## Chapter 7



## Chapter 7 <br> School Contexts

While the home environment provides enrichment opportunities and support for literacy, the school environment is the primary setting for formal learning and educational activities. School characteristics vary with regard to demographic factors such as school location and composition of the student body. These factors contribute to the general school environment and influence school policies and practices.

## What Are the Schools' Demographic Characteristics?

Percentages of students in schools characterized by principals as urban, suburban, or rural are shown in Exhibit 7.1. On average, internationally, nearly half $(46 \%)$ the students attended urban schools, with at least 70 percent of students in Argentina, Colombia, Italy, Lithuania, and Singapore enrolled in such schools. One-quarter of students internationally attended suburban schools, and 29 percent attended rural schools. Two-thirds or more of the students in Kuwait and Sweden were enrolled in suburban schools, and about half or more of the students in Belize, Germany, Moldova, The Netherlands, Norway, and Romania were in rural schools. In most countries, reading achievement is highest for those students in urban schools, lower in suburban schools, and even lower in rural schools. However, some countries exhibit different patterns in achievement. Average reading achievement in Argentina, Morocco, New Zealand, and Romania was higher for students in urban or rural schools than for those in suburban schools, whereas achievement in Canada (O,Q), Israel, Norway, the Russian Federation, and the United States was highest for students in suburban schools versus those in urban or rural schools.

Exhibit 7.2 presents principals' reports about the economic composition of their schools' student populations. Internationally, one-third of the students, on average, attended schools where less than 10 percent of the student body came from economically disadvantaged homes; more than half attended schools where less than 25 percent of students were from disadvantaged homes. In only four countries - Argentina, Colombia, Morocco, and Turkey - were more than half the students enrolled in schools where more than 50 percent of students came from disadvantaged homes.

On average, internationally, average achievement for students in schools with few students from economically disadvantaged homes was 40 scale-score points greater than that for students attending schools with more than half their student populations from disadvantaged homes (518 vs. 478). The range of this achievement difference varies greatly within countries. For example, differences in average achievement scores between students in schools with the fewest economically disadvantaged students and students in those schools with the majority range from less than 10 points in Kuwait, Moldova, Romania,
the Russian Federation, and Singapore to greater than 70 points in Colombia, Israel, New Zealand, and the United States.

In most countries, the language of the test was the same language that students first learned to speak when they were younger. Exhibit 7.3 details the language background of the schools' student populations in the primary grades. On average, internationally, more than three-quarters of students attended schools in which less than 10 percent of the student populations in primary grades did not speak the language of the test as their first language. In Belize, Hong Kong, Morocco, and Singapore, nearly half or more of the students attended schools where more than 50 percent of the student populations did not speak the language of the test as their first language. Although the language of instruction in Belize and Singapore was English, many of the students in these countries first learned to speak a language other than English and often continued to use their first language at home. In Morocco, the language of the test was Arabic, although there was a large French-speaking population.

| Countries | Urban |  | Suburban |  | Rural |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement |
| Argentina | 75 (4.5) | 427 (6.5) | 19 (4.0) | 395 (15.2) | 5 (2.0) | 412 (15.8) |
| Belize | 38 (6.3) | 361 (9.4) | 15 (6.5) | 318 (28.0) | 48 (6.2) | 296 (7.3) |
| Bulgaria | 64 (2.8) | 566 (4.2) | 12 (2.6) | 542 (17.1) | 24 (2.3) | 516 (9.1) |
| Canada ( $\mathrm{O}, \mathrm{Q}$ ) | 40 (3.7) | 540 (3.7) | 39 (3.5) | 552 (3.4) | 21 (2.9) | 536 (4.3) |
| Colombia | 70 (3.0) | 435 (4.8) | 2 (1.1) | ~ ~ | 29 (3.0) | 388 (7.3) |
| Cyprus r | 44 (3.1) | 502 (5.3) | 25 (3.2) | 497 (7.5) | 30 (2.7) | 482 (4.9) |
| Czech Republic | 55 (3.4) | 540 (3.0) | 17 (3.3) | 537 (4.8) | 28 (3.2) | 529 (6.0) |
| England | 48 (5.0) | 542 (4.2) | 32 (4.6) | 557 (6.9) | 21 (3.7) | 574 (5.3) |
| France | 36 (4.1) | 525 (5.4) | 29 (4.2) | 523 (4.6) | 35 (3.6) | 527 (3.3) |
| Germany | 33 (2.8) | 523 (3.2) | 22 (2.9) | 546 (4.3) | 45 (3.8) | 547 (2.0) |
| Greece | - - | - - | -- | -- | -- | -- |
| Hong Kong, SAR | 52 (3.0) | 533 (3.8) | 46 (2.7) | 526 (5.2) | 2 (1.1) | ~ ~ |
| Hungary | 28 (2.5) | 566 (4.3) | 36 (2.3) | 546 (4.9) | 36 (1.7) | 526 (2.8) |
| Iceland | 36 (0.4) | 519 (2.3) | 43 (0.4) | 511 (2.0) | 21 (0.3) | 499 (3.5) |
| Iran, Islamic Rep. of | 48 (3.7) | 444 (6.3) | 9 (2.4) | 413 (14.5) | 43 (3.1) | 375 (4.5) |
| Israel | 52 (3.8) | 525 (5.6) | 22 (3.2) | 531 (7.6) | 27 (3.3) | 461 (11.4) |
| Italy | 76 (3.2) | 543 (2.5) | 14 (2.5) | 537 (6.4) | 10 (2.2) | 529 (7.6) |
| Kuwait | 18 (2.7) | 399 (10.2) | 79 (2.7) | 399 (5.5) | 3 (0.5) | 426 (20.0) |
| Latvia | 44 (3.8) | 559 (3.8) | 18 (3.9) | 551 (4.6) | 37 (3.0) | 523 (3.2) |
| Lithuania | 71 (2.8) | 552 (3.2) | 6 (2.1) | 542 (11.8) | 23 (2.4) | 515 (4.9) |
| Macedonia, Rep. of | 57 (3.3) | 472 (5.3) | 15 (2.8) | 462 (15.3) | 28 (3.1) | 387 (9.6) |
| Moldova, Rep. of | 28 (3.3) | 515 (6.8) | 14 (3.8) | 494 (12.2) | 59 (3.7) | 480 (5.0) |
| Morocco | 41 (4.4) | 354 (9.1) | 21 (4.4) | 323 (10.8) | 39 (4.1) | 352 (24.9) |
| Netherlands | 31 (3.9) | 541 (6.6) | 22 (3.7) | 562 (3.9) | 47 (3.8) | 558 (3.2) |
| New Zealand | 38 (4.0) | 533 (6.1) | 40 (3.6) | 522 (6.4) | 23 (2.9) | 540 (8.9) |
| Norway | 19 (3.5) | 505 (7.7) | 26 (3.9) | 511 (6.2) | 56 (3.5) | 492 (3.5) |
| Romania | 50 (2.5) | 526 (5.1) | 4 (2.0) | 473 (15.9) | 45 (2.8) | 499 (8.2) |
| Russian Federation | 55 (2.5) | 539 (4.8) | 3 (1.9) | 553 (6.8) | 43 (2.4) | 512 (5.8) |
| Scotland | 35 (4.3) | 517 (6.3) | 39 (5.3) | 538 (6.6) | 26 (4.5) | 534 (6.9) |
| Singapore | 100 (0.0) | 528 (5.2) | 0 (0.0) | ~ | 0 (0.0) | ~ ~ |
| Slovak Republic | 50 (3.7) | 531 (3.6) | 10 (2.5) | 522 (7.8) | 40 (3.1) | 501 (4.5) |
| Slovenia | 39 (3.3) | 509 (3.3) | 27 (3.7) | 499 (4.2) | 34 (3.0) | 495 (3.6) |
| Sweden | 15 (3.0) | 567 (5.4) | 66 (3.8) | 560 (2.8) | 18 (3.5) | 560 (5.4) |
| Turkey | 36 (4.2) | 464 (6.0) | 39 (4.1) | 455 (6.1) | 25 (3.5) | 423 (8.2) |
| United States | 32 (3.5) | 519 (6.6) | 35 (4.6) | 572 (4.6) | 33 (3.2) | 537 (7.3) |
| International Avg. | 46 (0.6) | 507 (0.9) | 25 (0.6) | 502 (1.8) | 29 (0.5) | 485 (1.5) |

() 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.

[^0] achievement.

## Exhibit 7.2: Principals' Reports on Their Primary-Grade Students Coming from Economically Disadvantaged Homes


() 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 data are not available. A tilde ( $\sim$ ) indicates insufficient data to report achievement.

Exhibit 7.3: Principals' Reports on Their Primary-Grade Students Not Speaking ISC

4th Grade PIRLS 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.

[^1]
## What Is the Role of the School Principal?

PIRLS asked school principals to describe the percentage of time they spent on various school-related activities on a typical day. The response categories included curriculum and pedagogy development, staff management and development, administrative duties, parent and community relations, teaching, and other responsibilities. Exhibit 7.4 summarizes the principals' reports of the amount of time spent on these activities. On average, internationally, principals' responsibilities were divided rather evenly across the categories, with the least amount of time spent in the miscellaneous "other" category ( $9 \%$ ). Almost onequarter of time reported internationally was spent on administrative duties. Principals in France and Germany reported spending more than 40 percent of their time teaching, the most of any of the PIRLS countries. In Bulgaria, principals spent more than one-third of their time developing curriculum and pedagogy for their schools.

Exhibit 7.4: Principals' Time Spent on Various School-Related Activities
ISC
4th Grade PIRLS 2001

| Countries | Percentage of Time |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Developing Curriculum and Pedagogy for Your School | Managing Staff/ Staff Development | Administrative Duties | Parent and Community Relations | Teaching | Other |
| Argentina | 21 (1.2) | 23 (1.0) | 20 (1.5) | 17 (0.8) | 15 (1.1) | 4 (0.5) |
| Belize | r 20 (2.2) | r 19 (1.3) | r 20 (1.2) | 11 (0.7) | r 25 (2.5) | 5 (0.7) |
| Bulgaria | 34 (1.0) | 10 (0.4) | 23 (1.0) | 15 (0.6) | 12 (0.7) | 7 (0.5) |
| Canada ( $\mathrm{O}, \mathrm{Q}$ ) | 12 (0.6) | 19 (0.6) | 33 (1.1) | 20 (0.8) | 4 (0.6) | 12 (1.2) |
| Colombia | r 23 (1.4) | r 19 (1.0) | r 16 (1.2) | 18 (1.0) | 18 (2.3) | 6 (0.7) |
| Cyprus | 15 (0.8) | 19 (0.9) | 17 (0.8) | 13 (0.5) | 28 (0.8) | 9 (1.0) |
| Czech Republic | 14 (0.6) | 22 (0.9) | 28 (1.1) | 10 (0.6) | 18 (0.9) | 8 (0.5) |
| England | 18 (1.1) | 15 (0.7) | 34 (1.6) | 11 (0.5) | 15 (1.3) | 7 (0.8) |
| France | 7 (0.7) | 5 (0.5) | 23 (1.4) | 15 (0.9) | 47 (2.0) | 4 (0.8) |
| Germany | r 8 (0.4) | r 11 (0.4) | r 22 (0.9) | 12 (0.5) | 43 (1.3) | 5 (0.5) |
| Greece | 17 (0.9) | 21 (1.0) | 17 (0.9) | 17 (0.7) | 24 (1.3) | 4 (0.5) |
| Hong Kong, SAR | 21 (1.0) | 22 (0.7) | 29 (1.8) | 15 (0.6) | 5 (0.5) | 8 (0.6) |
| Hungary | 21 (0.9) | 15 (0.6) | 21 (0.8) | 15 (0.5) | 15 (0.7) | 13 (0.9) |
| Iceland | r 12 (0.1) | r 32 (0.1) | 19 (0.1) | 15 (0.1) | 9 (0.1) | 12 (0.1) |
| Iran, Islamic Rep. of | 21 (1.0) | 22 (1.1) | 10 (0.8) | 24 (1.2) | 12 (1.1) | 11 (0.7) |
| Israel | 25 (1.0) | 22 (0.8) | 16 (0.8) | 18 (0.8) | 14 (0.6) | 6 (0.9) |
| Italy | 19 (0.8) | 25 (0.8) | 27 (1.1) | 21 (0.6) | 3 (0.6) | 5 (0.5) |
| Kuwait | $\mathrm{x} \times$ | $\mathrm{x} \times$ | $\mathrm{x} \times$ | $\mathrm{x} \times$ | $\mathrm{x} \times$ | $\mathrm{x} \times$ |
| Latvia | 13 (0.8) | 22 (0.8) | 22 (1.1) | 12 (0.5) | 20 (1.1) | 12 (0.7) |
| Lithuania | 25 (1.1) | 20 (0.8) | 19 (1.0) | 14 (0.6) | 16 (1.1) | 8 (0.7) |
| Macedonia, Rep. of | 25 (1.3) | 17 (0.7) | 15 (0.8) | 12 (0.5) | 24 (1.3) | 7 (0.8) |
| Moldova, Rep. of | 17 (0.7) | 33 (1.2) | 13 (0.9) | 13 (0.6) | 17 (0.8) | 8 (0.8) |
| Morocco | s $\quad 17$ (1.5) | s 32 (2.1) | s 15 (1.8) | s 17 (1.0) | s 6 (0.7) | s $\quad 12$ (1.8) |
| Netherlands | r 13 (0.7) | r 15 (0.6) | r 31 (1.6) | 11 (0.6) | 15 (1.6) | 15 (1.3) |
| New Zealand | 17 (0.8) | 18 (0.8) | 34 (1.3) | 14 (0.8) | 10 (1.2) | 6 (0.8) |
| Norway | 15 (0.8) | 19 (1.0) | 36 (1.8) | 12 (0.7) | 10 (1.3) | 9 (0.8) |
| Romania | 19 (0.9) | 18 (0.8) | 15 (0.8) | 11 (0.6) | 31 (1.8) | 6 (0.4) |
| Russian Federation | 18 (0.8) | 21 (0.6) | 18 (0.8) | 14 (0.5) | 17 (1.1) | 12 (0.8) |
| Scotland | 18 (1.0) | 13 (0.6) | 34 (1.8) | 15 (0.9) | 13 (1.6) | 8 (1.3) |
| Singapore | 17 (0.7) | 29 (0.8) | 24 (1.0) | 16 (0.6) | 5 (0.4) | 9 (0.5) |
| Slovak Republic | 15 (0.6) | 26 (0.8) | 19 (0.9) | 13 (0.5) | 18 (0.7) | 8 (0.5) |
| Slovenia | 18 (0.7) | 23 (1.0) | 31 (1.2) | 14 (0.6) | 6 (0.5) | 8 (0.7) |
| ${ }^{\text {a }}$ Sweden | 10 (0.6) | 18 (1.0) | 21 (0.9) | 10 (0.5) | 4 (0.9) | 37 (1.1) |
| Turkey | 12 (0.8) | 17 (0.9) | 18 (1.0) | 18 (0.6) | 28 (1.1) | 7 (0.6) |
| United States | 15 (0.9) | 23 (1.2) | 28 (1.3) | 19 (1.0) | 5 (0.7) | 10 (1.5) |
| International Avg. | 17 (0.2) | 20 (0.2) | 23 (0.2) | 15 (0.1) | 16 (0.2) | 9 (0.1) |

