

# Chapter 7

## *School Contexts*

While the foundation for literacy is laid in the home and the home is a continuing source of support for literacy activities, formal instruction in reading takes place in the school. Thus, the learning environment that the school provides is a crucial factor in supporting reading achievement and establishing a positive orientation toward reading. This chapter provides reports from school principals, teachers, students, and parents on aspects of the school context, particularly school demographics, the role of the principal, school resources, home-school involvement, school attendance, school climate for learning, and school safety.

### **What Are the Schools' Demographic Characteristics?**

To provide information on the demographic context for the schools attended by fourth-grade students, PIRLS 2006 collected data on school location (*urban, suburban, and rural*) and the composition of the student body in terms of the percentage of students from economically disadvantaged homes and the percentage of students who do not speak the language of the PIRLS test as their first language.

Exhibit 7.1 presents, for the PIRLS 2006 countries, the percentage of fourth-grade students in schools characterized by their principals as urban, suburban, and rural, together with their average reading achievement, as well as the change in the percentage of students in such schools since 2001. On average internationally, more than two fifths of students (43%) attended schools in urban areas, almost one quarter (24%) in suburban



areas, and about one third (33%) in rural areas. The majority of students in Bulgaria, Hong Kong SAR, Italy, Latvia, Lithuania, Macedonia, Poland, Qatar, the Russian Federation, Singapore, the Slovak Republic, Spain, and the Canadian provinces of Ontario and Quebec attended schools in an urban setting, whereas in Indonesia, Moldova, and South Africa, the majority were attending rural schools. Countries with increased percentages of students in 2006 attending urban schools included Latvia, the Russian Federation, Sweden, and the Canadian province of Quebec. Iran and the United States had increased percentages of students in suburban schools, and only Iceland had proportionately more students in rural schools in 2006 than in 2001.

As in 2001, average reading achievement across countries was highest among students attending urban schools, next highest among those attending suburban schools, and lowest for those in rural schools. Although this pattern of achievement was apparent in almost half of the PIRLS 2006 countries, it was not universal. Particularly in some of the industrialized countries, where urban decay in large cities may have offset any advantage of an urban setting, average student achievement in urban schools was lower than in suburban or rural schools. For example, in Germany, the Netherlands, Scotland, the United States, and the Canadian province of Ontario, average reading achievement was highest among students in suburban schools, next highest in rural schools, and lowest in urban schools, and in Austria, Belgium (French and Flemish), England, and France, average achievement was highest among students in rural schools.

In order to provide information on the socioeconomic composition of the student body, school principals were asked to estimate the percentage of students in their schools that came from economically disadvantaged homes. Because of the range of economic development across the PIRLS countries, and because ideas of economic disadvantage vary from country to country, it was not possible to have a definition of economic disadvantage that would have the same meaning in all countries. PIRLS relied on principals' perceptions of disadvantage, therefore, in gathering this information. Exhibit 7.2 summarizes the results in terms of four categories of schools:

- ▶ Schools where, according to principals' reports, no more than 10 percent of the students came from economically disadvantaged homes,
- ▶ Schools where 11 to 25 percent of the students came from disadvantaged homes,
- ▶ Schools where 26 to 50 percent of the students came from disadvantaged homes, and
- ▶ Schools with more than 50 percent disadvantaged students.

According to school principals, almost 40 percent of students, on average, across countries, were in schools with few (no more than 10%) students from disadvantaged homes. In Iceland and Norway, the countries with the highest percentages, 84 percent of students were in such schools. Also, at least 55 percent of students attended such schools in Austria, the Flemish part of Belgium, Chinese Taipei, Denmark, Kuwait, the Netherlands, Singapore, Spain, and the Canadian province of Alberta. Since PIRLS 2001, there was an increase in the percentage of students in schools with few disadvantaged students in a number of countries, including Bulgaria, England, Hong Kong SAR, Latvia, Lithuania, the Russian Federation, and the Slovak Republic. On average, 18 percent of students were in schools where more than 50 percent of the students were from economically disadvantaged homes, with the greatest percentages (more than 60%) in Indonesia and South Africa.

On average internationally, the reading achievement of students attending schools with a high proportion of disadvantaged students was lower than for students with fewer disadvantaged schoolmates. There was a difference of more than 50 points between the average achievement of students attending schools with few disadvantaged schoolmates (521 points) and those in schools where the majority of the students were from disadvantaged homes (465 points).

In addition to estimating the percentage of students in their schools from economically disadvantaged homes, school principals also provided the approximate percentage of their students who did not speak the language

of the PIRLS assessment as their first language. Using the same percentage categories as the previous exhibit (0–10%, 11–25%, 26–50%, and *more than 50%*), Exhibit 7.3 presents for each country the percentage of students in each category, their average reading achievement, and the change in percentage since 2001, if applicable.

According to school principals, almost three quarters of the fourth-grade students (73% on average internationally) were in schools with just a few students (no more than 10%) whose first language was not the language of the PIRLS assessment. Almost all students (more than 90%) in Hong Kong SAR, Hungary, Iceland, Kuwait, Lithuania, Poland, Scotland and the Canadian province of Nova Scotia were in such schools, as well as between 80 and 90 percent of the students in Chinese Taipei, France, Georgia, Italy, Moldova, Norway, Romania, the Slovak Republic, and Trinidad and Tobago. In contrast, there were some countries with substantial percentages of students in schools where the PIRLS assessment language was not the first language for the majority of students—notably Indonesia (54%), Iran (36%), Morocco (31%), and Singapore (45%). However, many countries had just a small percentage of students in such schools. Compared to 2001, Israel and Latvia had increased percentages of students in 2006 in schools where the PIRLS language was not the first language for the majority of students, and Hong Kong SAR, Macedonia, and the Slovak Republic had decreased percentages.

Perhaps not surprisingly, on average internationally, reading achievement was highest for students in schools where only a few schoolmates did not speak the PIRLS language as a first language (504 points), and was progressively lower across categories of schools with greater percentages of such students. This pattern was relatively consistent across countries, although there were several exceptions. For students in schools where the majority of students did not speak the PIRLS language as a first language, average reading achievement was 471 points, a difference of 33 points lower than the highest achieving group.

Exhibit 7.1 Principals' Reports on Their Schools' Locations with Trends

PIRLS 2006  
4th Grade

Countries	Urban			Suburban			Rural		
	2006 Percent of Students	Average Achievement	Difference in Percent from 2001	2006 Percent of Students	Average Achievement	Difference in Percent from 2001	2006 Percent of Students	Average Achievement	Difference in Percent from 2001
Austria	31 (3.4)	529 (4.4)	∅ ∅	20 (3.2)	542 (5.5)	∅ ∅	48 (3.7)	543 (2.5)	∅ ∅
Belgium (Flemish)	21 (3.6)	541 (5.4)	∅ ∅	37 (4.7)	546 (3.7)	∅ ∅	42 (4.8)	551 (2.4)	∅ ∅
Belgium (French)	r 47 (4.0)	494 (5.5)	∅ ∅	21 (3.9)	496 (5.7)	∅ ∅	33 (3.8)	512 (4.2)	∅ ∅
Bulgaria	70 (3.0)	557 (5.2)	6 (4.1)	5 (1.7)	550 (10.8)	-6 (3.1) ▼	24 (2.5)	516 (10.8)	0 (3.4)
Canada, Alberta	46 (4.5)	559 (3.8)	∅ ∅	26 (3.5)	572 (4.4)	∅ ∅	28 (3.5)	550 (4.1)	∅ ∅
Canada, British Columbia	38 (4.3)	555 (4.3)	∅ ∅	46 (4.7)	565 (3.5)	∅ ∅	17 (3.2)	545 (6.2)	∅ ∅
Canada, Nova Scotia	25 (3.2)	542 (6.5)	∅ ∅	26 (3.2)	551 (3.9)	∅ ∅	50 (3.5)	537 (2.6)	∅ ∅
Canada, Ontario	51 (4.9)	549 (4.1)	8 (6.9)	36 (5.0)	563 (4.3)	1 (7.0)	14 (3.2)	552 (4.9)	-9 (5.1)
Canada, Quebec	51 (4.8)	533 (3.7)	15 (6.7) ▲	28 (4.0)	538 (6.5)	-19 (6.3) ▼	20 (3.6)	528 (5.6)	3 (5.0)
Chinese Taipei	--	--	--	--	--	--	--	--	--
Denmark	33 (4.1)	545 (3.4)	∅ ∅	30 (3.4)	555 (3.9)	∅ ∅	37 (4.0)	542 (4.4)	∅ ∅
England	r 45 (4.2)	523 (5.3)	-2 (6.5)	35 (3.9)	553 (5.1)	4 (6.0)	19 (3.7)	564 (5.2)	-1 (5.2)
France	34 (4.0)	522 (4.3)	-2 (5.7)	25 (3.9)	518 (6.3)	-5 (5.7)	41 (3.9)	524 (2.5)	6 (5.3)
Georgia	42 (3.6)	486 (4.5)	∅ ∅	15 (2.7)	465 (8.1)	∅ ∅	43 (2.6)	459 (5.1)	∅ ∅
Germany	37 (3.3)	535 (4.6)	4 (4.4)	19 (3.1)	557 (3.9)	-3 (4.3)	44 (4.0)	555 (2.3)	-1 (5.5)
Hong Kong SAR	58 (4.4)	573 (3.1)	6 (5.3)	37 (4.1)	555 (4.5)	-9 (4.9)	5 (1.9)	540 (11.0)	3 (2.2)
Hungary	28 (2.2)	565 (6.6)	0 (3.3)	40 (2.5)	557 (5.0)	5 (3.4)	31 (1.8)	528 (4.7)	-5 (2.5) ▼
Iceland	r 33 (0.3)	518 (2.0)	-3 (0.5) ▼	37 (0.3)	509 (2.3)	-6 (0.5) ▼	30 (0.4)	506 (2.3)	9 (0.5) ▲
Indonesia	12 (2.2)	451 (9.7)	∅ ∅	14 (2.7)	425 (9.6)	∅ ∅	74 (2.9)	393 (4.8)	∅ ∅
Iran, Islamic Rep. of	50 (2.9)	454 (4.1)	1 (4.7)	15 (2.2)	415 (10.3)	6 (3.3) ▲	35 (2.8)	376 (5.7)	-8 (4.2)
Israel	49 (3.9)	534 (6.0)	-3 (5.5)	18 (2.8)	529 (13.1)	-4 (4.3)	33 (3.8)	472 (10.2)	7 (5.0)
Italy	70 (3.6)	554 (2.9)	-6 (4.8)	15 (2.8)	555 (9.2)	1 (3.8)	15 (3.1)	533 (9.9)	5 (3.8)
Kuwait	26 (3.6)	355 (7.6)	∅ ∅	61 (4.0)	321 (5.8)	∅ ∅	14 (3.0)	311 (12.1)	∅ ∅
Latvia	70 (0.7)	548 (2.4)	26 (3.9) ▲	3 (1.5)	528 (6.6)	-15 (4.2) ▼	27 (1.7)	525 (5.9)	-10 (3.4) ▼
Lithuania	72 (2.3)	544 (1.9)	1 (3.6)	3 (1.4)	549 (10.7)	-3 (2.5)	26 (2.1)	516 (3.4)	3 (3.2)
<sup>1</sup> Luxembourg	--	--	--	--	--	--	--	--	--
Macedonia, Rep. of	r 51 (3.6)	477 (6.9)	-6 (4.9)	18 (3.5)	443 (13.8)	3 (4.5)	31 (2.6)	401 (9.5)	3 (4.1)
Moldova, Rep. of	29 (2.4)	517 (4.5)	2 (4.1)	6 (2.4)	498 (17.6)	-8 (4.5)	65 (2.5)	492 (3.9)	6 (4.5)
Morocco	r 37 (3.3)	363 (7.2)	-3 (5.5)	18 (3.6)	334 (15.8)	-3 (5.7)	45 (3.7)	296 (13.5)	6 (5.5)
Netherlands	26 (4.0)	538 (4.1)	-5 (5.6)	33 (4.7)	553 (3.2)	10 (6.0)	41 (3.5)	547 (2.5)	-5 (5.2)
New Zealand	41 (3.2)	536 (3.3)	3 (5.1)	39 (3.0)	527 (3.6)	-1 (4.7)	21 (2.3)	535 (5.3)	-2 (3.7)
Norway	20 (3.6)	502 (3.8)	1 (5.0)	30 (3.9)	504 (3.9)	4 (5.5)	50 (4.2)	492 (4.2)	-6 (5.5)
Poland	52 (2.1)	528 (2.9)	∅ ∅	5 (1.7)	529 (11.0)	∅ ∅	43 (1.9)	508 (3.8)	∅ ∅
Qatar	65 (0.2)	362 (1.5)	∅ ∅	32 (0.2)	336 (2.0)	∅ ∅	3 (0.0)	318 (8.4)	∅ ∅
Romania	47 (2.2)	515 (6.5)	-3 (3.4)	5 (1.9)	498 (14.8)	1 (2.8)	48 (2.4)	462 (8.0)	2 (3.6)
Russian Federation	63 (2.0)	581 (3.4)	8 (3.2) ▲	6 (1.3)	563 (8.8)	4 (2.3)	31 (2.2)	532 (6.1)	-12 (3.3) ▼
Scotland	r 32 (3.5)	517 (4.8)	-2 (5.6)	36 (4.3)	539 (5.3)	-3 (6.9)	32 (3.9)	528 (6.8)	6 (5.9)
Singapore	100 (0.0)	558 (2.9)	0 (0.0)	0 (0.0)	~ ~	0 (0.0)	0 (0.0)	~ ~	0 (0.0)
Slovak Republic	52 (3.0)	544 (2.9)	2 (4.8)	8 (2.5)	537 (8.0)	-2 (3.5)	40 (3.3)	512 (5.9)	0 (4.5)
Slovenia	36 (4.2)	529 (3.6)	-4 (5.3)	37 (4.0)	520 (3.1)	10 (5.5)	27 (3.7)	512 (3.6)	-6 (4.7)
South Africa	17 (1.8)	350 (19.5)	∅ ∅	21 (2.2)	381 (14.9)	∅ ∅	62 (2.0)	261 (3.8)	∅ ∅
Spain	58 (4.3)	524 (3.4)	∅ ∅	20 (3.3)	497 (6.8)	∅ ∅	21 (3.4)	498 (7.1)	∅ ∅
Sweden	27 (4.1)	549 (3.8)	12 (5.1) ▲	55 (4.1)	549 (3.4)	-12 (5.6) ▼	18 (2.8)	550 (4.7)	0 (4.5)
Trinidad and Tobago	19 (2.5)	470 (13.0)	∅ ∅	50 (3.7)	441 (7.0)	∅ ∅	32 (3.0)	408 (8.9)	∅ ∅
United States	28 (3.5)	524 (4.4)	-5 (4.9)	47 (3.9)	550 (3.2)	13 (6.1) ▲	25 (2.7)	539 (9.1)	-8 (4.2)
International Avg.	43 (0.5)	508 (1.0)		24 (0.5)	501 (1.4)		33 (0.5)	483 (1.1)	

SOURCE: IEA Progress in International Reading Literacy Study (PIRLS) 2006

▲ Percent in 2006 significantly higher

▼ Percent in 2006 significantly lower

Background data provided by schools.

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

An "r" indicates data are available for 70–84% of the students. An "s" indicates data are available for 50–69% of the students. An "x" indicates data are available for less than 50% of the students.

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

A diamond (∅) indicates the country did not participate in the 2001 assessment.

NOTE: The International Average does not include the results from the Canadian provinces.

Trend Note: The primary education systems of the Russian Federation and Slovenia underwent structural changes. Data for Canada, Ontario include only public schools.

<sup>1</sup> Primary schools in Luxembourg do not have principals.



**Exhibit 7.2 Principals' Reports on Their Primary Grade Students Coming from Economically Disadvantaged Homes with Trends**
**PIRLS 2006**  
 4th Grade

Countries	0–10% Economically Disadvantaged			11–25% Economically Disadvantaged		
	2006 Percent of Students	Average Achievement	Difference in Percent from 2001	2006 Percent of Students	Average Achievement	Difference in Percent from 2001
Austria	56 (4.1)	543 (3.0)	0 0	28 (4.1)	536 (4.2)	0 0
Belgium (Flemish)	64 (4.8)	552 (2.0)	0 0	23 (4.4)	544 (4.1)	0 0
Belgium (French)	r 46 (4.7)	517 (4.0)	0 0	23 (3.7)	506 (5.1)	0 0
Bulgaria	28 (4.1)	576 (5.4)	10 (4.7) ▲	29 (3.8)	564 (6.9)	6 (4.8)
Canada, Alberta	57 (3.8)	568 (3.3)	0 0	28 (3.7)	557 (3.4)	0 0
Canada, British Columbia	50 (4.2)	572 (3.0)	0 0	25 (3.7)	557 (4.5)	0 0
Canada, Nova Scotia	38 (3.6)	551 (3.1)	0 0	32 (3.6)	542 (3.7)	0 0
Canada, Ontario	47 (5.0)	564 (4.2)	–9 (7.1)	22 (4.5)	551 (5.7)	–2 (6.2)
Canada, Quebec	40 (4.0)	548 (4.6)	7 (5.7)	28 (4.1)	532 (6.2)	–8 (6.1)
Chinese Taipei	61 (4.2)	539 (2.6)	0 0	29 (3.9)	532 (3.5)	0 0
Denmark	59 (4.6)	551 (3.1)	0 0	31 (4.2)	546 (4.4)	0 0
England	r 47 (4.0)	573 (3.5)	13 (5.7) ▲	14 (3.2)	534 (5.0)	–21 (5.5) ▼
France	45 (4.3)	536 (2.5)	–9 (5.8)	30 (3.8)	527 (2.8)	7 (5.4)
Georgia	21 (3.1)	484 (7.3)	0 0	26 (3.7)	474 (9.6)	0 0
Germany	r 43 (3.5)	558 (2.6)	–3 (5.3)	38 (3.6)	550 (4.2)	1 (5.4)
Hong Kong SAR	40 (4.2)	574 (2.4)	13 (5.5) ▲	26 (3.4)	559 (5.7)	7 (4.9)
Hungary	18 (3.0)	574 (4.8)	–5 (4.6)	35 (4.3)	563 (4.8)	–6 (5.8)
Iceland	r 84 (0.3)	513 (1.5)	–5 (0.4) ▼	13 (0.3)	499 (3.1)	4 (0.3) ▲
Indonesia	7 (1.9)	425 (13.3)	0 0	13 (3.2)	437 (9.7)	0 0
Iran, Islamic Rep. of	24 (3.0)	481 (5.1)	–1 (5.0)	20 (3.3)	422 (8.2)	10 (4.3) ▲
Israel	20 (3.1)	546 (10.9)	–3 (4.7)	31 (3.8)	537 (7.4)	2 (5.5)
Italy	50 (3.8)	556 (3.3)	–6 (5.2)	28 (3.5)	551 (5.7)	–2 (4.7)
Kuwait	68 (4.2)	333 (4.9)	0 0	17 (3.2)	314 (11.4)	0 0
Latvia	34 (3.6)	555 (4.5)	22 (4.3) ▲	42 (4.0)	535 (3.3)	–7 (5.4)
Lithuania	31 (3.4)	554 (3.0)	15 (4.6) ▲	33 (3.9)	532 (3.1)	–3 (5.7)
<sup>1</sup> Luxembourg	–	–	–	–	–	–
Macedonia, Rep. of	r 13 (3.0)	489 (13.7)	0 (4.0)	28 (4.3)	470 (11.2)	10 (5.4)
Moldova, Rep. of	25 (3.9)	506 (7.5)	9 (4.8)	37 (4.1)	502 (5.1)	11 (5.8) ▲
Morocco	r 14 (3.4)	348 (21.4)	5 (4.5)	15 (3.9)	351 (16.9)	8 (4.4)
Netherlands	r 55 (4.3)	558 (1.8)	–4 (6.3)	24 (4.0)	541 (3.5)	–1 (5.7)
New Zealand	51 (2.9)	557 (3.0)	5 (4.5)	19 (2.6)	526 (5.6)	–5 (4.6)
Norway	r 84 (3.7)	498 (3.0)	–1 (5.4)	15 (3.8)	490 (6.7)	3 (5.2)
Poland	16 (3.2)	528 (6.4)	0 0	41 (4.4)	524 (3.8)	0 0
Qatar	19 (0.2)	367 (3.1)	0 0	27 (0.2)	348 (2.6)	0 0
Romania	12 (3.0)	521 (11.4)	6 (3.5)	24 (3.7)	510 (6.9)	7 (5.0)
Russian Federation	33 (3.5)	585 (5.1)	10 (4.5) ▲	30 (3.2)	566 (5.8)	2 (4.9)
Scotland	r 46 (4.4)	547 (5.0)	8 (6.0)	21 (4.3)	533 (3.6)	–4 (6.3)
Singapore	63 (0.0)	568 (3.8)	–3 (3.7)	29 (0.0)	547 (5.9)	8 (3.0) ▲
Slovak Republic	38 (4.0)	548 (3.5)	20 (5.2) ▲	29 (3.8)	533 (4.6)	0 (5.3)
Slovenia	30 (3.8)	524 (4.4)	–5 (5.7)	44 (3.7)	522 (2.7)	–6 (5.9)
South Africa	9 (1.6)	498 (23.4)	0 0	5 (1.4)	377 (47.0)	0 0
Spain	72 (3.8)	520 (3.2)	0 0	16 (3.3)	505 (5.0)	0 0
Sweden	51 (4.8)	555 (2.9)	5 (6.5)	33 (4.6)	545 (3.0)	0 (6.2)
Trinidad and Tobago	18 (2.9)	491 (10.9)	0 0	21 (3.6)	444 (13.3)	0 0
United States	26 (3.9)	566 (4.2)	1 (5.4)	12 (2.5)	559 (5.8)	–8 (5.3)
International Avg.	39 (0.6)	521 (1.2)		26 (0.6)	504 (1.6)	

▲ Percent in 2006 significantly higher

▼ Percent in 2006 significantly lower

Background data provided by schools.

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

An "r" indicates data are available for 70–84% of the students. An "s" indicates data are available for 50–69% of the students. An "x" indicates data are available for less than 50% of the students.

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

A diamond (◊) indicates the country did not participate in the 2001 assessment.

NOTE: The International Average does not include the results from the Canadian provinces.

Trend Note: The primary education systems of the Russian Federation and Slovenia underwent structural changes. Data for Canada, Ontario include only public schools.

