 12 (0.1)	20 (4.3)	466 (7.4)	494 (9.5)	80 (4.3)	477 (2.7)	507 (2.9)
<b>Iran, Islamic Rep.</b>	● 5 (1.1)	25 (4.1)	427 (8.1)	416 (8.1)	75 (4.1)	430 (4.8)	417 (5.1)
<b>Ireland</b>	▼ 1 (0.1)	5 (2.0)	518 (10.1)	508 (11.9)	95 (2.0)	552 (3.8)	540 (3.6)
<i>Israel</i>	s ● 6 (3.2)	s 11 (4.5)	526 (7.4)	492 (5.2)	89 (4.5)	525 (4.1)	500 (5.0)
<b>Japan</b>	▼ 1 (0.2)	9 (2.4)	614 (6.1)	591 (4.9)	91 (2.4)	595 (2.1)	572 (1.8)
<b>Korea</b>	● 7 (3.1)	34 (4.0)	614 (4.2)	600 (3.6)	66 (4.0)	610 (2.7)	596 (2.2)
<i>Kuwait</i>	s ▼ 3 (0.0)	s 8 (2.7)	398 (9.3)	408 (6.1)	92 (2.7)	404 (3.5)	409 (4.1)
<i>Latvia (LSS)</i>	● 17 (3.4)	27 (4.0)	528 (9.2)	517 (10.0)	73 (4.0)	522 (6.1)	510 (6.2)
<i>Netherlands</i>	▼ 2 (0.3)	14 (3.6)	546 (9.3)	530 (10.6)	86 (3.6)	582 (3.5)	561 (2.8)
<b>New Zealand</b>	▲ 13 (1.6)	79 (3.9)	491 (5.4)	523 (6.2)	21 (3.9)	528 (6.8)	559 (6.7)
<b>Norway</b>	● 5 (1.4)	13 (3.0)	509 (7.5)	542 (9.3)	87 (3.0)	499 (3.3)	527 (3.8)
<b>Portugal</b>	● 6 (1.7)	26 (3.9)	465 (8.6)	476 (10.2)	74 (3.9)	477 (4.3)	478 (4.5)
<b>Scotland</b>	● 6 (1.2)	36 (4.9)	519 (8.8)	532 (8.7)	64 (4.9)	522 (5.1)	539 (5.1)
<b>Singapore</b>	▼ 0 (0.0)	0 (0.0)	~ ~	~ ~	100 (0.0)	625 (5.3)	547 (5.0)
<i>Slovenia</i>	r ● 8 (3.2)	r 10 (3.2)	541 (7.8)	541 (5.9)	90 (3.2)	549 (4.0)	543 (4.0)
<i>Thailand</i>	● 5 (1.2)	22 (5.4)	493 (13.0)	472 (13.7)	78 (5.4)	491 (7.1)	477 (7.4)
<b>United States</b>	● 16 (3.9)	r 63 (4.9)	532 (3.8)	551 (4.4)	37 (4.9)	576 (5.6)	601 (5.4)
<b>International Average</b>	7 (0.4)	26 (0.7)	520 (1.8)	519 (1.7)	74 (0.7)	533 (0.9)	528 (0.9)

SOURCE: IEA Third International Mathematics and Science Study (TIMSS), 1994-95.

▲ = Country mean significantly higher than international mean      ▼ = Country mean significantly lower than international mean      ● = No statistically significant difference between country mean and international mean

1 Reported percent of students leaving school before the end of the school year averaged across schools.

\* See Table 1.2 for characteristics of the student samples.

( ) Standard errors appear in parentheses. Because results are rounded to the nearest whole number, some totals may appear inconsistent.

Countries shown in italics did not satisfy one or more guidelines for sample participation rates, age/grade specifications, or classroom sampling procedures (see Appendix A).

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

An "r" indicates school data available for 70-84% of schools or students, as applicable. An "s" indicates school data available for 50-69% of schools or students, as applicable.

