

CHAPTER 6

International Comparisons of Education

This chapter offers a broad perspective on education across the nations of the world. It also provides an international context for examining the condition of education in the United States. Insights into the educational practices and outcomes of the United States are obtained by comparing them with those of other education systems. Most of the education systems represent countries; however, some of the tables in this chapter also include data for subnational entities with separate education systems, such as Hong Kong. The National Center for Education Statistics (NCES) carries out a variety of activities in order to provide statistical data for international comparisons of education.

This chapter presents data drawn from materials prepared by the United Nations Educational, Scientific, and Cultural Organization (UNESCO); the Organization for Economic Cooperation and Development (OECD); and the International Association for the Evaluation of Educational Achievement (IEA). Basic summary data on enrollments and enrollment ratios, teachers, educational attainment, and finances were synthesized from data published by OECD in the Online Education Database and the annual *Education at a Glance* report, as well as from data collected by UNESCO. Even though their tabulations are carefully prepared, international data users should be cautioned about the many problems of definition and reporting involved in the collection of data about the education systems of the world (see the OECD and UNESCO entries in Appendix A: Guide to Sources).

Also presented in this chapter are data from two international assessments of student achievement that are carried out under the aegis of IEA and supported by NCES. The Trends in International Mathematics and Science Study (TIMSS), formerly known as the Third International Mathematics and Science Study, assesses the mathematics and science knowledge and skills of fourth- and eighth-graders every 4 years. The Progress in International Reading Literacy Study (PIRLS) measures the reading knowledge and skills of fourth-graders every 5 years.

This chapter includes additional information from the Program for International Student Assessment (PISA), an OECD assessment supported by NCES. PISA provides performance scores of 15-year-olds in the areas of reading, mathematics, and science literacy; it also measures general, or cross-curricular, competencies such as learning strategies. While PISA focuses on OECD countries, data from some non-OECD education systems are also provided.

Further information on survey methodologies is in Appendix A: Guide to Sources and in the publications cited in the table source notes.

Population

Among the reporting OECD countries, Mexico had the largest percentage of its population made up of young people ages 5 to 14 (20 percent) in 2009, followed by Israel and Turkey (both at 18 percent) (table 456). OECD countries with small percentages of people in this age group included the Czech Republic, Estonia, Germany, Greece, Italy, Japan, Slovenia, and Spain (all at 9 percent), and Austria, Hungary, Poland, Portugal, the Slovak Republic, and Switzerland (all at 10 percent). In the United States, the proportion of 5- to 14-year-olds was 13 percent, which was higher than in most of the other OECD countries.

Enrollments

In 2010, about 1.4 billion students were enrolled in schools around the world (table 454). Of these students, 691 million were in elementary-level programs, 543 million were in secondary programs, and 178 million were in postsecondary programs.

From 2000 to 2010, enrollment changes varied from region to region. Changes in elementary enrollment ranged from increases of 45 percent in Africa and 6 percent in Oceania to decreases of 12 percent in Europe, 5 percent in Central and South America (including Latin America and the Caribbean), 3 percent in Northern America (including Bermuda, Canada, and the United States), and 1 percent in Asia (table F, table 454, and figure 27). Over the same period, secondary enrollment increased by 62 percent in Africa, 29 percent in Asia, 10 percent in Central and South America, and 7 percent in Northern America, but decreased by 18 percent in Europe and 5 percent in Oceania. At the postsecondary level, enrollments increased in all major areas of the world from 2000 to 2010. Postsecondary enrollment rose by 118 percent in Asia, 88 percent in Central and South America, 63 percent in Africa, 51 percent in Northern America and in Oceania, and 29 percent in Europe. These increases are due to both growth in the percentages of people attending postsecondary institutions and population increases.

Table F. Population and enrollment at different levels in major areas of the world: 2000 and 2010

[In millions]

Area of the world	Population	Enrollment		
		Elementary	Secondary	Postsecondary
World total				
2000.....	6,089.8	654.8	450.7	99.9
2010.....	6,863.8	691.3	543.5	177.7
Africa				
2000.....	803.6	108.4	37.6	6.4
2010.....	1,024.4	157.4	61.0	10.4
Asia				
2000.....	3,693.9	404.1	259.2	41.1
2010.....	4,138.8	400.7	334.7	89.5
Europe				
2000.....	730.6	41.7	70.4	25.6
2010.....	738.4	36.7	57.5	33.0
Central and South America				
2000.....	517.9	70.0	55.1	11.4
2010.....	584.1	66.7	60.4	21.4
Northern America				
2000.....	313.4	27.4	25.1	14.4
2010.....	343.2	26.5	26.8	21.8
Oceania				
2000.....	30.4	3.1	3.4	1.0
2010.....	34.9	3.3	3.2	1.6

SOURCE: United Nations Educational, Scientific, and Cultural Organization, unpublished tabulations, and U.S. Department of Commerce, Census Bureau, International Data Base.

In 2009, the reporting OECD country with the highest proportion of 18- to 21-year-olds enrolled in postsecondary education was the Republic of Korea (70 percent), followed by the United States (47 percent), Belgium (44 percent), Ireland (43 percent), and Slovenia (42 percent) (table 457). Also in 2009, the reporting OECD country with the highest proportion of 22- to 25-year-olds enrolled in postsecondary education was Slovenia (39 percent), followed by Finland (37 percent), the Republic of Korea (36 percent), Denmark (33 percent), and Poland (32 percent). The United States' proportion of enrolled 22- to 25-year-olds was 26 percent. Postsecondary enrollment varied among countries due partially to differences in how postsecondary education is defined and the age at which postsecondary education begins. For example, programs classified as postsecondary education in some countries may be classified as long-duration secondary education in other countries.

Achievement

Mathematics and Science at Grades 4 and 8

The 2011 TIMSS assessed students' mathematics and science performance at grade 4 in 45 countries and at grade 8 in 38 countries. A number of subnational entities also participated in TIMSS as separate education systems. Examples of subnational participants include the cities of Hong Kong and Taipei, several U.S. states and Canadian provinces, Northern Ireland and England within the United Kingdom, and the Flemish community in Belgium. Results for individual U.S. states are based on public school students only,

while U.S. national results are based on both public and private school students. TIMSS assessments are curriculum based and measure what students have actually learned against the subject matter that is expected to be taught in the participating education systems by the end of grades 4 and 8. At both grades, TIMSS scores are reported on a scale of 0 to 1,000, with the scale average set at 500.

In 2011, the average mathematics scores of U.S. fourth-graders (541) and eighth-graders (509) were higher than the TIMSS scale average of 500 (tables 460 and 461). The average U.S. fourth-grade mathematics score was higher than the average score in 37 of the 44 other countries participating at grade 4, lower than the average score in 3 countries, and not measurably different from the average score in the remaining 4 countries (table 460). The 3 countries that outperformed the United States in fourth-grade mathematics were Singapore, the Republic of Korea, and Japan. At grade 8, the average U.S. mathematics score was higher than the average score in 27 of the 37 other participating countries in 2011, lower than the average score in 4 countries, and not measurably different from the average score in the remaining 6 countries (table 461). The 4 countries that outperformed the United States in eighth-grade mathematics were the Republic of Korea, Singapore, Japan, and the Russian Federation.

Of the two U.S. states that participated in the 2011 TIMSS as separate education systems at grade 4, one state—North Carolina—had an average score for public schools that was higher than both the TIMSS scale average and the U.S. national average in mathematics (table 460). Public schools in the other state, Florida, had an average fourth-grade mathematics score that was higher than the TIMSS scale average but not measurably different from the U.S. national average. Of the nine U.S. states that participated separately at grade 8, four states—Massachusetts, Minnesota, North Carolina, and Indiana—had public school average scores that were higher than both the TIMSS scale average and the U.S. national average in mathematics (table 461). The public schools in three states—Colorado, Connecticut, and Florida—had average eighth-grade mathematics scores that were higher than the TIMSS scale average but not measurably different from the U.S. national average. The average eighth-grade score for public schools in California was not measurably different from the TIMSS scale average but was lower than the U.S. national average, while Alabama's public school average was lower than both the TIMSS scale average and the U.S. national average in mathematics.