1 Primary schools in Luxembourg do not have principals.

SOURCE: IEA Progress in International Reading Literacy Study (PIRLS) 2006



**Exhibit 7.2 Principals' Reports on Their Primary Grade Students Coming from Economically Disadvantaged Homes with Trends (Continued)**

**PIRLS 2006**  
4th Grade

Countries	26–50% Economically Disadvantaged			More than 50% Economically Disadvantaged		
	2006 Percent of Students	Average Achievement	Difference in Percent from 2001	2006 Percent of Students	Average Achievement	Difference in Percent from 2001
Austria	12 (2.8)	537 (7.2)	◊ ◊	4 (1.3)	494 (7.5)	◊ ◊
Belgium (Flemish)	11 (2.7)	533 (7.5)	◊ ◊	2 (1.3)	~ ~	◊ ◊
Belgium (French)	r 20 (3.5)	480 (6.5)	◊ ◊	11 (2.8)	453 (7.3)	◊ ◊
Bulgaria	15 (3.0)	509 (11.1)	-14 (4.6) ▼	29 (3.4)	522 (10.1)	-2 (4.9)
Canada, Alberta	11 (2.6)	545 (6.6)	◊ ◊	4 (1.3)	516 (14.9)	◊ ◊
Canada, British Columbia	19 (3.3)	533 (5.2)	◊ ◊	6 (1.9)	530 (8.2)	◊ ◊
Canada, Nova Scotia	22 (3.0)	531 (4.0)	◊ ◊	7 (2.1)	527 (7.8)	◊ ◊
Canada, Ontario	16 (3.7)	542 (4.9)	7 (4.5)	15 (3.9)	538 (6.5)	3 (5.0)
Canada, Quebec	20 (4.2)	522 (4.8)	0 (5.5)	12 (3.1)	512 (6.0)	2 (4.6)
Chinese Taipei	7 (2.2)	515 (3.7)	◊ ◊	2 (1.0)	~ ~	◊ ◊
Denmark	8 (2.1)	526 (9.6)	◊ ◊	2 (1.2)	~ ~	◊ ◊
England	r 21 (3.7)	511 (6.5)	3 (5.1)	18 (3.5)	501 (7.4)	5 (4.6)
France	9 (3.0)	496 (5.0)	-4 (4.5)	16 (2.9)	485 (5.6)	7 (3.7)
Georgia	24 (3.8)	467 (7.7)	◊ ◊	28 (3.9)	462 (4.9)	◊ ◊
Germany	r 12 (2.3)	540 (3.5)	-1 (3.7)	7 (1.3)	465 (10.2)	3 (2.2)
Hong Kong SAR	18 (3.5)	559 (7.5)	-9 (5.8)	15 (3.6)	550 (5.0)	-10 (5.3)
Hungary	30 (4.0)	544 (4.9)	1 (5.3)	17 (3.5)	518 (9.9)	10 (3.9) ▲
Iceland	r 2 (0.1)	~ ~	0 (0.1)	1 (0.1)	~ ~	1 (0.1)
Indonesia	18 (3.3)	413 (8.9)	◊ ◊	62 (3.9)	393 (4.9)	◊ ◊
Iran, Islamic Rep. of	15 (2.6)	412 (6.6)	-7 (4.4)	41 (4.0)	390 (6.0)	-2 (5.9)
Israel	26 (3.9)	513 (9.7)	-5 (5.3)	23 (3.1)	449 (10.5)	6 (4.5)
Italy	14 (2.9)	537 (9.3)	2 (3.7)	8 (1.7)	546 (14.0)	5 (2.0) ▲
Kuwait	11 (2.7)	304 (20.5)	◊ ◊	4 (1.7)	318 (19.5)	◊ ◊
Latvia	17 (3.3)	535 (4.9)	-6 (4.8)	7 (2.1)	521 (8.5)	-9 (3.4) ▼
Lithuania	25 (3.3)	529 (3.7)	-7 (5.0)	11 (2.6)	525 (5.9)	-5 (3.4)
<sup>1</sup> Luxembourg	--	--	--	--	--	--
Macedonia, Rep. of	r 32 (4.5)	420 (10.3)	1 (6.2)	27 (4.2)	422 (9.5)	-11 (6.2)
Moldova, Rep. of	21 (3.7)	487 (5.5)	-5 (5.2)	17 (3.2)	502 (9.5)	-15 (5.1) ▼
Morocco	r 23 (5.1)	298 (17.9)	0 (6.6)	47 (5.3)	318 (9.8)	-14 (7.1)
Netherlands	r 11 (3.3)	534 (6.7)	3 (4.3)	10 (3.3)	510 (6.9)	2 (4.2)
New Zealand	14 (2.4)	516 (5.1)	2 (3.4)	16 (2.0)	475 (7.0)	-2 (3.2)
Norway	r 1 (1.0)	~ ~	-1 (2.0)	0 (0.0)	~ ~	0 (0.0)
Poland	29 (4.2)	511 (4.6)	◊ ◊	14 (3.1)	510 (6.2)	◊ ◊
Qatar	36 (0.2)	351 (2.0)	◊ ◊	18 (0.2)	352 (2.6)	◊ ◊
Romania	21 (3.9)	503 (6.8)	-14 (5.6) ▼	43 (4.5)	462 (8.1)	1 (6.6)
Russian Federation	23 (2.6)	553 (6.4)	-7 (4.6)	14 (2.1)	534 (8.5)	-5 (4.0)
Scotland	r 25 (4.7)	505 (6.2)	9 (5.6)	8 (3.1)	497 (8.9)	-13 (5.3) ▼
Singapore	7 (0.0)	531 (14.4)	-4 (2.1)	1 (0.0)	~ ~	-2 (1.1)
Slovak Republic	23 (3.5)	525 (5.8)	-9 (5.4)	10 (2.6)	470 (14.8)	-11 (4.5) ▼
Slovenia	20 (3.5)	517 (5.4)	5 (4.8)	6 (2.1)	520 (10.2)	5 (2.2) ▲
South Africa	12 (2.0)	305 (16.8)	◊ ◊	74 (2.7)	272 (4.4)	◊ ◊
Spain	6 (1.7)	490 (5.7)	◊ ◊	6 (2.1)	458 (8.5)	◊ ◊
Sweden	8 (2.9)	558 (9.3)	-4 (4.1)	8 (2.6)	522 (11.2)	0 (3.7)
Trinidad and Tobago	22 (3.5)	440 (9.9)	◊ ◊	39 (3.6)	405 (7.9)	◊ ◊
United States	25 (3.4)	546 (4.9)	6 (5.3)	37 (4.2)	511 (3.7)	1 (5.7)
International Avg.	17 (0.5)	488 (1.4)		18 (0.5)	465 (1.6)	

SOURCE: IEA Progress in International Reading Literacy Study (PIRLS) 2006

- ▲ Percent in 2006 significantly higher
- ▼ Percent in 2006 significantly lower

**Exhibit 7.3 Principals' Reports on Primary Grade Students Not Speaking the Language of the Test as Their First Language with Trends**

**PIRLS 2006**  
4th Grade

Countries	0–10% First Language Not Language of Test			11–25% First Language Not Language of Test		
	2006 Percent of Students	Average Achievement	Difference in Percent from 2001	2006 Percent of Students	Average Achievement	Difference in Percent from 2001
Austria	45 (3.7)	549 (2.8)	0 0	27 (3.8)	541 (3.7)	0 0
Belgium (Flemish)	72 (4.3)	553 (1.8)	0 0	15 (3.5)	544 (4.7)	0 0
Belgium (French)	r 75 (3.6)	509 (3.1)	0 0	9 (2.7)	494 (8.1)	0 0
Bulgaria	62 (3.9)	566 (5.0)	1 (5.5)	7 (2.0)	514 (10.4)	-2 (3.1)
Canada, Alberta	74 (3.9)	564 (2.7)	0 0	16 (3.2)	560 (5.9)	0 0
Canada, British Columbia	59 (4.9)	558 (3.5)	0 0	19 (3.5)	567 (6.3)	0 0
Canada, Nova Scotia	93 (1.8)	545 (2.4)	0 0	2 (1.2)	~ ~	0 0
Canada, Ontario	67 (5.2)	559 (3.0)	-11 (6.4)	13 (4.0)	560 (9.2)	5 (4.8)
Canada, Quebec	79 (3.5)	536 (3.6)	-3 (4.7)	7 (2.2)	541 (6.3)	-3 (3.2)
Chinese Taipei	80 (3.5)	537 (2.3)	0 0	11 (2.7)	536 (6.5)	0 0
Denmark	75 (3.6)	549 (2.9)	0 0	18 (3.1)	545 (4.4)	0 0
England	r 77 (3.3)	551 (3.2)	-11 (4.3) ▼	12 (2.6)	535 (9.1)	9 (3.0) ▲
France	87 (2.9)	524 (2.4)	-2 (4.0)	7 (2.3)	502 (12.0)	-2 (3.6)
Georgia	s 89 (3.3)	476 (4.5)	0 0	6 (2.5)	450 (12.0)	0 0
Germany	52 (3.2)	559 (2.0)	-15 (4.8) ▼	24 (3.1)	546 (5.3)	5 (4.4)
Hong Kong SAR	96 (1.3)	564 (2.3)	85 (3.2) ▲	1 (0.5)	~ ~	1 (0.5)
Hungary	94 (2.0)	554 (3.1)	0 (2.8)	2 (1.2)	~ ~	1 (1.3)
Iceland	r 95 (0.2)	512 (1.4)	-3 (0.2) ▼	5 (0.2)	501 (5.3)	5 (0.2) ▲
Indonesia	28 (4.2)	409 (8.1)	0 0	8 (2.3)	399 (15.6)	0 0
Iran, Islamic Rep. of	52 (3.4)	446 (4.0)	-2 (6.1)	7 (1.7)	422 (9.5)	-2 (3.7)
Israel	48 (4.2)	538 (7.5)	-11 (5.9)	15 (3.0)	543 (4.8)	-2 (4.4)
Italy	81 (3.3)	550 (3.5)	-13 (3.8) ▼	16 (3.2)	547 (7.8)	13 (3.5) ▲
Kuwait	r 94 (2.2)	326 (5.0)	0 0	1 (0.9)	~ ~	0 0
Latvia	53 (3.4)	541 (3.6)	-34 (4.2) ▼	17 (2.7)	536 (4.1)	9 (3.5) ▲
Lithuania	r 93 (2.2)	538 (2.1)	1 (3.3)	4 (1.8)	559 (8.5)	-1 (2.6)
<sup>1</sup> Luxembourg	--	--	--	--	--	--
Macedonia, Rep. of	s 76 (4.5)	461 (7.7)	22 (5.8) ▲	8 (2.5)	409 (11.9)	-2 (3.8)
Moldova, Rep. of	r 87 (3.2)	499 (3.8)	4 (4.7)	1 (0.8)	~ ~	-7 (2.5) ▼
Morocco	s 55 (5.8)	324 (9.2)	16 (7.6) ▲	7 (3.4)	291 (19.6)	-1 (4.4)
Netherlands	r 79 (4.1)	554 (1.8)	-5 (5.2)	4 (1.9)	537 (14.2)	-2 (2.8)
New Zealand	74 (3.3)	537 (2.7)	-5 (4.6)	15 (2.8)	541 (7.5)	1 (3.9)
Norway	87 (3.2)	499 (3.2)	-2 (4.3)	10 (2.8)	488 (7.5)	2 (4.0)
Poland	r 97 (1.4)	520 (2.7)	0 0	0 (0.0)	~ ~	0 0
Qatar	67 (0.2)	354 (1.6)	0 0	14 (0.2)	352 (2.9)	0 0
Romania	80 (4.1)	496 (5.9)	-3 (5.5)	6 (2.1)	492 (15.9)	-4 (3.8)
Russian Federation	73 (3.4)	571 (4.2)	-4 (5.4)	8 (2.3)	561 (12.2)	2 (2.8)
Scotland	r 95 (1.9)	526 (3.5)	-1 (2.8)	4 (1.6)	545 (8.0)	1 (2.5)
Singapore	11 (0.0)	573 (8.0)	-10 (3.0) ▼	18 (0.0)	573 (8.6)	5 (2.8)
Slovak Republic	85 (2.9)	539 (2.6)	3 (3.9)	6 (1.8)	500 (7.6)	1 (2.6)
Slovenia	76 (3.6)	521 (2.5)	-8 (4.9)	11 (2.6)	527 (6.2)	3 (3.5)
South Africa	63 (2.3)	284 (7.4)	0 0	10 (1.9)	342 (19.9)	0 0
Spain	66 (3.0)	518 (3.2)	0 0	12 (2.5)	499 (9.2)	0 0
Sweden	63 (4.2)	555 (2.6)	-13 (5.7) ▼	18 (3.6)	542 (4.2)	7 (4.4)
Trinidad and Tobago	86 (3.1)	439 (6.0)	0 0	1 (0.0)	~ ~	0 0
United States	71 (3.1)	548 (4.5)	-7 (4.4)	11 (2.4)	540 (6.3)	-1 (3.4)
International Avg.	73 (0.5)	504 (0.7)		10 (0.4)	499 (1.7)	

SOURCE: IEA Progress in International Reading Literacy Study (PIRLS) 2006

▲ Percent in 2006 significantly higher

▼ Percent in 2006 significantly lower

Background data provided by schools.

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

An "r" indicates data are available for 70–84% of the students. An "s" indicates data are available for 50–69% of the students. An "x" indicates data are available for less than 50% of the students.

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

A diamond (0) indicates the country did not participate in the 2001 assessment.

NOTE: The International Average does not include the results from the Canadian provinces.

Trend Note: The primary education systems of the Russian Federation and Slovenia underwent structural changes. Data for Canada, Ontario include only public schools.

1 Primary schools in Luxembourg do not have principals.



**Exhibit 7.3 Principals' Reports on Primary Grade Students Not Speaking the Language of the Test as Their First Language with Trends (Continued)**
**PIRLS 2006**  
 4th Grade

Countries	26–50% First Language Not Language of Test			More than 50% First Language Not Language of Test		
	2006 Percent of Students	Average Achievement	Difference in Percent from 2001	2006 Percent of Students	Average Achievement	Difference in Percent from 2001
Austria	15 (3.0)	530 (4.2)	◊ ◊	13 (2.4)	505 (5.5)	◊ ◊
Belgium (Flemish)	9 (2.7)	525 (8.6)	◊ ◊	4 (1.4)	501 (9.0)	◊ ◊
Belgium (French)	r 6 (1.8)	473 (7.4)	◊ ◊	11 (2.6)	458 (14.0)	◊ ◊
Bulgaria	9 (2.7)	502 (7.6)	2 (3.5)	22 (3.1)	521 (9.9)	–1 (4.5)
Canada, Alberta	7 (2.2)	547 (10.0)	◊ ◊	4 (1.8)	519 (10.6)	◊ ◊
Canada, British Columbia	12 (3.1)	548 (7.5)	◊ ◊	10 (2.6)	556 (9.3)	◊ ◊
Canada, Nova Scotia	3 (1.3)	531 (13.7)	◊ ◊	2 (0.8)	~ ~	◊ ◊
Canada, Ontario	9 (2.9)	537 (7.8)	1 (3.9)	10 (3.2)	531 (9.0)	6 (3.6)
Canada, Quebec	5 (1.9)	517 (9.4)	3 (2.3)	9 (2.6)	522 (7.4)	4 (3.2)
Chinese Taipei	1 (0.0)	~ ~	◊ ◊	8 (2.2)	512 (9.3)	◊ ◊
Denmark	4 (1.4)	536 (10.7)	◊ ◊	3 (1.2)	527 (13.9)	◊ ◊
England	r 3 (1.6)	514 (18.7)	–1 (2.4)	9 (2.7)	483 (13.5)	3 (3.2)
France	5 (2.2)	480 (10.0)	5 (2.2) ◐	1 (0.0)	~ ~	–1 (1.2)
Georgia	s 3 (1.6)	467 (10.4)	◊ ◊	2 (1.4)	~ ~	◊ ◊
Germany	17 (2.9)	534 (4.6)	7 (3.9)	7 (2.0)	503 (7.6)	4 (2.6)
Hong Kong SAR	0 (0.0)	~ ~	0 (0.0)	3 (1.2)	549 (12.8)	–85 (3.2) ▼
Hungary	0 (0.0)	~ ~	0 (0.0)	4 (1.6)	543 (16.3)	–1 (2.5)
Iceland	r 0 (0.0)	~ ~	0 (0.0)	0 (0.0)	~ ~	–1 (0.1)
Indonesia	10 (2.5)	406 (15.2)	◊ ◊	54 (4.1)	404 (5.5)	◊ ◊
Iran, Islamic Rep. of	5 (1.8)	436 (10.8)	–2 (2.9)	36 (3.0)	383 (5.9)	7 (5.3)
Israel	11 (2.9)	521 (9.5)	2 (3.8)	26 (3.3)	448 (10.9)	11 (4.1) ◑
Italy	2 (1.2)	~ ~	1 (1.4)	1 (0.8)	~ ~	0 (1.2)
Kuwait	r 2 (1.2)	~ ~	◊ ◊	3 (1.6)	351 (34.8)	◊ ◊
Latvia	5 (1.8)	536 (10.3)	1 (2.0)	24 (1.7)	547 (5.4)	23 (2.2) ◑
Lithuania	r 1 (1.0)	~ ~	1 (1.0)	2 (1.2)	~ ~	–2 (2.0)
<sup>1</sup> Luxembourg	–	–	–	–	–	–
Macedonia, Rep. of	s 6 (2.7)	413 (25.3)	–2 (4.0)	10 (3.2)	392 (19.2)	–18 (4.8) ▼
Moldova, Rep. of	r 6 (2.3)	518 (27.3)	3 (2.7)	7 (2.5)	507 (14.6)	–1 (3.5)
Morocco	s 7 (2.7)	336 (28.4)	–3 (4.2)	31 (5.4)	315 (19.1)	–13 (7.3)
Netherlands	r 9 (2.9)	517 (7.1)	6 (3.3)	9 (3.2)	515 (8.0)	2 (4.0)
New Zealand	6 (1.9)	527 (9.3)	1 (2.7)	5 (1.2)	451 (13.8)	2 (1.7)
Norway	2 (0.9)	~ ~	–1 (1.9)	2 (1.1)	~ ~	2 (1.1)
Poland	r 0 (0.0)	~ ~	◊ ◊	3 (1.4)	525 (18.0)	◊ ◊
Qatar	4 (0.1)	385 (8.1)	◊ ◊	15 (0.2)	346 (3.0)	◊ ◊
Romania	4 (2.3)	463 (18.2)	3 (2.6)	9 (3.1)	448 (14.0)	4 (3.8)
Russian Federation	8 (2.5)	562 (10.4)	4 (2.9)	11 (1.6)	537 (11.0)	–2 (2.9)
Scotland	r 1 (1.0)	~ ~	1 (1.4)	0 (0.0)	~ ~	0 (0.0)
Singapore	26 (0.0)	566 (5.4)	7 (3.6)	45 (0.0)	544 (5.0)	–2 (4.1)
Slovak Republic	6 (2.0)	500 (14.6)	2 (2.7)	3 (1.6)	450 (41.0)	–6 (2.2) ▼
Slovenia	8 (2.2)	520 (8.2)	2 (3.1)	5 (2.0)	521 (7.4)	3 (2.3)
South Africa	9 (1.8)	348 (24.2)	◊ ◊	18 (2.1)	323 (15.0)	◊ ◊
Spain	6 (2.1)	521 (10.8)	◊ ◊	16 (2.8)	498 (6.5)	◊ ◊
Sweden	11 (2.5)	545 (8.4)	7 (3.0) ◐	7 (2.4)	526 (12.5)	–1 (3.6)
Trinidad and Tobago	3 (1.6)	437 (23.3)	◊ ◊	10 (2.7)	434 (13.2)	◊ ◊
United States	8 (2.0)	510 (6.4)	3 (2.6)	10 (2.5)	509 (6.7)	5 (2.9)
International Avg.	6 (0.3)	487 (2.7)		12 (0.4)	471 (2.6)	

SOURCE: IEA Progress in International Reading Literacy Study (PIRLS) 2006

◐ Percent in 2006 significantly higher

▼ Percent in 2006 significantly lower

### **What Is the Role of the School Principal?**

Exhibit 7.4 summarizes principals' reports of how much time each week they devoted to a range of professional activities, including curriculum and staff development, administrative duties, community relations, teaching, and interacting with students. Principals reported spending a considerable amount of time, 39 hours per week, on average internationally, on such activities. For several participants, including Belgium (Flemish), England, New Zealand, the United States, as well as the Canadian provinces of Alberta, British Columbia, Nova Scotia, and Ontario, principals reported spending 50 hours per week or more, on average, on these activities. By contrast, principals in Indonesia, Kuwait, Qatar, and South Africa reported spending less than 25 hours per week on school-related activities.

In most countries (and in the five Canadian provinces), administrative duties (such as hiring and budgeting) were the most time-consuming activities (22% of principals' time, on average). Across countries this was followed by managing staff or staff development (18%, on average). Developing curriculum and pedagogy for the school (16% of time, on average) was the most time-consuming activity in four countries—Bulgaria, Georgia, Indonesia and Israel. Principals reported devoting 13 percent of their time, on average, to parent and community relations, 10 percent to interacting with individual students, and 13 percent to teaching. Countries where principals reported spending more time on teaching than on any of the other activities included France, Germany, Kuwait, Macedonia, Romania, and Spain.

### **What Shortages of School Resources Affect Reading Instruction?**

To provide information on the extent to which school resources are available to support reading instruction, PIRLS constructed an Index of Availability of School Resources based on principals' responses about shortages of or inadequacies in accommodation, staff, equipment, and instructional materials. More specifically, principals were asked to indicate if their school's capacity to provide instruction was affected by shortages or inadequacies

in qualified teaching staff, teachers with a specialization in reading, second language teachers, instructional materials (e.g., textbooks), supplies (e.g., papers, pencils), school buildings and grounds, heating/cooling and lighting systems, instructional space (e.g., classrooms), special equipment for physically disabled students, computers for instructional purposes, computer software for instructional purposes, computer support staff, library books, and audio-visual resources. Principals' average responses were computed on a 4-point scale: *not at all* = 1, *a little* = 2, *some* = 3, and *a lot* = 4. Students were assigned to the high level of the index if their school's principal had an average response of less than 2. To achieve such a response average, a principal would have to reply not at all or some to most of the questions, implying that resource shortages were not a problem for the school. Students were assigned to the medium level if their principal's average was 2 or more but not less than 3, and to the low level if the average was 3 or more.