Background data provided by schools.
a For Sweden, "Other" is a combination of three categories - meetings and conferences, student contacts, and other activities.
( ) 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 avail able for $50-69 \%$ of the students. An "x" indicates data are available for less than $50 \%$ of the students.
A dash (-) indicates data are not available. A tilde ( ) indicates insufficient data to report achievement.

## How Often Do Teachers Collaborate or Participate in Workshops or Seminars?

The percentages of students in schools with an official policy to promote teacher collaboration are presented in Exhibit 7.5. In almost half the countries, 75 percent or more of the students attended schools with an official policy. Exhibit 7.6 shows teachers' reports of how often they met with one another to discuss instruction. Regardless of whether their schools have official policies, most students had teachers who met at least once a month to discuss instruction. It is interesting to note that in Cyprus, Israel, Kuwait, and Norway, where more than 85 percent of students attended schools with official teacher collaboration policies, an overwhelming majority ( $90 \%$ or more) of students had teachers that met once a week or more to discuss instruction. However, in England and New Zealand, more than 85 percent of students had teachers that met once a week or more, but less than half the students attended schools with official teacher collaboration policies. Internationally, on average, most students $(60 \%)$ had teachers who met once a week or once a month to discuss instruction.

As shown in Exhibit 7.7, most students had teachers who met to plan reading curriculum or teaching approaches more than once or twice a year. In Bulgaria, Kuwait, Macedonia, and Norway, teachers of more than 60 percent of students reported meeting at least once a week to plan curriculum or instruction. More than 95 percent of students in the Eastern European countries of Bulgaria, the Czech Republic, Hungary, Latvia, Lithuania, Macedonia, Moldova, Romania, the Russian Federation, and the Slovak Republic had teachers who collaborated once or twice a year or more.

Teachers' reports of participation in workshops or seminars are shown in Exhibit 7.8. On average, internationally, about three-quarters of students had teachers who spent 15 hours or fewer in workshops or seminars during the past two years. Half or more of the students in Bulgaria, France, Iran, and Kuwait had teachers who spent no time in workshops or seminars.

| Countries | School Has Official Policy to Promote Teacher Collaboration |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Yes |  | No |  |
|  | Percent of Students | Average Achievement | Percent of Students | Average Achievement |
| Argentina | 52 (4.7) | 429 (9.0) | 48 (4.7) | 407 (8.0) |
| Belize | 65 (6.8) | 325 (6.0) | 35 (6.8) | 328 (10.3) |
| Bulgaria | 68 (3.5) | 556 (4.5) | 32 (3.5) | 540 (6.2) |
| Canada ( $\mathrm{O}, \mathrm{Q}$ ) | 42 (3.7) | 542 (3.6) | 58 (3.7) | 546 (3.2) |
| Colombia | 80 (3.8) | 422 (4.4) | 20 (3.8) | 423 (15.3) |
| Cyprus | 94 (2.3) | 495 (3.3) | 6 (2.3) | 502 (19.1) |
| Czech Republic | 60 (3.6) | 540 (2.8) | 40 (3.6) | 532 (4.2) |
| England | 36 (4.7) | 561 (5.7) | 64 (4.7) | 550 (4.8) |
| France | 65 (4.9) | 522 (3.3) | 35 (4.9) | 529 (4.5) |
| Germany | 53 (4.0) | 536 (3.0) | 47 (4.0) | 542 (2.7) |
| Greece | 86 (3.4) | 526 (3.7) | 14 (3.4) | 518 (11.4) |
| Hong Kong, SAR | 73 (3.8) | 528 (3.9) | 27 (3.8) | 530 (4.7) |
| Hungary | 81 (3.1) | 546 (2.4) | 19 (3.1) | 538 (5.2) |
| Iceland | 86 (0.3) | 512 (1.4) | 14 (0.3) | 514 (3.5) |
| Iran, Islamic Rep. of | 61 (3.9) | 410 (5.6) | 39 (3.9) | 416 (8.5) |
| Israel | 99 (1.3) | 507 (3.0) | 1 (1.3) | ~ ~ |
| Italy | 98 (1.1) | 541 (2.4) | 2 (1.1) | ~ ~ |
| Kuwait | 85 (2.9) | 402 (4.2) | 15 (2.9) | 378 (13.9) |
| Latvia | 83 (2.9) | 545 (2.8) | 17 (2.9) | 542 (5.6) |
| Lithuania | 77 (3.0) | 547 (3.2) | 23 (3.0) | 531 (6.1) |
| Macedonia, Rep. of | 92 (2.5) | 437 (5.0) | 8 (2.5) | 477 (17.5) |
| Moldova, Rep. of | 91 (2.9) | 491 (4.1) | 9 (2.9) | 495 (14.5) |
| Morocco | 71 (4.5) | 346 (8.8) | 29 (4.5) | 345 (26.1) |
| Netherlands | 60 (5.0) | 554 (3.7) | 40 (5.0) | 554 (4.0) |
| New Zealand | 41 (4.4) | 534 (6.2) | 59 (4.4) | 526 (4.9) |
| Norway | 86 (3.8) | 499 (3.2) | 14 (3.8) | 503 (9.5) |
| Romania | 85 (2.5) | 515 (5.0) | 15 (2.5) | 496 (13.1) |
| Russian Federation | 98 (0.9) | 528 (4.4) | 2 (0.9) | ~ ~ |
| Scotland | 31 (4.2) | 533 (8.5) | 69 (4.2) | 525 (3.8) |
| Singapore | 79 (3.3) | 521 (5.9) | 21 (3.3) | 554 (9.2) |
| Slovak Republic | 63 (4.0) | 521 (3.9) | 37 (4.0) | 513 (5.5) |
| Slovenia | 97 (1.5) | 501 (2.1) | 3 (1.5) | 516 (5.3) |
| Sweden | 71 (4.1) | 561 (2.7) | 29 (4.1) | 563 (4.2) |
| Turkey | 74 (3.8) | 453 (4.0) | 26 (3.8) | 440 (6.3) |
| United States | 51 (3.8) | 535 (6.0) | 49 (3.8) | 552 (4.6) |
| International Avg. | 72 (0.6) | 501 (0.8) | 28 (0.6) | 498 (1.7) |

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

Exhibit 7.6: Teachers Meet to Discuss Instruction ISC

4th Grade PIRLS 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.

[^2] achievement.

Exhibit 7.7: Teachers Meet to Plan Reading Curriculum or Teaching Approaches
4th Grade PIRLS 2001

| Countries | Percentage of Students Whose Teachers Reported Meeting to Plan Reading Curriculum or Teaching Approaches |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | At Least Once a Week |  | Once a Month or Every Other Month |  | Once or Twice a Year |  | Never |  |
|  | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement |
| Argentina | 28 (4.3) | 392 (13.3) | 37 (5.1) | 437 (8.8) | 23 (4.5) | 433 (12.5) | 12 (2.4) | 397 (13.7) |
| Belize r | 28 (3.8) | 335 (8.8) | 24 (3.3) | 295 (12.5) | 24 (3.7) | 325 (11.1) | 24 (4.2) | 336 (17.1) |
| Bulgaria | 63 (3.6) | 548 (5.2) | 19 (3.1) | 550 (7.4) | 16 (2.6) | 562 (8.1) | 3 (1.3) | 540 (20.3) |
| Canada ( $\mathrm{O}, \mathrm{Q}$ ) | 18 (2.6) | 549 (5.1) | 35 (3.1) | 546 (3.8) | 31 (3.2) | 545 (4.7) | 15 (2.5) | 537 (4.5) |
| Colombia | 18 (3.1) | 418 (12.6) | 40 (4.6) | 421 (7.7) | 22 (4.0) | 424 (8.0) | 20 (4.2) | 427 (15.3) |
| Cyprus | 39 (4.5) | 491 (4.3) | 21 (3.8) | 502 (5.8) | 25 (4.4) | 497 (6.9) | 15 (3.4) | 485 (6.1) |
| Czech Republic | 49 (4.4) | 537 (3.1) | 36 (4.6) | 535 (4.7) | 11 (2.7) | 539 (7.0) | 4 (1.6) | 536 (18.3) |
| England | 26 (3.6) | 536 (7.0) | 32 (4.2) | 564 (6.6) | 33 (4.2) | 563 (6.2) | 9 (2.3) | 540 (8.3) |
| France | 12 (2.1) | 529 (7.3) | 33 (3.9) | 520 (5.2) | 33 (4.1) | 530 (4.3) | 22 (3.9) | 524 (5.6) |
| Germany | 26 (3.1) | 538 (3.4) | 32 (3.3) | 542 (3.4) | 31 (3.3) | 543 (3.1) | 11 (2.2) | 528 (6.7) |
| Greece | 25 (3.4) | 539 (6.5) | 41 (4.6) | 518 (6.9) | 18 (3.0) | 523 (6.7) | 16 (3.3) | 527 (6.4) |
| Hong Kong, SAR | 15 (3.4) | 513 (9.0) | 40 (4.3) | 531 (5.5) | 35 (4.6) | 532 (5.1) | 10 (2.3) | 532 (5.9) |
| Hungary | 51 (4.2) | 539 (3.5) | 29 (4.1) | 552 (4.6) | 17 (3.3) | 542 (6.8) | 2 (1.3) | ~ ~ |
| Iceland | 21 (0.3) | 512 (2.3) | 28 (0.3) | 512 (1.9) | 40 (0.3) | 515 (2.1) | 11 (0.2) | 515 (4.5) |
| Iran, Islamic Rep. of | 18 (2.8) | 421 (9.5) | 61 (3.6) | 415 (5.8) | 12 (2.1) | 402 (12.9) | 8 (2.3) | 413 (20.5) |
| Israel | 53 (4.1) | 513 (5.8) | 29 (3.6) | 483 (8.6) | 15 (3.2) | 543 (10.4) | 3 (1.5) | 477 (37.8) |
| Italy | 46 (3.5) | 535 (4.0) | 32 (3.6) | 548 (3.8) | 10 (2.1) | 543 (7.5) | 12 (2.7) | 543 (7.0) |
| Kuwait | 64 (3.3) | 403 (5.9) | 19 (2.8) | 393 (6.9) | 8 (2.1) | 408 (18.1) | 9 (2.1) | 385 (12.6) |
| Latvia | 20 (3.4) | 548 (6.6) | 50 (4.4) | 542 (3.6) | 29 (3.9) | 548 (4.7) | 1 (0.9) | ~ ~ |
| Lithuania | 29 (4.0) | 539 (4.9) | 47 (4.4) | 547 (4.2) | 24 (3.5) | 540 (6.0) | 0 (0.0) | ~ ~ |
| Macedonia, Rep. of | 68 (4.2) | 442 (5.9) | 29 (4.0) | 441 (11.0) | 2 (0.9) | ~ | 2 (1.1) | ~ ~ |
| Moldova, Rep. of | 55 (4.8) | 488 (6.2) | 35 (4.6) | 499 (7.1) | 9 (2.4) | 490 (9.3) | 0 (0.5) | ~ ~ |
| Morocco | 19 (3.8) | 339 (18.7) | 37 (4.6) | 337 (16.3) | 34 (5.0) | 362 (10.9) | 10 (3.1) | 313 (20.2) |
| Netherlands | 12 (2.9) | 550 (9.3) | 27 (4.2) | 546 (4.3) | 55 (4.5) | 559 (2.9) | 6 (2.1) | 547 (9.7) |
| New Zealand | 26 (3.7) | 516 (7.2) | 36 (4.3) | 530 (6.8) | 31 (3.6) | 540 (6.9) | 7 (2.4) | 515 (17.3) |
| Norway | 61 (4.1) | 501 (4.4) | 19 (3.9) | 495 (4.5) | 11 (2.5) | 496 (9.5) | 9 (2.9) | 497 (5.1) |
| Romania | 45 (4.3) | 507 (7.1) | 49 (4.3) | 519 (7.2) | 6 (2.0) | 487 (17.8) | 0 (0.4) | ~ ~ |
| Russian Federation | 25 (3.1) | 525 (9.0) | 59 (4.1) | 531 (3.7) | 15 (3.3) | 520 (8.9) | 0 (0.0) | ~ ~ |
| Scotland | 7 (2.5) | 529 (15.5) | 30 (4.2) | 532 (8.8) | 44 (5.1) | 527 (5.2) | 18 (3.8) | 523 (8.1) |
| Singapore | 14 (2.7) | 512 (14.0) | 38 (3.7) | 517 (7.2) | 37 (3.7) | 546 (7.7) | 11 (2.5) | 525 (18.1) |
| Slovak Republic | 45 (4.2) | 518 (3.7) | 42 (4.2) | 520 (5.7) | 11 (2.7) | 515 (8.0) | 3 (1.3) | 492 (20.5) |
| Slovenia | 48 (4.5) | 500 (2.7) | 26 (3.9) | 497 (4.9) | 18 (3.3) | 511 (4.6) | 8 (2.4) | 505 (5.6) |
| Sweden | 28 (2.8) | 556 (4.5) | 21 (2.7) | 562 (3.8) | 37 (3.2) | 563 (3.2) | 14 (1.9) | 568 (4.2) |
| Turkey | 37 (3.9) | 456 (6.9) | 40 (4.2) | 448 (6.4) | 18 (2.8) | 443 (9.2) | 4 (1.8) | 431 (8.6) |
| United States | 35 (4.7) | 539 (7.3) | 35 (4.6) | 541 (7.1) | 26 (3.4) | 554 (6.4) | 4 (1.6) | 512 (20.9) |
|  |  |  |  |  |  |  |  |  |
| International Avg. | 34 (0.6) | 498 (1.4) | 35 (0.7) | 499 (1.2) | 23 (0.6) | 505 (2.1) | 9 (0.4) | 488 (3.4) |