The average science scores of both U.S. fourth-graders (544) and U.S. eighth-graders (525) were higher than the TIMSS scale average of 500 in 2011 (tables 460 and 461). The average U.S. fourth-grade science score was higher than the average score in 39 of the 44 other countries participating at grade 4 and lower than the average score in 5 countries (table 460). The 5 countries that outperformed the United States in fourth-grade science were the Republic of Korea, Singapore, Finland, Japan, and the Russian Federation. At grade 8, the average U.S. science score was higher than the average score in 28 of the 37 other participating countries in

2011, lower than the average score in 6 countries, and not measurably different from the average score in the remaining 3 countries (table 461). The 6 countries that outperformed the United States in eighth-grade science were Singapore, the Republic of Korea, Japan, Finland, Slovenia, and the Russian Federation.

Public schools in both Florida and North Carolina, which were the two U.S. states participating in the 2011 TIMSS at grade 4, had average fourth-grade science scores that were higher than the TIMSS scale average but not measurably different from the U.S. national average (table 460). Of the nine U.S. states that participated at grade 8, three states—Massachusetts, Minnesota, and Colorado—had public school average scores that were higher than both the TIMSS scale average and the U.S. national average in science (table 461). Public schools in four states—Indiana, Connecticut, North Carolina, and Florida—had average eighth-grade science scores that were higher than the TIMSS scale average but not measurably different from the U.S. national average. The average eighth-grade score for public schools in California was not measurably different from the TIMSS scale average but was lower than the U.S. national average, while Alabama’s public school average was lower than both the TIMSS scale average and the U.S. national average in science.

Reading Literacy at Grade 4

PIRLS has conducted international assessments of fourth-grade reading literacy in 2001, 2006, and 2011. In 2011, PIRLS participants consisted of 40 countries as well as a number of subnational education systems. Examples of subnational participants include the cities of Hong Kong and Taipei, the public school system of the U.S. state of Florida, several Canadian provinces, Northern Ireland and England within the United Kingdom, and the Flemish community in Belgium. PIRLS scores are reported on a scale from 0 to 1,000, with the scale average set at 500.

On the 2011 PIRLS, U.S. fourth-graders had an average reading literacy score of 556 (table 462). The U.S. average score in 2011 was 14 points higher than in 2001 and 16 points higher than in 2006. In all 3 assessment years, the U.S. average score was higher than the PIRLS scale average.

In 2011, the average reading literacy score of fourth-graders in the United States was higher than the average score in 33 of the 39 other participating countries, lower than the average score in 3 countries, and not measurably different from the average in the remaining 3 countries. The 3 countries that outperformed the United States on the 2011 PIRLS were the Russian Federation, Finland, and Singapore. Public school students in Florida scored higher than both the PIRLS scale average and the U.S. national average.

In the United States, the 2011 average reading literacy score for girls (562) was higher than the average score for boys (551). In 34 of the 39 other participating countries, the average score for girls was also higher than the average score for boys, while there was no measurable difference between girls’ and boys’ average scores in the remaining 5 countries.

Reading, Mathematics, and Science Literacy at Age 15

On the 2009 PISA assessment, U.S. 15-year-olds’ average score in reading literacy was 500, which was not measurably different from the OECD average of 493 (table 463). (Possible scores on PISA assessments range from 0 to 1,000.) The average reading literacy score in the United States was lower than the average score in 6 of the 33 other OECD countries, higher than the average score in 13 of the other OECD countries, and not measurably different from the average score in 14 of the OECD countries. Reading literacy results were also reported for 31 non-OECD education systems, 3 of which had a higher average score than the United States. In all participating OECD countries and non-OECD education systems, girls outperformed boys in reading. The U.S. gender gap in reading (25 points) was smaller than the OECD average gap (39 points) and smaller than the gaps in 24 of the OECD countries and 21 of the non-OECD education systems.

In mathematics literacy, U.S. 15-year-olds’ average score of 487 on the 2009 PISA assessment was lower than the OECD average score of 496. The average mathematics literacy score in the United States was lower than the average score in 17 of the 33 other OECD countries, higher than the average score in 5 of the other OECD countries, and not measurably different from the average score in 11 of the OECD countries. In 6 of the 31 non-OECD education systems, the average mathematics literacy score of 15-year-olds was higher than the average score in the United States. In science literacy, the average score of 15-year-olds in the United States (502) was not measurably different from the OECD average score (501). The U.S. average science literacy score was lower than the average score in 12 of the 33 other OECD countries, higher than the average score in 9 of the other OECD countries, and not measurably different from the average score in 12 of the OECD countries. In 6 of the 31 non-OECD education systems, the average science literacy score of 15-year-olds was higher than the average score in the United States.

Educational Attainment

In 2010, the percentage of 25- to 64-year-olds who had completed high school varied among reporting OECD countries (table 467). Countries with high percentages included the Czech Republic (92 percent); the Slovak Republic (91 percent); Estonia, the United States, and Poland (all at 89 percent); and Canada (88 percent). Ten additional countries had percentages between 80 and 87 percent. Countries with relatively low percentages of 25- to 64-year-olds who had completed high school included Turkey (31 percent), Portugal (32 percent), and Mexico (36 percent).

In 2010, the OECD country reporting the highest percentage of 25- to 64-year-olds with a bachelor’s or higher degree was Norway (35 percent), followed by the United States (32 percent), Israel (31 percent), and the Netherlands (30 per-

cent) (table 468). The countries with the lowest percentages of 25- to 64-year-olds who had attained a bachelor's or higher degree were Austria (12 percent) and Slovenia and Turkey (both at 13 percent). The percentage of younger adults (25 to 34 years old) with a bachelor's or higher degree also varied in 2010 (table 468 and figure 28). The OECD country reporting the highest percentage of 25- to 34-year-olds at this level of educational attainment was Norway (46 percent). Five other countries reported that more than 35 percent of their 25- to 34-year-olds had a bachelor's or higher degree: the Republic of Korea (39 percent), the Netherlands and the United Kingdom (both at 38 percent), and Poland and Finland (both at 37 percent). The lowest percentages were reported by Austria (15 percent) and Turkey (17 percent). In the United States, 33 percent of adults in this age group had a bachelor's or higher degree.

Degrees

In 30 of the 33 reporting OECD countries, more than half of all bachelor's and higher degrees were awarded to women in 2010 (table 472). However, the proportion of degrees awarded to women varied by field. For example, 31 of the 33 countries reported that more than 70 percent of education degrees at the bachelor's or higher level were awarded to women. In contrast, women received less than 25 percent of the computer science degrees in 27 of the 32 countries reporting data on degrees awarded in this field.