Exhibit 7.5 presents, for every participant, the percentage of PIRLS 2006 students at each level of the index, together with their average reading achievement. For those that also participated in PIRLS 2001, the exhibit shows the change in percentage of students at each level, and an indication of whether the change was statistically significant. On average across countries, the majority (52%) of students were at the high level of the index (i.e., were attending schools that were not hampered by resource shortages). Eighty percent or more of the students were at the high level of the index in the Netherlands, Scotland, Denmark, Belgium (Flemish), New Zealand, Iceland, Sweden, Slovenia, the United States, England, Austria, and the Canadian province of British Columbia. Although, on average, there were just 15 percent of students at the low level of the index (i.e., attending schools where principals reported that resource shortages greatly affected the provision of instruction), there were some countries with a substantial percentage of students at this level. Countries with more than 20 percent of students at the low level included Israel, Chinese Taipei, South Africa, Qatar, the Russian Federation, Moldova, Iran, Kuwait, Morocco, and Hong Kong SAR.

## Exhibit 7.4 Principals' Time Spent on Various School-related Activities

PIRLS 2006  
4th Grade

Countries	Percent of Time							Average Hours per Week Spent on These Activities
	Developing Curriculum and Pedagogy for Your School	Managing Staff / Staff Development	Administrative Duties (e.g., Hiring, Budgeting)	Parent and Community Relations	Teaching	Interacting with Individual Students	Other	
Austria	11 (0.6)	13 (0.7)	29 (1.4)	12 (0.5)	20 (1.6)	9 (0.4)	6 (0.6)	39 (1.0)
Belgium (Flemish)	16 (0.8)	13 (0.6)	32 (1.6)	13 (0.6)	2 (0.5)	8 (0.4)	15 (1.2)	50 (1.0)
Belgium (French)	r 9 (0.5)	r 16 (0.8)	r 41 (1.8)	r 13 (0.6)	r 7 (1.1)	r 8 (0.6)	r 5 (0.6)	r 45 (0.8)
Bulgaria	29 (1.1)	9 (0.4)	20 (1.1)	14 (0.6)	11 (0.5)	9 (0.4)	8 (0.6)	38 (1.0)
Canada, Alberta	9 (0.5)	16 (0.7)	28 (1.1)	14 (0.6)	13 (1.0)	16 (0.7)	4 (0.6)	53 (0.9)
Canada, British Columbia	8 (0.5)	15 (0.7)	27 (1.3)	15 (0.7)	13 (1.1)	18 (0.8)	5 (0.7)	r 54 (1.1)
Canada, Nova Scotia	11 (0.5)	15 (0.6)	28 (1.3)	15 (0.6)	6 (0.6)	21 (1.1)	4 (0.6)	53 (0.8)
Canada, Ontario	12 (0.8)	18 (0.7)	28 (1.7)	15 (0.8)	2 (0.4)	21 (1.2)	5 (0.7)	r 54 (1.1)
Canada, Quebec	r 11 (0.5)	r 20 (1.3)	r 30 (1.4)	r 16 (0.7)	r 2 (0.5)	r 17 (0.9)	r 5 (0.6)	r 48 (0.7)
Chinese Taipei	17 (0.6)	17 (0.5)	21 (1.0)	16 (0.6)	10 (0.5)	11 (0.6)	8 (0.6)	40 (1.3)
Denmark	15 (0.9)	23 (0.9)	30 (1.4)	12 (0.6)	4 (0.6)	9 (0.5)	8 (0.6)	47 (0.5)
England	r 16 (0.8)	r 16 (0.9)	r 27 (1.4)	r 13 (0.7)	r 8 (0.8)	r 11 (0.6)	r 9 (1.0)	r 54 (1.1)
France	6 (0.5)	5 (0.5)	23 (1.2)	11 (0.7)	47 (1.9)	6 (0.5)	2 (0.4)	40 (0.8)
Georgia	22 (0.9)	18 (0.7)	15 (0.8)	14 (0.5)	15 (0.7)	11 (0.6)	5 (0.4)	41 (0.9)
Germany	9 (0.4)	10 (0.4)	20 (0.8)	11 (0.4)	38 (1.4)	7 (0.3)	5 (0.5)	47 (0.7)
Hong Kong SAR	21 (0.8)	20 (0.6)	25 (1.0)	13 (0.5)	5 (0.5)	9 (0.5)	7 (0.5)	r 29 (2.2)
Hungary	11 (0.7)	13 (0.5)	22 (1.0)	14 (0.6)	14 (0.6)	13 (0.6)	12 (1.3)	43 (0.8)
Iceland	r 12 (0.1)	r 30 (0.1)	r 18 (0.1)	r 13 (0.0)	r 4 (0.0)	r 13 (0.1)	r 10 (0.1)	r 42 (0.1)
Indonesia	28 (1.4)	15 (0.7)	15 (1.0)	12 (0.5)	14 (0.9)	10 (0.7)	6 (0.4)	22 (1.3)
Iran, Islamic Rep. of	18 (0.9)	20 (0.7)	10 (0.6)	17 (0.7)	10 (0.9)	15 (0.6)	10 (0.8)	28 (1.1)
Israel	23 (0.9)	18 (0.6)	12 (0.7)	15 (0.5)	14 (0.6)	12 (0.5)	5 (0.6)	r 45 (1.4)
Italy	15 (0.7)	25 (1.0)	25 (1.1)	19 (0.6)	2 (0.3)	10 (0.6)	4 (0.5)	38 (1.0)
Kuwait	s 15 (1.6)	s 18 (1.1)	s 11 (0.9)	s 16 (0.9)	s 21 (2.1)	s 13 (0.7)	s 5 (0.5)	r 14 (1.2)
Latvia	17 (0.8)	17 (0.7)	20 (0.9)	13 (0.6)	15 (0.7)	10 (0.5)	9 (0.6)	36 (1.5)
Lithuania	19 (0.6)	18 (0.8)	19 (0.9)	13 (0.5)	12 (0.7)	10 (0.4)	8 (0.6)	41 (1.0)
<sup>1</sup> Luxembourg	--	--	--	--	--	--	--	--
Macedonia, Rep. of	r 22 (1.3)	r 17 (0.8)	r 14 (0.7)	r 12 (0.6)	r 22 (1.1)	r 8 (0.4)	r 6 (0.4)	r 34 (1.3)
Moldova, Rep. of	13 (0.7)	27 (1.0)	10 (0.4)	13 (0.5)	17 (0.9)	13 (0.6)	7 (0.5)	40 (1.4)
Morocco	x x	x x	x x	x x	x x	x x	x x	s 26 (1.8)
Netherlands	r 13 (0.6)	r 17 (1.1)	r 29 (1.6)	r 12 (0.7)	r 7 (1.2)	r 7 (0.5)	r 15 (1.2)	r 45 (1.0)
New Zealand	15 (0.7)	17 (0.6)	32 (1.2)	12 (0.4)	8 (0.8)	11 (0.4)	5 (0.5)	57 (0.7)
Norway	15 (0.9)	21 (0.9)	34 (1.3)	9 (0.4)	6 (0.8)	9 (0.3)	7 (0.6)	42 (1.0)
Poland	15 (0.7)	20 (0.6)	23 (1.1)	11 (0.4)	12 (0.6)	10 (0.5)	9 (0.6)	39 (1.0)
Qatar	s 16 (0.1)	s 22 (0.0)	s 11 (0.0)	s 16 (0.0)	s 16 (0.1)	s 13 (0.0)	s 7 (0.0)	s 9 (0.1)
Romania	13 (0.6)	18 (0.9)	17 (1.0)	16 (0.7)	21 (1.5)	8 (0.4)	8 (0.6)	40 (1.3)
Russian Federation	17 (0.6)	18 (0.6)	17 (0.7)	13 (0.4)	12 (0.4)	13 (0.4)	11 (0.5)	44 (0.9)
Scotland	r 16 (0.9)	r 14 (0.7)	r 28 (1.4)	r 13 (0.8)	r 10 (1.1)	r 12 (0.9)	r 7 (0.9)	r 49 (0.8)
Singapore	14 (0.0)	24 (0.0)	25 (0.0)	14 (0.0)	3 (0.0)	10 (0.0)	9 (0.0)	49 (0.0)
Slovak Republic	11 (0.5)	21 (0.7)	25 (1.0)	12 (0.4)	15 (0.7)	9 (0.4)	7 (0.5)	41 (1.1)
Slovenia	22 (0.9)	19 (0.7)	29 (1.2)	11 (0.4)	4 (0.4)	8 (0.3)	7 (0.7)	42 (1.2)
South Africa	r 16 (0.6)	r 19 (0.5)	r 23 (0.9)	r 12 (0.5)	r 17 (0.9)	r 9 (0.3)	r 5 (0.5)	24 (1.4)
Spain	15 (0.8)	13 (0.7)	19 (1.1)	14 (0.6)	28 (1.8)	7 (0.4)	4 (0.4)	r 33 (1.0)
Sweden	15 (0.7)	22 (0.9)	28 (1.2)	12 (0.6)	2 (0.5)	11 (0.5)	9 (1.0)	43 (0.6)
Trinidad and Tobago	17 (0.9)	16 (0.6)	23 (1.1)	12 (0.4)	11 (0.7)	15 (0.7)	7 (0.5)	33 (1.7)
United States	14 (0.9)	19 (0.9)	21 (1.0)	15 (0.7)	5 (0.6)	18 (1.0)	6 (0.8)	51 (1.3)
International Avg.	16 (0.1)	18 (0.1)	22 (0.2)	13 (0.1)	13 (0.2)	10 (0.1)	7 (0.1)	39 (0.2)

SOURCE: IEA Progress in International Reading Literacy Study (PIRLS) 2006

Background data provided by schools.

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

An "r" indicates data are available for 70–84% of the students. An "s" indicates data are available for 50–69% of the students. An "x" indicates data are available for less than 50% of the students.

A dash (–) indicates comparable data are not available.

NOTE: The International Average does not include the results from the Canadian provinces.

<sup>1</sup> Primary schools in Luxembourg do not have principals.

Several participants showed improvement from 2001 in terms of an increase in the percentage of students attending schools with few resource problems (i.e., at the high level of the index). These included the Netherlands, Scotland, Iceland, Slovenia, Norway, the Slovak Republic, Italy, Lithuania, Romania, Israel, and the Canadian province of Ontario. Participants with decreased percentages of students at the high level since 2001 included Macedonia, the Russian Federation, Morocco, and the Canadian province of Quebec. Although the situation varied from country to country, on average, there was a positive relationship between absence of school resource shortages and average reading achievement. At 505 points, the achievement average for students at the high level of the index was 29 points above the average for students at the low level of the index.

Related to the issue of school resources and facilities, Exhibit 7.6 presents schools' reports on the provision of workspace to teachers, and teachers' reports of where they usually prepared materials for class. In general, schools around the world provided teachers with a workspace in the classroom (81% of students attended such schools), and many also provided a workspace shared by several teachers (71% of students in such schools). Having a separate workspace for each teacher was far less common, although in a number of countries (Hong Kong SAR, Hungary, Lithuania, Norway, Qatar, the Russian Federation, and Singapore), the majority of students were in schools where such a facility was provided.

Whatever the provision of workspace in schools, many teachers still did much of their class preparation at home. On average internationally, 13 percent of students were taught by teachers who prepared instructional materials only at home, 30 percent by teachers who did so mostly at home, and 40 percent by teachers who prepared materials at home and at school about equally. Although preparing instructional materials mostly or only at school was less common (only 16% of students were taught by teachers who prepared mostly at school and 1 percent by those preparing only at school), in Iceland, the Netherlands, and Norway, the majority of students were taught by teachers who mostly prepared at school.

Given the increasingly widespread availability of literacy materials on the Internet, access to computers that may be used for instructional purposes can be a crucial school resource. Exhibit 7.7 provides principals' reports on the availability of computers for fourth-grade students in 2006, as well as changes since 2001. Results are presented in terms of number of students per computer—*fewer than 5 students, 5–10 students, 11–20 students, more than 20 students, and students in schools without any computers*. Although on average internationally, more than half the students (53%) were in relatively well-resourced schools (fewer than five students per computer), the situation varied enormously across countries. More than 90 percent of students in Denmark, England, Iceland, and the Canadian provinces of Alberta, British Columbia, and Ontario were in such schools, as well as 80 percent or more in Scotland, the United States, Hong Kong SAR, Singapore, and the Canadian province of Quebec. In contrast, however, less than 10 percent of students were in such schools in Moldova, Macedonia, Indonesia, Georgia, and Iran. In these countries, the majority of students attended schools with no computers at all.

Exhibit 7.5 Index of Availability of School Resources (ASR) with Trends

PIRLS 2006  
4th Grade

Countries	High ASR			Medium ASR			Low ASR		
	2006 Percent of Students	Average Achievement	Difference in Percent from 2001	2006 Percent of Students	Average Achievement	Difference in Percent from 2001	2006 Percent of Students	Average Achievement	Difference in Percent from 2001
Netherlands	r 93 (2.5)	546 (1.8)	11 (4.6) ▲	7 (2.5)	552 (9.8)	-10 (4.5) ▼	0 (0.0)	~ ~	-1 (0.0)
Scotland	r 88 (3.3)	528 (3.8)	11 (5.3) ▲	11 (3.1)	525 (8.4)	-12 (5.2) ▼	1 (0.0)	~ ~	1 (0.0)
Denmark	86 (2.9)	546 (2.6)	0 0	14 (2.9)	551 (7.3)	0 0	0 (0.0)	~ ~	0 0
Belgium (Flemish)	86 (2.5)	546 (2.2)	0 0	13 (2.9)	554 (4.9)	0 0	2 (1.1)	~ ~	0 0
New Zealand	86 (2.5)	533 (2.2)	1 (4.1)	13 (2.3)	533 (7.8)	-3 (4.0)	2 (0.8)	~ ~	2 (0.8) ▲
Iceland	r 85 (0.3)	513 (1.4)	4 (0.4) ▲	15 (0.3)	502 (3.3)	-3 (0.4) ▼	0 (0.0)	~ ~	-2 (0.0) ▼
Sweden	82 (3.7)	549 (2.8)	5 (5.2)	15 (3.5)	552 (3.8)	-3 (4.8)	3 (1.5)	540 (11.5)	-2 (2.6)
Canada, British Columbia	82 (3.2)	556 (3.1)	0 0	17 (3.1)	563 (4.9)	0 0	1 (0.0)	~ ~	0 0
Slovenia	r 81 (3.2)	520 (2.3)	18 (5.7) ▲	16 (2.9)	529 (5.8)	-19 (5.4) ▼	2 (1.3)	~ ~	2 (1.3)
United States	81 (2.8)	543 (4.1)	4 (4.5)	18 (3.1)	520 (6.1)	-5 (4.7)	2 (0.9)	~ ~	1 (1.0)
England	81 (3.8)	543 (3.4)	--	19 (3.8)	537 (7.9)	--	0 (0.0)	~ ~	--
Austria	80 (3.4)	541 (2.3)	0 0	20 (3.4)	531 (6.1)	0 0	0 (0.0)	~ ~	0 0
Norway	79 (3.5)	500 (3.2)	12 (6.0) ▲	21 (3.5)	491 (4.4)	-8 (5.9)	0 (0.0)	~ ~	-4 (1.4) ▼
Canada, Alberta	78 (3.6)	562 (2.6)	0 0	20 (3.4)	554 (6.4)	0 0	2 (1.2)	~ ~	0 0
Canada, Ontario	76 (5.0)	556 (3.0)	14 (6.7) ▲	20 (4.5)	548 (6.7)	-14 (6.2) ▼	4 (2.3)	562 (14.8)	0 (3.0)
Canada, Nova Scotia	75 (3.5)	542 (2.7)	0 0	23 (3.5)	541 (4.5)	0 0	2 (1.1)	~ ~	0 0
Singapore	73 (0.0)	560 (3.2)	1 (3.4)	12 (0.0)	553 (11.1)	-6 (2.9) ▼	15 (0.0)	555 (7.3)	5 (2.7)
Canada, Quebec	73 (3.9)	537 (3.0)	-11 (5.4) ▼	24 (3.6)	526 (7.2)	8 (5.1)	3 (1.7)	520 (14.4)	3 (1.7)
Poland	72 (4.0)	520 (2.9)	0 0	27 (4.0)	520 (4.2)	0 0	2 (1.0)	~ ~	0 0
Germany	71 (3.2)	553 (2.4)	3 (4.6)	27 (3.2)	535 (4.5)	-4 (4.6)	1 (1.0)	~ ~	1 (1.0)
Hungary	71 (4.4)	553 (4.0)	8 (5.7)	15 (3.2)	539 (6.3)	-13 (4.5) ▼	14 (3.0)	548 (7.7)	5 (3.9)
Slovak Republic	65 (3.8)	532 (3.8)	34 (5.3) ▲	33 (3.8)	530 (5.0)	-32 (5.3) ▼	2 (1.2)	~ ~	-2 (2.0)
Spain	64 (4.3)	518 (2.9)	0 0	25 (3.7)	501 (7.3)	0 0	11 (2.7)	513 (9.0)	0 0
France	60 (4.1)	526 (2.8)	-12 (6.3)	39 (4.1)	516 (4.0)	12 (6.3)	1 (0.0)	~ ~	0 (0.0)
Italy	56 (4.2)	552 (4.1)	20 (5.5) ▲	42 (4.2)	551 (4.2)	-16 (5.7) ▼	3 (1.5)	524 (18.9)	-4 (2.5)
Lithuania	49 (4.5)	538 (2.6)	28 (5.6) ▲	40 (4.1)	537 (3.0)	-25 (5.6) ▼	11 (2.8)	534 (6.7)	-3 (4.0)
Latvia	49 (4.1)	544 (2.7)	-3 (5.7)	34 (3.9)	539 (5.0)	-7 (5.9)	17 (2.9)	540 (7.7)	9 (3.7) ▲
Romania	48 (4.4)	509 (6.1)	19 (6.1) ▲	40 (4.7)	469 (8.6)	-16 (6.4) ▼	12 (2.9)	473 (8.8)	-4 (4.4)
Georgia	46 (4.3)	479 (5.5)	0 0	51 (4.2)	462 (4.4)	0 0	3 (1.6)	513 (23.0)	0 0
Belgium (French)	42 (4.4)	504 (5.6)	0 0	52 (4.2)	500 (3.9)	0 0	6 (2.4)	480 (8.8)	0 0
Indonesia	41 (4.2)	386 (6.1)	0 0	51 (4.0)	420 (5.5)	0 0	8 (2.4)	421 (9.1)	0 0
Bulgaria	38 (4.6)	547 (8.1)	11 (5.9)	44 (4.9)	546 (6.1)	-4 (6.3)	18 (3.5)	548 (11.0)	-6 (4.7)
Israel	r 37 (4.0)	532 (7.2)	26 (5.1) ▲	40 (4.1)	507 (9.1)	-9 (6.2)	23 (3.4)	494 (11.6)	-17 (5.3) ▼
Chinese Taipei	30 (3.7)	537 (3.4)	0 0	35 (4.2)	535 (3.6)	0 0	34 (3.8)	535 (3.4)	0 0
South Africa	26 (2.9)	350 (16.0)	0 0	51 (2.7)	299 (6.8)	0 0	23 (2.4)	257 (9.1)	0 0
Macedonia, Rep. of	r 17 (3.2)	424 (13.1)	-24 (5.4) ▼	67 (4.1)	447 (6.5)	18 (6.0) ▲	16 (3.3)	465 (19.9)	6 (4.1)
Qatar	r 16 (0.2)	345 (3.3)	0 0	39 (0.2)	346 (1.8)	0 0	46 (0.2)	358 (1.8)	0 0
Trinidad and Tobago	15 (3.3)	454 (9.0)	0 0	67 (4.0)	431 (6.1)	0 0	18 (3.3)	443 (18.0)	0 0
Russian Federation	14 (2.7)	582 (6.0)	-9 (3.4) ▼	22 (2.2)	560 (7.0)	-19 (4.4) ▼	64 (3.5)	562 (3.8)	27 (5.1) ▲
Moldova, Rep. of	12 (2.8)	517 (8.0)	6 (4.0)	65 (3.9)	496 (3.8)	15 (6.2) ▲	24 (3.5)	502 (6.6)	-21 (6.1) ▼
Iran, Islamic Rep. of	9 (1.8)	474 (9.7)	3 (2.3)	46 (3.4)	422 (4.6)	3 (5.9)	45 (3.5)	408 (5.8)	-6 (6.0)
Kuwait	7 (1.9)	343 (12.3)	0 0	43 (4.8)	327 (6.8)	0 0	51 (4.7)	329 (6.6)	0 0
Morocco	r 5 (2.0)	354 (14.4)	-56 (5.5) ▼	20 (4.6)	318 (22.9)	-5 (7.1)	75 (4.9)	326 (8.0)	61 (6.7) ▲
Hong Kong SAR	4 (1.6)	564 (11.9)	1 (2.1)	56 (4.1)	565 (3.0)	-12 (5.8) ▼	40 (4.2)	562 (3.9)	11 (6.0)
<sup>1</sup> Luxembourg	--	--	--	--	--	--	--	--	--
International Avg.	52 (0.5)	505 (1.0)		32 (0.6)	496 (1.1)		15 (0.4)	476 (2.2)	

SOURCE: IEA Progress in International Reading Literacy Study (PIRLS) 2006

▲ Percent in 2006 significantly higher      ▼ Percent in 2006 significantly lower

Based on principals' responses to how much the school's capacity to provide instruction is affected by a shortage or inadequacy of the following: qualified teaching staff, teachers with a specialization in reading, second language teachers, instructional materials, supplies (e.g., paper, pencils), school buildings and grounds, heating/cooling and lighting systems, instructional space (e.g., classrooms), special equipment for physically disabled students, computers for instructional purposes, computer software for instructional purposes, computer support staff, library books, and audio-visual resources. Average is computed on a 4-point scale: A lot=1, Some=2, A little=3, and Not at all=4. Responses for each activity were averaged across each principal. High level indicates an average of greater than 3 through 4. Medium level indicates an average of 2 through 3. Low level indicates an average of 1 to less than 2. "Second language teachers" was added to the PIRLS 2006 index, and is not included in the 2001 index calculations. "Teachers with a specialization in reading" was worded as "teachers qualified to teach reading" in 2001.

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

An "r" indicates data are available for 70-84% of the students. An "s" indicates data are available for 50-69% of the students. An "x" indicates data are available for less than 50% of the students.

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

A diamond (0) indicates the country did not participate in the 2001 assessment.

NOTE: The International Average does not include the results from the Canadian provinces.

Trend Note: The primary education systems of the Russian Federation and Slovenia underwent structural changes. Data for Canada, Ontario include only public schools.

<sup>1</sup> Primary schools in Luxembourg do not have principals.