() 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 avail able for $50-69 \%$ of the students. An " $x$ " indicates data are available for less than $50 \%$ of the students.

[^3] achievement.

Exhibit 7.8: Teachers' Recent Participation in Workshops or Seminars

| Countries | Percentage of Students Whose Teachers Participated in Workshops or Seminars During the Past Two Years |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | More than 35 Hours |  | 16-35 Hours |  | 6-15 Hours |  | Less than 6 Hours |  | No Time |  |
|  | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement |
| Argentina | 28 (4.5) | 408 (14.0) | 21 (4.0) | 417 (8.6) | 22 (3.9) | 423 (8.7) | 23 (4.1) | 425 (17.4) | 7 (2.4) | 434 (15.1) |
| Belize | 15 (4.1) | 338 (18.0) | 8 (2.9) | 315 (16.2) | 29 (5.7) | 308 (9.4) | 20 (4.4) | 336 (16.8) | 28 (5.7) | 328 (14.8) |
| Bulgaria | 6 (1.9) | 574 (15.2) | 8 (2.3) | 550 (17.0) | 16 (2.8) | 554 (8.1) | 20 (3.5) | 559 (8.0) | 50 (4.2) | 543 (6.3) |
| Canada (0,Q) | 8 (1.9) | 538 (10.5) | 11 (1.6) | 554 (6.3) | 24 (2.8) | 543 (4.7) | 34 (3.2) | 540 (3.5) | 23 (2.8) | 551 (4.2) |
| Colombia | 17 (3.5) | 415 (10.9) | 19 (3.5) | 432 (9.1) | 28 (4.1) | 426 (8.1) | 6 (2.0) | 410 (15.3) | 30 (4.9) | 419 (11.1) |
| Cyprus | 1 (0.9) | ~ ~ | 8 (2.6) | 493 (5.7) | 23 (3.9) | 495 (5.8) | 37 (5.4) | 502 (5.3) | 30 (5.4) | 485 (5.0) |
| Czech Republic | 6 (2.3) | 531 (10.2) | 8 (2.3) | 532 (5.3) | 23 (3.5) | 540 (4.9) | 28 (3.3) | 540 (4.1) | 35 (3.1) | 535 (4.8) |
| England | 8 (2.8) | 577 (8.5) | 17 (3.3) | 534 (11.8) | 29 (4.7) | 557 (6.8) | 36 (4.8) | 554 (5.5) | 11 (2.8) | 562 (9.7) |
| France | 4 (1.4) | 512 (11.2) | 4 (1.5) | 527 (17.0) | 7 (1.8) | 522 (5.5) | 22 (3.2) | 523 (4.7) | 64 (3.5) | 527 (3.1) |
| Germany | 1 (0.7) | ~ ~ | 5 (1.2) | 537 (7.7) | 22 (2.1) | 538 (3.6) | 31 (2.4) | 543 (2.7) | 41 (3.3) | 536 (3.3) |
| Greece | 8 (2.2) | 520 (16.1) | 15 (3.7) | 537 (10.4) | 24 (4.7) | 517 (9.4) | 20 (3.5) | 516 (7.0) | 33 (3.9) | 533 (5.1) |
| Hong Kong, SAR | 11 (2.8) | 537 (10.7) | 14 (3.5) | 524 (9.5) | 17 (3.4) | 518 (6.5) | 36 (4.6) | 529 (5.5) | 22 (3.7) | 533 (6.2) |
| Hungary | 18 (3.0) | 553 (5.8) | 11 (2.6) | 531 (4.9) | 21 (2.9) | 548 (5.3) | 19 (2.9) | 546 (4.2) | 31 (3.9) | 541 (5.1) |
| Iceland | 11 (0.2) | 511 (3.3) | 12 (0.3) | 513 (3.9) | 22 (0.3) | 513 (2.9) | 18 (0.3) | 515 (2.9) | 36 (0.4) | 513 (2.1) |
| Iran, Islamic Rep. of | 18 (3.1) | 405 (9.0) | 12 (2.0) | 428 (10.6) | 6 (1.6) | 446 (11.3) | 6 (1.7) | 424 (20.8) | 58 (3.8) | 408 (6.4) |
| Israel | 46 (4.1) | 511 (6.4) | 9 (2.5) | 533 (11.5) | 20 (3.9) | 497 (12.8) | 13 (3.1) | 495 (17.8) | 12 (2.3) | 499 (12.9) |
| Italy | 17 (2.6) | 536 (5.9) | 21 (3.1) | 548 (5.1) | 21 (3.2) | 544 (5.4) | 9 (2.3) | 525 (10.8) | 32 (3.9) | 541 (4.8) |
| Kuwait | 7 (1.4) | 391 (16.2) | 9 (2.0) | 411 (15.3) | 18 (2.8) | 403 (7.6) | 16 (2.9) | 407 (13.7) | 50 (3.4) | 395 (6.4) |
| Latvia | 29 (3.6) | 555 (4.2) | 17 (3.3) | 549 (6.7) | 33 (4.2) | 543 (4.1) | 14 (3.2) | 529 (6.0) | 7 (2.2) | 536 (11.6) |
| Lithuania | 9 (2.4) | 542 (7.8) | 15 (2.9) | 535 (7.1) | 35 (4.0) | 539 (4.8) | 26 (3.5) | 552 (5.6) | 15 (3.3) | 547 (6.6) |
| Macedonia, Rep. of | 14 (3.1) | 456 (11.6) | 4 (1.9) | 448 (20.1) | 30 (4.2) | 445 (10.2) | 21 (3.8) | 441 (13.5) | 31 (4.3) | 436 (11.8) |
| Moldova, Rep. of | 11 (2.8) | 491 (11.6) | 13 (3.0) | 503 (11.5) | 29 (3.9) | 494 (7.8) | 39 (4.2) | 488 (7.7) | 8 (2.4) | 483 (16.0) |
| Morocco | 5 (2.2) | 346 (32.6) | 11 (3.0) | 341 (12.5) | 23 (4.3) | 347 (16.7) | 27 (4.7) | 328 (19.8) | 35 (4.8) | 356 (14.0) |
| Netherlands | 9 (2.7) | 549 (8.9) | 4 (1.9) | 557 (19.6) | 24 (4.0) | 549 (4.9) | 36 (4.4) | 554 (3.5) | 27 (3.9) | 560 (4.8) |
| New Zealand | 11 (2.6) | 531 (11.0) | 14 (3.0) | 531 (10.8) | 35 (4.3) | 523 (8.9) | 28 (4.0) | 530 (6.3) | 12 (2.8) | 537 (13.7) |
| Norway | 7 (1.8) | 480 (13.1) | 8 (2.7) | 516 (12.4) | 18 (3.1) | 495 (5.9) | 24 (3.8) | 498 (5.2) | 44 (4.6) | 502 (4.2) |
| Romania | 21 (3.9) | 510 (11.6) | 18 (2.5) | 534 (11.8) | 24 (3.6) | 521 (10.0) | 11 (2.7) | 511 (10.7) | 25 (3.4) | 491 (10.8) |
| Russian Federation | 18 (3.3) | 542 (7.2) | 22 (3.0) | 536 (7.1) | 32 (3.6) | 521 (8.3) | 16 (2.7) | 531 (8.7) | 11 (2.6) | 506 (10.4) |
| Scotland | 5 (2.1) | 511 (21.0) | 4 (2.0) | 509 (27.0) | 25 (5.0) | 508 (6.7) | 30 (4.9) | 540 (5.8) | 35 (4.8) | 537 (6.1) |
| Singapore | 22 (3.4) | 510 (12.8) | 12 (2.7) | 532 (16.8) | 19 (2.9) | 547 (13.8) | 31 (3.4) | 542 (7.2) | 16 (2.7) | 500 (8.4) |
| Slovak Republic | 5 (1.8) | 513 (10.8) | 7 (2.1) | 505 (10.5) | 22 (3.4) | 525 (6.2) | 43 (4.3) | 521 (3.8) | 23 (3.4) | 510 (6.2) |
| Slovenia | 12 (2.9) | 500 (6.2) | 25 (3.4) | 505 (4.6) | 34 (4.2) | 503 (3.3) | 13 (2.3) | 492 (6.7) | 15 (3.1) | 502 (7.2) |
| Sweden | 11 (2.5) | 554 (6.1) | 7 (1.6) | 557 (8.7) | 20 (2.6) | 562 (4.8) | 26 (3.1) | 568 (3.8) | 36 (3.2) | 560 (3.0) |
| Turkey | 12 (2.6) | 435 (11.5) | 16 (3.8) | 446 (7.8) | 20 (3.4) | 445 (6.4) | 13 (2.9) | 472 (10.9) | 39 (4.0) | 450 (7.7) |
| United States | 15 (2.9) | 541 (9.3) | 25 (3.7) | 525 (7.2) | 31 (4.4) | 553 (5.4) | 23 (4.2) | 550 (6.6) | 6 (2.3) | 531 (15.3) |
| International Avg. | 13 (0.5) | 498 (2.1) | 12 (0.5) | 501 (2.0) | 24 (0.6) | 500 (1.3) | 23 (0.6) | 501 (1.7) | 28 (0.6) | 498 (1.5) |

( ) 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.