The percentages of bachelor's degrees that were awarded in mathematics and science fields—including natural sciences, mathematics and computer science, and engineering—varied across the 32 OECD countries that reported these data in 2009 (table 473). Only one of the reporting OECD countries awarded more than 30 percent of its bachelor's degrees in mathematics and science fields: the Republic of Korea (35 percent). Three of the countries awarded 15 percent or less of their bachelor's degrees in mathematics and science fields: Norway and the Netherlands (14 percent each) and Iceland (15 percent). In 2009, the United States awarded 16 percent of its bachelor's degrees in mathematics

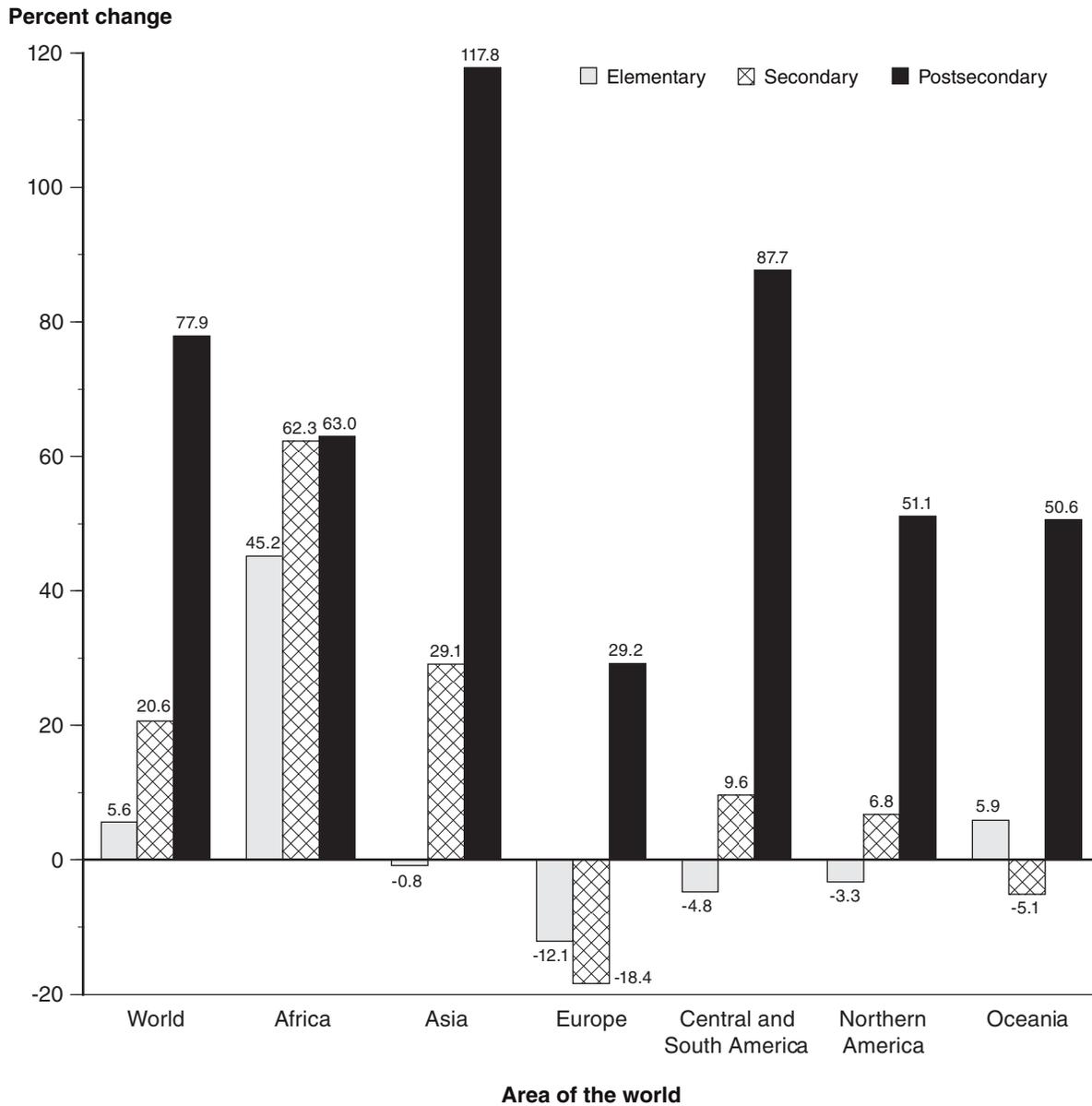
and science fields, a lower percentage than most other reporting countries.

The percentages of graduate degrees awarded in mathematics and science fields ranged widely across the 31 OECD countries that reported these data in 2009 (table 474). Six of the reporting OECD countries awarded 30 percent or more of their graduate degrees in mathematics and science fields: Japan (47 percent), Finland (34 percent), Austria and Portugal (both at 33 percent), and Germany and Sweden (both at 32 percent). Seven OECD countries awarded 15 percent or less of their graduate degrees in mathematics and science fields: Chile (8 percent), Hungary (10 percent), Poland (11 percent), Mexico (12 percent), Iceland and the United States (both at 13 percent), and the Netherlands (15 percent).

Finances

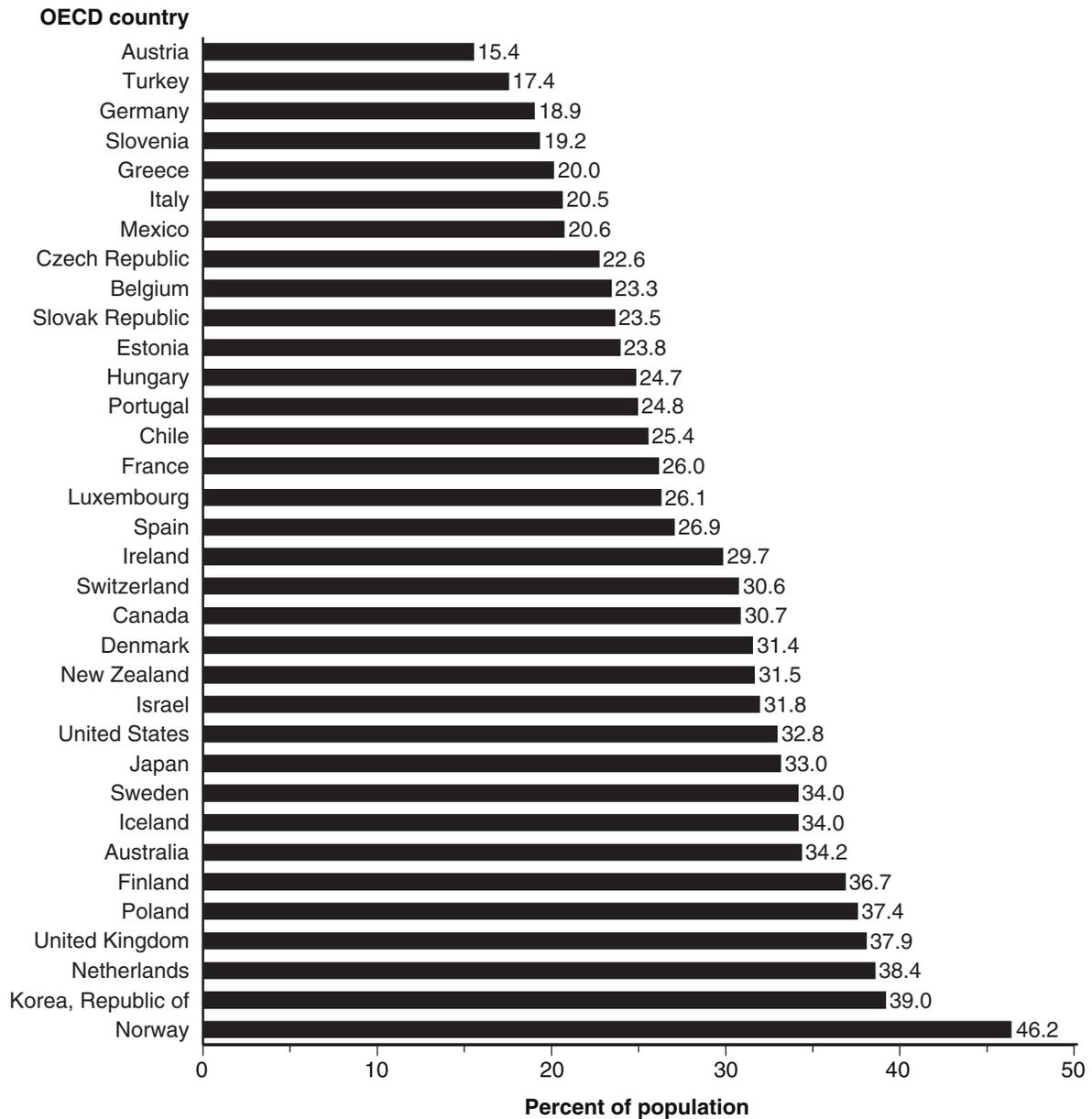
In 2009, per student expenditures at the combined elementary and secondary level of education were over \$11,000 (in current U.S. dollars) in 6 of the 31 OECD countries reporting finance data (table 476). Specifically, Luxembourg spent \$18,000 per elementary/secondary student; Switzerland spent \$13,400; Norway spent \$13,000; the United States spent \$11,800; Austria spent \$11,700; and Denmark spent \$11,100. At the higher education level, 6 countries had expenditures of over \$17,500 per student in 2009: the United States (\$29,200), Switzerland (\$21,600), Sweden (\$20,000), Norway (\$19,300), Denmark (\$18,600), and the Netherlands (\$17,800). These expenditures were adjusted to U.S. dollars using the purchasing-power-parity (PPP) index. This index is considered more stable and comparable than indexes using currency exchange rates.