Exhibit 7.6 **Workspace for Teachers Provided by Schools**PIRLS 2006  
4th Grade

Countries	Percent of Students Whose Schools Provide Teachers with the Following Facilities			Percent of Students Whose Teachers Prepare Materials for Instruction				
	A Workspace in the Classroom	A Workspace Shared by Several Teachers	A Separate Workspace for Each Teacher	Only at Home	Mostly at Home	About Equally at Home and at School	Mostly at School	Only at School
Austria	93 (2.3)	63 (3.5)	11 (2.7)	19 (2.6)	37 (3.4)	36 (3.4)	7 (1.7)	2 (1.0)
Belgium (Flemish)	84 (3.4)	78 (4.0)	2 (1.4)	29 (3.2)	45 (3.3)	19 (2.9)	7 (1.9)	1 (0.4)
Belgium (French)	89 (3.0)	79 (3.8)	41 (4.3)	25 (2.8)	44 (3.2)	18 (2.7)	10 (2.4)	3 (1.1)
Bulgaria	97 (1.6)	82 (3.2)	43 (4.4)	29 (3.9)	49 (4.1)	21 (3.3)	1 (0.9)	0 (0.0)
Canada, Alberta	92 (2.3)	77 (3.1)	6 (2.0)	1 (0.4)	12 (2.2)	43 (3.2)	39 (3.3)	5 (1.7)
Canada, British Columbia	89 (2.7)	71 (4.3)	6 (2.2)	r 0 (0.0)	10 (2.1)	45 (3.8)	40 (3.9)	4 (1.9)
Canada, Nova Scotia	81 (2.9)	71 (3.6)	9 (2.3)	0 (0.1)	12 (2.3)	52 (3.8)	35 (3.5)	1 (0.7)
Canada, Ontario	80 (4.4)	71 (5.0)	14 (3.7)	1 (0.5)	13 (3.1)	59 (4.7)	26 (3.9)	2 (1.0)
Canada, Quebec	97 (1.5)	74 (4.4)	27 (4.1)	0 (0.0)	15 (2.7)	47 (4.1)	30 (3.9)	7 (2.7)
Chinese Taipei	78 (3.2)	73 (3.4)	47 (4.3)	1 (0.8)	2 (1.1)	81 (3.3)	17 (3.0)	0 (0.0)
Denmark	79 (3.8)	82 (3.7)	6 (2.2)	4 (1.7)	54 (3.7)	38 (4.0)	4 (1.6)	0 (0.0)
England	r 79 (3.9)	r 83 (3.5)	r 4 (1.8)	1 (0.9)	22 (3.8)	51 (4.1)	22 (3.6)	4 (1.9)
France	79 (3.8)	72 (3.6)	36 (4.7)	10 (2.1)	48 (3.6)	30 (3.4)	12 (2.4)	1 (0.7)
Georgia	97 (1.6)	74 (3.8)	14 (3.1)	14 (2.4)	23 (3.0)	56 (3.9)	6 (2.1)	1 (0.8)
Germany	70 (3.1)	46 (3.2)	1 (0.2)	35 (3.4)	45 (3.6)	17 (2.4)	3 (1.0)	1 (0.4)
Hong Kong SAR	76 (3.5)	73 (3.8)	71 (4.2)	3 (1.5)	11 (2.9)	53 (4.4)	32 (3.7)	1 (0.0)
Hungary	98 (1.1)	97 (1.5)	54 (4.4)	21 (3.6)	53 (4.5)	22 (3.5)	3 (1.6)	1 (0.0)
Iceland	97 (0.1)	90 (0.2)	15 (0.3)	1 (0.1)	5 (0.2)	26 (0.3)	61 (0.4)	7 (0.2)
Indonesia	81 (3.0)	78 (3.1)	38 (3.8)	8 (2.0)	33 (3.8)	41 (3.9)	18 (3.4)	0 (0.0)
Iran, Islamic Rep. of	70 (3.5)	35 (3.6)	42 (4.5)	5 (1.9)	10 (2.3)	69 (3.6)	12 (2.4)	2 (1.0)
Israel	31 (3.9)	67 (4.3)	1 (0.9)	24 (3.5)	42 (4.0)	33 (4.0)	1 (1.1)	0 (0.0)
Italy	75 (3.8)	88 (2.5)	4 (1.6)	13 (2.4)	50 (3.6)	34 (2.7)	3 (1.2)	0 (0.0)
Kuwait	72 (4.1)	95 (1.8)	9 (2.3)	6 (1.9)	14 (2.8)	62 (4.0)	18 (3.2)	1 (0.6)
Latvia	77 (3.8)	80 (3.5)	24 (3.8)	7 (2.0)	31 (3.7)	49 (3.6)	11 (2.6)	1 (1.0)
Lithuania	96 (1.8)	77 (3.9)	56 (4.3)	9 (1.5)	32 (3.0)	54 (3.2)	5 (1.4)	0 (0.2)
<sup>1</sup> Luxembourg	--	--	--	35 (0.2)	40 (0.2)	22 (0.2)	2 (0.0)	0 (0.0)
Macedonia, Rep. of	r 85 (3.6)	r 60 (4.5)	r 11 (2.6)	30 (3.7)	45 (4.4)	24 (3.4)	1 (0.7)	0 (0.0)
Moldova, Rep. of	98 (1.2)	42 (4.6)	26 (4.1)	15 (3.0)	14 (2.7)	66 (3.8)	6 (1.7)	0 (0.0)
Morocco	r 84 (3.2)	r 35 (4.9)	r 50 (4.0)	70 (4.2)	27 (4.0)	3 (1.4)	0 (0.0)	0 (0.0)
Netherlands	r 70 (4.4)	67 (4.2)	r 0 (0.0)	2 (1.1)	13 (2.9)	31 (4.1)	51 (4.4)	3 (1.4)
New Zealand	79 (2.8)	64 (2.8)	6 (1.5)	1 (0.4)	15 (2.1)	47 (2.9)	35 (2.7)	3 (0.9)
Norway	37 (4.2)	37 (4.5)	62 (4.9)	0 (0.0)	7 (2.0)	36 (4.1)	57 (4.3)	0 (0.0)
Poland	93 (2.3)	63 (3.3)	13 (2.9)	31 (3.1)	45 (3.9)	24 (3.6)	0 (0.0)	0 (0.1)
Qatar	79 (0.2)	80 (0.2)	78 (0.2)	r 8 (0.1)	14 (0.2)	60 (0.2)	15 (0.2)	2 (0.1)
Romania	85 (2.7)	78 (3.2)	3 (1.6)	23 (3.2)	45 (3.6)	30 (3.5)	2 (1.2)	0 (0.1)
Russian Federation	97 (1.3)	59 (3.3)	67 (3.3)	29 (3.2)	39 (3.7)	28 (3.1)	4 (1.4)	0 (0.0)
Scotland	r 98 (1.0)	r 61 (5.2)	r 13 (3.0)	0 (0.0)	20 (3.5)	55 (4.4)	23 (3.9)	2 (1.0)
Singapore	88 (0.0)	76 (0.0)	93 (0.0)	2 (0.7)	24 (2.2)	52 (2.8)	21 (2.5)	1 (0.5)
Slovak Republic	73 (3.0)	87 (2.8)	3 (1.4)	7 (2.0)	36 (3.4)	50 (3.8)	7 (1.5)	0 (0.0)
Slovenia	87 (2.7)	92 (2.1)	24 (2.8)	8 (2.0)	60 (2.9)	26 (3.0)	6 (1.5)	0 (0.0)
South Africa	84 (2.0)	54 (3.3)	16 (2.1)	5 (1.7)	22 (2.4)	60 (3.1)	13 (2.0)	0 (0.1)
Spain	80 (3.5)	95 (1.4)	5 (1.6)	2 (1.3)	21 (3.3)	48 (4.2)	28 (3.7)	1 (0.7)
Sweden	74 (3.9)	79 (3.4)	27 (4.3)	0 (0.0)	15 (2.7)	40 (4.0)	42 (3.6)	2 (1.0)
Trinidad and Tobago	59 (3.8)	38 (3.8)	9 (2.6)	2 (1.3)	29 (3.8)	49 (3.7)	19 (3.0)	1 (0.5)
United States	91 (2.0)	74 (3.4)	14 (3.1)	0 (0.0)	13 (2.5)	47 (3.4)	36 (3.4)	3 (0.9)
International Avg.	81 (0.5)	71 (0.5)	27 (0.5)	13 (0.4)	30 (0.5)	40 (0.5)	16 (0.4)	1 (0.1)

SOURCE: IEA Progress in International Reading Literacy Study (PIRLS) 2006

Background data provided by teachers and schools.

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

An "r" indicates data are available for 70–84% of the students. An "s" indicates data are available for 50–69% of the students. An "x" indicates data are available for less than 50% of the students.

A dash (–) indicates comparable data are not available.

NOTE: The International Average does not include the results from the Canadian provinces.

<sup>1</sup> Primary schools in Luxembourg do not have principals.

Exhibit 7.7 Schools' Reports of Availability of Computers for Instructional Purposes with Trends

PIRLS 2006  
4th Grade

Countries	Percentage of Students by Number of Fourth-Grade* Students per Computer										
	Fewer than 5 Students		5–10 Students		11–20 Students		More than 20 Students		Students in Schools Without Any Computers		
	2006	Difference in Percent From 2001	2006	Difference in Percent From 2001	2006	Difference in Percent From 2001	2006	Difference in Percent From 2001	2006	Difference in Percent From 2001	
Canada, Alberta	r	100 (0.0)	◊ ◊	0 (0.0)	◊ ◊	0 (0.0)	◊ ◊	0 (0.0)	◊ ◊	0 (0.0)	◊ ◊
Denmark	r	97 (1.5)	◊ ◊	2 (1.2)	◊ ◊	0 (0.0)	◊ ◊	1 (0.0)	◊ ◊	1 (0.7)	◊ ◊
Canada, British Columbia	r	95 (2.0)	◊ ◊	4 (1.7)	◊ ◊	1 (0.0)	◊ ◊	0 (0.0)	◊ ◊	1 (0.7)	◊ ◊
Canada, Ontario	r	95 (2.4)	13 (5.0) ▲	4 (2.2)	-7 (4.2)	1 (0.1)	-4 (2.2)	0 (0.0)	-2 (0.1) ▼	0 (0.0)	0 (0.0)
England	r	94 (1.8)	35 (5.0) ▲	5 (1.6)	-19 (4.1) ▼	2 (0.9)	-11 (3.7) ▼	0 (0.0)	-5 (2.0) ▼	0 (0.0)	0 (0.0)
Iceland	r	92 (0.3)	15 (0.4) ▲	5 (0.2)	-4 (0.3) ▼	1 (0.2)	-3 (0.2) ▼	2 (0.0)	-2 (0.1) ▼	0 (0.0)	-5 (0.2) ▼
Scotland	s	89 (3.6)	46 (6.2) ▲	6 (2.7)	-12 (4.8) ▼	5 (2.4)	-20 (5.2) ▼	0 (0.0)	-14 (3.1) ▼	0 (0.0)	0 (0.0)
United States		84 (3.2)	20 (4.9) ▲	11 (3.1)	-10 (4.3) ▼	4 (1.6)	-7 (3.0) ▼	0 (0.0)	-3 (1.5) ▼	1 (0.4)	1 (0.4)
Hong Kong SAR		82 (3.6)	27 (5.9) ▲	14 (3.1)	-17 (5.0) ▼	1 (1.0)	-1 (1.6)	3 (1.6)	-1 (2.3)	0 (0.0)	-9 (2.6) ▼
Singapore		81 (0.0)	14 (4.6) ▲	16 (0.0)	-9 (4.1) ▼	3 (0.0)	-2 (2.1)	0 (0.0)	-2 (1.2) ▼	0 (0.0)	0 (0.0)
Canada, Quebec	r	80 (4.5)	15 (6.4) ▲	17 (4.2)	-4 (5.6)	2 (1.0)	-10 (3.6) ▼	1 (0.1)	0 (1.1)	0 (0.0)	-1 (0.8)
Norway		79 (3.9)	21 (6.5) ▲	17 (3.5)	-3 (5.5)	0 (0.0)	-14 (3.6) ▼	2 (1.4)	-2 (2.5)	1 (0.1)	-2 (1.7)
Spain		79 (2.9)	◊ ◊	15 (2.7)	◊ ◊	3 (1.4)	◊ ◊	1 (0.7)	◊ ◊	3 (1.3)	◊ ◊
New Zealand	r	79 (2.9)	39 (5.4) ▲	16 (2.6)	-23 (5.1) ▼	5 (1.4)	-15 (4.1) ▼	1 (0.6)	-1 (1.2)	0 (0.0)	0 (0.0)
Slovak Republic	r	75 (3.6)	72 (3.8) ▲	23 (3.6)	6 (5.2)	1 (0.7)	-10 (3.1) ▼	2 (1.0)	-2 (1.9)	0 (0.0)	-66 (4.3) ▼
Canada, Nova Scotia		74 (3.7)	◊ ◊	21 (3.2)	◊ ◊	5 (2.0)	◊ ◊	0 (0.0)	◊ ◊	0 (0.0)	◊ ◊
Kuwait	r	72 (4.3)	◊ ◊	27 (4.2)	◊ ◊	1 (0.0)	◊ ◊	0 (0.0)	◊ ◊	0 (0.0)	◊ ◊
South Africa		72 (3.5)	◊ ◊	18 (3.0)	◊ ◊	1 (0.5)	◊ ◊	0 (0.0)	◊ ◊	9 (1.7)	◊ ◊
Slovenia		72 (4.3)	29 (5.7) ▲	14 (3.0)	-25 (5.1) ▼	7 (2.4)	5 (2.6) ▲	7 (2.1)	3 (2.7)	1 (0.7)	-13 (3.0) ▼
Israel	r	67 (4.3)	8 (6.7)	25 (3.9)	-2 (5.8)	3 (1.5)	-4 (3.2)	2 (1.3)	2 (1.3)	4 (1.9)	-3 (3.2)
Netherlands	r	63 (4.5)	24 (6.7) ▲	26 (4.5)	-12 (7.0)	10 (3.1)	-10 (5.2) ▼	1 (0.0)	-3 (2.0)	1 (0.1)	1 (0.1)
Bulgaria	r	61 (3.7)	56 (4.2) ▲	29 (3.9)	18 (4.9) ▲	3 (1.5)	-10 (3.3) ▼	3 (1.0)	-7 (3.0) ▼	4 (1.6)	-58 (5.0) ▼
Belgium (Flemish)		61 (4.8)	◊ ◊	26 (4.4)	◊ ◊	11 (3.0)	◊ ◊	2 (1.1)	◊ ◊	0 (0.0)	◊ ◊
France		59 (5.0)	29 (6.6) ▲	26 (4.7)	-3 (6.5)	6 (2.3)	-7 (4.4)	4 (1.9)	-10 (4.1) ▼	5 (2.1)	-10 (4.0) ▼
Qatar	r	57 (0.3)	◊ ◊	30 (0.3)	◊ ◊	3 (0.1)	◊ ◊	1 (0.1)	◊ ◊	9 (0.2)	◊ ◊
Hungary		57 (4.3)	25 (5.7) ▲	19 (3.9)	-4 (5.2)	3 (1.3)	2 (1.7)	4 (1.6)	1 (2.2)	17 (3.5)	-23 (5.3) ▼
Belgium (French)	r	48 (4.6)	◊ ◊	30 (4.1)	◊ ◊	5 (2.1)	◊ ◊	6 (2.2)	◊ ◊	11 (3.0)	◊ ◊
Sweden		46 (4.9)	15 (6.5) ▲	39 (5.1)	4 (7.0)	11 (3.0)	-18 (5.5) ▼	2 (1.0)	-3 (2.4)	2 (1.1)	2 (1.1)
Lithuania	r	43 (4.3)	19 (5.9) ▲	27 (4.0)	-2 (5.8)	14 (2.9)	0 (4.4)	8 (2.5)	2 (3.4)	9 (2.3)	-18 (4.9) ▼
Italy		42 (4.2)	28 (4.7) ▲	44 (4.3)	13 (5.5) ▲	9 (2.6)	-18 (4.2) ▼	4 (1.8)	-17 (3.3) ▼	1 (0.8)	-7 (1.7) ▼
Latvia	r	42 (3.9)	22 (4.9) ▲	17 (3.1)	-3 (5.1)	3 (1.5)	-3 (3.0)	4 (1.8)	1 (2.4)	34 (4.3)	-18 (6.0) ▼
Romania	r	41 (4.8)	36 (5.3) ▲	28 (3.9)	15 (5.5) ▲	8 (3.3)	-8 (4.8)	2 (1.4)	-13 (3.8) ▼	20 (3.3)	-30 (5.5) ▼
Russian Federation		40 (3.5)	36 (4.2) ▲	28 (2.8)	24 (3.2) ▲	4 (1.5)	3 (1.7)	2 (1.0)	2 (1.0) ▲	26 (3.4)	-65 (4.3) ▼
Germany		39 (3.1)	26 (4.2) ▲	40 (3.5)	17 (5.0) ▲	14 (2.8)	-3 (4.5)	8 (1.8)	-21 (3.9) ▼	1 (0.4)	-19 (3.3) ▼
Chinese Taipei		38 (3.2)	◊ ◊	48 (4.0)	◊ ◊	9 (2.1)	◊ ◊	5 (1.9)	◊ ◊	0 (0.0)	◊ ◊
Poland		35 (4.4)	◊ ◊	24 (3.4)	◊ ◊	12 (2.5)	◊ ◊	7 (2.3)	◊ ◊	22 (4.0)	◊ ◊
Austria		30 (4.2)	◊ ◊	33 (4.0)	◊ ◊	23 (3.9)	◊ ◊	14 (3.2)	◊ ◊	1 (0.6)	◊ ◊
Trinidad and Tobago		23 (3.6)	◊ ◊	38 (4.3)	◊ ◊	15 (3.6)	◊ ◊	4 (2.0)	◊ ◊	19 (3.9)	◊ ◊
Morocco		11 (2.7)	x x	20 (3.6)	x x	14 (3.4)	x x	28 (5.2)	x x	27 (4.2)	x x
Moldova, Rep. of	s	9 (2.6)	6 (3.2) ▲	7 (2.6)	-8 (5.0)	2 (0.8)	-4 (2.6)	4 (1.8)	3 (1.8)	77 (3.8)	2 (6.5)
Macedonia, Rep. of	s	6 (2.4)	6 (2.4) ▲	24 (4.5)	22 (4.7) ▲	9 (3.0)	9 (3.0) ▲	3 (1.0)	-3 (2.5)	58 (5.1)	-34 (5.8) ▼
Indonesia		4 (1.6)	◊ ◊	4 (1.3)	◊ ◊	4 (1.8)	◊ ◊	5 (1.8)	◊ ◊	84 (2.8)	◊ ◊
Georgia		2 (0.9)	◊ ◊	5 (2.0)	◊ ◊	4 (1.7)	◊ ◊	9 (2.1)	◊ ◊	80 (3.2)	◊ ◊
Iran, Islamic Rep. of	r	1 (0.3)	1 (0.3)	4 (1.2)	4 (1.2) ▲	2 (1.0)	2 (1.0)	12 (2.7)	10 (2.9) ▲	81 (3.1)	-16 (3.3) ▼
<sup>1</sup> Luxembourg		--	--	--	--	--	--	--	--	--	--
International Avg.		53 (0.6)		21 (0.5)		6 (0.3)		4 (0.3)		16 (0.4)	

▲ Percent in 2006 significantly higher ▼ Percent in 2006 significantly lower

Background data provided by schools.

\* Fourth grade in most countries.

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

An "r" indicates data are available for 70–84% of the students. An "s" indicates data are available for 50–69% of the students. An "x" indicates data are available for less than 50% of the students.

A dash (–) indicates comparable data are not available.

A diamond (◊) indicates the country did not participate in the 2001 assessment.

NOTE: The International Average does not include the results from the Canadian provinces.

Trend Note: The primary education systems of the Russian Federation and Slovenia underwent structural changes. Data for Canada, Ontario include only public schools.

<sup>1</sup> Primary schools in Luxembourg do not have principals.

It is clear from Exhibit 7.7 that the student-to-computer ratio has improved since 2001. Every country that participated in PIRLS 2001 had a greater percentage of students in 2006 in schools with fewer than five students per computer—most notably the Slovak Republic (an increase of 72 percentage points) and Bulgaria (a 56-point increase). A number of countries also made good progress in reducing the percentage of students in schools without any computers, especially the Slovak Republic (a 66-point decrease), the Russian Federation (a 65-point decrease), and Bulgaria (a 58-point decrease), but also Macedonia (34-point decrease) and Romania (30-point decrease).

### **What Is the Level of Home-School Involvement?**

To provide information on parents' involvement with their children's school and on the degree of communication between the home and the school, PIRLS 2006 created an Index of Home-School Involvement. As described in Exhibit 7.8, the index is based on principals' responses to seven questions, including four questions about frequency of communication from the school to the home (teacher-parent conferences; letters, newsletters, etc., sent home; written reports of child's performance; events at school to which parents are invited) and three questions about the percentage of students with parents who participate in the life of the school (volunteer regularly to help in the classroom or school; attend teacher-parent conferences; attend cultural, sporting, or social events at the school).

Students were assigned to the high level of the index if they attended a school that, at least four times a year, held teacher-parent conferences and school events that were attended by more than half the parents; sent home written report cards of the child's performance at least four times a year; and sent home letters, calendars, newsletters, etc., with news about the school at least seven times a year. Students were assigned to the low level of the index if their school never held a teacher-parent conference, or if it did, no more than 25 percent of parents attended; held school events no more than once a year that were attended by no more than 25 percent of parents; sent home

letters or newsletters no more than three times a year; and written reports of the child's performance no more than once a year. Students in schools with other combinations were assigned to the medium level.

As shown in Exhibit 7.8, almost half the students (48%), on average internationally, were at the high level of the Home-School Involvement Index, one quarter (25%) at the medium level, and about the same (27%) at the low level. Within the levels, however, there was great variation across countries. Home-school involvement appeared to be strongest in the Netherlands, the United States, and four of the Canadian provinces (British Columbia, Nova Scotia, Alberta, and Ontario), where more than 90 percent of students were at the high level of the index. In contrast, more than 60 percent of students in Poland, Bulgaria, Moldova, Macedonia, Morocco, Georgia, and Indonesia were at the low level of the index. Among countries that participated also in PIRLS 2001, increased percentages of students at the high level of the index were found in Iceland, Singapore, Slovenia, Sweden, Germany, Italy, Hungary, Latvia, Norway, England, and Bulgaria. On average across countries, there was a modest positive relationship between the level of home-school involvement and average reading achievement—an average of 504 points for the high level, 499 for the medium level, and 490 for the low level.