[^4] achievement.

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

Parental involvement provides a means for monitoring academic progress and reinforcing behaviors believed to contribute to students' academic success. There are several ways in which schools keep parents apprised of their child's progress in school. Schools may send information about the school home to the parents, parents may participate in school-related events, or teachers may send home examples of classroom work.

To measure the extent to which communication was emphasized between schools and parents in each of the participating countries, PIRLS created an Index of Home-School Involvement. As described in Exhibit 7.9, the index was based on schools' average response to six questions about the opportunities for parental involvement provided by the school and about parental attendance at school-sponsored meetings or other events. Students were placed in the high category if schools held teacher-parent conferences and other events at school to which parents were invited, and more than half attended, four or more times a year; schools sent home letters, calendars and newsletters with information about the school 7 or more times a year; and they sent written reports, or report cards, of children's performance four or more times a year. The low level indicates that schools never held teacherparent conferences, or if conferences were held less than one quarter of the parents attended; schools sent home letters, calendars or newsletters about the school no more than 3 times a year; and they sent home written reports of children's performance once a year, if ever. The medium level indicates all other combinations of parental involvement opportunities and participation.

On average, internationally, 41 percent of students were in the high category, 28 were in the medium, and 31 in the low category. At least half the students in the United States, Canada (O,Q), The Netherlands, Kuwait, New Zealand, Israel, Singapore, France, Hong Kong, Iran, and Iceland were in schools at the high level. Only in Morocco, Bulgaria, Turkey, Macedonia, and Moldova were two-thirds or more of students in schools at the low level of home-school involvement.

Exhibits 7.10 through 7.12 present results of more informal homeschool interaction. As shown in Exhibit 7.10, the teachers of 62 percent of students, internationally, on average, sent home examples of the students' classroom work in language arts at least monthly. Interestingly, in most Englishspeaking countries, for the majority of students, teachers sent home examples of classroom work only six times a year or less, with the exception of the United States, where the majority of students ( $65 \%$ ) had teachers who sent examples home at least weekly. Exhibit 7.11 shows how often schools asked the parents to review their child's language progress by sending home examples of classroom work, sending home information about the child's performance in the language, and asking parents to monitor the completion of assignments. Internationally, on average, nearly half ( $48 \%$ ) the students had parents who were asked to review their child's language progress. Parents' reports of how often they discussed classroom reading work with their child are presented in Exhibit 7.12. Three-quarters of students, internationally, on average, had parents who reported talking to their child at least once or twice a week about their reading work.

Exhibit 7.9: Index of Home-School Involvement (HSI)
4th Grade PIRLS 2001


Index of

## Home-School

 Involvement (HSI)Based on principals' responses to how often and what percentage of students' parents participate in the following provided by the school: teacher-parent conferences; letters, calendars, newsletters, etc., sent home to provide information about school; written reports (report cards) of child's performance sent home; and events at school to which parents are invited. High level indicates that 4 or more times a year schools hold teacher-parent conferences and events at school 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 $0-25 \%$ of parents attend; schools never hold events, or do so only yearly, attended by $0-25 \%$ of parents; send home letters, calendars, newsletters, etc., no more than 3 times a year; and send home written reports of children's performance never or only once a year. Medium level indicates all other combinations.

[^5]
## A dash (-) indicates data are not available. A tilde ( ) indicates insufficient data to report

 achievement.
## Exhibit 7.10: Teachers Send Home Examples of Students' Classroom Work in Language

4th Grade PIRLS 2001

| Countries | Weekly |  | Monthly |  | 6 Times a Year or Less |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement |
| Argentina | 32 (4.4) | 425 (8.4) | 31 (5.0) | 406 (14.9) | 37 (4.6) | 425 (9.4) |
| Belize r | 30 (4.3) | 342 (11.3) | 38 (5.0) | 321 (10.3) | 32 (5.4) | 311 (11.4) |
| Bulgaria | 55 (4.3) | 552 (6.5) | 38 (4.3) | 553 (5.7) | 8 (2.0) | 527 (14.5) |
| Canada ( $\mathrm{O}, \mathrm{Q}$ ) | 24 (2.9) | 549 (3.8) | 44 (3.6) | 546 (3.1) | 33 (3.3) | 540 (4.8) |
| Colombia | 35 (5.0) | 420 (9.0) | 35 (4.8) | 427 (6.8) | 30 (4.6) | 426 (9.5) |
| Cyprus | 50 (5.1) | 496 (4.5) | 39 (4.6) | 494 (4.9) | 11 (2.8) | 486 (6.9) |
| Czech Republic | 55 (4.5) | 540 (3.4) | 29 (3.9) | 535 (4.1) | 17 (3.2) | 529 (6.9) |
| England | 7 (2.7) | 583 (9.9) | 6 (2.3) | 546 (13.3) | 86 (3.5) | 552 (3.6) |
| France | 30 (4.3) | 530 (4.5) | 41 (4.3) | 525 (3.8) | 29 (3.7) | 519 (5.2) |
| Germany | 12 (2.1) | 535 (3.8) | 34 (3.2) | 540 (3.4) | 53 (3.2) | 539 (3.2) |
| Greece | 56 (4.7) | 521 (4.6) | 29 (4.0) | 533 (8.3) | 16 (2.9) | 526 (9.6) |
| Hong Kong, SAR | 22 (3.8) | 532 (7.5) | 13 (3.1) | 535 (6.2) | 65 (4.7) | 526 (3.8) |
| Hungary | 14 (2.8) | 557 (9.2) | 59 (4.1) | 544 (3.5) | 28 (3.6) | 538 (4.7) |
| Iceland | 34 (0.4) | 517 (1.9) | 10 (0.2) | 506 (3.9) | 56 (0.4) | 512 (1.6) |
| Iran, Islamic Rep. of | 21 (3.0) | 421 (11.3) | 47 (4.1) | 414 (5.9) | 32 (4.1) | 410 (8.5) |
| Israel | 14 (3.2) | 496 (15.1) | 36 (4.2) | 496 (7.2) | 50 (4.6) | 512 (7.3) |
| Italy | 59 (3.5) | 544 (3.5) | 24 (3.0) | 538 (4.2) | 16 (2.8) | 540 (7.3) |
| Kuwait | 29 (3.3) | 398 (8.7) | 56 (3.5) | 401 (5.0) | 15 (2.5) | 395 (12.2) |
| Latvia | 44 (3.9) | 548 (4.2) | 28 (3.8) | 544 (4.7) | 29 (3.8) | 539 (4.0) |
| Lithuania | 15 (3.1) | 547 (7.2) | 38 (4.4) | 540 (4.6) | 47 (4.5) | 545 (3.9) |
| Macedonia, Rep. of | 28 (3.7) | 455 (10.4) | 47 (4.7) | 443 (9.0) | 24 (3.9) | 432 (12.3) |
| Moldova, Rep. of | 34 (4.4) | 502 (7.1) | 38 (4.4) | 484 (7.1) | 28 (4.5) | 488 (9.2) |
| Morocco | 5 (2.1) | 341 (38.2) | 45 (4.8) | 340 (12.4) | 50 (5.2) | 349 (11.1) |
| Netherlands | 9 (2.4) | 549 (10.8) | 9 (2.6) | 543 (7.1) | 82 (3.3) | 555 (2.7) |
| New Zealand | 3 (1.5) | 586 (32.6) | 6 (2.4) | 514 (16.1) | 91 (2.8) | 528 (3.9) |
| Norway | 17 (3.4) | 497 (6.9) | 19 (3.3) | 508 (6.4) | 64 (4.4) | 496 (3.7) |
| Romania | 65 (3.9) | 519 (6.5) | 27 (3.7) | 505 (7.6) | 8 (2.5) | 483 (11.8) |
| Russian Federation | 82 (2.8) | 532 (4.0) | 11 (2.2) | 499 (15.1) | 8 (1.6) | 528 (9.4) |
| Scotland | 6 (2.6) | 540 (10.4) | 4 (2.0) | 528 (25.2) | 89 (3.3) | 527 (4.2) |
| Singapore | 27 (3.5) | 520 (10.0) | 41 (3.8) | 536 (8.2) | 32 (3.5) | 528 (9.8) |
| Slovak Republic | 38 (4.0) | 524 (5.1) | 31 (4.0) | 518 (4.3) | 30 (3.4) | 511 (5.1) |
| Slovenia | 49 (4.0) | 502 (2.7) | 38 (4.0) | 500 (3.6) | 13 (2.6) | 506 (7.3) |
| Sweden | 13 (2.6) | 561 (6.1) | 17 (2.4) | 568 (3.7) | 70 (2.9) | 560 (2.6) |
| Turkey | 11 (2.8) | 478 (14.9) | 55 (4.3) | 458 (4.7) | 34 (4.0) | 427 (5.8) |
| United States | 65 (4.9) | 545 (5.0) | 27 (4.9) | 546 (5.2) | 8 (1.9) | 501 (11.5) |
| International Avg. | 31 (0.6) | 506 (1.9) | 31 (0.6) | 498 (1.5) | 38 (0.6) | 495 (1.3) |

( ) 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 data are not available. A tilde ( $\sim$ ) indicates insufficient data to report achievement

Exhibit 7.11: Schools Ask Parents to Review Child's Language Progress*

*Based on parents' responses to how often their child's school has: asked to make sure child does his/her language assignments; given or sent home examples of child's classroom work in language; and given or sent home information about child's performance in language. Average is computed on a 3-point
scale: Never or almost never $=1$, Sometimes $=2$, and Often $=3$. Often indicates an average of greater than 2.33 through 3. Sometimes indicates an average of 1.67 through 2.33. Never or almost never indicates an average of 1 to less than 1.67.

[^6]A dash (-) indicates data are not available. A tilde ( $\sim$ ) indicates insufficient data to report achievement.