**Table B.14**

**Percent of Students Leaving School Before the End of the School Year  
Eighth Grade\***

Country	Average Percent Leaving School Before Year End <sup>1</sup>	Schools with 5% or More Leaving Before Year End			Schools with Less than 5% Leaving Before Year End		
		Percent of Students	Mean Mathematics	Mean Science Achievement	Percent of Students	Mean Mathematics	Mean Science Achievement
<i>Australia</i>	r ● 7 (0.8)	r 60 (4.0)	517 (5.4)	535 (5.0)	40 (4.0)	540 (7.6)	550 (8.6)
<i>Austria</i>	r ▼ 1 (0.1)	4 (1.3)	475 (13.5)	496 (11.9)	96 (1.3)	541 (3.7)	560 (4.3)
<b>Belgium (Fl)</b>	r ▼ 2 (0.3)	r 5 (2.0)	525 (13.7)	519 (8.1)	95 (2.0)	568 (7.1)	553 (5.4)
<i>Belgium (Fr)</i>	r ● 8 (3.8)	s 29 (5.9)	491 (8.5)	443 (6.9)	71 (5.9)	545 (5.8)	483 (4.8)
<b>Canada</b>	r ● 6 (0.5)	r 58 (3.6)	521 (3.8)	525 (3.7)	42 (3.6)	535 (4.2)	544 (4.1)
<i>Colombia</i>	r ▲ 20 (3.6)	65 (4.2)	373 (3.9)	398 (4.8)	35 (4.2)	398 (4.8)	429 (5.1)
<b>Cyprus</b>	r ● 6 (0.0)	r 17 (0.6)	451 (4.9)	439 (4.4)	83 (0.6)	476 (2.4)	465 (2.4)
<b>Czech Republic</b>	r ● 7 (2.3)	13 (3.8)	559 (14.4)	564 (7.4)	87 (3.8)	564 (5.6)	575 (4.7)
<i>Denmark</i>	r ● 8 (2.0)	r 33 (5.4)	495 (7.7)	474 (7.9)	67 (5.4)	506 (3.4)	484 (3.9)
<b>England</b>	r ▼ 2 (0.2)	r 19 (3.0)	473 (5.1)	521 (6.0)	81 (3.0)	513 (4.4)	559 (5.1)
<b>France</b>	r ● 4 (1.2)	13 (3.3)	538 (10.2)	500 (8.4)	87 (3.3)	538 (3.7)	497 (2.8)
<i>Germany</i>	s ▼ 3 (0.7)	s 12 (3.8)	497 (30.9)	510 (32.5)	88 (3.8)	516 (6.4)	539 (5.9)
<i>Greece</i>	r ● 13 (2.5)	43 (4.3)	487 (4.2)	501 (3.6)	57 (4.3)	482 (3.6)	493 (2.9)
<b>Hong Kong</b>	r ● 13 (3.8)	25 (5.1)	586 (16.4)	515 (11.7)	75 (5.1)	587 (9.5)	523 (6.6)
<b>Hungary</b>	r ● 14 (3.6)	22 (3.0)	532 (7.9)	550 (6.0)	78 (3.0)	537 (3.9)	554 (3.6)
<b>Iceland</b>	r ▲ 13 (0.0)	22 (7.1)	493 (8.2)	499 (11.9)	78 (7.1)	489 (4.9)	495 (3.3)
<b>Iran, Islamic Rep.</b>	r ● 5 (1.3)	23 (5.8)	435 (3.2)	473 (5.9)	77 (5.8)	426 (2.8)	469 (2.8)