Further details on communications with parents are provided in Exhibit 7.9, which presents teachers' reports on meeting or talking individually with the child's parents to discuss progress in reading, and on sending home to the child's parents progress reports on reading. For most teachers in most countries, meeting individually with parents was at most a bimonthly affair. On average across countries, 71 percent of students had teachers who reported meeting or talking individually with parents no more often than six times a year. More frequent encounters were reported by teachers in several of the Eastern European countries (Bulgaria, Georgia, Hungary, Macedonia, Moldova, Poland, Romania, the Russian Federation, and Slovenia) and in Iran and Kuwait, where approximately half the students had teachers reporting monthly meetings. On average, 77 percent of students had teachers reporting sending home progress reports on reading six times a

Exhibit 7.8 Index of Home–School Involvement (HSI) with Trends

PIRLS 2006  
4th Grade

Countries	High HSI			Medium HSI			Low HSI		
	2006 Percent of Students	Average Achievement	Difference in Percent from 2001	2006 Percent of Students	Average Achievement	Difference in Percent from 2001	2006 Percent of Students	Average Achievement	Difference in Percent from 2001
Canada, British Columbia	99 (0.7)	558 (2.6)	◊ ◊	1 (0.0)	~ ~	◊ ◊	0 (0.0)	~ ~	◊ ◊
Canada, Nova Scotia	98 (1.0)	543 (2.2)	◊ ◊	1 (0.7)	~ ~	◊ ◊	1 (0.4)	~ ~	◊ ◊
Canada, Alberta	97 (1.1)	561 (2.4)	◊ ◊	2 (0.6)	~ ~	◊ ◊	1 (0.0)	~ ~	◊ ◊
Canada, Ontario	96 (1.9)	555 (2.9)	-2 (2.2)	4 (1.9)	545 (14.8)	2 (2.2)	0 (0.0)	~ ~	0 (0.1)
Netherlands	94 (2.0)	546 (1.7)	2 (3.2)	5 (1.9)	556 (6.5)	-2 (3.0)	1 (0.7)	~ ~	0 (1.0)
United States	93 (2.0)	542 (3.7)	-4 (2.4)	5 (1.4)	514 (9.6)	2 (2.0)	2 (1.3)	~ ~	2 (1.3)
Belgium (Flemish)	89 (2.8)	546 (2.2)	◊ ◊	9 (2.4)	551 (5.2)	◊ ◊	3 (1.5)	537 (24.6)	◊ ◊
Canada, Quebec	81 (4.0)	535 (3.0)	-11 (5.0) ▼	16 (3.9)	528 (8.1)	8 (5.0)	3 (1.8)	519 (16.8)	3 (1.8)
Iceland	r 80 (0.3)	511 (1.5)	29 (0.5) ▲	11 (0.2)	510 (3.7)	-16 (0.4) ▼	9 (0.2)	510 (5.1)	-13 (0.4) ▼
Kuwait	77 (3.7)	323 (5.3)	◊ ◊	19 (3.5)	339 (10.1)	◊ ◊	4 (1.6)	351 (16.9)	◊ ◊
Singapore	75 (0.0)	559 (3.5)	12 (4.4) ▲	20 (0.0)	561 (6.2)	-7 (4.0)	5 (0.0)	535 (15.2)	-5 (2.3) ▼
Israel	74 (3.3)	529 (4.5)	8 (5.1)	13 (2.8)	479 (12.8)	-12 (4.8) ▼	13 (2.4)	451 (16.9)	4 (3.1)
Spain	66 (4.5)	514 (2.9)	◊ ◊	19 (3.6)	507 (9.1)	◊ ◊	15 (3.2)	515 (7.6)	◊ ◊
New Zealand	66 (3.4)	534 (2.9)	0 (5.3)	32 (3.2)	527 (5.6)	1 (5.1)	2 (0.9)	~ ~	-1 (1.7)
Slovenia	64 (4.2)	523 (2.6)	33 (5.6) ▲	19 (3.4)	520 (5.8)	-10 (5.1) ▼	17 (3.2)	516 (4.3)	-23 (5.0) ▼
Belgium (French)	63 (5.2)	503 (3.5)	◊ ◊	26 (4.4)	496 (7.3)	◊ ◊	11 (3.0)	494 (10.8)	◊ ◊
Sweden	62 (4.3)	551 (2.9)	29 (5.8) ▲	25 (3.7)	546 (3.8)	-24 (5.8) ▼	14 (3.3)	546 (5.2)	-6 (5.0)
Hong Kong SAR	59 (4.3)	565 (3.1)	6 (6.4)	19 (3.3)	562 (6.3)	-4 (5.1)	22 (3.9)	562 (5.1)	-2 (5.2)
France	56 (3.8)	519 (3.1)	0 (6.2)	20 (3.6)	523 (5.5)	-4 (5.9)	25 (3.4)	525 (4.8)	5 (5.5)
Germany	54 (3.7)	553 (3.2)	16 (5.1) ▲	30 (2.9)	545 (3.4)	1 (4.6)	16 (2.6)	536 (4.2)	-17 (4.1) ▼
Italy	54 (3.7)	552 (4.3)	12 (5.0) ▲	27 (3.6)	551 (5.0)	-3 (4.8)	19 (3.4)	547 (7.6)	-10 (4.8) ▼
Hungary	51 (4.0)	553 (4.9)	20 (5.4) ▲	23 (3.6)	541 (7.3)	-17 (5.2) ▼	26 (3.5)	552 (6.0)	-3 (5.2)
South Africa	51 (2.7)	349 (10.9)	◊ ◊	28 (2.5)	260 (8.3)	◊ ◊	21 (2.2)	245 (6.3)	◊ ◊
Latvia	50 (4.1)	541 (4.0)	21 (5.9) ▲	33 (3.9)	541 (3.4)	2 (6.0)	17 (3.0)	540 (6.1)	-24 (5.3) ▼
Iran, Islamic Rep. of	47 (4.0)	432 (4.8)	-5 (6.2)	21 (3.2)	419 (9.3)	-4 (5.0)	32 (3.5)	406 (5.8)	9 (4.9)
Denmark	46 (4.4)	544 (3.1)	◊ ◊	44 (4.1)	551 (3.5)	◊ ◊	10 (2.7)	542 (9.9)	◊ ◊
Scotland	r 46 (5.3)	522 (5.4)	11 (6.8)	44 (5.2)	532 (4.1)	-9 (6.5)	10 (3.3)	540 (12.4)	-1 (4.7)
Norway	45 (4.9)	499 (3.5)	21 (6.8) ▲	30 (4.4)	496 (4.7)	-5 (6.7)	25 (4.6)	498 (5.5)	-16 (6.9) ▼
Trinidad and Tobago	45 (4.1)	433 (7.4)	◊ ◊	20 (3.5)	455 (10.8)	◊ ◊	35 (4.3)	431 (10.5)	◊ ◊
Qatar	43 (0.2)	363 (1.6)	◊ ◊	34 (0.2)	343 (1.9)	◊ ◊	23 (0.2)	346 (2.7)	◊ ◊
Russian Federation	41 (3.1)	568 (5.1)	0 (5.5)	42 (3.4)	564 (4.3)	-1 (5.8)	17 (3.1)	558 (10.6)	1 (3.9)
Chinese Taipei	40 (3.6)	540 (2.9)	◊ ◊	33 (3.9)	532 (3.3)	◊ ◊	27 (3.8)	533 (3.9)	◊ ◊
Austria	37 (3.7)	541 (3.1)	◊ ◊	33 (3.9)	536 (3.6)	◊ ◊	30 (3.8)	538 (5.1)	◊ ◊
Lithuania	31 (4.2)	531 (3.3)	6 (5.6)	52 (4.6)	538 (2.6)	-2 (6.1)	16 (2.8)	547 (4.1)	-4 (4.4)
Slovak Republic	31 (3.5)	537 (4.3)	7 (5.0)	26 (3.4)	536 (5.4)	-9 (5.4)	43 (3.9)	524 (5.7)	2 (5.5)
England	r 27 (4.1)	555 (7.3)	12 (5.2) ▲	58 (4.2)	537 (3.8)	-13 (5.9) ▼	15 (3.1)	537 (10.7)	1 (4.4)
Romania	26 (4.2)	508 (7.6)	-1 (5.8)	34 (4.4)	483 (7.9)	-7 (6.5)	40 (4.2)	482 (7.7)	8 (6.1)
Poland	21 (3.8)	519 (4.0)	◊ ◊	16 (3.4)	511 (7.8)	◊ ◊	64 (4.6)	522 (3.1)	◊ ◊
Bulgaria	17 (3.2)	558 (10.0)	9 (3.8) ▲	19 (3.3)	549 (13.3)	9 (4.0) ▲	64 (4.0)	544 (4.9)	-18 (4.9) ▼
Moldova, Rep. of	16 (3.2)	493 (6.8)	1 (4.4)	24 (4.0)	515 (7.6)	5 (5.2)	60 (4.7)	496 (4.1)	-6 (6.1)
Macedonia, Rep. of	r 14 (3.2)	437 (17.2)	4 (4.3)	17 (3.5)	466 (15.5)	0 (4.9)	69 (4.4)	444 (6.7)	-5 (6.2)
Morocco	r 12 (2.9)	381 (14.4)	5 (4.0)	10 (2.7)	349 (13.3)	1 (4.0)	77 (4.0)	314 (8.6)	-7 (5.6)
Georgia	11 (2.7)	471 (12.6)	◊ ◊	24 (3.9)	488 (7.8)	◊ ◊	65 (4.2)	465 (3.7)	◊ ◊
Indonesia	8 (2.2)	420 (19.3)	◊ ◊	16 (3.0)	415 (9.1)	◊ ◊	76 (3.5)	401 (4.8)	◊ ◊
<sup>1</sup> Luxembourg	--	--	--	--	--	--	--	--	--
International Avg.	48 (0.6)	504 (1.1)		25 (0.5)	499 (1.2)		27 (0.5)	490 (1.5)	

SOURCE: IEA Progress in International Reading Literacy Study (PIRLS) 2006

▲ Percent in 2006 significantly higher ▼ Percent in 2006 significantly lower

Based on principals' responses to the following questions: How often is each of the following provided by your school for fourth-grade students and/or their families? Approximately what percentage of students in your school have parents or guardians who do each of the following? High level indicates that 4 or more times a year, schools hold teacher-parent conferences and events at school to which parents are invited that are attended by more than half of the parents, send home letters, calendars, newsletters, etc., with information about the school 7 or more times a year, and send written reports (report cards) of child's performance 4 or more times a year. Low level indicates schools never hold teacher-parent conferences, or if they do, only between 0–25% of parents attend; schools hold events to which parents are invited once a year or less, to which 0–25% of parents attend; letters, calendars, newsletters, etc., are sent home 3 times a year or less; and written reports of children's performance is sent home once a year or less. Medium level indicates all other combinations.

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

An "r" indicates data are available for 70–84% of the students. An "s" indicates data are available for 50–69% of the students. An "x" indicates data are available for less than 50% of the students.

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

A diamond (◊) indicates the country did not participate in the 2001 assessment.

NOTE: The International Average does not include the results from the Canadian provinces.

Trend Note: The primary education systems of the Russian Federation and Slovenia underwent structural changes. Data for Canada, Ontario include only public schools.

1 Primary schools in Luxembourg do not have principals.



Exhibit 7.9 Teachers Communicating with Parents

PIRLS 2006  
4th Grade

Countries	Meeting or Talking Individually with the Child's Parents to Discuss His/Her Progress in Reading			Sending a Progress Report on the Child's Reading Home to His/Her Parents		
	Weekly	Monthly	6 Times a Year or Fewer	Weekly	Monthly	6 Times a Year or Fewer
Austria	0 (0.0)	7 (1.7)	93 (1.7)	1 (0.7)	4 (1.6)	94 (1.7)
Belgium (Flemish)	0 (0.0)	2 (1.4)	98 (1.4)	1 (1.0)	9 (2.5)	90 (2.6)
Belgium (French)	1 (0.7)	6 (1.6)	93 (1.6)	0 (0.0)	2 (0.8)	98 (0.8)
Bulgaria	11 (2.3)	48 (3.8)	41 (3.5)	13 (2.7)	37 (3.9)	51 (4.1)
Canada, Alberta	1 (0.7)	6 (1.8)	93 (1.8)	1 (0.6)	3 (1.2)	96 (1.3)
Canada, British Columbia	r 0 (0.0)	6 (2.2)	94 (2.3)	r 1 (0.1)	4 (1.8)	95 (2.2)
Canada, Nova Scotia	0 (0.0)	3 (1.3)	97 (1.3)	0 (0.0)	3 (1.5)	96 (1.5)
Canada, Ontario	0 (0.0)	4 (1.7)	96 (1.7)	1 (0.2)	6 (1.7)	94 (1.6)
Canada, Quebec	1 (0.0)	6 (2.2)	93 (2.5)	18 (3.8)	30 (4.5)	52 (4.4)
Chinese Taipei	0 (0.0)	16 (3.2)	84 (3.2)	5 (1.9)	21 (3.6)	74 (3.6)
Denmark	0 (0.0)	2 (1.0)	98 (1.0)	0 (0.0)	3 (1.4)	97 (1.4)
England	0 (0.0)	2 (1.0)	98 (1.0)	1 (0.8)	2 (1.2)	97 (1.4)
France	0 (0.0)	7 (1.8)	93 (1.8)	1 (0.0)	3 (1.2)	96 (1.2)
Georgia	45 (4.0)	49 (3.9)	7 (2.0)	25 (3.5)	44 (3.9)	31 (3.7)
Germany	1 (0.0)	6 (1.9)	93 (2.0)	0 (0.1)	0 (0.1)	100 (0.2)
Hong Kong SAR	1 (0.0)	7 (1.9)	92 (2.1)	0 (0.0)	3 (1.5)	97 (1.5)
Hungary	5 (1.5)	43 (4.0)	52 (4.2)	2 (0.9)	21 (3.4)	77 (3.4)
Iceland	0 (0.0)	3 (0.1)	97 (0.1)	0 (0.1)	4 (0.1)	96 (0.2)
Indonesia	5 (2.0)	27 (3.4)	67 (3.6)	23 (3.3)	29 (4.2)	48 (4.4)
Iran, Islamic Rep. of	10 (1.7)	62 (3.7)	28 (3.5)	17 (2.6)	51 (3.3)	32 (2.9)
Israel	4 (1.7)	24 (3.9)	73 (4.3)	1 (0.8)	20 (3.3)	79 (3.3)
Italy	2 (1.1)	21 (2.7)	77 (2.7)	10 (2.3)	24 (3.1)	66 (3.3)
Kuwait	13 (2.8)	49 (4.3)	39 (4.1)	8 (2.2)	25 (3.8)	67 (3.8)
Latvia	3 (0.8)	21 (2.9)	76 (3.0)	2 (1.2)	12 (2.3)	85 (2.4)
Lithuania	4 (1.5)	35 (3.4)	61 (3.4)	29 (3.4)	32 (3.4)	40 (3.1)
Luxembourg	1 (0.1)	7 (0.1)	92 (0.1)	1 (0.0)	0 (0.0)	99 (0.0)
Macedonia, Rep. of	19 (3.6)	56 (4.3)	25 (3.8)	8 (2.2)	38 (4.0)	55 (4.1)
Moldova, Rep. of	21 (3.5)	50 (4.0)	30 (4.1)	22 (3.5)	36 (3.7)	42 (3.9)
Morocco	7 (2.8)	20 (3.4)	73 (3.3)	7 (2.3)	33 (4.4)	60 (4.5)
Netherlands	0 (0.0)	1 (0.9)	99 (0.9)	1 (0.9)	7 (2.1)	92 (2.3)
New Zealand	1 (0.4)	5 (1.3)	95 (1.3)	0 (0.0)	3 (1.0)	97 (0.9)
Norway	0 (0.0)	0 (0.5)	100 (0.5)	0 (0.3)	2 (1.1)	98 (1.1)
Poland	3 (1.2)	47 (3.6)	50 (3.6)	4 (1.3)	15 (2.9)	81 (2.9)
Qatar	s 9 (0.2)	36 (0.2)	55 (0.3)	s 10 (0.1)	45 (0.2)	45 (0.2)
Romania	22 (3.4)	66 (4.1)	12 (2.3)	14 (3.2)	33 (4.1)	53 (4.1)
Russian Federation	13 (2.3)	55 (3.2)	32 (3.2)	12 (2.5)	36 (3.2)	53 (3.5)
Scotland	0 (0.0)	0 (0.0)	100 (0.4)	4 (2.0)	1 (0.8)	95 (2.1)
Singapore	3 (0.8)	14 (1.9)	83 (1.9)	0 (0.0)	6 (1.4)	94 (1.4)
Slovak Republic	1 (0.8)	29 (3.2)	70 (3.2)	9 (1.8)	18 (2.8)	73 (3.2)
Slovenia	0 (0.0)	53 (3.1)	47 (3.1)	0 (0.0)	7 (1.4)	93 (1.4)
South Africa	3 (0.9)	29 (2.7)	69 (2.6)	--	--	--
Spain	5 (1.8)	15 (2.7)	80 (3.3)	4 (1.5)	10 (2.6)	86 (3.0)
Sweden	0 (0.1)	1 (0.5)	99 (0.5)	1 (0.7)	0 (0.2)	99 (0.7)
Trinidad and Tobago	0 (0.4)	27 (3.6)	72 (3.6)	4 (1.3)	15 (2.8)	81 (2.9)
United States	3 (1.2)	12 (2.4)	85 (2.7)	12 (2.4)	14 (2.3)	74 (3.2)
International Avg.	5 (0.3)	24 (0.4)	71 (0.4)	6 (0.3)	17 (0.4)	77 (0.4)

SOURCE: IEA Progress in International Reading Literacy Study (PIRLS) 2006

Background data provided by teachers.

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

An "r" indicates data are available for 70–84% of the students. An "s" indicates data are available for 50–69% of the students. An "x" indicates data are available for less than 50% of the students.

A dash (–) indicates comparable data are not available.

NOTE: The International Average does not include the results from the Canadian provinces.

year or fewer. Generally, teachers reported sending home reports somewhat less frequently than meeting or talking with parents about the child's progress in reading.

As shown in Exhibit 7.10, parents reported discussing their child's classroom reading work with him or her quite frequently—every day or almost every day for 44 percent of students, on average, and once or twice a week for an additional 35 percent. Only 7 percent of students had parents reporting never or almost never discussing classroom reading with their child.

### **What Are the School Attendance Levels and Climate Characteristics?**

Because persistent student absenteeism can disrupt learning and retard learning progress, PIRLS asked school principals to what degree absenteeism was a problem in their schools. Exhibit 7.11 presents trends in the percentage of students in schools where the principal reported that student absenteeism was *not a problem*, a *minor problem*, a *moderate problem*, or a *serious problem*. The exhibit shows the percentage of students in 2006 in each of these categories, together with their average reading achievement, and for countries that also participated in PIRLS 2001, the change in student percentages over the intervening 5 years. Exhibit 7.11 also displays graphically the 2001 and 2006 percentages of students in schools where the principal reported that absenteeism was not a problem.

On average across countries, most students were in schools where principals reported that absenteeism either was not a problem (37% of students) or was a minor problem (40%). Countries with the least attendance problems included Hong Kong SAR, Chinese Taipei, Scotland, Austria, Norway, the Netherlands, Sweden, and Belgium (Flemish), where 60 percent or more of students were in schools where absenteeism among fourth-grade students was not a problem. The percentage of students in this category increased since 2001 in the Russian Federation, Iceland, and Macedonia, and decreased in France, the Canadian province of Ontario, Romania, and Morocco. Although on average across countries, only 9 percent of students were in schools with serious absentee problems, more than 20 percent of

Exhibit 7.10 Parents Discuss Their Child’s Classroom Reading Work with Him or Her