Exhibit 7.12: Parents Discuss Child's Classroom Reading Work with Him or Her ISC

4th Grade PIRLS 2001

| 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 |
| Argentina s | 59 (1.5) | 426 (6.2) | 22 (1.0) | 428 (8.9) | 7 (0.8) | 437 (11.3) | 13 (0.9) | 440 (8.0) |
| Belize s | 42 (1.6) | 344 (6.5) | 31 (1.2) | 332 (6.5) | 15 (1.0) | 308 (7.9) | 12 (1.2) | 305 (10.1) |
| Bulgaria | 63 (1.5) | 557 (3.4) | 23 (0.8) | 555 (4.6) | $9(0.8)$ | 551 (9.2) | 6 (0.9) | 505 (14.9) |
| Canada (O,Q) r | 36 (0.8) | 546 (2.8) | 39 (0.9) | 550 (2.9) | 18 (0.7) | 555 (3.3) | 7 (0.4) | 557 (5.0) |
| Colombia | 51 (1.6) | 421 (4.9) | 27 (1.3) | 426 (5.6) | 12 (0.9) | 436 (6.3) | 10 (0.7) | 434 (8.2) |
| Cyprus s | 57 (1.4) | 487 (3.6) | 25 (1.0) | 501 (4.3) | 12 (0.8) | 495 (7.2) | 6 (0.6) | 505 (8.8) |
| Czech Republic | 9 (0.7) | 523 (5.5) | 28 (1.2) | 535 (3.7) | 36 (1.1) | 543 (3.0) | 27 (1.1) | 549 (3.9) |
| England s | 32 (1.4) | 562 (4.6) | 43 (1.5) | 573 (4.5) | 20 (1.2) | 580 (6.6) | 5 (0.7) | 585 (9.9) |
| France | 36 (1.2) | 520 (2.7) | 39 (1.0) | 527 (3.3) | 17 (0.8) | 541 (3.9) | 8 (0.7) | 535 (5.7) |
| Germany | 30 (0.8) | 536 (2.3) | 40 (0.8) | 547 (2.2) | 20 (0.6) | 550 (2.8) | 9 (0.5) | 538 (3.7) |
| Greece | 79 (1.2) | 530 (3.7) | 15 (1.0) | 514 (6.5) | 4 (0.5) | 516 (7.8) | 2 (0.4) | ~ ~ |
| Hong Kong, SAR | 22 (0.8) | 533 (3.3) | 33 (0.7) | 530 (3.4) | 26 (0.9) | 527 (3.6) | 18 (0.8) | 531 (4.0) |
| Hungary | 41 (1.0) | 539 (2.7) | 39 (0.8) | 543 (2.7) | 16 (0.6) | 565 (3.8) | 4 (0.4) | 565 (9.7) |
| Iceland | 24 (0.9) | 504 (2.9) | 38 (0.9) | 515 (2.3) | 24 (0.7) | 525 (3.2) | 14 (0.7) | 531 (3.8) |
| Iran, Islamic Rep. of | 49 (1.4) | 430 (4.4) | 25 (1.0) | 417 (4.8) | 13 (0.9) | 392 (7.2) | 12 (1.1) | 375 (6.8) |
| Israel | $\mathrm{x} \times$ | x x | $\mathrm{x} \times$ | $\mathrm{x} \times$ | $\mathrm{x} \times$ | $\mathrm{x} \times$ | $\mathrm{x} \times$ | $\mathrm{x} \times$ |
| Italy | 65 (1.0) | 539 (2.5) | 24 (0.9) | 550 (3.5) | 6 (0.4) | 556 (5.9) | 5 (0.4) | 554 (6.8) |
| Kuwait r | 67 (0.7) | 403 (4.7) | 21 (0.6) | 403 (5.9) | 8 (0.5) | 389 (6.9) | 4 (0.3) | 377 (10.8) |
| Latvia | 40 (1.0) | 542 (3.2) | 37 (1.3) | 550 (2.7) | 15 (0.8) | 550 (4.1) | $9(0.8)$ | 553 (6.3) |
| Lithuania | 29 (1.1) | 531 (3.8) | 34 (1.0) | 541 (3.4) | 24 (0.9) | 555 (3.3) | 13 (0.7) | 557 (4.9) |
| Macedonia, Rep. of $r$ | 79 (1.3) | 453 (5.1) | 16 (0.8) | 444 (8.6) | 4 (0.5) | 425 (16.9) | 2 (0.7) | ~ ~ |
| Moldova, Rep. of | 44 (1.3) | 498 (4.2) | 35 (1.0) | 496 (4.7) | 14 (0.8) | 484 (5.4) | 7 (0.5) | 466 (7.0) |
| Morocco | -- | -- | -- | -- | -- | -- | -- | -- |
| Netherlands s | 23 (0.9) | 555 (4.3) | 41 (1.1) | 560 (2.9) | 28 (1.0) | 572 (3.4) | 8 (0.7) | 575 (4.2) |
| New Zealand r | 28 (1.2) | 524 (5.5) | 42 (1.2) | 542 (3.5) | 22 (1.1) | 548 (5.9) | 8 (0.7) | 536 (7.1) |
| Norway | 23 (0.9) | 494 (4.6) | 42 (1.1) | 503 (3.3) | 25 (1.1) | 509 (4.1) | 9 (0.8) | 505 (7.3) |
| Romania | 41 (1.4) | 517 (5.7) | 34 (1.1) | 513 (5.0) | 15 (0.9) | 518 (9.0) | 9 (1.2) | 488 (13.5) |
| Russian Federation | 57 (1.3) | 525 (4.4) | 25 (0.8) | 534 (5.5) | 11 (0.7) | 532 (5.2) | 7 (0.6) | 529 (6.9) |
| Scotland s | 44 (1.7) | 529 (5.3) | 41 (1.6) | 552 (4.1) | 12 (1.0) | 558 (8.3) | 3 (0.3) | 536 (13.5) |
| Singapore | 29 (0.7) | 532 (5.3) | 33 (0.7) | 529 (5.2) | 22 (0.5) | 531 (5.6) | 16 (0.5) | 529 (6.3) |
| Slovak Republic | 39 (1.1) | 509 (3.2) | 37 (0.8) | 525 (3.4) | 16 (0.7) | 531 (3.8) | 8 (0.5) | 530 (5.5) |
| Slovenia | 47 (0.9) | 498 (2.5) | 36 (0.9) | 504 (2.7) | 14 (0.6) | 517 (3.6) | 3 (0.3) | 520 (7.9) |
| Sweden | 23 (1.1) | 551 (3.3) | 40 (1.0) | 563 (2.6) | 29 (0.8) | 573 (2.5) | 8 (0.5) | 568 (4.0) |
| Turkey | 52 (1.7) | 464 (4.0) | 27 (1.0) | 442 (4.5) | 12 (0.7) | 435 (6.0) | 9 (0.9) | 422 (7.9) |
| United States | - | -- | - | - | - | - | -- | -- |
| International Avg. | 43 (0.2) | 504 (0.7) | 32 (0.2) | 508 (0.8) | 16 (0.1) | 510 (1.1) | 9 (0.1) | 507 (1.5) |

( ) 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 data are not available. A tilde ( $\sim$ ) indicates insufficient data to report achievement.

## How Serious Is Absenteeism in Schools?

Principals' reports on the seriousness of absenteeism in their schools are detailed in Exhibit 7.13. Absenteeism did not appear to be prevalent among fourth graders. On average, internationally, almost four-fifths of students attended schools where absenteeism was reported to be either a minor problem or not a problem. In only Kuwait and Morocco were one-third or more of the students in schools reporting absenteeism as a serious problem.

## What Are the Perceptions of School Climate?

The school environment establishes the climate for learning. To measure the extent to which schools offer a positive school climate, PIRLS created an Index of Principals' Perceptions of School Climate, shown in Exhibit 7.14. On a scale from very high to very low, the index was based on principals' characterizations of the following: teachers' job satisfaction, teachers' expectations for student achievement, parental support for student achievement, students' regard for school property, and students' desire to do well in school. Principals of students at the high category had an average response of "high" or "very high". Students' principals characterized school climate as "medium" at the medium level, and "low" or "very low" at the low level.

Internationally, on average, about one-third of the students ( $36 \%$ ) were in the high category and the majority ( $62 \%$ ) were in the medium category only 2 percent internationally were at the low level. Students in schools that reported having a high level of principals' perceptions of school climate generally had higher average reading achievement than those in schools where the perception of school climate was less positive. In Iceland, Norway, Cyprus, New Zealand, Scotland, and the United States, more than 60 percent of students attended schools perceived by the principals to have high morale, high academic expectations, regard for school property, and a high level of parental support.

Exhibit 7.13: Seriousness of Absenteeism in Schools ISC

| Countries | Not a Problem |  | Minor Problem |  | Moderate Problem |  | Serious Problem |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement |
| Argentina | 31 (4.5) | 442 (9.1) | 35 (4.5) | 423 (11.9) | 23 (4.1) | 398 (9.8) | 11 (2.9) | 372 (16.9) |
| Belize | 4 (1.3) | 311 (18.8) | 49 (7.8) | 337 (11.9) | 35 (7.0) | 318 (15.9) | 12 (3.6) | 309 (14.9) |
| Bulgaria | 21 (3.1) | 547 (8.7) | 35 (3.8) | 558 (5.7) | 32 (4.0) | 552 (5.8) | 12 (2.7) | 527 (18.0) |
| Canada (0,Q) | 45 (3.4) | 551 (2.9) | 46 (3.2) | 544 (2.9) | 8 (2.0) | 504 (5.6) | 1 (0.5) | ~ ~ |
| Colombia | 10 (2.5) | 459 (10.4) | 42 (5.0) | 430 (8.2) | 30 (4.9) | 427 (7.6) | 18 (3.0) | 382 (12.8) |
| Cyprus r | 69 (4.7) | 496 (3.8) | 25 (4.9) | 483 (6.4) | 2 (0.9) | ~ ~ | 4 (2.1) | 521 (8.2) |
| Czech Republic | 29 (3.3) | 538 (4.6) | 62 (3.9) | 538 (3.0) | 8 (2.2) | 527 (5.8) | 0 (0.0) | ~ ~ |
| England | -- | -- | -- | -- | -- | - - | -- | -- |
| France | 50 (5.3) | 530 (4.0) | 40 (5.3) | 525 (4.6) | 10 (2.6) | 505 (5.8) | 1 (0.9) | ~ ~ |
| Germany | 45 (4.5) | 546 (3.3) | 45 (4.9) | 538 (2.9) | 9 (2.5) | 517 (6.9) | 1 (0.6) | ~ |
| Greece r | 48 (4.9) | 532 (5.5) | 43 (5.2) | 526 (7.0) | 2 (1.2) | ~ ~ | 6 (2.6) | 520 (12.0) |
| Hong Kong, SAR | 78 (4.1) | 530 (3.2) | 20 (4.0) | 526 (8.0) | 1 (1.0) | ~ | 0 (0.0) | ~ |
| Hungary | 15 (2.7) | 549 (5.6) | 77 (3.4) | 546 (2.8) | 7 (2.2) | 524 (12.3) | 1 (0.9) | ~ ~ |
| Iceland r | 39 (0.4) | 516 (2.1) | 52 (0.4) | 509 (2.0) | 9 (0.3) | 511 (4.6) | 0 (0.0) | ~ |
| Iran, Islamic Rep. of | 36 (3.9) | 433 (9.6) | 36 (4.2) | 408 (7.3) | 15 (3.8) | 394 (13.3) | 13 (3.3) | 400 (13.0) |
| Israel | 36 (4.1) | 510 (6.3) | 48 (4.6) | 516 (6.7) | 11 (2.6) | 494 (15.3) | 5 (1.4) | 444 (36.1) |
| Italy | 42 (3.6) | 546 (3.4) | 32 (3.7) | 540 (4.7) | 14 (2.9) | 530 (6.2) | 12 (2.2) | 537 (8.2) |
| Kuwait | 6 (1.7) | 394 (5.1) | 30 (4.3) | 398 (7.2) | 22 (3.5) | 409 (5.6) | 42 (4.7) | 398 (9.4) |
| Latvia | 19 (3.4) | 545 (6.0) | 64 (3.9) | 545 (3.1) | 15 (3.5) | 541 (7.8) | 2 (1.3) | ~ ~ |
| Lithuania | 23 (3.5) | 543 (6.9) | 47 (4.1) | 547 (3.5) | 22 (3.7) | 539 (5.0) | 7 (2.3) | 538 (11.0) |
| Macedonia, Rep. of | 12 (2.8) | 421 (11.8) | 59 (4.0) | 451 (6.3) | 22 (3.8) | 448 (14.2) | 7 (2.2) | 361 (15.1) |
| Moldova, Rep. of | 10 (2.7) | 512 (12.2) | 39 (4.3) | 493 (7.3) | 43 (4.4) | 486 (6.8) | 8 (2.8) | 498 (14.1) |
| Morocco | 17 (2.9) | 334 (13.4) | 20 (3.6) | 335 (18.7) | 26 (4.7) | 359 (27.9) | 38 (4.7) | 354 (15.3) |
| Netherlands | 67 (4.6) | 556 (2.6) | 29 (4.2) | 548 (6.2) | 4 (1.8) | 552 (12.5) | 0 (0.0) | ~ ~ |
| New Zealand | 40 (4.0) | 557 (5.7) | 51 (4.2) | 518 (5.3) | 8 (2.1) | 477 (8.5) | 1 (0.9) | ~ ~ |
| Norway | 63 (4.9) | 505 (3.4) | 33 (4.8) | 488 (4.9) | 3 (1.7) | 504 (19.8) | 0 (0.0) | ~ ~ |
| Romania | 31 (3.9) | 520 (8.1) | 41 (4.7) | 515 (8.8) | 23 (3.7) | 504 (7.6) | 5 (1.8) | 478 (22.4) |
| Russian Federation | 41 (3.8) | 539 (4.5) | 56 (3.8) | 522 (6.9) | 2 (0.9) | ~ ~ | $1(0.6)$ | ~ ~ |
| Scotland | 68 (4.7) | 539 (4.3) | 26 (5.0) | 507 (6.9) | 6 (2.6) | 488 (7.9) | 0 (0.0) | ~ ~ |
| Singapore | 55 (3.7) | 538 (7.8) | 43 (3.9) | 517 (7.9) | 3 (1.3) | 495 (37.3) | 0 (0.0) | ~ ~ |
| Slovak Republic | 28 (3.4) | 528 (4.7) | 43 (4.0) | 519 (4.1) | 22 (3.3) | 512 (6.4) | 8 (2.2) | 494 (18.9) |
| Slovenia | 19 (3.6) | 499 (5.4) | 76 (3.9) | 502 (2.3) | 4 (1.7) | 496 (11.3) | 0 (0.0) | $\sim \sim$ |
| Sweden | 61 (4.6) | 563 (2.8) | 30 (4.5) | 560 (4.2) | 7 (2.2) | 550 (10.2) | 1 (1.0) | ~ ~ |
| Turkey | 20 (3.1) | 482 (9.2) | 38 (4.1) | 454 (4.9) | 23 (3.6) | 429 (9.3) | 19 (3.2) | 430 (6.0) |
| United States | 25 (3.3) | 567 (5.7) | 60 (4.7) | 546 (5.0) | 14 (3.0) | 500 (7.5) | 1 (0.7) | ~ |
| International Avg. | 35 (0.6) | 505 (1.3) | 43 (0.8) | 497 (1.2) | 14 (0.5) | 483 (3.2) | 7 (0.4) | 445 (3.4) |

() 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.

[^7] achievement.