A comparison of public direct expenditures on education as a percentage of gross domestic product (GDP) in reporting OECD countries shows that national investment in education in 2009 ranged from 3.6 percent in Japan to 7.3 percent in Iceland and 7.5 percent in Denmark (table 477 and figure 29). Among reporting OECD countries, the average public direct expenditure on education in 2009 was 5.4 percent of GDP. In the United States, the public direct expenditure on education as a percentage of GDP was 5.3 percent.

Figure 27. Percentage change in enrollment, by major areas of the world and level of education: 2000 to 2010

NOTE: Europe includes all countries of the former Union of Soviet Socialist Republics (U.S.S.R.) except Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan, which are included in Asia. Turkey, the Arab states, and Israel are also included in Asia. Central and South America includes Latin America and the Caribbean. Enrollment data for Northern America include Bermuda, Canada, and the United States of America. Data include imputed values for nonrespondent countries.

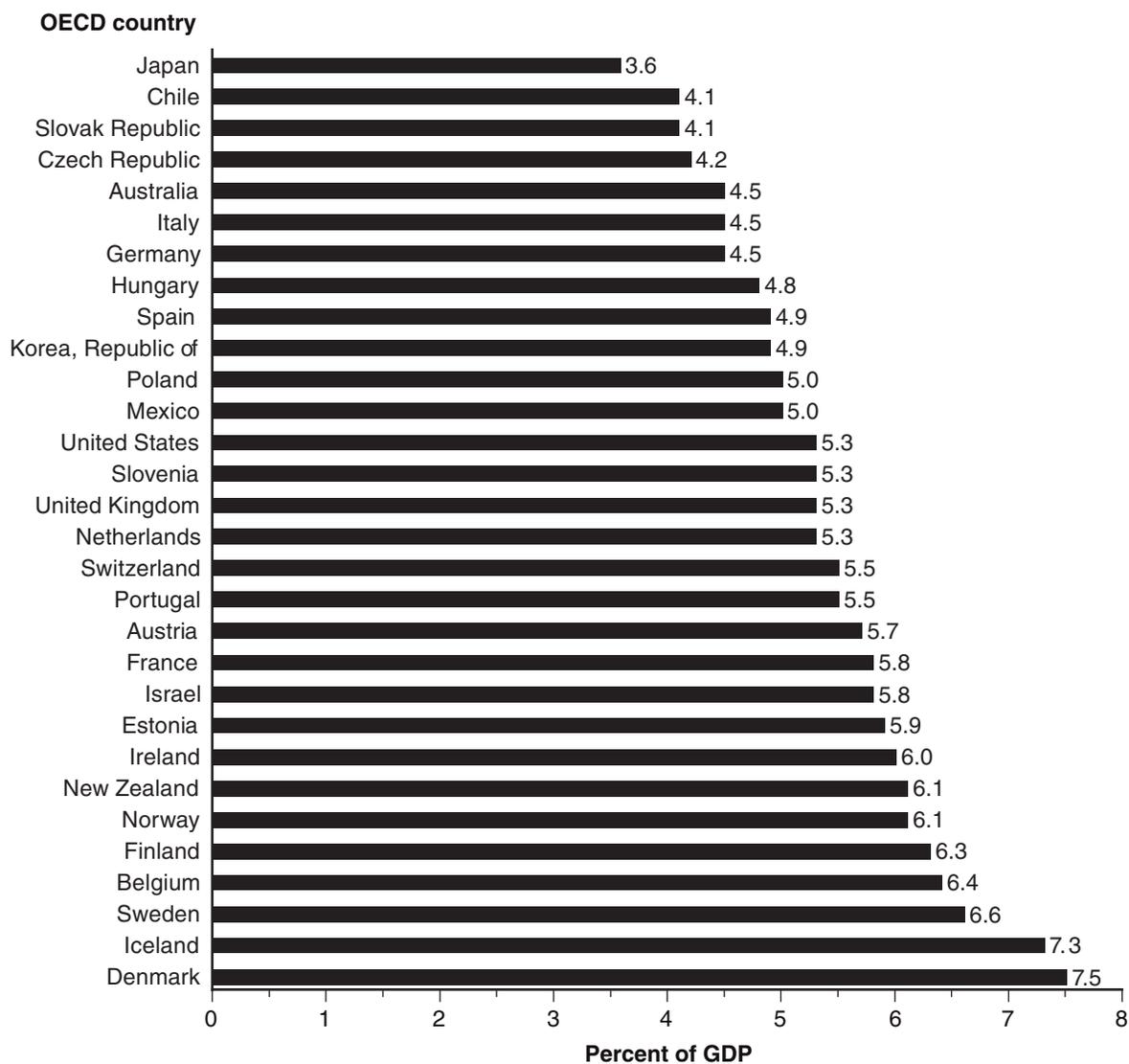
SOURCE: United Nations Educational, Scientific, and Cultural Organization (UNESCO), previously unpublished tabulations (August 2012).

Figure 28. Percentage of the population 25 to 34 years old with a bachelor's or higher level degree, by OECD country: 2010

NOTE: Refers to degrees classified as International Standard Classification of Education (ISCED) level 5A (first and second award) or level 6. ISCED 5A, first award, corresponds to the bachelor's degree in the United States; ISCED 5A, second award, corresponds to master's and first-professional degrees in the United States; and ISCED 6 corresponds to doctor's degrees.

SOURCE: Organization for Economic Cooperation and Development (OECD), *Education at a Glance*, 2012.

Figure 29. Public direct expenditures on education institutions as a percentage of gross domestic product (GDP), by OECD country: 2009



NOTE: Includes both amounts spent directly by governments to hire educational personnel and to procure other resources and amounts provided by governments to public or private institutions.
SOURCE: Organization for Economic Cooperation and Development (OECD), *Education at a Glance, 2012*.