PIRLS 2006  
4th Grade

Countries	Every Day or Almost Every Day		Once or Twice a Week		Once or Twice a Month		Never or Almost Never	
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement
Austria	27 (0.9)	530 (2.7)	39 (0.8)	541 (2.6)	20 (0.6)	549 (2.7)	14 (0.6)	543 (3.8)
Belgium (Flemish)	34 (1.0)	539 (2.5)	36 (1.0)	547 (2.8)	19 (0.6)	561 (2.4)	12 (0.6)	560 (3.0)
Belgium (French)	42 (1.3)	490 (3.2)	39 (0.9)	508 (2.7)	14 (0.8)	516 (4.1)	5 (0.4)	517 (7.2)
Bulgaria	59 (1.5)	550 (4.1)	25 (1.0)	557 (6.0)	9 (1.0)	551 (10.3)	7 (1.0)	525 (9.5)
Canada, Alberta	r 39 (1.1)	562 (3.8)	40 (1.2)	566 (2.8)	16 (0.8)	569 (4.3)	5 (0.4)	568 (6.5)
Canada, British Columbia	r 40 (1.0)	560 (3.6)	40 (0.8)	566 (3.3)	14 (0.7)	564 (4.9)	5 (0.5)	567 (8.0)
Canada, Nova Scotia	44 (0.9)	542 (2.7)	41 (0.9)	549 (2.5)	11 (0.6)	550 (4.1)	4 (0.3)	543 (8.7)
Canada, Ontario	44 (1.3)	557 (3.0)	39 (1.2)	558 (3.5)	13 (0.9)	560 (4.9)	4 (0.5)	552 (8.8)
Canada, Quebec	37 (1.1)	531 (3.2)	44 (1.0)	537 (3.3)	14 (0.7)	547 (4.9)	5 (0.5)	532 (8.7)
Chinese Taipei	30 (0.8)	547 (2.7)	41 (0.7)	537 (2.8)	20 (0.6)	530 (3.0)	9 (0.5)	518 (4.5)
Denmark	45 (1.0)	541 (2.8)	42 (1.0)	552 (3.0)	11 (0.7)	560 (4.3)	2 (0.2)	~ ~
England	x x	x x	x x	x x	x x	x x	x x	x x
France	35 (1.0)	515 (2.5)	43 (0.9)	529 (2.2)	15 (0.6)	531 (3.7)	7 (0.5)	526 (4.7)
Georgia	65 (1.2)	477 (3.4)	24 (0.8)	471 (4.4)	7 (0.7)	465 (8.9)	4 (0.4)	457 (9.8)
Germany	35 (0.8)	546 (2.7)	41 (0.9)	556 (2.6)	17 (0.7)	561 (3.8)	7 (0.5)	554 (5.4)
Hong Kong SAR	29 (0.8)	570 (2.4)	40 (0.8)	567 (2.8)	20 (0.7)	560 (3.2)	11 (0.6)	557 (4.4)
Hungary	40 (1.0)	541 (3.2)	40 (0.8)	555 (3.5)	16 (0.7)	571 (4.7)	4 (0.4)	581 (7.1)
Iceland	r 19 (0.7)	503 (3.7)	46 (0.9)	516 (2.0)	24 (0.9)	526 (2.9)	11 (0.6)	523 (4.5)
Indonesia	56 (1.7)	415 (4.1)	30 (1.3)	400 (4.9)	8 (0.8)	382 (6.9)	6 (0.7)	377 (7.4)
Iran, Islamic Rep. of	57 (1.4)	438 (3.6)	27 (1.0)	410 (3.8)	10 (0.6)	400 (7.5)	7 (0.7)	359 (9.1)
Israel	s 43 (1.3)	504 (5.0)	31 (1.1)	537 (4.9)	14 (0.8)	551 (7.1)	12 (0.7)	556 (7.7)
Italy	46 (1.2)	548 (3.5)	33 (0.9)	560 (3.4)	10 (0.6)	562 (5.1)	11 (0.6)	554 (4.9)
Kuwait	r 61 (1.0)	339 (4.8)	24 (0.8)	342 (6.4)	10 (0.6)	336 (8.6)	5 (0.4)	318 (14.3)
Latvia	33 (0.9)	535 (3.0)	39 (0.8)	543 (2.6)	18 (0.6)	551 (3.6)	11 (0.6)	550 (5.2)
Lithuania	32 (0.8)	528 (2.4)	42 (0.8)	537 (1.9)	18 (0.6)	550 (3.3)	8 (0.4)	553 (3.3)
Luxembourg	42 (0.7)	552 (1.6)	38 (0.7)	566 (1.8)	14 (0.5)	569 (2.7)	6 (0.4)	558 (3.8)
Macedonia, Rep. of	80 (0.9)	454 (4.0)	16 (0.6)	434 (6.2)	3 (0.4)	439 (13.4)	2 (0.3)	~ ~
Moldova, Rep. of	44 (1.2)	504 (3.6)	37 (1.0)	501 (3.2)	12 (0.7)	491 (5.8)	7 (0.9)	490 (8.2)
Morocco	46 (1.4)	341 (5.3)	25 (1.1)	312 (7.2)	11 (0.9)	301 (15.3)	18 (1.3)	307 (11.4)
Netherlands	s 28 (1.0)	547 (2.6)	41 (0.9)	558 (2.1)	22 (0.9)	561 (2.5)	9 (0.6)	558 (5.5)
New Zealand	s 30 (0.9)	544 (2.9)	49 (0.9)	548 (2.7)	17 (0.7)	553 (4.0)	4 (0.4)	554 (9.7)
Norway	23 (1.0)	488 (4.0)	53 (0.9)	502 (2.8)	20 (1.0)	509 (3.6)	5 (0.4)	501 (7.7)
Poland	86 (0.6)	517 (2.6)	12 (0.5)	535 (4.5)	2 (0.2)	~ ~	1 (0.2)	~ ~
Qatar	s 64 (0.7)	358 (1.8)	25 (0.6)	360 (2.7)	7 (0.4)	369 (6.1)	4 (0.3)	353 (9.6)
Romania	56 (1.7)	504 (5.0)	28 (1.1)	496 (5.2)	9 (0.7)	473 (7.5)	8 (1.2)	392 (15.1)
Russian Federation	49 (1.0)	563 (3.2)	34 (0.8)	567 (4.8)	10 (0.6)	574 (4.8)	7 (0.5)	563 (4.9)
Scotland	s 45 (1.3)	532 (3.7)	44 (1.4)	550 (4.1)	9 (0.7)	557 (6.3)	2 (0.4)	~ ~
Singapore	31 (0.7)	566 (3.1)	36 (0.6)	560 (3.2)	21 (0.5)	553 (3.7)	13 (0.5)	557 (4.1)
Slovak Republic	34 (0.9)	524 (2.9)	40 (0.9)	535 (2.9)	16 (0.8)	545 (5.1)	9 (0.5)	537 (9.0)
Slovenia	41 (0.9)	512 (2.7)	41 (0.7)	526 (2.2)	14 (0.6)	545 (3.4)	4 (0.3)	546 (4.9)
South Africa	r 53 (0.8)	293 (5.4)	29 (0.6)	325 (6.6)	11 (0.4)	309 (10.1)	8 (0.3)	296 (9.8)
Spain	s 56 (1.0)	515 (3.2)	31 (0.9)	525 (3.9)	9 (0.6)	538 (6.2)	5 (0.5)	525 (5.0)
Sweden	25 (1.1)	537 (3.3)	43 (1.0)	553 (3.1)	25 (0.9)	558 (2.9)	8 (0.6)	569 (5.1)
Trinidad and Tobago	61 (1.2)	446 (5.1)	30 (1.0)	432 (6.0)	6 (0.5)	435 (12.2)	3 (0.4)	419 (12.0)
United States	--	--	--	--	--	--	--	--
International Avg.	44 (0.2)	499 (0.6)	35 (0.1)	504 (0.7)	14 (0.1)	505 (1.1)	7 (0.1)	496 (1.5)

SOURCE: IEA Progress in International Reading Literacy Study (PIRLS) 2006

Background data provided by parents.

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

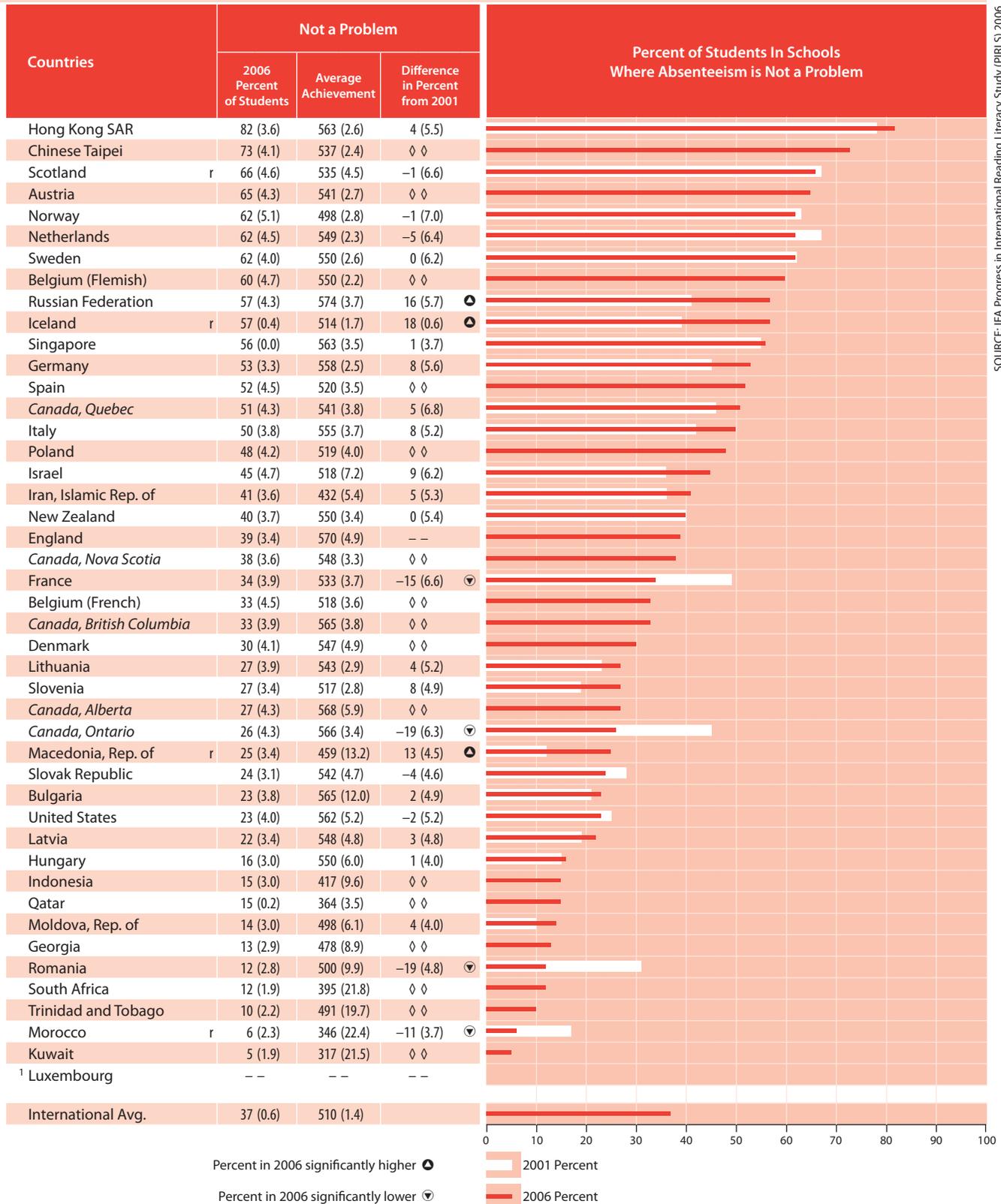
An “r” indicates data are available for 70–84% of the students. An “s” indicates data are available for 50–69% of the students. An “x” indicates data are available for less than 50% of the students.

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

NOTE: The International Average does not include the results from the Canadian provinces.

Exhibit 7.11 **Seriousness of Absenteeism in Schools with Trends**

**PIRLS 2006**  
4th Grade



SOURCE: IEA Progress in International Reading Literacy Study (PIRLS) 2006

Background data provided by schools.

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

An "r" indicates data are available for 70–84% of the students. An "s" indicates data are available for 50–69% of the students. An "x" indicates data are available for less than 50% of the students.

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

A diamond (◊) indicates the country did not participate in the 2001 assessment.

NOTE: The International Average does not include the results from the Canadian provinces.

Trend Note: The primary education systems of the Russian Federation and Slovenia underwent structural changes. Data for Canada, Ontario include only public schools.

<sup>1</sup> Primary schools in Luxembourg do not have principals.

Exhibit 7.11 Seriousness of Absenteeism in Schools with Trends (Continued)

PIRLS 2006  
4th Grade

Countries	Minor Problem			Moderate Problem			Serious Problem		
	2006 Percent of Students	Average Achievement	Difference in Percent from 2001	2006 Percent of Students	Average Achievement	Difference in Percent from 2001	2006 Percent of Students	Average Achievement	Difference in Percent from 2001
Hong Kong SAR	16 (3.5)	573 (6.2)	-4 (5.3)	1 (0.9)	~ ~	0 (1.3)	0 (0.0)	~ ~	0 (0.0)
Chinese Taipei	27 (4.1)	531 (3.5)	0 0	0 (0.0)	~ ~	0 0	1 (0.0)	~ ~	0 0
Scotland	r 31 (4.4)	515 (5.9)	5 (6.7)	2 (1.6)	~ ~	-4 (3.1)	0 (0.0)	~ ~	0 (0.0)
Austria	29 (4.4)	538 (4.1)	0 0	5 (1.7)	509 (7.5)	0 0	1 (0.8)	~ ~	0 0
Norway	37 (5.1)	498 (5.0)	4 (7.0)	1 (0.5)	~ ~	-3 (1.8)	0 (0.0)	~ ~	0 (0.0)
Netherlands	32 (3.8)	549 (3.2)	3 (5.7)	4 (2.4)	510 (9.2)	0 (3.1)	2 (2.0)	~ ~	2 (2.0)
Sweden	30 (3.9)	546 (4.2)	0 (6.0)	7 (2.5)	546 (10.2)	0 (3.3)	1 (0.8)	~ ~	0 (1.3)
Belgium (Flemish)	37 (4.8)	545 (3.6)	0 0	3 (1.3)	503 (14.2)	0 0	0 (0.0)	~ ~	0 0
Russian Federation	41 (4.1)	554 (5.8)	-15 (5.6) ▼	2 (0.7)	~ ~	0 (1.2)	0 (0.0)	~ ~	-1 (0.6)
Iceland	r 38 (0.3)	510 (2.3)	-14 (0.6) ▼	5 (0.1)	501 (5.3)	-3 (0.3) ▼	0 (0.0)	~ ~	0 (0.0)
Singapore	42 (0.0)	553 (5.0)	-1 (3.9)	2 (0.0)	~ ~	-1 (1.3)	0 (0.0)	~ ~	0 (0.0)
Germany	39 (3.4)	545 (3.3)	-6 (5.9)	6 (1.6)	504 (10.5)	-3 (3.0)	2 (0.7)	~ ~	1 (1.0)
Spain	39 (4.2)	513 (4.2)	0 0	6 (2.0)	487 (11.6)	0 0	3 (1.5)	477 (28.6)	0 0
Canada, Quebec	41 (4.1)	527 (4.5)	-6 (6.6)	8 (2.5)	527 (7.0)	2 (3.6)	0 (0.2)	~ ~	-1 (0.8)
Italy	28 (3.7)	549 (6.6)	-4 (5.2)	14 (2.5)	537 (8.2)	0 (3.8)	8 (2.0)	560 (14.4)	-4 (3.0)
Poland	48 (4.4)	519 (3.3)	0 0	2 (1.2)	~ ~	0 0	1 (0.0)	~ ~	0 0
Israel	47 (4.5)	517 (8.6)	-1 (6.4)	5 (1.5)	483 (33.9)	-6 (3.0) ▼	3 (1.4)	415 (15.4)	-2 (2.0)
Iran, Islamic Rep. of	47 (3.6)	419 (5.4)	11 (5.5)	9 (2.2)	393 (11.4)	-6 (4.5)	3 (1.0)	374 (24.7)	-10 (3.4) ▼
New Zealand	49 (3.8)	529 (3.5)	-1 (5.7)	8 (1.8)	486 (9.1)	0 (2.8)	2 (0.9)	~ ~	1 (1.3)
England	37 (4.0)	541 (4.0)	- -	19 (3.4)	505 (5.5)	- -	5 (1.9)	472 (20.0)	- -
Canada, Nova Scotia	57 (3.4)	541 (2.7)	0 0	4 (1.4)	508 (10.1)	0 0	1 (0.6)	~ ~	0 0
France	54 (4.5)	518 (3.0)	15 (6.9) ●	5 (1.9)	514 (9.9)	-4 (3.2)	6 (2.1)	496 (11.8)	5 (2.3) ●
Belgium (French)	47 (4.5)	497 (4.4)	0 0	16 (3.4)	479 (8.1)	0 0	4 (1.9)	472 (10.7)	0 0
Canada, British Columbia	54 (4.1)	558 (3.6)	0 0	13 (2.4)	546 (9.1)	0 0	1 (0.6)	~ ~	0 0
Denmark	58 (4.3)	551 (3.0)	0 0	10 (2.8)	531 (6.9)	0 0	2 (1.1)	~ ~	0 0
Lithuania	30 (4.2)	532 (3.9)	-18 (5.9) ▼	33 (4.2)	538 (3.7)	11 (5.6)	10 (2.8)	533 (4.7)	3 (3.6)
Slovenia	62 (4.0)	521 (2.9)	-14 (5.6) ▼	11 (2.7)	534 (6.7)	6 (3.2)	1 (0.0)	~ ~	1 (0.0)
Canada, Alberta	62 (4.4)	560 (2.8)	0 0	8 (2.2)	553 (6.5)	0 0	3 (1.3)	514 (20.2)	0 0
Canada, Ontario	63 (5.0)	549 (3.5)	18 (6.7) ●	8 (2.9)	567 (12.8)	-1 (4.0)	3 (1.5)	532 (13.7)	2 (1.5)
Macedonia, Rep. of	r 36 (4.2)	436 (9.6)	-23 (5.8) ▼	28 (4.0)	457 (11.8)	6 (5.5)	12 (3.0)	424 (13.6)	5 (3.7)
Slovak Republic	46 (3.9)	539 (3.1)	4 (5.5)	22 (3.4)	506 (8.5)	0 (4.7)	8 (2.3)	517 (9.7)	0 (3.2)
Bulgaria	30 (4.2)	547 (6.6)	-5 (5.7)	34 (4.2)	541 (7.3)	2 (5.8)	13 (3.1)	532 (11.5)	1 (4.1)
United States	59 (4.1)	537 (3.9)	-1 (6.3)	15 (2.7)	525 (7.6)	1 (4.0)	3 (1.5)	498 (12.1)	2 (1.7)
Latvia	42 (4.0)	539 (4.1)	-22 (5.6) ▼	26 (3.5)	539 (4.1)	11 (5.0) ●	10 (2.6)	540 (5.7)	8 (2.9) ●
Hungary	71 (4.0)	555 (3.3)	-6 (5.2)	10 (2.7)	538 (11.0)	3 (3.4)	3 (1.8)	481 (24.3)	2 (2.0)
Indonesia	26 (3.8)	408 (8.7)	0 0	17 (2.9)	407 (6.6)	0 0	42 (4.3)	399 (7.0)	0 0
Qatar	35 (0.2)	354 (2.5)	0 0	22 (0.2)	352 (2.3)	0 0	28 (0.2)	344 (2.7)	0 0
Moldova, Rep. of	45 (4.5)	505 (4.0)	7 (6.2)	25 (4.1)	493 (7.0)	-18 (6.0) ▼	16 (3.4)	500 (10.7)	7 (4.4)
Georgia	45 (4.2)	459 (5.5)	0 0	29 (4.3)	476 (7.8)	0 0	14 (3.0)	486 (8.3)	0 0
Romania	35 (4.3)	496 (7.7)	-6 (6.4)	31 (4.0)	492 (7.7)	8 (5.4)	22 (4.2)	469 (11.9)	16 (4.5) ●
South Africa	43 (3.0)	320 (9.4)	0 0	30 (2.5)	267 (6.2)	0 0	16 (2.6)	252 (10.4)	0 0
Trinidad and Tobago	48 (3.5)	448 (6.4)	0 0	32 (3.7)	420 (8.8)	0 0	10 (2.7)	370 (14.6)	0 0
Morocco	r 12 (3.0)	308 (10.8)	-8 (4.7)	17 (3.4)	356 (15.1)	-9 (5.8)	66 (4.3)	320 (9.9)	28 (6.4) ●
Kuwait	28 (3.3)	330 (8.6)	0 0	29 (3.8)	336 (7.1)	0 0	38 (3.9)	320 (7.6)	0 0
<sup>1</sup> Luxembourg	- -	- -	- -	- -	- -	- -	- -	- -	- -
International Avg.	40 (0.6)	499 (0.9)		14 (0.4)	477 (1.9)		9 (0.3)	446 (2.9)	

● Percent in 2006 significantly higher

▼ Percent in 2006 significantly lower

students attended such schools in Indonesia, Qatar, Romania, Morocco, and Kuwait.

Students in schools where absenteeism was problematic generally had lower average reading achievement than students in schools without problems with absenteeism. Average achievement in schools where absenteeism was not a problem was 510 points, compared to 499 points in schools where it was a minor problem, 477 where it was a moderate problem, and 446 where absenteeism was a serious problem.

The PIRLS 2006 Index of Principals' Perception of School Climate summarizes principals' characterization of their school in terms of teachers' job satisfaction, teachers' expectations for student achievement, parental support for student achievement, students' regard for school property, students' desire to do well in school, and students' regard for each other's welfare. An average was computed for each principal on a 5-point scale: *very low* = 1, *low* = 2, *medium* = 3, *high* = 4, and *very high* = 5. Students whose school principal had an average response greater than 3.67 were assigned to the high level of the index, those where the average was below 2.33 to the low level, and the remainder to the medium level.