Exhibit 7.14: Index of Principals' Perceptions of School Climate (PPSC)
4th Grade PIRLS 2001


## Index of Principal's <br> Perceptions of School Climate

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; and students' desire to do well in school. Average is computed on a 5 -point scale: Very high $=1$,

High = 2, Medium = 3, Low = 4, and Very low = 5. High level indicates an average of 1 to less than 2.33. Medium level indicates an average of 2.33 through 3.67. Low level indicates an average of greater than 3.67 through 5 .

[^8][^9]
## How Safe Are Schools?

Safety is key for fostering a positive learning environment in schools. PIRLS asked both students and principals to characterize their perceptions of safety in their schools. Students' reports of feeling safe at school are presented in Exhibit 7.15. When asked how much they agreed with the statement "I feel safe when I'm in school", an average of 89 percent of students internationally agreed either a little or a lot. In Germany, Hong Kong, Iceland, Moldova, and The Netherlands, 15 percent or more of students disagreed or disagreed a lot with the statement.

Exhibit 7.16 presents results of students' affirmative responses to incidents of stealing, bullying, and hitting or hurting at school during the month prior to testing. On average, internationally, the same proportions of students reported incidents of stealing, bullying and hitting, with more students reporting something happening to someone in their class rather than to them as individuals. About 60 percent or more of students in Argentina, Belize, Israel, and New Zealand reported that incidents of stealing, bullying, and hitting or hurting had occurred against their classmates within the past month. The relatively high percentage of students reporting incidents in their classes seems to be in contradiction with students' overall feeling of safety. Students may have different interpretations of the types of behaviors that warranted a "yes" response. Furthermore, classroom teachers or school principals may have addressed events in the classroom in a manner that made the students feel safe.

PIRLS developed an Index of Principals' Perceptions of School Safety based on principals' responses to the severity of seven behavioral problems within school. These problems include classroom disturbances, cheating, profanity, vandalism, theft, intimidation or verbal abuse of other students, and physical conflict among students. Details of the index are shown in Exhibit 7.17. Students in the high category attended schools where principals rated all behaviors as not a problem. A low level indicates that all behaviors were reported to be serious problems, and the medium level indicates all other combinations of severity among the problems. Several countries had more than half the students at the high level. On average, internationally, only 6 percent
of students were in schools where principals' characterizations of school safety were at the low level. Morocco and Kuwait were the only countries with more than one-third of the students at the low level, where behavioral problems were perceived as being serious problems.

Exhibit 7.15: How Much Students Agree with Feeling Safe at School

| Countries | Agree a Lot |  | Agree a Little |  | Disagree a Little |  | Disagree a Lot |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement |
| Argentina | 73 (1.3) | 431 (5.1) | 21 (1.2) | 442 (8.4) | 2 (0.3) | ~ ~ | 3 (0.4) | 409 (14.1) |
| Belize | 68 (1.6) | 342 (4.9) | 19 (1.2) | 311 (8.6) | 5 (0.7) | 272 (10.5) | 7 (0.6) | 304 (9.5) |
| Bulgaria | 71 (1.5) | 549 (4.1) | 22 (1.1) | 570 (4.8) | 4 (0.4) | 548 (7.5) | 3 (0.4) | 535 (8.3) |
| Canada (0,Q) | 60 (0.9) | 545 (2.7) | 27 (0.7) | 551 (2.5) | 8 (0.5) | 545 (4.2) | 5 (0.5) | 513 (5.8) |
| Colombia | 91 (0.9) | 424 (4.5) | 7 (0.6) | 419 (6.7) | 2 (0.3) | ~ ~ | 1 (0.2) | ~ ~ |
| Cyprus | 66 (1.2) | 492 (3.2) | 23 (1.0) | 513 (5.5) | 6 (0.5) | 505 (6.1) | 5 (0.5) | 468 (9.3) |
| Czech Republic | 48 (1.8) | 526 (3.0) | 38 (1.4) | 554 (2.7) | 9 (0.6) | 545 (4.7) | 5 (0.4) | 509 (7.0) |
| England | - - | -- | -- | -- | -- | -- | -- | -- |
| France | 43 (1.0) | 516 (3.4) | 42 (0.9) | 537 (2.6) | 10 (0.6) | 532 (4.4) | 4 (0.5) | 510 (5.5) |
| Germany | 43 (1.0) | 537 (2.6) | 39 (0.7) | 549 (2.0) | 11 (0.5) | 544 (3.2) | 7 (0.5) | 516 (4.5) |
| Greece | 79 (1.0) | 523 (3.9) | 16 (0.9) | 535 (4.5) | 3 (0.4) | 532 (9.2) | 2 (0.4) | ~ ~ |
| Hong Kong, SAR | 56 (1.2) | 529 (3.2) | 29 (0.8) | 532 (3.4) | 9 (0.5) | 531 (4.5) | 6 (0.5) | 508 (5.8) |
| Hungary | 66 (1.6) | 542 (2.4) | 23 (1.1) | 551 (3.0) | 6 (0.5) | 552 (6.5) | 5 (0.5) | 533 (5.4) |
| Iceland | 44 (0.9) | 509 (1.9) | 39 (0.8) | 525 (1.9) | 11 (0.4) | 515 (4.4) | 6 (0.4) | 483 (6.7) |
| Iran, Islamic Rep. of | 74 (1.3) | 424 (4.1) | 18 (1.1) | 395 (6.2) | 4 (0.3) | 382 (9.1) | 4 (0.7) | 366 (9.2) |
| Israel | 68 (1.1) | 505 (3.1) | 22 (0.8) | 528 (4.7) | 5 (0.4) | 518 (8.0) | 5 (0.4) | 484 (7.6) |
| Italy | 50 (1.0) | 537 (2.7) | 36 (1.0) | 551 (3.0) | 11 (0.6) | 538 (3.9) | 3 (0.3) | 507 (9.2) |
| Kuwait | 80 (0.9) | 403 (4.2) | 13 (0.8) | 395 (6.9) | 3 (0.2) | 371 (10.9) | 3 (0.4) | 396 (9.6) |
| Latvia | 59 (1.3) | 544 (2.8) | 30 (1.0) | 546 (3.7) | 8 (0.6) | 552 (4.6) | 3 (0.4) | 533 (7.4) |
| Lithuania | 48 (1.6) | 535 (3.4) | 38 (1.2) | 557 (2.9) | 9 (0.8) | 547 (6.4) | 5 (0.5) | 520 (6.7) |
| Macedonia, Rep. of | 87 (0.8) | 449 (4.4) | 9 (0.7) | 432 (9.0) | 2 (0.3) | ~ ~ | 2 (0.3) | ~ ~ |
| Moldova, Rep. of | 62 (2.2) | 498 (4.9) | 18 (1.4) | 485 (6.8) | 6 (0.6) | 470 (8.2) | 14 (1.5) | 487 (5.5) |
| Morocco | 79 (1.4) | 358 (9.6) | 15 (1.2) | 336 (13.5) | 3 (0.4) | 315 (18.3) | 3 (0.4) | 311 (23.7) |
| Netherlands | 47 (1.3) | 552 (2.9) | 38 (1.0) | 561 (2.8) | 10 (0.7) | 553 (4.4) | 6 (0.6) | 534 (5.3) |
| New Zealand | 62 (1.5) | 526 (4.1) | 29 (1.1) | 545 (4.7) | 7 (0.7) | 531 (9.0) | 3 (0.4) | 493 (12.4) |
| Norway | 72 (1.3) | 503 (3.0) | 21 (0.9) | 502 (4.7) | 5 (0.5) | 479 (8.4) | 2 (0.3) | ~ ~ |
| Romania | 82 (1.7) | 512 (5.0) | 13 (1.0) | 518 (6.7) | 3 (0.9) | 534 (9.3) | 2 (0.3) | ~ ~ |
| Russian Federation | 69 (1.5) | 526 (4.4) | 21 (1.0) | 538 (6.6) | 6 (0.6) | 528 (7.8) | 4 (0.4) | 510 (8.6) |
| Scotland | 66 (1.7) | 526 (3.5) | 25 (1.2) | 548 (4.4) | 5 (0.5) | 534 (7.7) | 4 (0.6) | 462 (14.2) |
| Singapore | 61 (0.8) | 528 (5.3) | 28 (0.7) | 536 (5.9) | 7 (0.4) | 524 (6.6) | 4 (0.3) | 502 (9.2) |
| Slovak Republic | 48 (1.5) | 505 (3.4) | 39 (1.2) | 535 (3.6) | 8 (0.7) | 535 (4.4) | 5 (0.6) | 497 (5.3) |
| Slovenia | 62 (1.3) | 495 (2.2) | 29 (1.1) | 518 (3.1) | 4 (0.5) | 525 (6.2) | 5 (0.4) | 478 (8.9) |
| Sweden | 63 (1.3) | 563 (2.3) | 30 (1.0) | 565 (2.7) | 5 (0.4) | 545 (5.1) | 2 (0.3) | ~ ~ |
| Turkey | 77 (1.1) | 456 (3.7) | 19 (1.0) | 434 (5.1) | 2 (0.3) | ~ ~ | 2 (0.2) | ~ ~ |
| United States | 64 (1.4) | 545 (4.0) | 23 (1.1) | 553 (4.4) | 7 (0.5) | 540 (8.0) | 6 (0.6) | 479 (8.2) |
|  |  |  |  |  |  |  |  |  |
| International Avg. | 64 (0.2) | 499 (0.7) | 25 (0.2) | 505 (0.9) | 6 (0.1) | 505 (1.6) | 4 (0.1) | 476 (1.7) |

( ) 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 data are not available. A tilde ( $\sim$ ) indicates insufficient data to report achievement.

Exhibit 7.16: Students Answering "Yes" to Incidents of Stealing, Bullying, and Hitting at School During the Last Month

( ) 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 avail able for $50-69 \%$ of the students. An " $x$ " indicates data are available for less than $50 \%$ of the students.

A dash (-) indicates data are not available. A tilde ( $\sim$ ) indicates insufficient data to report achievement.

Exhibit 7.16: Students Answering "Yes" to Incidents of Stealing, Bullying, and Hitting at School During the Last Month (Continued)