<b>Ireland</b>	r ▼ 3 (0.7)	18 (3.7)	507 (14.1)	522 (12.7)	82 (3.7)	537 (6.1)	544 (5.3)
<i>Israel</i>	s ▼ 1 (1.0)	s 4 (3.7)	482 (.0)	514 (.0)	96 (3.7)	531 (8.9)	537 (8.5)
<b>Japan</b>	r ▼ 1 (0.1)	2 (1.1)	~ ~	~ ~	98 (1.1)	605 (1.9)	571 (1.7)
<b>Korea</b>	r ● 5 (1.8)	13 (3.0)	614 (10.2)	563 (7.0)	87 (3.0)	606 (2.6)	565 (2.1)
<i>Kuwait</i>	x x	x x	x x	x x	x x	x x	x x
<b>Latvia (LSS)</b>	r ● 9 (2.2)	25 (4.2)	497 (7.3)	489 (5.4)	75 (4.2)	489 (3.7)	481 (3.0)
<b>Lithuania</b>	r ● 13 (4.2)	21 (3.3)	467 (9.0)	473 (8.3)	79 (3.3)	479 (4.0)	476 (4.1)
<i>Netherlands</i>	r ▼ 3 (0.5)	r 18 (4.8)	537 (15.0)	558 (10.2)	82 (4.8)	555 (6.1)	571 (4.6)
<b>New Zealand</b>	r ▲ 11 (1.1)	83 (3.0)	509 (5.1)	526 (4.8)	17 (3.0)	521 (14.7)	537 (13.0)
<b>Norway</b>	r ● 8 (3.1)	11 (2.8)	505 (7.6)	518 (8.3)	89 (2.8)	502 (2.7)	528 (2.5)
<b>Portugal</b>	r ● 11 (3.0)	39 (4.3)	448 (3.7)	473 (4.2)	61 (4.3)	458 (3.3)	483 (3.1)
<i>Romania</i>	r ● 7 (2.8)	16 (2.8)	465 (9.6)	468 (9.9)	84 (2.8)	485 (4.5)	490 (5.4)
<b>Russian Federation</b>	r ● 5 (1.1)	15 (3.5)	527 (9.0)	538 (10.8)	85 (3.5)	537 (6.2)	538 (4.5)
<i>Scotland</i>	r ● 9 (2.3)	r 31 (5.1)	495 (9.6)	508 (9.4)	69 (5.1)	494 (5.3)	516 (5.3)
<b>Singapore</b>	r ▼ 1 (0.0)	0 (0.0)	~ ~	~ ~	100 (0.0)	643 (4.9)	607 (5.5)
<b>Slovak Republic</b>	r ▼ 1 (0.1)	1 (0.6)	~ ~	~ ~	99 (0.6)	547 (3.4)	544 (3.3)
<i>Slovenia</i>	r ● 7 (3.1)	r 8 (2.8)	539 (12.3)	555 (7.0)	92 (2.8)	540 (3.9)	558 (3.3)
<b>Spain</b>	r ● 6 (2.2)	14 (3.3)	488 (7.9)	518 (5.6)	86 (3.3)	486 (2.4)	515 (2.1)
<b>Sweden</b>	r ● 11 (4.1)	13 (3.9)	530 (7.7)	536 (7.5)	87 (3.9)	518 (3.3)	536 (3.2)
<sup>2</sup> <b>Switzerland</b>	- -	r 25 (3.1)	529 (9.9)	507 (8.6)	75 (3.1)	550 (4.5)	524 (3.9)
<i>Thailand</i>	r ● 9 (2.0)	r 31 (4.9)	517 (11.1)	526 (6.0)	69 (4.9)	522 (7.4)	523 (5.2)
<b>United States</b>	r ● 17 (4.4)	r 67 (4.3)	498 (5.4)	532 (5.1)	33 (4.3)	518 (6.1)	555 (4.6)
<b>International Average</b>	7 (0.4)	24 (0.6)	503 (1.8)	508 (1.6)	76 (0.6)	523 (0.9)	526 (.8)