Table 454. Population, school enrollment, and teachers, by major areas of the world and level of education: Selected years, 1980 through 2010
[In thousands]

Year and selected characteristic	Major areas of the world						
	World total ¹	Africa	Asia ^{1,2}	Europe ²	Central and South America ³	Northern America ³	Oceania
1	2	3	4	5	6	7	8
1980							
Population, all ages ⁴	4,450,924	478,551	2,644,076	695,225	358,609	251,929	22,534
Enrollment, all levels	856,283	74,792	493,891	134,690	87,156	60,541	5,213
First (elementary) level ⁵	524,493	59,154	333,944	49,038	56,814	22,893	2,649
Second level ⁶	282,253	14,187	146,975	68,700	25,543	24,695	2,153
Third level ⁷	49,537	1,450	12,972	16,952	4,799	12,954	411
Teachers, all levels	38,888	2,252	19,316	—	3,784	—	277
First (elementary) level ⁵	18,509	1,606	10,708	2,575	1,873	—	134
Second level ⁶	16,487	564	7,471	5,506	1,526	1,309	112
Third level ⁷	3,892	82	1,138	—	385	815	31
1990							
Population, all ages ⁴	5,287,167	630,148	3,189,546	722,638	440,889	277,533	26,412
Enrollment, all levels	975,281	104,938	561,819	132,629	108,556	61,543	5,797
First (elementary) level ⁵	576,977	76,465	361,578	46,580	65,116	24,629	2,609
Second level ⁶	331,212	25,764	177,809	67,339	36,195	21,534	2,571
Third level ⁷	67,092	2,709	22,432	18,709	7,245	15,379	617
Teachers, all levels	47,373	3,604	24,527	9,879	5,110	3,938	315
First (elementary) level ⁵	22,179	2,271	13,072	2,686	2,403	1,608	139
Second level ⁶	20,208	1,194	9,776	5,658	2,106	1,340	135
Third level ⁷	4,986	139	1,679	1,535	601	991	41
1995							
Population, all ages ⁴	5,699,516	712,904	3,451,230	730,000	480,905	296,092	28,385
Enrollment, all levels	1,086,248	125,297	630,691	137,197	120,132	65,901	7,030
First (elementary) level ⁵	619,120	90,412	386,981	44,849	67,627	26,243	3,008
Second level ⁶	387,756	30,632	215,228	71,103	44,333	23,595	2,864
Third level ⁷	79,373	4,254	28,482	21,245	8,172	16,063	1,158
Teachers, all levels	52,042	4,209	26,979	10,535	5,735	4,208	—
First (elementary) level ⁵	23,775	2,560	14,045	2,769	2,629	1,622	149
Second level ⁶	22,537	1,441	10,931	6,088	2,406	1,503	—
Third level ⁷	5,730	207	2,003	1,677	700	1,083	—
2000							
Population, all ages ⁴	6,089,811	803,587	3,693,908	730,598	517,908	313,388	30,421
Enrollment, all levels	1,205,402	152,280	704,364	137,707	136,545	66,967	7,538
First (elementary) level ⁵	654,779	108,350	404,087	41,730	70,046	27,435	3,130
Second level ⁶	450,724	37,566	259,201	70,407	55,070	25,117	3,363
Third level ⁷	99,899	6,364	41,076	25,571	11,428	14,416	1,044
Teachers, all levels	56,362	4,934	29,100	10,682	6,591	4,651	—
First (elementary) level ⁵	24,817	2,866	14,489	2,727	2,774	1,806	155
Second level ⁶	24,853	1,783	12,162	6,083	2,947	1,684	—
Third level ⁷	6,692	285	2,449	1,872	870	1,161	—
2005							
Population, all ages ⁴	6,473,525	908,043	3,919,743	732,981	552,066	328,033	32,659
Enrollment, all levels	1,333,658	191,890	783,341	135,125	143,447	72,388	7,468
First (elementary) level ⁵	685,284	135,526	412,500	38,468	68,868	26,780	3,141
Second level ⁶	509,862	48,023	308,411	64,853	58,505	27,039	3,032
Third level ⁷	138,512	8,341	62,430	31,804	16,073	18,569	1,294
Teachers, all levels	64,353	5,900	34,535	10,662	7,751	5,081	—
First (elementary) level ⁵	27,024	3,454	15,930	2,651	2,965	1,865	160
Second level ⁶	28,248	2,111	14,733	5,781	3,562	1,865	—
Third level ⁷	9,081	335	3,872	2,231	1,225	1,351	—
2010							
Population, all ages ⁴	6,863,771	1,024,360	4,138,778	738,421	584,050	343,222	34,940
Enrollment, all levels	1,412,489	228,693	824,858	127,212	148,515	75,134	8,078
First (elementary) level ⁵	691,318	157,354	400,724	36,681	66,708	26,536	3,314
Second level ⁶	543,487	60,967	334,672	57,485	60,360	26,813	3,191
Third level ⁷	177,684	10,372	89,462	33,047	21,447	21,784	1,573
Teachers, all levels	71,519	7,228	39,388	10,412	8,399	5,635	—
First (elementary) level ⁵	28,532	4,027	16,736	2,638	3,045	1,918	—
Second level ⁶	32,003	2,793	17,880	5,336	3,660	2,128	—
Third level ⁷	10,983	408	4,772	2,439	1,694	1,589	—

—Not available.

¹Enrollment and teacher data for Asia and the world total exclude Taiwan.

²Europe includes all countries of the former Union of Soviet Socialist Republics (U.S.S.R.) except Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan, which are included in Asia. Turkey, the Arab states, and Israel are also included in Asia.

³Central and South America includes Latin America and the Caribbean. Northern America includes Bermuda, Canada, and the United States of America; the population data for Northern America also include Greenland as well as St. Pierre and Miquelon.

⁴Estimate of midyear population.

⁵First-level enrollment generally consists of elementary school, grades 1–6.

⁶Second-level enrollment includes general education, teacher training (at the second level), and technical and vocational education. This level generally corresponds to secondary education in the United States, grades 7–12.

⁷Third-level enrollment includes college and university enrollment, and technical and vocational education beyond the secondary school level.

NOTE: Detail may not sum to totals because of rounding. Data include imputed values for nonrespondent countries. Enrollment and teacher data exclude several island countries or territories with small populations (less than 150,000). Some data have been revised from previously published figures.

SOURCE: United Nations Educational, Scientific, and Cultural Organization (UNESCO), unpublished tabulations; and U.S. Department of Commerce, Census Bureau, International Data Base, retrieved August 23, 2012, from <http://www.census.gov/ipc/www/idb/region.php>. (This table was prepared August 2012.)

Table 455. Selected population and enrollment statistics for countries with populations over 10 million in 2010, by continent and country: Selected years, 1990 through 2010