4th Grade PIRLS 2001

| Countries | Someone in My Class Was Bullied by Another Student |  |  | I Was Hit or Hurt by Another Student |  |  | Someone in My Class Was Hit or Hurt by Another Student |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percent of Students "Yes" | Average Achievement "Yes" | Average Achievement "No" | Percent of Students "Yes" | Average Achievement "Yes" | Average Achievement "No" | Percent of Students "Yes" | Average Achievement "Yes" | Average Achievement "No" |
| Argentina | r 75 (1.2) | 441 (5.9) | 405 (6.4) | r 36 (1.6) | 420 (7.5) | 439 (5.1) | r 63 (1.7) | 433 (6.3) | 430 (5.4) |
| Belize | 65 (2.0) | 333 (5.3) | 322 (6.7) | 55 (1.6) | 329 (5.4) | 330 (6.6) | 70 (2.0) | 337 (5.3) | 312 (5.6) |
| Bulgaria | 21 (1.2) | 531 (5.5) | 559 (3.9) | 22 (1.2) | 540 (4.5) | 557 (3.8) | 35 (1.5) | 553 (4.4) | 553 (3.9) |
| Canada (0,Q) | 49 (1.1) | 541 (2.6) | 550 (2.7) | 41 (0.9) | 534 (2.7) | 553 (2.6) | 60 (1.0) | 542 (2.5) | 551 (3.0) |
| Colombia | 35 (1.9) | 420 (5.4) | 425 (5.5) | 42 (1.7) | 422 (5.1) | 425 (5.3) | 52 (2.3) | 428 (5.3) | 419 (5.5) |
| Cyprus | 49 (1.2) | 500 (3.5) | 493 (3.4) | 40 (1.2) | 490 (3.5) | 500 (3.2) | 66 (1.2) | 499 (3.4) | 489 (3.6) |
| Czech Republic | 31 (2.1) | 530 (3.3) | 541 (2.5) | 20 (1.1) | 525 (4.2) | 541 (2.3) | 41 (2.0) | 532 (3.0) | 542 (2.7) |
| England | -- | - - | - - | -- | -- | - - | -- | -- | -- |
| France | 47 (1.6) | 526 (2.9) | 527 (2.9) | 30 (1.2) | 516 (3.2) | 531 (2.5) | 47 (1.5) | 519 (3.5) | 533 (2.2) |
| Germany | -- | -- | -- | 29 (0.9) | 530 (2.6) | 545 (2.1) | 52 (1.0) | 537 (2.1) | 545 (2.6) |
| Greece | 36 (1.5) | 526 (3.8) | 526 (4.1) | 29 (1.5) | 524 (4.2) | 527 (3.6) | 40 (1.4) | 529 (3.4) | 524 (4.3) |
| Hong Kong, SAR | 62 (1.4) | 527 (3.5) | 532 (3.3) | 18 (0.9) | 511 (4.8) | 533 (2.9) | 39 (1.5) | 523 (3.8) | 533 (3.1) |
| Hungary | 67 (1.4) | 542 (2.3) | 547 (3.5) | 26 (1.0) | 536 (2.9) | 547 (2.4) | 45 (1.5) | 543 (2.4) | 544 (3.0) |
| Iceland | 47 (0.8) | 519 (2.0) | 511 (2.1) | 26 (0.7) | 504 (2.9) | 518 (1.5) | 41 (0.8) | 512 (2.1) | 517 (1.9) |
| Iran, Islamic Rep. of | 53 (1.5) | 416 (4.9) | 413 (4.8) | 26 (1.1) | 393 (5.4) | 423 (4.2) | 47 (1.5) | 413 (4.8) | 416 (5.1) |
| Israel | 79 (0.9) | 518 (2.8) | 488 (5.7) | 45 (1.0) | 501 (3.2) | 521 (3.2) | 70 (1.1) | 513 (2.9) | 507 (4.5) |
| Italy | 51 (1.3) | 539 (2.4) | 543 (2.8) | 25 (0.9) | 536 (3.2) | 543 (2.5) | 45 (1.4) | 541 (2.6) | 541 (2.8) |
| Kuwait | 64 (1.4) | 402 (4.5) | 399 (5.3) | r 36 (1.1) | 391 (4.5) | 406 (4.8) | r 56 (1.5) | 400 (4.9) | 402 (4.6) |
| Latvia | 40 (1.5) | 541 (3.8) | 548 (2.4) | 34 (1.2) | 530 (3.2) | 553 (2.4) | 58 (1.7) | 544 (2.5) | 547 (3.1) |
| Lithuania | 50 (1.4) | 540 (2.9) | 549 (2.8) | 23 (1.1) | 532 (4.4) | 548 (2.5) | 32 (1.3) | 542 (3.5) | 545 (2.6) |
| Macedonia, Rep. of | 36 (1.3) | 439 (6.2) | 452 (4.4) | 25 (1.1) | 422 (6.0) | 456 (4.3) | 39 (1.5) | 448 (5.4) | 448 (4.6) |
| Moldova, Rep. of | 45 (2.6) | 494 (5.4) | 491 (4.7) | 48 (2.2) | 497 (5.4) | 488 (4.3) | 60 (2.6) | 492 (4.8) | 493 (5.2) |
| Morocco | 57 (2.1) | 359 (10.7) | 342 (10.8) | 29 (1.5) | 338 (11.8) | 358 (9.8) | 47 (1.9) | 346 (10.0) | 358 (11.1) |
| Netherlands | 69 (1.4) | 552 (2.9) | 559 (2.9) | 27 (1.1) | 544 (3.6) | 558 (2.3) | 53 (2.0) | 551 (3.2) | 558 (2.5) |
| New Zealand | 62 (1.6) | 527 (4.1) | 537 (4.6) | 42 (1.2) | 521 (4.7) | 538 (4.0) | 63 (1.7) | 525 (4.4) | 540 (4.8) |
| Norway | 38 (1.6) | 493 (3.7) | 505 (3.3) | 16 (1.0) | 485 (5.4) | 503 (3.0) | 28 (1.4) | 495 (4.3) | 502 (3.0) |
| Romania | 27 (1.8) | 495 (6.5) | 519 (4.9) | 28 (1.7) | 498 (5.1) | 519 (5.2) | 43 (2.3) | 509 (4.4) | 515 (6.0) |
| Russian Federation | 58 (1.8) | 531 (4.3) | 526 (5.5) | 30 (1.1) | 522 (4.9) | 531 (4.5) | 48 (1.8) | 528 (4.0) | 528 (5.4) |
| Scotland | 48 (2.0) | 522 (4.7) | 535 (4.4) | 42 (1.5) | 523 (4.1) | 533 (4.3) | 63 (1.7) | 527 (4.2) | 531 (3.9) |
| Singapore | 54 (1.4) | 520 (4.7) | 540 (6.2) | 36 (1.0) | 515 (5.8) | 537 (5.0) | 50 (1.3) | 521 (4.7) | 537 (6.0) |
| Slovak Republic | 62 (2.0) | 519 (3.0) | 519 (4.0) | 21 (1.3) | 491 (5.1) | 526 (2.8) | 50 (1.9) | 514 (3.7) | 524 (3.6) |
| Slovenia | 42 (1.8) | 501 (2.8) | 503 (2.5) | 38 (1.5) | 494 (3.0) | 507 (2.4) | 48 (1.6) | 502 (2.7) | 503 (2.6) |
| Sweden | 26 (1.3) | 547 (3.5) | 566 (2.1) | 25 (1.2) | 545 (3.6) | 566 (2.0) | 39 (1.4) | 553 (3.1) | 566 (2.1) |
| Turkey | 62 (1.5) | 456 (3.9) | 439 (4.4) | 36 (1.2) | 443 (4.4) | 453 (3.8) | 49 (1.7) | 455 (4.2) | 445 (4.1) |
| United States | 46 (1.4) | 532 (4.8) | 552 (4.0) | 28 (1.2) | 525 (5.2) | 550 (3.8) | 50 (1.7) | 530 (4.2) | 555 (4.4) |
| International Avg. | 50 (0.3) | 496 (0.8) | 499 (0.8) | 32 (0.2) | 489 (0.8) | 505 (0.7) | 50 (0.3) | 498 (0.7) | 502 (0.8) |

Exhibit 7.17: Index of Principals' Perceptions of School Safety (PPSS)
4th Grade PIRLS 2001

| Countries | High PPSS |  | Medium PPSS |  | Low PPSS |  | Percentage of Students at High Level of PPSS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement |  |
| Russian Federation | 92 (2.0) | 528 (4.6) | 7 (1.8) | 531 (11.4) | 1 (0.6) | ~ ~ | - |
| Hong Kong, SAR | 89 (3.3) | 530 (3.3) | 11 (3.3) | 525 (11.8) | 0 (0.0) | ~ ~ | -------0 |
| Romania | 87 (2.7) | 511 (5.3) | 11 (2.6) | 520 (8.2) | 2 (1.0) | ~ ~ | 0 |
| Singapore | 83 (3.3) | 534 (5.7) | 17 (3.3) | 496 (15.1) | 0 (0.0) | ~ ~ | $\bigcirc$ |
| Moldova, Rep. of | 76 (3.6) | 493 (4.7) | 22 (3.4) | 486 (8.5) | 3 (1.2) | 487 (14.8) | 0 |
| Iran, Islamic Rep. of | 75 (3.9) | 416 (5.4) | 19 (3.7) | 398 (10.2) | 6 (1.8) | 432 (14.9) | 0 |
| Greece r | 74 (4.7) | 533 (5.0) | 24 (4.7) | 519 (7.8) | 2 (1.4) | ~ ~ | 0 |
| Scotland | 74 (4.4) | 535 (4.4) | 26 (4.4) | 509 (7.8) | 0 (0.0) | ~ ~ | $\cdots$ |
| France | 73 (3.9) | 529 (2.8) | 25 (4.0) | 516 (7.0) | 1 (1.2) | ~ ~ | ---------1.-. 0 |
| United States | 71 (4.0) | 556 (3.9) | 29 (4.0) | 515 (6.9) | 0 (0.0) | ~ | ---- 0 |
| Cyprus | 70 (4.9) | 494 (3.8) | 23 (4.2) | 497 (6.7) | 7 (2.6) | 498 (13.3) |  |
| Latvia | 67 (4.2) | 547 (3.2) | 29 (4.3) | 539 (4.5) | 3 (1.6) | 536 (8.1) | 0 |
| Macedonia, Rep. of | 66 (3.8) | 448 (5.9) | 31 (3.9) | 423 (10.4) | 3 (1.5) | 473 (31.5) |  |
| New Zealand | 65 (3.8) | 542 (4.6) | 34 (3.8) | 509 (6.9) | 1 (0.0) | ~ ~ | ---------........--------- |
| Lithuania | 64 (4.1) | 542 (3.5) | 36 (4.1) | 546 (4.1) | 1 (0.0) | ~ ~ | --...-- 0 |
| Italy | 63 (3.8) | 542 (2.8) | 24 (3.4) | 542 (6.0) | 12 (2.1) | 534 (8.9) | -------..........-.----- |
| Turkey | 61 (4.4) | 457 (5.0) | 29 (3.9) | 436 (7.5) | 11 (2.6) | 443 (8.4) |  |
| Bulgaria | 60 (3.7) | 555 (4.1) | 36 (3.7) | 545 (8.5) | 4 (1.7) | 528 (28.2) | - |
| Norway | 60 (4.9) | 502 (3.2) | 39 (4.8) | 496 (5.7) | 1 (0.7) | ~ ~ |  |
| Sweden | 57 (4.5) | 568 (3.1) | 42 (4.6) | 551 (3.5) | 1 (0.8) | ~ |  |
| Canada ( $\mathrm{O}, \mathrm{Q}$ ) | 55 (3.6) | 552 (3.0) | 43 (3.6) | 536 (3.5) | 2 (0.9) | ~ ~ | - |
| Iceland | 52 (0.4) | 511 (1.6) | 47 (0.4) | 513 (1.9) | 1 (0.0) | ~ ~ | 0 |
| Slovenia | 49 (3.6) | 503 (2.8) | 51 (3.6) | 500 (3.0) | 0 (0.0) | ~ ~ | 0 |
| Colombia | 46 (4.6) | 434 (7.3) | 44 (4.9) | 414 (7.3) | 10 (2.7) | 404 (11.1) | 0 |
| Israel | 43 (4.8) | 505 (7.3) | 47 (5.0) | 517 (6.8) | 10 (2.5) | 480 (23.7) | -------0 |
| Belize | 41 (6.0) | 311 (8.7) | 56 (6.1) | 337 (7.1) | 3 (1.6) | 319 (15.4) | ----------0 |
| Germany | 39 (3.7) | 543 (3.6) | 58 (3.6) | 537 (2.8) | 3 (1.2) | 520 (12.4) | ----------0 |
| Hungary | 38 (3.6) | 549 (3.8) | 60 (3.7) | 543 (3.4) | 2 (0.9) | ~ | ------- 0 |
| Czech Republic | 37 (4.6) | 538 (3.9) | 58 (4.7) | 536 (3.0) | 5 (1.5) | 538 (6.5) | 0 |
| Argentina | 37 (4.4) | 456 (9.2) | 46 (4.5) | 407 (8.3) | 17 (3.2) | 370 (13.6) | --------0 |
| Kuwait | 33 (3.9) | 414 (7.7) | 33 (3.8) | 405 (6.9) | 34 (4.2) | 382 (9.7) | ------0 |
| Morocco | 30 (4.9) | 350 (11.9) | 28 (5.1) | 345 (26.3) | 42 (5.3) | 350 (11.5) | --.---- 0 |
| Slovak Republic | 27 (3.6) | 524 (5.5) | 66 (3.8) | 515 (3.4) | 7 (2.4) | 518 (9.4) | - 0 |
| Netherlands | 24 (4.1) | 565 (3.6) | 75 (4.1) | 551 (3.2) | 2 (1.2) | ~ ~ | - - |
| England | - | - | -- | - - | -- | -- |  |
| International Avg. | 58 (0.7) | 503 (0.9) | 36 (0.7) | 493 (1.5) | 6 (0.3) | 460 (2.8) | -........---- |
|  |  |  |  |  |  |  | $25 \quad 50$ |

## Index of Principal's Perceptions of <br> School Safety (PPSS)

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: Not a problem $=1$, Minor problem $=2$,

Moderate problem $=3$, and Serious problem $=4$. High leve indicates an average of 1 to less than 2 . Medium level indicates an average of 2 through 3. Low level indicates an average of greater than 3 through 4 .

[^10]A dash (-) indicates data are not available. A tilde ( $\sim$ ) indicates insufficient data to report achievement.

## What School Resources Are Available to Support Reading?

Availability of school resources contributes to the overall school climate as well as to the academic rigor in the school. PIRLS created an Index of Availability of School Resources, presented in Exhibit 7.18, which is based on the extent to which schools' capacities to provide instruction were affected by a shortage or inadequacy of staff, basic classroom supplies, instructional materials, or the schools' buildings and grounds. A high index level indicates the capacity to provide reading instruction is not affected at all, while the medium level indicates some effect. Students in the low category attended schools affected "a lot" by a shortage or inadequacy of resources.

On average, internationally, 43 percent of students attended schools reporting adequate availability of resources, and only 18 percent were in schools heavily affected by the lack of availability. Students in schools reporting no shortage or inadequacy of resources generally had higher reading achievement than those affected "a lot" by shortages. However, schools in some countries appear better able than others to compensate for a lack of resources. More than three-quarters of students in New Zealand, The Netherlands, Iceland, the United States, Scotland, and Sweden attended schools that were not affected by a lack of resources.