Exhibit 7.12 presents the percentage of students in each country in 2006 at each level of the index, together with their average achievement. For countries that participated in PIRLS 2001, the change in these percentages also is presented, with an indication of statistical significance where appropriate. In general, principals' perceptions of school climate were positive, with more than one third of students at the high level of the index, on average, across countries, and almost all of the rest at the medium level. Only 1 percent of students, on average, were at the low level of the index. There were, however, considerable differences across participants in principals' perception of school climate. In Iceland, Scotland, New Zealand, the United States, England, and the Canadian province of Alberta, 70 percent or more of students were at the high level, whereas no more than 20 percent were at this level in South Africa, Trinidad and Tobago, Poland, Bulgaria, Hungary, Lithuania, and less than 10 percent in Latvia, the Slovak Republic, and Moldova. Countries where the

Exhibit 7.12 Index of Principal's Perception of School Climate (PPSC) with Trends

PIRLS 2006  
4th Grade

Countries	High PPSC			Medium PPSC			Low PPSC		
	2006 Percent of Students	Average Achievement	Difference in Percent from 2001	2006 Percent of Students	Average Achievement	Difference in Percent from 2001	2006 Percent of Students	Average Achievement	Difference in Percent from 2001
Iceland	r 81 (0.3)	512 (1.5)	5 (0.4) ▲	19 (0.3)	510 (2.7)	-5 (0.4) ▼	0 (0.0)	~ ~	0 (0.0)
Scotland	r 74 (4.0)	534 (4.0)	11 (6.3)	26 (4.0)	512 (6.0)	-11 (6.3)	0 (0.0)	~ ~	0 (0.0)
New Zealand	71 (3.1)	541 (2.5)	8 (5.1)	29 (3.1)	512 (5.6)	-8 (5.1)	0 (0.0)	~ ~	0 (0.0)
Canada, Alberta	70 (3.5)	569 (2.6)	◊ ◊	30 (3.5)	540 (5.3)	◊ ◊	0 (0.0)	~ ~	◊ ◊
United States	70 (3.9)	549 (3.4)	8 (6.3)	30 (3.9)	520 (5.5)	-7 (6.3)	0 (0.0)	~ ~	-1 (0.7)
England	70 (3.7)	551 (4.1)	--	30 (3.7)	521 (5.7)	--	0 (0.0)	~ ~	--
Chinese Taipei	67 (3.9)	536 (2.5)	◊ ◊	33 (3.9)	533 (3.8)	◊ ◊	0 (0.0)	~ ~	◊ ◊
Canada, Nova Scotia	67 (3.8)	547 (2.5)	◊ ◊	33 (3.8)	531 (4.5)	◊ ◊	0 (0.0)	~ ~	◊ ◊
Singapore	66 (0.0)	562 (3.5)	6 (3.8)	34 (0.0)	552 (5.8)	-6 (3.8)	0 (0.0)	~ ~	0 (0.0)
Belgium (French)	66 (4.7)	506 (3.6)	◊ ◊	34 (4.7)	489 (5.1)	◊ ◊	1 (0.0)	~ ~	◊ ◊
Canada, British Columbia	62 (4.5)	566 (3.1)	◊ ◊	37 (4.5)	547 (4.7)	◊ ◊	1 (0.0)	~ ~	◊ ◊
Sweden	59 (4.4)	553 (2.8)	3 (6.8)	41 (4.4)	543 (3.5)	-3 (6.8)	0 (0.0)	~ ~	0 (0.0)
Israel	53 (4.1)	519 (6.7)	--	47 (4.1)	506 (7.0)	--	0 (0.0)	~ ~	--
Norway	51 (5.1)	500 (3.6)	-21 (6.2) ▼	49 (5.1)	495 (3.6)	21 (6.2) ▲	0 (0.0)	~ ~	0 (0.0)
Canada, Ontario	50 (5.5)	558 (3.8)	-6 (7.4)	50 (5.5)	550 (3.7)	6 (7.3)	0 (0.0)	~ ~	-1 (0.7)
Indonesia	48 (4.2)	409 (7.1)	◊ ◊	52 (4.2)	401 (4.8)	◊ ◊	0 (0.0)	~ ~	◊ ◊
Denmark	48 (4.4)	555 (3.3)	◊ ◊	52 (4.4)	539 (3.6)	◊ ◊	0 (0.0)	~ ~	◊ ◊
Iran, Islamic Rep. of	47 (4.0)	429 (5.6)	1 (6.1)	53 (4.0)	414 (5.3)	1 (6.2)	1 (0.4)	~ ~	-3 (1.4)
Canada, Quebec	46 (4.8)	543 (3.9)	-14 (6.3) ▼	54 (4.8)	526 (3.8)	14 (6.3) ▲	0 (0.0)	~ ~	0 (0.1)
Austria	45 (4.3)	545 (3.0)	◊ ◊	54 (4.4)	534 (3.2)	◊ ◊	1 (0.0)	~ ~	◊ ◊
Hong Kong SAR	42 (3.8)	566 (3.6)	-5 (6.0)	57 (3.7)	563 (2.8)	4 (5.9)	1 (0.7)	~ ~	1 (0.7)
Georgia	36 (4.4)	473 (5.4)	◊ ◊	63 (4.4)	471 (4.5)	◊ ◊	1 (0.8)	~ ~	◊ ◊
Spain	32 (4.2)	532 (3.6)	◊ ◊	67 (4.0)	505 (3.5)	◊ ◊	2 (1.3)	~ ~	◊ ◊
Italy	32 (3.8)	561 (5.5)	12 (4.7) ▲	68 (3.8)	547 (3.4)	-12 (4.7) ▼	0 (0.0)	~ ~	-1 (0.0)
Qatar	31 (0.2)	373 (2.4)	◊ ◊	67 (0.2)	345 (1.3)	◊ ◊	2 (0.1)	~ ~	◊ ◊
France	30 (4.0)	534 (3.5)	-11 (6.3)	69 (4.2)	517 (3.0)	11 (6.4)	1 (1.1)	~ ~	0 (1.6)
Kuwait	30 (4.2)	349 (7.9)	◊ ◊	70 (4.2)	318 (5.6)	◊ ◊	1 (0.0)	~ ~	◊ ◊
Germany	28 (3.1)	557 (3.2)	5 (4.9)	71 (3.1)	546 (2.7)	-6 (4.9)	1 (0.2)	~ ~	1 (0.2)
Slovenia	27 (3.6)	521 (4.4)	3 (5.2)	72 (3.7)	522 (2.4)	-4 (5.2)	1 (0.0)	~ ~	1 (0.0)
Morocco	r 26 (3.8)	356 (11.8)	14 (4.5) ▲	64 (4.2)	312 (8.7)	-14 (5.7) ▼	10 (2.6)	333 (30.8)	1 (4.0)
Belgium (Flemish)	26 (4.0)	553 (3.1)	◊ ◊	74 (4.0)	544 (2.5)	◊ ◊	0 (0.0)	~ ~	◊ ◊
Netherlands	r 24 (4.0)	544 (4.2)	3 (5.9)	76 (4.0)	548 (2.4)	-3 (5.9)	0 (0.0)	~ ~	0 (0.0)
Russian Federation	22 (2.8)	577 (5.9)	2 (4.1)	78 (2.8)	561 (3.6)	-2 (4.1)	0 (0.0)	~ ~	0 (0.0)
Macedonia, Rep. of	r 22 (3.7)	479 (12.1)	-6 (5.2)	78 (3.7)	437 (6.2)	7 (5.3)	0 (0.0)	~ ~	-1 (0.9)
Romania	21 (3.9)	510 (9.6)	-12 (5.8) ▼	74 (3.9)	491 (4.6)	7 (5.8)	5 (2.2)	382 (16.3)	5 (2.2) ▲
South Africa	20 (2.5)	370 (17.7)	◊ ◊	76 (2.7)	284 (5.5)	◊ ◊	5 (1.1)	283 (20.8)	◊ ◊
Trinidad and Tobago	17 (3.1)	505 (9.5)	◊ ◊	80 (3.4)	423 (5.8)	◊ ◊	3 (1.6)	401 (40.0)	◊ ◊
Poland	16 (3.2)	522 (5.9)	◊ ◊	84 (3.2)	519 (2.6)	◊ ◊	0 (0.0)	~ ~	◊ ◊
Bulgaria	15 (2.9)	563 (8.3)	0 (4.1)	80 (3.5)	547 (4.9)	6 (5.0)	5 (1.9)	509 (23.1)	-7 (3.3) ▼
Hungary	11 (2.0)	573 (9.7)	-8 (3.8) ▼	88 (2.3)	549 (3.0)	8 (4.1)	1 (1.4)	~ ~	1 (1.5)
Lithuania	10 (2.6)	547 (6.8)	-2 (3.9)	90 (2.7)	536 (1.7)	2 (4.0)	1 (0.7)	~ ~	1 (0.7)
Latvia	9 (2.4)	562 (8.4)	0 (3.3)	91 (2.5)	539 (2.6)	0 (3.5)	1 (0.7)	~ ~	-1 (1.1)
Slovak Republic	6 (1.8)	548 (9.4)	-4 (3.3)	91 (2.2)	532 (2.9)	4 (3.7)	3 (1.4)	468 (40.8)	1 (1.9)
Moldova, Rep. of	3 (1.6)	518 (13.4)	-23 (3.9) ▼	96 (1.6)	499 (3.2)	23 (3.9) ▲	1 (0.0)	~ ~	1 (0.0)
<sup>1</sup> Luxembourg	--	--	--	--	--	--	--	--	--
International Avg.	37 (0.6)	513 (1.1)		62 (0.6)	493 (0.7)		1 (0.1)	~ ~	

▲ Percent in 2006 significantly higher ▼ Percent in 2006 significantly lower

Based on principals' characterization in their school: teachers' job satisfaction, teachers' expectations for student achievement, parental support for student achievement, students' regard for school property, students' desire to do well in school, and students' regard for each other's welfare. Average is computed on a 5-point scale: Very low = 1, Low = 2, Medium = 3, High = 4, and Very High = 5. Responses for each activity were averaged across each principal. High level indicates an average of greater than 3.67 through 5. Medium level indicates an average of 2.33 through 3.67. Low level indicates an average of 1 to less than 2.33.

"Students' regard for each other's welfare" was added to the index in PIRLS 2006 and is not included in the 2001 index calculations.

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

An "r" indicates data are available for 70–84% of the students. An "s" indicates data are available for 50–69% of the students. An "x" indicates data are available for less than 50% of the students.

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

A diamond (◊) indicates the country did not participate in the 2001 assessment.

NOTE: The International Average does not include the results from the Canadian provinces.

Trend Note: The primary education systems of the Russian Federation and Slovenia underwent structural changes. Data for Canada, Ontario include only public schools.

1 Primary schools in Luxembourg do not have principals.

percentage of students at the high level increased since 2001 included Iceland, Italy, and Morocco. Decreased percentages were found in Norway, Romania, Hungary, Moldova, and the Canadian province of Quebec. On average, students at the high level of the index had higher reading achievement than those at the medium level (513 vs. 493 points).

Exhibit 7.13 presents the results for the PIRLS Index of Teacher Career Satisfaction. Having teachers who are satisfied with their careers as teachers may be an important aspect of the school's climate for learning. The PIRLS 2006 Index of Teacher Career Satisfaction combined teachers' responses to five questions about being a teacher:

- ▶ I am content with my profession as a teacher.
- ▶ I am satisfied with being a teacher at this school.
- ▶ I would describe the teachers at this school as a satisfied group.
- ▶ I had more enthusiasm when I began teaching than I have now. (reverse coded)
- ▶ I do important work as a teacher.

Teachers' responses were averaged on a 4-point scale, as follows: *disagree a lot* = 1, *disagree a little* = 2, *agree a little* = 3, and *agree a lot* = 4. Students whose teacher's average was greater than 3 (i.e., they agreed either a little or a lot with all five statements) were assigned to the high level of the index, students with a teacher averaging 2 or more but less than 3 were at the medium level, and students with a teacher averaging less than 2 were assigned to the low level of the index.

Exhibit 7.13 Index of Teacher Career Satisfaction (TCS)

PIRLS 2006  
4th Grade

Countries	High TCS		Medium TCS		Low TCS		Percentage of Students at High Level of TCS
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	
Norway	84 (2.7)	497 (3.0)	15 (2.8)	504 (5.5)	0 (0.4)	~ ~	○
Georgia	83 (3.4)	469 (4.0)	17 (3.4)	476 (8.1)	0 (0.0)	~ ~	○
Kuwait	83 (3.0)	330 (5.0)	17 (3.0)	341 (7.0)	0 (0.4)	~ ~	○
Macedonia, Rep. of	82 (3.3)	453 (5.6)	15 (3.0)	411 (11.9)	2 (1.7)	~ ~	○
Canada, Nova Scotia	82 (2.9)	543 (2.6)	17 (2.8)	541 (5.2)	1 (0.7)	~ ~	○
Israel	81 (3.2)	520 (5.4)	19 (3.1)	487 (13.6)	1 (0.7)	~ ~	○
Canada, Ontario	80 (4.0)	556 (3.0)	17 (3.8)	548 (5.7)	2 (1.4)	~ ~	○
Denmark	78 (3.1)	547 (2.8)	20 (3.1)	543 (4.2)	2 (0.9)	~ ~	○
Iceland	77 (0.2)	507 (1.4)	23 (0.2)	520 (2.5)	1 (0.1)	~ ~	○
Canada, British Columbia	r 76 (3.5)	562 (3.1)	21 (3.2)	552 (7.6)	3 (1.7)	563 (8.1)	○
Canada, Alberta	74 (3.2)	563 (2.7)	24 (3.1)	553 (4.4)	2 (1.0)	~ ~	○
Scotland	73 (3.4)	522 (3.8)	23 (3.0)	531 (4.7)	4 (1.6)	532 (6.9)	○
United States	73 (3.3)	542 (4.1)	24 (3.6)	532 (4.3)	3 (1.3)	544 (16.3)	○
Lithuania	73 (3.1)	537 (2.1)	27 (3.1)	538 (3.5)	0 (0.0)	~ ~	○
Luxembourg	72 (0.2)	559 (1.2)	25 (0.2)	550 (1.9)	2 (0.1)	~ ~	○
Netherlands	71 (3.4)	548 (1.9)	27 (3.6)	542 (3.5)	2 (1.0)	~ ~	○
Austria	70 (3.0)	538 (2.5)	30 (3.2)	540 (4.1)	1 (0.6)	~ ~	○
New Zealand	69 (2.4)	533 (2.8)	29 (2.5)	536 (4.0)	2 (0.7)	~ ~	○
Qatar	r 68 (0.2)	360 (1.4)	29 (0.2)	346 (2.4)	3 (0.1)	325 (9.5)	○
South Africa	68 (2.8)	291 (7.4)	28 (2.9)	321 (13.5)	4 (1.0)	367 (34.6)	○
Indonesia	67 (3.6)	405 (5.6)	33 (3.6)	406 (6.3)	0 (0.0)	~ ~	○
Russian Federation	67 (3.3)	568 (3.9)	32 (3.3)	558 (6.7)	1 (0.8)	~ ~	○
Germany	67 (3.3)	546 (2.9)	31 (3.0)	549 (3.4)	2 (1.4)	~ ~	○
England	66 (3.4)	550 (3.6)	27 (3.1)	518 (6.0)	7 (2.4)	533 (13.6)	○
Canada, Quebec	65 (4.0)	538 (3.3)	32 (4.1)	527 (4.9)	2 (1.1)	~ ~	○
Iran, Islamic Rep. of	64 (3.3)	421 (4.3)	34 (3.5)	420 (7.6)	2 (0.9)	~ ~	○
Belgium (French)	64 (3.4)	503 (3.6)	35 (3.4)	495 (4.7)	1 (0.3)	~ ~	○
Belgium (Flemish)	64 (3.5)	549 (2.3)	35 (3.7)	544 (3.2)	2 (1.1)	~ ~	○
Romania	63 (4.0)	495 (5.6)	36 (3.9)	480 (8.2)	1 (0.4)	~ ~	○
Spain	63 (4.0)	512 (3.6)	36 (3.9)	515 (4.3)	1 (0.6)	~ ~	○
Slovenia	62 (3.0)	521 (2.8)	36 (2.8)	523 (2.8)	2 (0.7)	~ ~	○
Sweden	60 (4.5)	549 (3.0)	38 (4.5)	546 (3.6)	2 (0.4)	~ ~	○
Poland	58 (3.8)	520 (3.2)	41 (3.8)	519 (3.6)	0 (0.0)	~ ~	○
Latvia	57 (4.4)	541 (2.9)	40 (4.3)	541 (4.4)	2 (1.1)	~ ~	○
Slovak Republic	57 (3.6)	534 (3.7)	41 (3.5)	529 (4.5)	2 (0.7)	~ ~	○
Singapore	55 (2.9)	555 (4.3)	40 (3.0)	564 (4.1)	5 (1.0)	549 (12.0)	○
Hungary	55 (4.3)	554 (4.5)	42 (4.2)	547 (4.3)	3 (1.3)	542 (19.7)	○
Trinidad and Tobago	55 (3.9)	437 (8.5)	39 (3.9)	435 (7.0)	7 (2.0)	428 (11.8)	○
France	54 (3.4)	525 (2.7)	44 (3.5)	517 (3.5)	2 (1.1)	~ ~	○
Italy	52 (3.9)	554 (4.5)	44 (3.9)	550 (3.7)	3 (1.4)	531 (14.9)	○
Moldova, Rep. of	50 (4.1)	500 (4.3)	49 (3.9)	500 (4.5)	2 (0.8)	~ ~	○
Chinese Taipei	44 (4.1)	539 (3.2)	54 (4.1)	533 (2.5)	2 (1.2)	~ ~	○
Bulgaria	42 (4.1)	557 (6.7)	55 (4.1)	542 (6.0)	3 (1.2)	515 (13.2)	○
Morocco	36 (4.0)	332 (11.3)	58 (4.2)	317 (8.4)	7 (2.4)	314 (23.8)	○
Hong Kong SAR	32 (4.4)	560 (4.4)	66 (4.4)	566 (2.9)	2 (1.1)	~ ~	○
International Avg.	64 (0.5)	502 (0.7)	34 (0.5)	498 (1.0)	2 (0.2)	~ ~	○

SOURCE: IEA Progress in International Reading Literacy Study (PIRLS) 2006

Based on teachers' agreement with the following: I am content with my profession as a teacher, I am satisfied with being a teacher at this school, I would describe the teachers at this school as a satisfied group, I had more enthusiasm when I began teaching than I have now, and I do important work as a teacher. Average is computed across the five items based on a 4-point scale: Disagree a lot = 1, Disagree a little = 2, Agree a little = 3, Agree a lot = 4. Responses for negative statements were reverse coded. High level indicates an average of 3 through 4. Medium level indicates an average of 2 to less than 3. Low level indicates an average of 1 to less than 2.

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

An "r" indicates data are available for 70–84% of the students. An "s" indicates data are available for 50–69% of the students. An "x" indicates data are available for less than 50% of the students.

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

NOTE: The International Average does not include the results from the Canadian provinces.

As shown in Exhibit 7.13, the majority of teachers had a positive view of the teaching profession and their career as a teacher. On average internationally, almost two thirds (64%) of students were at the high level of the index (i.e., taught by teachers who agreed with the five statements) and one third at the medium level (34%). Only 2 percent were at the low level. Highest levels of teacher career satisfaction were reported in Norway, Georgia, Kuwait, Macedonia, Israel, and the Canadian provinces of Nova Scotia and Ontario, where 80 percent or more of students were at the high level of the Teacher Career Satisfaction index. Less than half of the students in Chinese Taipei (44%), Bulgaria (42%), Morocco (36%), and Hong Kong SAR (32%) were at the high level. In a few countries, notably Macedonia, Israel, and England, average achievement of students taught by the most satisfied teachers was higher than that for other students. However, on average across all countries, the difference was negligible and in some countries, students at the medium level had higher achievement.

PIRLS 2006 also asked parents about their child's school. The Index of Parents' Perceptions of School Environment summarizes parents' agreement with four statements about their child's school:

- ▶ My child's school includes me in my child's education.
- ▶ My child's school should make a greater effort to include me in my child's education. (reverse coded)
- ▶ My child's school cares about my child's progress in school.
- ▶ My child's school does a good job in helping my child become better in reading.

Parents' responses were averaged on the following 4-point scale: *disagree a lot* = 1, *disagree a little* = 2, *agree a little* = 3, and *agree a lot* = 4. Students with parents averaging greater than 3 (i.e., they agreed either a little or a lot with all four statements) were assigned to the high level of the index, students whose parents averaged 2 or more but less than 3 were at the medium level, and students whose parents averaged less than 2 were assigned to the low level of the index.

On average across countries, parents reported a good deal of satisfaction with their child's school and their involvement with it. As presented in Exhibit 7.14, 60 percent of students, on average internationally, were at the high level of the index and 38 percent at the medium level. Just 2 percent were at the low level. Parents' perceptions of the school environment were most positive in Romania, Macedonia, Trinidad and Tobago, Denmark, Georgia, Scotland, and the Canadian provinces of Alberta and Nova Scotia, where 70 percent or more of students were at the high level of the index. Fewer than 40 percent of students were at the high level in Luxembourg and Hong Kong SAR.

### **How Safe Are Schools?**

A safe and secure school environment is a key aspect of a positive learning environment. As shown in Exhibit 7.15, the PIRLS 2006 Index of Student Safety in Schools is based on students' level of agreement with the statement "I feel safe when I am at school" and student reports of incidents of bullying, stealing, and injury to the student or someone in the student's class in the past month. Students at the high level of the index agreed (a little or a lot) that they felt safe at school, reported no incidents happening to them, and no more than one incident happening to a classmate. Students at the low level disagreed (a little or a lot) with feeling safe at school, and had two or more incidents happen to them and two or more incidents happen to a classmate during the past month. All other students were at the medium level.

Countries with the highest percentages of students at the high level of the school safety index (more than 60 percent) included the Scandinavian countries (Norway, Sweden, and Denmark) and several Eastern European countries (Georgia, Bulgaria, Poland, the Russian Federation, Macedonia, and Slovenia). However, fewer than 30 percent of students were at this level in Israel, Chinese Taipei, Trinidad and Tobago, and South Africa. On average across countries, there was a positive association between school safety and average reading achievement. Students at the high level of the school safety index had average achievement of 512 points, compared to 494 for students at the medium level, and 487 at the low level.