Continent and country ¹	Midyear population (in millions)			Persons per square kilometer, 2010	First level ²					Second level ³					Third level ⁴				
	1991	2000	2010		Enrollment (in thousands)		Gross enrollment ratio ⁵			Enrollment (in thousands)		Gross enrollment ratio ⁵			Enrollment (in thousands)		Gross enrollment ratio ⁵		
					1999–2000	2009–10	1990–91	1999–2000	2009–10	1999–2000	2009–10	1990–91	1999–2000	2009–10	1999–2000	2009–10	1990–91	1999–2000	2009–10
					6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
World total⁶	5,370	6,090	6,864	52	654,779	691,318	99	99	106	450,724	543,487	52	60	70	99,899	177,684	14	19	29
Africa																			
Algeria ⁷	26	31	36	15	4,843	3,312	100	108	110	—	—	61	—	—	—	1,144	11	—	31
Angola	10	13	17	14	—	4,273	92	—	124	355	850	12	15	31	—	66	1	—	4
Burkina Faso	9	12	16	59	852	2,048	33	42	76	190	538	7	10	21	11 ⁸	51	1	1 ⁸	3
Cameroon	12	15	19	41	2,237 ⁹	3,510	101	87 ⁹	120	700	1,283 ⁸	28	28	42 ⁸	66 ⁸	220	3	4 ⁸	11
Chad	6	8	11	8	914	1,727	54	68	93	137	430	8 ¹⁰	11	25	6	22 ⁸	1 ^{11,12}	1	2 ⁸
Cote d'Ivoire	13	17	21	66	1,944	—	67	74	—	620 ⁸	—	22	24 ⁸	—	104 ⁸	—	—	7 ⁸	—
Democratic Rep. of the Congo	41	52	70	31	—	10,572	70	—	94	—	3,484	21 ¹³	—	38	—	—	2	—	—
Egypt ⁷	56	65	80	81	7,947 ⁸	10,004	94	98 ⁸	101	8,028 ⁸	6,846	76	83 ⁸	72	—	2,646	16 ^{14,15}	—	32
Ethiopia	49	64	86	86	5,847	13,635	33	55	102	1,195	4,207	14	14	36	68	435	1	1	5
Ghana ⁷	16	19	24	104	2,561	—	75	85	—	1,057	—	36	41	—	—	—	1 ¹¹	—	—
Guinea	7	8	10	42	790	1,453	37	60	94	—	—	10	—	—	—	—	1	—	—
Kenya ⁷	24	31	41	72	5,035	—	95	95	—	1,909	—	24 ¹⁰	39	—	89	—	2 ¹¹	3	—
Madagascar	12	16	21	36	2,208	4,242	103	103	149	—	—	18 ¹⁰	—	—	32	74	3	2	4
Malawi	10	12	15	164	2,695	3,417	68	139	135	487	692	8	32	32	4	10	1	#	1
Mali	9	11	15	12	1,017	2,019	26	55	80	258 ⁸	758	7	17 ⁸	38	20	81	1	2	6
Morocco ⁷	24	28	32	71	3,670	3,945	67	92	111	1,541	—	35	38	—	276	—	11	9	—
Mozambique ⁷	13	18	22	29	2,544	5,278	67	75	115	124	672	8	6	25	12	—	# ¹²	1	—
Niger	8	11	15	12	579	1,726	29	33	66	106 ⁸	303	7	7 ⁸	13	—	17	1	—	1
Nigeria ⁷	99	124	162	177	19,151	20,682	91	98	83	4,104	9,057	25	24	44	—	—	4 ^{11,16}	—	—
Rwanda	7	8	11	448	1,432	2,299	70	104	143	130	426	8	11	32	9	63	# ¹⁷	1	5
Senegal	8	9	12	64	1,108	1,695	59	71	87	250	725	16	16	37	—	92 ¹⁸	3	—	8 ¹⁸
South Africa	39	45	49	40	7,445	—	122	106	—	4,142	—	74	85	—	—	—	13 ¹⁹	—	—
Sudan ⁷	22	27	33	18	2,567	—	53	48	—	980	—	24	25	—	204 ⁸	—	3 ¹¹	6 ⁸	—
Tunisia	8	10	11	68	1,414	—	113	115	—	1,104 ⁸	—	45	76 ⁸	—	180	—	9	19	—
Uganda	17	23	32	160	6,559	8,375	74 ^{20,21}	131	121	547	1,306 ⁸	13 ^{10,21}	16	28 ⁸	56	—	1	3	—
United Republic of Tanzania	26	33	44	50	4,382	8,419	70	68	102	—	—	5	—	—	—	85	# ¹³	—	2
Zambia	8	10	13	18	1,590	2,899	99	84	115	—	—	24	—	—	25 ⁸	—	2	2 ⁸	—
Zimbabwe	10	12	12	30	—	—	116	—	—	—	—	50	—	—	95	5	—	6	—
Asia																			
Afghanistan ⁷	14	22	29	45	749	5,279	27	19	97	—	2,044	9	—	46	—	—	2	—	—
Bangladesh	114	132	156	1,199	—	16,987	72	—	—	10,329	11,395	19	48	51	727	—	4	6	—
Cambodia	10	12	14	82	2,248	2,273	121	106	127	351	949 ⁸	32	17	46 ⁸	22	—	1	3	—
China	1,164	1,264	1,330	139	—	101,019	125	—	111	81,488	99,218	49	62	81	7,364	31,047	3	8	26
India	854	1,006	1,173	395	113,613	—	97	94	—	71,031	107,687	44 ¹⁰	45	63	9,404	20,741	6	9	18
Indonesia	185	214	243	134	28,202 ⁸	30,342	115	106 ⁸	118	14,264 ⁸	19,976	44	53 ⁸	77	3,126	5,001	9 ¹³	15	23
Iran, Islamic Republic of..	60	69	77	50	8,288	5,974	112	101	114	9,955	8,120	55	80	91	1,405	3,791	10 ¹⁴	19	43
Iraq	17	23	30	68	3,639	—	111	95	—	1,224	—	47 ¹⁰	38	—	289	—	12 ¹⁷	12	—
Japan	124	127	128	350	7,529	7,099	100	101	103	8,782	7,296	97	102	102	3,982	3,836	30 ¹³	49	60
Kazakhstan	17	16	17	6	1,208	958	87	96	111	2,003	1,714	98	94	97	—	610	40	28	38
Korea, North (DPR)	21	23	24	202	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Korea, South (Republic of)	43	47	49	502	4,030	3,306	105	102	106	3,959	3,951	90	99	97	3,003	3,270	39	79	103

See notes at end of table.

Table 455. Selected population and enrollment statistics for countries with populations over 10 million in 2010, by continent and country: Selected years, 1990 through 2010—Continued