SOURCE: IEA Third International Mathematics and Science Study (TIMSS), 1994-95.

▲ = Country mean significantly higher than international mean      ▼ = Country mean significantly lower than international mean      ● = No statistically significant difference between country mean and international mean

1 Reported percent of students leaving school before the end of the school year averaged across schools.  
 2 Average Percent Leaving School Before Year End based on total school weights cannot be computed for Switzerland; sampling based on tracks within schools at grade 8.  
 \* See Table 1.2 for more information about the grades tested in each country.  
 ( ) Standard errors appear in parentheses. Because results are rounded to the nearest whole number, some totals may appear inconsistent.  
 Countries shown in italics did not satisfy one or more guidelines for sample participation rates, age/grade specifications, or classroom sampling procedures (see Appendix A).  
 Because population coverage falls below 65%, Latvia is annotated LSS for Latvian Speaking Schools only.  
 School background data for Bulgaria and South Africa are unavailable.  
 A dash (-) indicates data are not available. A tilde (~) indicates insufficient data to report achievement.  
 An "r" indicates school data available for 70-84% of schools or students, as applicable. An "s" indicates school data available for 50-69% of schools or students, as applicable.  
 An "x" indicates school data available for <50% of schools or students, as applicable.

**Table B.15**

**Percent of Students Leaving School Before the End of the School Year  
Final Year of Secondary School\***

Country	Average Percent Leaving School Before Year End <sup>1</sup>	Schools with 5% or More Leaving Before Year End			Schools with Less than 5% Leaving Before Year End		
		Percent of Students	Mean Mathematics Achievement	Mean Science Achievement	Percent of Students	Mean Mathematics Achievement	Mean Science Achievement
<i>Australia</i>	r ● 9 (2.3)	r 56 (8.8)	521 (7.1)	526 (9.1)	44 (8.8)	546 (13.2)	553 (12.2)
<sup>2</sup> <i>Austria</i>	– –	12 (4.5)	519 (45.9)	523 (48.0)	88 (4.5)	521 (5.3)	523 (5.4)
<i>Canada</i>	● 15 (1.6)	r 84 (2.3)	514 (4.0)	528 (3.2)	16 (2.3)	532 (5.5)	542 (4.8)
<b>Cyprus</b>	▲ 26 (0.0)	r 31 (0.7)	446 (4.6)	456 (4.2)	69 (0.7)	443 (2.9)	442 (4.4)
<b>Czech Republic</b>	● 17 (4.0)	43 (9.9)	436 (18.8)	461 (11.7)	57 (9.9)	489 (14.9)	506 (12.1)
<i>Denmark</i>	r ● 12 (1.5)	r 86 (5.9)	551 (4.3)	512 (6.2)	14 (5.9)	546 (4.9)	491 (10.2)
<i>France</i>	r ▼ 3 (0.3)	15 (5.4)	493 (19.8)	452 (18.7)	85 (5.4)	527 (6.1)	491 (6.1)
<sup>2</sup> <i>Germany</i>	– –	x x	x x	x x	x x	x x	x x
<b>Hungary</b>	r ● 9 (1.5)	46 (4.1)	451 (6.0)	447 (5.2)	54 (4.1)	509 (6.9)	490 (6.1)
<i>Iceland</i>	r ▲ 17 (0.0)	r 86 (0.1)	523 (3.1)	542 (1.9)	14 (0.1)	553 (3.9)	546 (6.9)
<i>Italy</i>	● 15 (3.8)	44 (5.0)	454 (10.4)	456 (10.2)	56 (5.0)	494 (6.7)	490 (6.7)
<b>Lithuania</b>	r ● 8 (1.7)	r 21 (4.4)	458 (19.5)	446 (17.8)	79 (4.4)	476 (5.9)	468 (6.4)
<b>New Zealand</b>	● 8 (0.9)	76 (5.2)	514 (6.0)	521 (7.3)	24 (5.2)	543 (6.8)	549 (8.5)
<i>Norway</i>	● 9 (1.8)	40 (5.1)	516 (8.9)	532 (8.6)	60 (5.1)	538 (5.6)	554 (6.9)
<b>Russian Federation</b>	▼ 6 (1.4)	17 (3.9)	463 (10.1)	473 (9.2)	83 (3.9)	473 (7.5)	483 (7.1)
<i>Slovenia</i>	x x	x x	x x	x x	x x	x x	x x
<i>South Africa</i>	x x	x x	x x	x x	x x	x x	x x
<b>Sweden</b>	s ▼ 4 (0.6)	r 35 (4.9)	554 (6.9)	561 (7.0)	65 (4.9)	570 (6.0)	576 (6.4)
<sup>2</sup> <b>Switzerland</b>	– –	r 62 (4.9)	526 (9.1)	506 (9.1)	38 (4.9)	573 (7.8)	560 (8.7)
<i>United States</i>	r ● 10 (1.6)	r 66 (4.5)	456 (4.2)	476 (4.3)	34 (4.5)	483 (6.6)	501 (7.0)
<b>International Average</b>	11 (0.5)	48 (1.3)	494 (3.7)	495 (3.6)	52 (1.3)	519 (1.8)	516 (1.9)

SOURCE: IEA Third International Mathematics and Science Study (TIMSS), 1994-95.

▲ = Country mean significantly higher than international mean      ▼ = Country mean significantly lower than international mean      ● = No statistically significant difference between country mean and international mean

1 Reported percent of students leaving school before the end of the school year averaged across schools.

2 Average Percent Leaving School Before Year End based on total school weights cannot be computed for Austria, Germany, and Switzerland; sampling based on tracks within schools.

\* See Table 1.2 for characteristics of the student samples.

( ) Standard errors appear in parentheses. Because results are rounded to the nearest whole number, some totals may appear inconsistent.

Countries shown in italics did not satisfy one or more guidelines for sample participation rates, age/grade specifications, or classroom sampling procedures (see Appendix A).

The Netherlands did not administer the school questionnaire at the final year of secondary school.

A dash (–) indicates data are not available.

An "r" indicates school data available for 70-84% of schools or students, as applicable. An "s" indicates school data available for 50-69% of schools or students, as applicable.

An "x" indicates school data available for <50% of schools or students, as applicable.