Exhibit 7.14 Index of Parents' Perceptions of School Environment (PPSE)

PIRLS 2006  
4th Grade

SOURCE: IEA Progress in International Reading Literacy Study (PIRLS) 2006

Countries	High PPSE		Medium PPSE		Low PPSE		Percentage of Students at High Level of PPSE
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	
Romania	81 (1.5)	494 (5.2)	19 (1.5)	475 (8.0)	0 (0.1)	~ ~	○
Canada, Alberta	r 71 (1.3)	569 (2.6)	27 (1.2)	558 (3.3)	2 (0.3)	~ ~	○
Macedonia, Rep. of	71 (1.1)	451 (4.1)	28 (1.0)	446 (5.6)	1 (0.2)	~ ~	○
Trinidad and Tobago	r 70 (1.1)	447 (5.0)	28 (1.0)	430 (6.2)	2 (0.3)	~ ~	○
Denmark	70 (1.4)	552 (2.4)	28 (1.3)	542 (3.5)	2 (0.3)	~ ~	○
Canada, Nova Scotia	70 (1.1)	548 (2.3)	28 (1.1)	541 (2.6)	2 (0.2)	~ ~	○
Georgia	70 (1.7)	473 (3.5)	29 (1.6)	474 (4.6)	1 (0.2)	~ ~	○
Scotland	s 70 (1.3)	544 (3.3)	29 (1.2)	542 (5.1)	1 (0.4)	~ ~	○
Bulgaria	69 (1.2)	551 (4.5)	30 (1.2)	554 (4.7)	1 (0.2)	~ ~	○
Norway	69 (1.5)	502 (2.5)	30 (1.4)	500 (4.2)	1 (0.2)	~ ~	○
Sweden	69 (1.5)	552 (2.7)	30 (1.3)	552 (2.7)	1 (0.3)	~ ~	○
New Zealand	s 67 (1.1)	551 (2.3)	30 (1.0)	544 (3.3)	2 (0.3)	~ ~	○
Indonesia	67 (1.2)	409 (4.3)	33 (1.2)	401 (4.5)	0 (0.1)	~ ~	○
Netherlands	s 67 (1.4)	555 (2.1)	31 (1.3)	558 (2.1)	2 (0.4)	~ ~	○
Canada, Quebec	67 (1.3)	539 (3.0)	31 (1.3)	531 (3.7)	2 (0.3)	~ ~	○
Lithuania	66 (1.3)	538 (1.9)	32 (1.2)	538 (2.1)	1 (0.2)	~ ~	○
Moldova, Rep. of	66 (1.2)	504 (3.3)	33 (1.1)	494 (3.8)	1 (0.3)	~ ~	○
Iran, Islamic Rep. of	65 (1.1)	427 (3.4)	34 (1.1)	412 (3.7)	1 (0.2)	~ ~	○
Canada, British Columbia	r 65 (1.2)	567 (3.1)	33 (1.2)	558 (3.7)	2 (0.3)	~ ~	○
South Africa	r 65 (0.9)	319 (6.5)	33 (0.8)	281 (5.6)	2 (0.2)	~ ~	○
Canada, Ontario	64 (1.2)	561 (2.9)	34 (1.1)	555 (3.7)	2 (0.3)	~ ~	○
Russian Federation	64 (1.2)	567 (3.6)	35 (1.2)	565 (3.5)	1 (0.2)	~ ~	○
Slovak Republic	63 (1.3)	531 (3.1)	36 (1.2)	539 (3.1)	1 (0.2)	~ ~	○
Belgium (Flemish)	63 (1.2)	552 (2.0)	36 (1.2)	544 (2.4)	1 (0.1)	~ ~	○
Poland	61 (1.1)	522 (2.8)	38 (1.0)	521 (2.8)	1 (0.3)	~ ~	○
Spain	s 59 (1.6)	526 (3.0)	39 (1.6)	515 (3.6)	2 (0.4)	~ ~	○
Austria	59 (1.2)	544 (2.2)	38 (1.1)	537 (2.6)	3 (0.2)	540 (7.6)	○
Morocco	59 (1.9)	325 (6.2)	38 (1.8)	320 (8.9)	3 (0.6)	330 (19.6)	○
Italy	56 (1.2)	557 (3.2)	42 (1.1)	551 (3.4)	1 (0.2)	~ ~	○
Belgium (French)	r 56 (1.3)	505 (3.2)	43 (1.3)	500 (2.7)	1 (0.2)	~ ~	○
Hungary	56 (1.3)	556 (3.3)	40 (1.3)	552 (3.7)	4 (0.4)	541 (7.3)	○
Israel	s 55 (1.5)	527 (4.0)	42 (1.3)	528 (5.4)	3 (0.4)	533 (14.5)	○
Slovenia	53 (1.0)	525 (2.3)	45 (0.9)	523 (2.6)	2 (0.2)	~ ~	○
Kuwait	s 52 (1.3)	346 (5.1)	42 (1.2)	332 (4.9)	6 (0.6)	322 (12.3)	○
France	52 (1.2)	526 (2.5)	47 (1.1)	525 (2.4)	2 (0.2)	~ ~	○
Chinese Taipei	52 (1.0)	539 (2.4)	48 (1.0)	536 (2.4)	1 (0.1)	~ ~	○
Qatar	s 52 (0.7)	366 (2.2)	44 (0.8)	353 (2.2)	4 (0.3)	329 (8.8)	○
Germany	r 46 (1.5)	556 (2.3)	48 (1.4)	553 (2.6)	6 (0.5)	539 (5.8)	○
Iceland	r 45 (0.8)	515 (2.2)	52 (0.8)	519 (2.3)	2 (0.3)	~ ~	○
Latvia	44 (1.2)	547 (2.9)	54 (1.2)	540 (2.9)	3 (0.3)	528 (8.4)	○
Singapore	41 (0.8)	560 (3.1)	56 (0.8)	561 (3.1)	3 (0.2)	553 (6.4)	○
Luxembourg	39 (0.8)	553 (2.0)	55 (0.8)	565 (1.5)	6 (0.3)	571 (3.7)	○
Hong Kong SAR	39 (1.1)	569 (2.7)	59 (1.0)	564 (2.4)	2 (0.3)	~ ~	○
England	x x	x x	x x	x x	x x	x x	
United States	--	--	--	--	--	--	
International Avg.	60 (0.2)	505 (0.6)	38 (0.2)	500 (0.8)	2 (0.0)	~ ~	○

Based on parents' agreement with the following: my child's school includes me in my child's education, my child's school should make a greater effort to include me in my child's education, my child's school cares about my child's progress in school, and my child's school does a good job in helping my child become better in reading. Average is computed across the five items based on a 4-point scale: Disagree a lot = 1, Disagree a little = 2, Agree a little = 3, Agree a lot = 4. Responses for negative statements were reverse coded. High level indicates an average of greater than 3 through 4. Medium level indicates an average of 2 through 3. Low level indicates an average of 1 to less than 2.

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

An "r" indicates data are available for 70–84% of the students. An "s" indicates data are available for 50–69% of the students. An "x" indicates data are available for less than 50% of the students.

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

NOTE: The International Average does not include the results from the Canadian provinces.



Exhibit 7.15 Index of Student Safety in School (SSS)

PIRLS 2006  
4th Grade

Countries	High SSS		Medium SSS		Low SSS		Percentage of Students at High SSS
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	
Norway	72 (1.4)	505 (2.1)	27 (1.3)	488 (3.8)	1 (0.3)	~ ~	○
Sweden	70 (1.4)	558 (2.4)	29 (1.3)	533 (3.2)	2 (0.3)	~ ~	○
Denmark	68 (1.5)	553 (2.4)	31 (1.4)	535 (3.3)	1 (0.2)	~ ~	○
Georgia	67 (1.4)	476 (3.1)	32 (1.4)	466 (4.9)	1 (0.2)	~ ~	○
Bulgaria	65 (1.8)	558 (4.4)	34 (1.7)	531 (5.4)	2 (0.3)	~ ~	○
Poland	65 (1.3)	527 (2.8)	33 (1.2)	508 (3.1)	2 (0.3)	~ ~	○
Russian Federation	63 (1.5)	569 (4.0)	36 (1.5)	558 (3.5)	1 (0.2)	~ ~	○
Macedonia, Rep. of	62 (1.9)	457 (4.1)	37 (1.8)	431 (5.6)	1 (0.1)	~ ~	○
Slovenia	61 (1.5)	528 (2.3)	37 (1.4)	511 (2.5)	2 (0.2)	~ ~	○
Italy	57 (1.8)	560 (3.4)	42 (1.7)	543 (3.6)	2 (0.2)	~ ~	○
Moldova, Rep. of	55 (2.0)	507 (3.3)	43 (1.9)	493 (3.8)	2 (0.3)	~ ~	○
Romania	54 (2.1)	493 (6.2)	44 (2.0)	490 (5.1)	2 (0.2)	~ ~	○
Iceland	54 (0.8)	518 (1.7)	42 (0.7)	504 (1.9)	4 (0.3)	504 (7.1)	○
Iran, Islamic Rep. of	52 (1.9)	429 (3.7)	46 (1.8)	419 (4.3)	2 (0.3)	~ ~	○
Germany	51 (1.2)	566 (2.3)	45 (1.1)	540 (2.5)	4 (0.3)	514 (6.5)	○
Canada, British Columbia	50 (1.4)	569 (2.9)	47 (1.3)	551 (3.0)	3 (0.4)	540 (9.1)	○
Lithuania	49 (1.3)	545 (2.1)	48 (1.3)	529 (2.0)	4 (0.3)	532 (4.5)	○
Slovak Republic	49 (1.4)	540 (3.6)	47 (1.3)	523 (3.3)	4 (0.4)	523 (5.6)	○
Canada, Quebec	49 (1.7)	546 (3.1)	48 (1.5)	526 (3.0)	4 (0.4)	510 (7.9)	○
Austria	48 (1.3)	547 (2.7)	47 (1.0)	531 (2.5)	5 (0.4)	528 (4.5)	○
United States	48 (1.6)	557 (3.0)	49 (1.4)	528 (3.8)	3 (0.4)	505 (8.6)	○
Canada, Nova Scotia	46 (1.4)	559 (2.3)	50 (1.2)	534 (2.5)	4 (0.3)	521 (6.3)	○
Netherlands	46 (1.5)	555 (1.9)	50 (1.2)	542 (2.2)	5 (0.5)	532 (6.0)	○
Luxembourg	46 (0.7)	567 (1.4)	50 (0.7)	550 (1.5)	4 (0.2)	536 (6.0)	○
Canada, Alberta	45 (1.4)	576 (2.6)	52 (1.3)	551 (2.7)	3 (0.3)	535 (6.7)	○
Latvia	45 (1.6)	550 (3.0)	51 (1.5)	536 (2.7)	5 (0.5)	522 (5.3)	○
Spain	44 (1.5)	522 (2.7)	53 (1.4)	509 (2.8)	3 (0.4)	489 (7.9)	○
Scotland	43 (1.6)	540 (3.3)	53 (1.4)	519 (3.4)	4 (0.4)	497 (10.2)	○
Belgium (Flemish)	43 (1.3)	556 (2.0)	52 (1.1)	542 (2.1)	5 (0.5)	521 (5.6)	○
Hong Kong SAR	42 (1.3)	573 (2.6)	53 (1.2)	558 (2.5)	5 (0.5)	544 (5.7)	○
Hungary	41 (1.3)	567 (3.5)	54 (1.2)	541 (3.1)	5 (0.4)	537 (6.3)	○
France	40 (1.6)	534 (2.3)	55 (1.4)	515 (2.4)	5 (0.5)	502 (5.9)	○
Canada, Ontario	39 (1.6)	569 (2.9)	57 (1.4)	550 (2.9)	4 (0.4)	515 (8.9)	○
Morocco	38 (1.9)	336 (6.9)	61 (1.8)	318 (6.7)	1 (0.2)	~ ~	○
Singapore	38 (0.9)	575 (3.5)	58 (0.8)	549 (2.9)	4 (0.3)	545 (6.3)	○
New Zealand	37 (1.1)	551 (2.8)	58 (0.9)	523 (2.2)	4 (0.4)	516 (6.9)	○
England	37 (1.6)	564 (3.7)	58 (1.5)	529 (3.0)	5 (0.4)	504 (6.0)	○
Belgium (French)	34 (1.2)	512 (3.3)	59 (1.1)	495 (2.7)	6 (0.5)	490 (5.4)	○
Indonesia	33 (1.3)	408 (5.0)	65 (1.3)	406 (4.4)	3 (0.3)	381 (12.3)	○
Kuwait	31 (1.3)	346 (6.2)	66 (1.3)	339 (4.9)	3 (0.4)	318 (14.9)	○
Qatar	31 (0.5)	367 (2.4)	63 (0.5)	353 (1.5)	6 (0.3)	354 (5.3)	○
Israel	26 (1.2)	526 (5.7)	68 (1.1)	515 (3.4)	6 (0.6)	512 (7.4)	○
Chinese Taipei	26 (1.3)	551 (3.0)	66 (1.2)	531 (2.0)	8 (0.6)	525 (4.5)	○
Trinidad and Tobago	25 (1.8)	460 (8.1)	71 (1.6)	429 (4.7)	4 (0.4)	429 (14.9)	○
South Africa	23 (0.7)	322 (8.3)	73 (0.6)	303 (5.4)	4 (0.2)	291 (11.7)	○
International Avg.	47 (0.2)	512 (0.7)	50 (0.2)	494 (0.6)	3 (0.1)	487 (1.5)	○

SOURCE: IEA Progress in International Reading Literacy Study (PIRLS) 2006

Based on students' agreement with the statement "I feel safe when I am at school" and incidents of stealing, bullying and injury happening to the student or someone in their class in the last month. High level indicates students agree a little or a lot with feeling safe at school, had one or fewer incidents happen to them, and had one or fewer incidents happen to someone in their class in the last month. Low level indicates that students disagree a little or a lot with feeling safe at school, had two or more incidents happen to them, and had two or more incidents happen to someone in their class in the last month. Medium level includes all other combinations of responses.

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

An "r" indicates data are available for 70–84% of the students. An "s" indicates data are available for 50–69% of the students. An "x" indicates data are available for less than 50% of the students.

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

NOTE: The International Average does not include the results from the Canadian provinces.

Complementing students' perceptions, the PIRLS 2006 Index of Principals' Perception of School Safety (see Exhibit 7.16) is based on principals' characterizations of the extent to which a number of student behaviors, including classroom disturbance, cheating, profanity, vandalism, theft, intimidation or verbal abuse of other students, and physical conflict among students, are a problem in their school. Principals' average response was computed on a 4-point scale: *serious problem* = 1, *moderate problem* = 2, *minor problem* = 3, and *not a problem* = 4. Students whose principal had an average greater than 3 were assigned to the high level of the index; those whose principal's average was between 2 and 3 were assigned to the medium category, and those with less than 2 to the low level.

On average across countries, principals reported a fairly high level of school safety, with 60 percent of students at the level of the school safety index and 32 percent at the medium level. Just 7 percent, on average, were at the low level. Despite the high percentage of students at the high level on average, there was a wide variation across countries, with the highest percentages (more than 80%) in England, Hong Kong SAR, Iran, Chinese Taipei, Scotland, Belgium (Flemish), and the Russian Federation, and lower percentages (less than 40%) in the Slovak Republic, South Africa, the Netherlands, Hungary, Kuwait, Indonesia, and Morocco. Unusually high percentages of students were at the low level of the index in Qatar (32%), Kuwait (26%), Indonesia (46%), and Morocco (73%). Participants showing improvement in school safety since 2001 (i.e., increased percentages at the high index level) included Iran, New Zealand, Italy, Iceland, Germany, and the Canadian province of Quebec, while those with decreased percentages were the Russian Federation, Singapore, Romania, Latvia, and Morocco. On average internationally, and, in many countries, there was a positive relationship between principals' perception of school safety and average reading achievement.

Exhibit 7.16 Index of Principals' Perception of School Safety (PPSS) with Trends

PIRLS 2006  
4th Grade

Countries	High PPSS			Medium PPSS			Low PPSS		
	2006 Percent of Students	Average Achievement	Difference in Percent from 2001	2006 Percent of Students	Average Achievement	Difference in Percent from 2001	2006 Percent of Students	Average Achievement	Difference in Percent from 2001
England	90 (1.9)	547 (3.0)	--	9 (2.1)	496 (5.6)	--	1 (0.0)	~ ~	--
Hong Kong SAR	88 (2.9)	564 (2.4)	-1 (4.4)	11 (2.8)	572 (7.4)	0 (4.3)	1 (0.0)	~ ~	1 (0.0)
Iran, Islamic Rep. of	88 (2.2)	422 (3.7)	13 (4.5) ▲	11 (2.2)	417 (12.4)	-8 (4.3)	1 (0.8)	~ ~	-5 (2.0) ▼
Chinese Taipei	85 (3.0)	535 (2.3)	◊ ◊	14 (2.9)	536 (4.3)	◊ ◊	1 (0.0)	~ ~	◊ ◊
Scotland	r 85 (4.1)	531 (3.7)	11 (6.0)	15 (4.1)	517 (10.7)	-11 (6.0)	0 (0.0)	~ ~	0 (0.0)
Belgium (Flemish)	84 (3.4)	547 (2.1)	◊ ◊	16 (3.4)	545 (6.2)	◊ ◊	0 (0.0)	~ ~	◊ ◊
Russian Federation	83 (2.5)	564 (3.7)	-9 (3.2) ▼	17 (2.5)	570 (8.0)	10 (3.1) ▲	0 (0.0)	~ ~	-1 (0.6)
Spain	79 (3.2)	517 (2.6)	◊ ◊	17 (2.9)	500 (7.0)	◊ ◊	5 (1.7)	492 (21.3)	◊ ◊
Canada, British Columbia	79 (3.5)	563 (2.7)	◊ ◊	21 (3.4)	542 (6.0)	◊ ◊	1 (0.7)	~ ~	◊ ◊
Moldova, Rep. of	77 (3.8)	500 (3.3)	1 (5.2)	15 (3.0)	501 (8.5)	-6 (4.6)	8 (2.5)	500 (14.8)	5 (2.7)
Singapore	77 (0.0)	558 (3.0)	-7 (3.3) ▼	23 (0.0)	559 (7.4)	7 (3.3) ▲	0 (0.0)	~ ~	0 (0.0)
New Zealand	77 (2.8)	541 (2.4)	12 (4.8) ▲	23 (2.9)	507 (7.1)	-11 (4.8) ▼	1 (0.5)	~ ~	0 (0.5)
United States	77 (3.7)	545 (3.7)	6 (5.4)	22 (3.3)	525 (5.7)	-6 (5.2)	1 (0.0)	~ ~	1 (0.0)
Italy	76 (3.6)	553 (3.1)	13 (5.3) ▲	14 (3.0)	556 (10.1)	-11 (4.6) ▼	11 (2.2)	535 (10.6)	-2 (3.1)
Canada, Nova Scotia	75 (3.4)	544 (2.6)	◊ ◊	25 (3.4)	536 (4.4)	◊ ◊	0 (0.0)	~ ~	◊ ◊
Georgia	73 (3.9)	469 (3.9)	◊ ◊	20 (3.4)	481 (7.5)	◊ ◊	7 (1.9)	472 (10.4)	◊ ◊
Canada, Alberta	72 (4.0)	563 (2.7)	◊ ◊	28 (4.0)	554 (5.1)	◊ ◊	0 (0.0)	~ ~	◊ ◊
France	72 (3.5)	529 (2.5)	-2 (5.3)	27 (3.5)	505 (5.2)	1 (5.4)	2 (1.1)	~ ~	0 (1.6)
Denmark	71 (3.8)	549 (2.8)	◊ ◊	29 (3.8)	543 (4.2)	◊ ◊	1 (0.0)	~ ~	◊ ◊
Canada, Quebec	69 (4.5)	538 (3.4)	14 (7.0) ▲	29 (4.4)	521 (4.6)	-14 (6.9) ▼	2 (1.3)	~ ~	0 (1.8)
Canada, Ontario	68 (5.3)	555 (3.6)	12 (7.2)	31 (5.3)	553 (3.6)	-12 (7.1)	1 (0.0)	~ ~	-1 (1.2)
Austria	67 (3.7)	541 (2.8)	◊ ◊	31 (3.7)	533 (4.4)	◊ ◊	2 (1.1)	~ ~	◊ ◊
Macedonia, Rep. of	r 66 (4.3)	448 (6.8)	0 (5.7)	28 (4.0)	449 (11.7)	-3 (5.6)	6 (2.3)	420 (14.6)	3 (2.8)
Belgium (French)	65 (4.7)	507 (3.5)	◊ ◊	30 (4.5)	491 (5.5)	◊ ◊	5 (1.9)	465 (7.4)	◊ ◊
Sweden	64 (3.8)	550 (2.6)	7 (5.9)	35 (3.9)	547 (3.9)	-7 (6.0)	1 (0.8)	~ ~	0 (1.1)
Iceland	r 62 (0.3)	514 (1.6)	9 (0.5) ▲	38 (0.3)	509 (2.2)	-9 (0.5) ▼	0 (0.0)	~ ~	-1 (0.0)
Norway	61 (4.8)	498 (3.2)	1 (6.8)	39 (4.8)	498 (4.2)	0 (6.8)	0 (0.0)	~ ~	-1 (0.7)
Lithuania	57 (4.1)	536 (2.3)	-7 (5.8)	43 (4.0)	538 (3.1)	7 (5.7)	1 (0.0)	~ ~	0 (0.0)
Bulgaria	55 (4.4)	553 (5.9)	-6 (5.8)	40 (4.4)	537 (6.9)	4 (5.8)	5 (1.7)	556 (17.5)	1 (2.4)
Romania	51 (4.3)	486 (7.5)	-36 (5.1) ▼	36 (4.2)	489 (7.4)	24 (4.9) ▲	14 (3.0)	505 (12.9)	12 (3.1) ▲
Germany	50 (3.0)	557 (2.7)	11 (4.8) ▲	49 (3.2)	542 (3.2)	-10 (4.8) ▼	1 (0.7)	~ ~	-1 (1.4)
Slovenia	47 (3.8)	521 (2.8)	-1 (5.3)	51 (3.9)	522 (3.5)	-1 (5.3)	2 (1.2)	~ ~	2 (1.2)
Latvia	47 (3.8)	548 (3.6)	-20 (5.7) ▼	48 (3.9)	534 (3.9)	19 (5.8) ▲	5 (1.9)	538 (9.4)	2 (2.5)
Israel	47 (4.3)	519 (7.2)	3 (6.4)	50 (4.2)	514 (4.8)	3 (6.6)	3 (1.5)	406 (16.4)	-7 (2.9) ▼
Qatar	r 43 (0.2)	356 (1.9)	◊ ◊	24 (0.2)	346 (2.3)	◊ ◊	32 (0.2)	352 (2.4)	◊ ◊
Trinidad and Tobago	43 (4.0)	452 (7.5)	◊ ◊	56 (4.0)	427 (7.7)	◊ ◊	2 (1.1)	~ ~	◊ ◊
Poland	40 (4.4)	517 (4.1)	◊ ◊	59 (4.3)	521 (3.0)	◊ ◊	1 (0.6)	~ ~	◊ ◊
Slovak Republic	37 (3.9)	531 (6.0)	10 (5.3)	57 (4.1)	530 (3.3)	-9 (5.6)	6 (2.1)	534 (6.6)	-1 (3.2)
South Africa	36 (2.8)	326 (12.4)	◊ ◊	51 (2.9)	296 (7.0)	◊ ◊	13 (1.7)	263 (10.1)	◊ ◊
Netherlands	r 33 (4.3)	547 (2.9)	10 (6.0)	65 (4.4)	547 (2.3)	-9 (6.0)	1 (0.1)	~ ~	0 (1.2)
Hungary	33 (4.0)	554 (5.9)	-5 (5.4)	66 (4.1)	550 (3.8)	6 (5.5)	1 (0.0)	~ ~	-1 (0.9)
Kuwait	32 (3.7)	341 (8.6)	◊ ◊	42 (4.4)	332 (6.7)	◊ ◊	26 (3.4)	304 (8.6)	◊ ◊
Indonesia	28 (3.5)	412 (7.0)	◊ ◊	27 (3.6)	405 (8.2)	◊ ◊	46 (4.0)	402 (6.5)	◊ ◊
Morocco	r 12 (3.4)	340 (13.8)	-18 (6.0) ▼	15 (3.6)	326 (17.4)	-13 (6.3) ▼	73 (4.5)	324 (9.3)	31 (7.0) ▲
<sup>1</sup> Luxembourg	--	--	--	--	--	--	--	--	--
International Avg.	60 (0.6)	503 (0.8)		32 (0.6)	495 (1.1)		7 (0.3)	442 (3.0)	

SOURCE: IEA Progress in International Reading Literacy Study (PIRLS) 2006

▲ Percent in 2006 significantly higher      ▼ Percent in 2006 significantly lower

Based on principals' responses about the degree each was a school problem: classroom disturbances, cheating, profanity, vandalism, theft, intimidation or verbal abuse of other students, and physical conflicts among students. Average is computed on a 4-point scale; Serious problem = 1, Moderate problem = 2, Minor problem = 3, Not a problem = 4. High level indicates an average of greater than 3 through 4. Medium level indicates an average of 2 through 3. Low level indicates an average of 1 to less than 2.

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

An "r" indicates data are available for 70–84% of the students. An "s" indicates data are available for 50–69% of the students. An "x" indicates data are available for less than 50% of the students.

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

A diamond (◊) indicates the country did not participate in the 2001 assessment.

NOTE: The International Average does not include the results from the Canadian provinces.

Trend Note: The primary education systems of the Russian Federation and Slovenia underwent structural changes. Data for Canada, Ontario include only public schools.

<sup>1</sup> Primary schools in Luxembourg do not have principals.