Continent and country ¹	Midyear population (in millions)			Persons per square kilo- meter, 2010	First level ²					Second level ³					Third level ⁴				
	1991	2000	2010		Enrollment (in thousands)		Gross enrollment ratio ⁵			Enrollment (in thousands)		Gross enrollment ratio ⁵			Enrollment (in thousands)		Gross enrollment ratio ⁵		
					1999–2000	2009–10	1990–91	1999–2000	2009–10	1999–2000	2009–10	1990–91	1999–2000	2009–10	1999–2000	2009–10	1990–91	1999–2000	2009–10
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Malaysia.....	18	23	28	86	3,026	—	94	98	—	2,205	—	56	66	—	549	—	7	26	—
Myanmar.....	41	47	53	82	4,858	5,126	106	105	126	2,268	2,852	23	40	54	—	—	4 ¹³	—	—
Nepal ⁷	19	25	29	202	3,780 ⁹	4,901	108	118 ⁹	—	1,348	—	33	35	—	94	377	5	4	—
Pakistan.....	122	152	184	239	13,987 ¹⁸	18,756	61 ²²	70 ¹⁸	95	—	9,685	23	—	34	—	—	3	—	—
Philippines.....	67	81	100	335	12,708	—	111	110	—	—	—	73	—	—	—	—	28	—	—
Saudi Arabia.....	16	21	26	12	—	3,321	73	—	106	—	3,036	44	—	101	404	904	12	23	37
Sri Lanka ⁷	17	19	21	326	—	1,721	106	—	99	—	—	74	—	—	253	—	5 ^{13,23}	—	15
Syrian Arab Republic.....	13	16	22	121	2,775	2,429	108	109	118	1,069	2,732	52	45	72	—	—	18	—	—
Taiwan.....	20	22	23	717	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Thailand.....	56	62	66	130	6,101	—	99	97	—	—	4,807	30	—	77	1,900	2,427	19 ¹²	35	46
Turkey.....	58	67	78	101	6,562	—	99	101	—	5,658	—	47	71	—	1,588 ⁸	—	13	25 ⁸	—
Uzbekistan.....	21	25	28	66	2,602	1,971	81	99	94	3,566	4,449	99	88	105	305	—	30	13	—
Vietnam.....	69	79	90	289	10,063	6,923	103	108	106	7,926	8,800	32	64	77	732	2,020	2	10	22
Yemen.....	13	17	23	45	2,464 ⁸	3,427	79 ¹⁶	75 ⁸	87	1,151 ⁸	1,562 ⁸	23 ¹⁶	43 ⁸	44 ⁸	173 ⁸	—	4 ¹³	10 ⁸	—
Europe																			
Belgium.....	10	10	10	344	774	—	101	109	—	1,058	—	103	145	—	356	—	40	57	—
Czech Republic.....	10	10	10	132	645	—	96	103	—	958	—	91	87	—	254	—	16 ²⁴	29	—
France.....	59	61	65	101	3,885	4,159	108	105	110	5,929	5,873	99	108	113	2,015	—	40	54	—
Germany ²⁵	80	82	82	234	3,656	3,068	101	105	102	8,307	7,664	98	98	103	—	—	34	—	—
Greece.....	10	11	11	82	645	—	98	96	—	739	—	93	89	—	422	—	36	51	—
Italy ⁷	57	58	61	207	2,836	2,822	103	103	102	4,404	4,626	83	93	100	1,770	—	32	49	—
Netherlands ⁷	15	16	17	489	1,279	1,294	102	109	108	1,379	1,475	120	123	121	488	—	40	53	—
Poland ⁷	38	39	38	126	3,319	—	98	99	—	3,988	—	81	101	—	1,580	—	22	51	—
Portugal.....	10	10	11	117	811	—	123	122	—	831	—	67	105	—	374	—	23	47	—
Romania ⁷	23	22	22	96	1,189	842	91	97	96	2,226	1,822	92	82	97	453	1,000	10	24	59
Russian Federation.....	148	147	143	9	6,138	—	109	103	—	—	—	93	—	—	6,331	—	52	55	—
Spain ⁷	39	41	47	93	2,540	2,721	109	106	106	3,246	3,185	104	111	125	1,829	—	37	59	—
Ukraine ⁷	52	49	45	78	2,079	1,540	89	108	99	5,204	3,133	93	99	96	1,812	2,635	47	49	79
United Kingdom ⁷	58	59	62	258	4,632	—	104	101	—	5,315	—	85	102	—	2,024	—	30	58	—
North America																			
Canada.....	28	31	34	4	2,456	—	103	100	—	2,519	—	101	102	—	1,212	—	95	59	—
Cuba.....	11	11	11	101	1,046	853	98	101	103	790	809	89	83	89	159	801	21	22	95
Guatemala.....	9	11	14	127	1,909	2,660	78	104	116	504	983	23 ¹³	38	59	—	—	8 ¹²	—	—
Mexico.....	86	100	112	58	14,766	14,906	114	110	114	9,094	11,682	53	73	89	1,963	2,847	15	20	28
United States.....	253	282	309	34	24,973	24,393	102	102	102	22,594	24,193	93	93	96	13,203	20,428	75	69	95
South America																			
Argentina.....	34	37	41	15	4,728	—	106	114	—	3,428	—	71	87	—	1,767 ⁸	—	38 ¹³	53 ⁸	—
Brazil.....	152	174	196	23	20,212	16,893	106	151	—	26,097	23,539	38	104	—	2,781	6,553	11 ²⁶	16	—
Chile.....	13	15	17	23	1,799	—	100	100	—	1,391	—	73	83	—	452	—	21 ¹³	37	—
Colombia.....	34	39	44	43	5,221	5,085	102	119	115	3,569	5,080	50 ¹³	72	96	934	1,674	13	24	39

See notes at end of table.

Table 455. Selected population and enrollment statistics for countries with populations over 10 million in 2010, by continent and country: Selected years, 1990 through 2010—Continued

Continent and country ¹	Midyear population (in millions)			Persons per square kilometer, 2010	First level ²					Second level ³					Third level ⁴				
	1991	2000	2010		Enrollment (in thousands)		Gross enrollment ratio ⁵			Enrollment (in thousands)		Gross enrollment ratio ⁵			Enrollment (in thousands)		Gross enrollment ratio ⁵		
					1999–2000	2009–10	1990–91	1999–2000	2009–10	1999–2000	2009–10	1990–91	1999–2000	2009–10	1999–2000	2009–10	1990–91	1999–2000	2009–10
1	2	3	4	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
Ecuador	10	12	15	53	1,925	—	116	116	—	917	—	55 ²⁷	57	—	—	—	20	—	—
Peru	22	26	29	23	4,338	3,763	118	123	108	2,374	2,651	67	86	91	—	1,207	30	—	43
Venezuela	20	23	27	31	3,328	3,458	96	101	103	1,543	2,255	35	60	83	668	—	29	28	—
Oceania																			
Australia ⁷	17	19	22	3	1,906	2,015	108	101	105	2,589	2,282	82	162	131	845	1,276	35 ²⁸	65	80

—Not available.

#Rounds to zero.

¹Selection based on total population for midyear 2010.²First-level enrollment consists of elementary school, typically corresponding to grades 1–6 in the United States.³Second-level enrollment includes general education, teacher training (at the second level), and technical and vocational education. This level generally corresponds to secondary education in the United States, grades 7–12.⁴Third-level enrollment includes college and university enrollment and technical and vocational education beyond the secondary school level.⁵Data represent the total enrollment of all ages in the school level divided by the population of the specific age groups that correspond to the school level. Adjustments have been made for the varying lengths of first- and second-level programs. Ratios may exceed 100 because some countries have many students from outside the normal age range.⁶Enrollment totals and ratios exclude Democratic People's Republic of Korea.⁷Classification or data coverage of levels has been revised. Data by level may not be comparable over time.⁸Estimated by the UNESCO Institute for Statistics.⁹Policy change in 1999–2000: introduction of free universal primary education.¹⁰General education enrollment only. Excludes teacher training and vocational education enrollments.¹¹Excludes nonuniversity institutions (such as teacher training colleges and technical colleges) and excludes distance-learning universities.¹²Data for 1992–93.¹³Data for 1991–92.¹⁴Excludes private institutions.¹⁵Data refer to universities and exclude Al Azhar.¹⁶Data for 1993–94.¹⁷Data for 1985–86.¹⁸National estimation.¹⁹Not including the former Independent States of Transkei, Bophuthatswana, Venda, and Ciskei.²⁰Estimated.²¹Data refer to government aided and maintained schools only.²²Includes preprimary education.²³Excludes some nonuniversity institutions.²⁴Includes full-time students only.²⁵Data include both former East and West Germany.²⁶Excludes enrollments in programs formerly classified as doctoral.²⁷Including vocational education.²⁸Data do not include Vocational Education and Training Institutes (VETs).

NOTE: Data do not include adult education or special education provided outside regular schools. Some data have been revised from previously published figures.

SOURCE: United Nations Educational, Scientific, and Cultural Organization (UNESCO), *Statistical Yearbook, 1999*, unpublished tabulations; and tables 3B, 5, and 14, retrieved September 10, 2012, from <http://stats.uis.unesco.org/unesco/ReportFolders/ReportFolders.aspx>; U.S. Department of Commerce, Census Bureau, International Data Base, retrieved August 24, 2012, from <http://www.census.gov/ipc/www/idb/region.php>. (This table was prepared September 2012.)