While research has found that the availability of technology in classrooms has been increasing over the years, students' access to computers for instruction and specifically to the Internet varies greatly across countries. Exhibit 7.19 provides the results of schools' reports of the ratio of fourthgrade students to computers. Internationally, 33 percent of students attended schools without any computers. The majority of these students were in Iran, Macedonia, and the Russian Federation, where more than 90 percent of students attended schools without any computers available. In Canada ( $\mathrm{O}, \mathrm{Q}$ ) and Iceland, more than three-quarters of students attended schools that had, on average, one computer for every five students or fewer. England, Hong Kong, Israel, The Netherlands, New Zealand, Norway, Singapore, Slovenia, and the United States had one computer for up to 10 students available to more than three-quarters of the student population.

Schools' access to the Internet is presented in Exhibit 7.20, along with the average number of computers available in the schools. Students in few countries had access to the Internet on all of their computers. Hong Kong and Iceland were the only two countries with all computers accessible to the Internet for at least three-quarters of their students. On average, internationally, 42 percent of students were in schools that reported having no access to the Internet on available computers. Almost all students in Iran, Kuwait, and Moldova were without access to the Internet in their schools.

Exhibit 7.18: Index of Availability of School Resources (ASR)


## Index of Availability of School Resources <br> (ASR)

Based on principals' responses to how much the school's capacity to provide instruction is affected by a shortage or inadequacy of the following: instructional staff; teachers qualified to teach reading; 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 audiovisual resources. Average is computed on a 4-point scale: Not at all $=1$, A little $=2$, Some $=3$, and A lot $=4$. High level indicates an average of 1 to less than 2 . Medium level indicates an average of 2 through 3. Low level indicates an average of greater than 3 through 4.

[^11][^12] achievement.

Exhibit 7.19: Availability of Computers for Instructional Purposes

| Countries |  | Schools' Reports of Number of Fourth-Grade* Students per Computer |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Fewer than 5 Students |  | 5-10 Students |  | 11-20 Students |  | More than 20 Students |  | Students in School Without Any Computers |  |
|  |  | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement |
| Argentina | r | 17 (4.0) | 460 (16.8) | 22 (4.8) | 448 (11.8) | 7 (2.3) | 417 (29.0) | 17 (3.2) | 413 (16.3) | 37 (4.9) | 391 (11.8) |
| Belize | s | 4 (2.1) | 387 (12.7) | 1 (0.6) | ~ ~ | 13 (6.6) | 399 (29.4) | 4 (2.3) | 295 (19.4) | 79 (6.9) | 317 (9.5) |
| Bulgaria | $r$ | 6 (2.0) | 549 (12.5) | 11 (3.0) | 562 (9.2) | 13 (2.9) | 578 (7.4) | 10 (2.8) | 564 (11.2) | 61 (4.7) | 536 (7.4) |
| Canada ( $\mathrm{O}, \mathrm{Q}$ ) | $r$ | 76 (3.2) | 544 (3.2) | 15 (2.4) | 549 (5.1) | 7 (2.1) | 548 (6.5) | 2 (1.2) | ~ ~ | 0 (0.3) | ~ ~ |
| Colombia | $s$ | 22 (4.5) | 464 (14.8) | 20 (4.8) | 445 (10.4) | 9 (3.7) | 469 (9.2) | 5 (2.2) | 428 (11.9) | 45 (5.3) | 403 (6.1) |
| Cyprus | s | 5 (2.5) | 520 (11.6) | 27 (6.2) | 493 (7.3) | 10 (3.6) | 506 (5.5) | 8 (3.4) | 501 (14.7) | 50 (5.8) | 493 (4.2) |
| Czech Republic |  | 33 (3.9) | 529 (4.4) | 38 (4.2) | 543 (3.4) | 6 (2.4) | 532 (17.4) | 3 (1.6) | 542 (5.1) | 20 (3.4) | 542 (6.9) |
| England |  | 59 (4.7) | 559 (5.1) | 24 (3.8) | 553 (5.0) | 13 (3.6) | 551 (9.7) | 5 (2.0) | 541 (11.1) | 0 (0.0) | ~ ~ |
| France |  | 30 (4.2) | 520 (5.7) | 30 (4.5) | 531 (4.7) | 12 (3.8) | 544 (7.5) | 14 (3.6) | 518 (6.5) | 14 (3.5) | 537 (5.5) |
| Germany |  | 12 (2.8) | 544 (7.0) | 23 (3.6) | 542 (2.9) | 17 (3.5) | 540 (6.5) | 29 (3.4) | 537 (4.6) | 19 (3.2) | 538 (5.1) |
| Greece | s | 17 (4.6) | 544 (15.4) | 6 (1.7) | 567 (14.6) | $3 \quad 17$ | 504 (16.2) | 6 (2.5) | 535 (10.6) | 68 (5.3) | 513 (4.3) |
| Hong Kong, SAR |  | 55 (4.6) | 534 (4.1) | 31 (4.0) | 525 (5.0) | 2 (1.2) | ~ ~ | 4 (1.6) | 508 (8.0) | 9 (2.6) | 517 (11.7) |
| Hungary |  | 32 (3.7) | 543 (4.1) | 23 (3.4) | 548 (5.4) | 2 (1.1) | ~ ~ | 3 (1.4) | 564 (16.4) | 41 (3.9) | 541 (4.5) |
| Iceland | $r$ | 77 (0.3) | 512 (1.6) | 9 (0.2) | 518 (3.9) | 5 (0.1) | 498 (6.0) | 4 (0.1) | 512 (6.9) | 5 (0.2) | 519 (4.7) |
| Iran, Islamic Rep. of |  | 0 (0.0) | ~ ~ | 0 (0.1) | ~ ~ | 0 (0.0) | ~ ~ | 2 (1.2) | ~ ~ | 98 (1.2) | 412 (4.3) |
| Israel | $r$ | 59 (5.1) | 522 (6.5) | 27 (4.4) | 503 (9.5) | 7 (2.8) | 499 (28.9) | 0 (0.0) | ~ ~ | 7 (2.6) | 506 (23.6) |
| Italy |  | 13 (2.2) | 556 (6.2) | 31 (3.4) | 541 (4.2) | 28 (3.2) | 541 (5.0) | 20 (2.8) | 539 (5.2) | 8 (1.5) | 517 (8.2) |
| Kuwait |  | $\mathrm{x} \times$ | x x | $\mathrm{x} \times$ | $\mathrm{x} \times$ | $\mathrm{x} \times$ | x x | $\mathrm{x} \times$ | x x | $\mathrm{x} \times$ | $\mathrm{x} \times$ |
| Latvia | $r$ | 19 (3.0) | 548 (6.9) | 20 (4.1) | 547 (5.1) | 7 (2.6) | 538 (15.0) | 3 (1.5) | 558 (15.3) | 51 (4.1) | 543 (3.3) |
| Lithuania | $r$ | 24 (4.0) | 538 (6.8) | 29 (4.2) | 539 (4.3) | 13 (3.3) | 555 (8.7) | 6 (2.3) | 540 (5.3) | 27 (4.4) | 543 (6.8) |
| Macedonia, Rep. of |  | 0 (0.0) | ~ ~ | 2 (1.5) | ~ ~ | 0 (0.0) | ~ ~ | 5 (2.3) | 446 (31.7) | 92 (2.7) | 443 (6.9) |
| Moldova, Rep. of | 5 | 3 (1.9) | 506 (10.5) | 15 (4.3) | 499 (12.0) | 6 (2.5) | 480 (17.1) | 1 (0.1) | ~ ~ | 75 (5.2) | 490 (6.9) |
| Morocco |  | $\mathrm{x} \times$ | x x | x x | $\mathrm{x} \times$ | $\mathrm{x} \times$ | $\mathrm{x} \times$ | $\mathrm{x} \times$ | x x | $\mathrm{x} \times$ | x x |
| Netherlands | $r$ | 39 (4.9) | 555 (3.3) | 38 (5.4) | 553 (5.7) | 20 (4.2) | 550 (5.4) | 3 (2.0) | 572 (15.3) | 0 (0.0) | ~ ~ |
| New Zealand | $r$ | 40 (4.6) | 526 (6.4) | 38 (4.3) | 528 (7.5) | 20 (3.8) | 548 (7.7) | 1 (1.0) | ~ | 0 (0.0) | ~ ~ |
| Norway |  | 58 (5.2) | 498 (3.9) | 20 (4.3) | 501 (6.3) | 14 (3.6) | 513 (9.0) | 4 (2.1) | 491 (15.1) | 3 (1.7) | 489 (7.9) |
| Romania | $r$ | 5 (2.2) | 535 (33.6) | 14 (3.9) | 523 (14.1) | 16 (3.4) | 507 (9.7) | 15 (3.5) | 523 (10.2) | 50 (4.5) | 509 (7.5) |
| Russian Federation |  | 4 (2.3) | 558 (9.5) | 5 (1.5) | 534 (6.5) | 1 (0.8) | ~ ~ | 0 (0.0) | ~ ~ | 91 (2.6) | 525 (5.1) |
| Scotland | $r$ | 42 (5.1) | 530 (6.7) | 19 (4.0) | 537 (9.6) | 25 (4.6) | 518 (8.9) | 14 (3.1) | 520 (6.0) | 0 (0.0) | ~ ~ |
| Singapore |  | 68 (4.6) | 530 (6.1) | 25 (4.1) | 528 (12.1) | 5 (2.1) | 544 (26.9) | 2 (1.2) | ~ ~ | 0 (0.0) | ~ ~ |
| Slovak Republic | r | 2 (1.1) | ~ | 17 (3.7) | 522 (8.1) | 11 (3.1) | 525 (7.7) | 4 (1.6) | 494 (20.0) | 66 (4.3) | 516 (4.1) |
| Slovenia |  | 42 (3.7) | 493 (3.5) | 38 (4.1) | 509 (3.9) | 2 (1.1) | ~ | 4 (1.6) | 493 (7.4) | 14 (2.9) | 508 (4.2) |
| Sweden |  | 31 (4.3) | 563 (4.7) | 35 (4.7) | 562 (4.8) | 29 (4.6) | 559 (3.7) | 5 (2.2) | 567 (6.1) | 0 (0.0) | ~ ~ |
| Turkey | $s$ | 9 (2.9) | 484 (12.1) | 21 (4.5) | 467 (12.0) | 5 (2.5) | 499 (36.4) | 6 (2.6) | 450 (16.4) | 58 (5.0) | 439 (5.4) |
| United States |  | 64 (3.7) | 554 (4.8) | 21 (3.0) | 519 (6.2) | 11 (2.6) | 535 (8.7) | 4 (1.5) | 523 (19.1) | 0 (0.0) | ~ ~ |
| International Avg. |  | 29 (0.6) | 523 (1.8) | 21 (0.7) | 525 (2.5) | 10 (0.5) | 518 (2.7) | 6 (0.4) | 507 (2.6) | 33 (0.6) | 491 (1.6) |

( ) 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 data are not available. A tilde ( ) indicates insufficient data to report achievement.
$\begin{array}{ll}\text { Exhibit 7.20: } & \text { Schools' Reports on Number of Computers and How Many Have } \\ \text { Access to the Internet }\end{array}$ ISC

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[^0]:    A dash (-) indicates data are not available. A tilde (~) indicates insufficient data to report

[^1]:    A dash (-) indicates data are not available. A tilde ( ) indicates insufficient data to report achievement.

[^2]:    A dash (-) indicates data are not available. A tilde ( $\sim$ ) indicates insufficient data to report

[^3]:    A dash (-) indicates data are not available. A tilde ( ) indicates insufficient data to report

[^4]:    A dash (-) indicates data are not available. A tilde ( ) indicates insufficient data to report

[^5]:    ( ) Standard errors appear in parentheses. Because results are rounded to the nearest whole number, some totals may appear inconsistent.
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    able for $50-69 \%$ of the students. An " $x$ " indicates data are available for less than $50 \%$ of the students.

[^6]:    ( ) 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.

[^7]:    A dash (-) indicates data are not available. A tilde ( ) indicates insufficient data to report

[^8]:    () Standard errors appear in parentheses. Because results are rounded to the nearest whole number, some totals may appear inconsistent.
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    able for $50-69 \%$ of the students. An " $x$ " indicates data are available for less than $50 \%$ of the students.

[^9]:    A dash (-) indicates data are not available. A tilde ( ) indicates insufficient data to report achievement.

[^10]:    ) 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.

[^11]:    () 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 avail-
    able for $50-69 \%$ of the students. An " $x$ " indicates data are available for less than $50 \%$ of the students.

[^12]:    A dash (-) indicates data are not available. A tilde ( $\sim$ ) indicates insufficient data to report