Table 456. School-age populations as a percentage of total population, by age group and country: Selected years, 1985 through 2009

Country	5- to 14-year-olds as a percent of total population												15- to 19-year-olds as a percent of total population												
	1985 ¹	1990 ¹	1995 ¹	1999	2002	2003	2004	2005	2006	2007	2008	2009	1985 ²	1990 ²	1995 ²	1999	2002	2003	2004	2005	2006	2007	2008	2009	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	
OECD average³	—	—	12	13	13	13	13	13	12	12	12	12	—	—	6	7	7	7	7	7	7	7	7	7	7
Australia.....	14	13	13	14	14	14	14	13	13	13	13	13	7	6	6	7	7	7	7	7	7	7	7	7	7
Austria.....	—	—	—	—	12	12	11	11	11	11	11	10	—	—	—	6	6	6	6	6	6	6	6	6	6
Belgium.....	11	11	11	12	12	12	12	12	12	11	11	11	6	5	5	6	6	6	6	6	6	6	6	6	6
Canada.....	13	12	12	14	—	13	13	13	12	12	12	12	6	5	5	7	—	7	7	7	7	7	7	7	7
Chile.....	—	—	—	—	19	18	18	18	17	16	15	15	—	—	—	—	9	9	9	9	9	9	9	9	9
Czech Republic.....	(⁴)	(⁴)	12	12	12	11	11	10	10	10	9	9	(⁴)	(⁴)	6	7	7	7	7	6	6	6	6	6	6
Denmark.....	12	10	10	12	12	13	13	13	13	13	13	12	6	6	5	5	5	5	5	6	6	6	6	6	6
Estonia.....	(⁴)	(⁴)	—	—	—	—	—	11	10	10	10	9	(⁴)	(⁴)	—	—	—	—	8	8	8	8	7	7	7
Finland.....	11	12	11	13	12	12	12	12	12	12	11	11	6	5	5	6	6	6	6	6	6	6	6	6	6
France.....	13	12	12	13	12	12	12	12	12	12	12	12	6	6	5	7	7	6	6	7	6	6	6	6	6
Germany ⁵	9	9	10	11	11	10	10	10	10	10	10	9	6	4	4	6	6	6	6	6	6	6	6	6	5
Greece.....	—	—	11	11	10	10	10	10	10	10	9	9	—	5	6	7	6	6	6	6	5	5	5	5	5
Hungary.....	—	—	—	—	12	11	11	11	11	10	10	10	—	—	—	—	6	6	6	6	6	6	6	6	6
Iceland.....	16	15	14	16	16	16	15	15	15	14	14	14	7	7	6	8	7	7	7	7	7	7	8	7	7
Ireland.....	18	18	15	15	14	14	14	14	13	13	13	13	8	8	8	9	8	8	8	7	7	7	6	6	6
Israel.....	—	—	—	—	18	18	18	18	18	18	18	18	—	—	—	—	9	9	8	8	8	8	8	8	8
Italy.....	13	10	9	10	10	10	10	9	9	9	9	9	6	6	5	5	5	5	5	5	5	5	5	5	5
Japan.....	14	12	10	10	10	10	9	9	9	9	9	9	6	7	5	6	6	6	5	5	5	5	5	5	5
Korea, Republic of.....	—	—	14	14	14	14	14	14	14	13	13	12	—	—	7	8	7	7	6	7	7	7	7	7	7
Luxembourg.....	10	10	11	12	13	13	13	13	13	12	12	12	5	4	4	6	6	6	6	6	6	6	6	6	6
Mexico.....	—	—	—	—	22	22	22	21	21	21	21	20	—	—	—	—	10	10	10	10	10	10	10	10	10
Netherlands.....	12	11	11	12	12	12	12	12	12	12	12	12	7	5	5	6	6	6	6	6	6	6	6	6	6
New Zealand.....	15	13	13	15	15	15	15	15	14	14	14	14	7	7	6	7	7	7	7	7	8	8	8	8	7
Norway.....	13	11	11	13	13	14	14	13	13	13	13	13	6	6	5	6	6	6	6	6	6	6	7	7	7
Poland.....	—	—	—	—	13	13	12	12	12	11	11	10	—	—	—	—	9	8	8	8	8	7	7	7	7
Portugal.....	—	—	—	—	10	11	10	10	10	10	10	10	—	—	—	—	6	6	6	6	6	6	5	5	5
Slovak Republic.....	(⁴)	(⁴)	—	—	13	13	13	12	12	11	11	10	(⁴)	(⁴)	—	—	8	8	8	8	8	7	7	7	7
Slovenia.....	(⁴)	(⁴)	—	—	—	—	—	10	10	9	9	9	(⁴)	(⁴)	—	—	—	—	—	6	6	6	6	5	5
Spain.....	15	13	10	10	10	10	10	9	9	9	9	9	7	7	6	7	6	6	6	5	5	5	5	5	5
Sweden.....	11	10	11	13	13	13	13	12	12	11	11	11	5	5	5	6	6	6	6	6	7	7	7	7	7
Switzerland.....	11	10	10	12	12	12	11	11	11	11	11	10	6	5	5	6	6	6	6	6	6	6	6	6	6
Turkey.....	21	21	20	21	—	19	19	19	19	19	19	18	9	9	9	11	—	9	9	9	9	9	9	9	9
United Kingdom.....	11	11	12	13	13	13	13	12	12	12	12	11	6	5	5	6	6	6	7	7	7	7	7	7	6
United States.....	13	13	13	15	15	14	14	14	14	13	13	13	6	5	6	7	7	7	7	7	7	7	7	7	7
Other reporting countries																									
Brazil.....	—	—	—	—	20	21	20	19	19	18	18	17	—	—	—	—	11	11	10	10	10	9	9	9	9
Russian Federation.....	(⁴)	(⁴)	14	14	12	12	11	10	10	10	9	9	(⁴)	(⁴)	—	—	8	9	9	9	8	8	7	7	7

—Not available.

¹Data are for the 5- to 13-year-old population.²Data are for the 14- to 17-year-old population.³Refers to the mean of the data values for all reporting OECD countries, to which each country reporting data contributes equally. The average includes all current OECD countries for which a given year's data are available, even if they were not members of OECD in that year. However, if data were reported for less than 75 percent of the countries that were members of OECD in a given year, the average for that year is omitted.⁴Country did not exist in its current form in the given year.⁵Data for 1985 are for the former West Germany.SOURCE: Organization for Economic Cooperation and Development (OECD), *Education at a Glance*, selected years, 1987 through 2001; and Online Education Database, retrieved April 23, 2012, from <http://stats.oecd.org/Index.aspx>. (This table was prepared April 2012.)

Table 457. Percentage of population enrolled in secondary and postsecondary education, by age group and country: Selected years, 1985 through 2009

Country	Secondary education, 2009								Postsecondary education (total tertiary education)														
	16 years old	17 years old	18 to 21 years old					22 years old and older	18 to 21 years old					22 to 25 years old					26 to 29 years old				
			Total	18 years old	19 years old	20 years old	21 years old		1985	1990	2005	2008	2009	1985	1990	2005	2008	2009	1985	1990	2005	2008	2009
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
OECD average¹	93	85	26	53	25	13	9	2	—	—	28	29	30	—	—	23	24	24	—	—	10	10	10
Australia.....	92	76	22	35	21	17	14	3	—	—	34	35	36	—	—	21	22	23	—	—	10	10	11
Austria.....	91	76	19	46	19	8	4	#	—	—	16	18	19	—	—	20	23	24	—	—	9	12	13
Belgium.....	100	99	—	47	23	13	—	—	25	—	43	42	44	7	—	19	20	21	2	—	6	6	6
Canada.....	93	78	—	28	11	6	—	—	—	—	34	36	—	—	—	—	23	20	—	—	—	8	8
Chile.....	87	84	12	31	11	4	2	#	—	—	—	31	34	—	—	—	22	24	—	—	—	9	10
Czech Republic.....	100	95	32	83	37	7	3	#	(²)	(²)	23	25	25	(²)	(²)	21	25	26	(²)	(²)	6	7	7
Denmark.....	92	85	47	80	55	31	21	2	7	7	10	12	12	16	18	34	34	33	8	9	20	19	19
Estonia.....	96	91	26	76	19	8	4	#	(²)	(²)	32	31	31	(²)	(²)	22	23	24	(²)	(²)	12	10	10
Finland.....	95	94	40	93	33	17	16	4	9	14	24	23	23	17	21	40	39	37	8	10	20	21	19
France.....	93	87	20	47	22	9	4	#	19	25	36	36	36	10	12	20	19	19	4	4	5	5	5
Germany ³	95	89	41	78	46	25	16	#	9	9	13	14	16	—	16	23	23	24	9	10	13	12	12
Greece.....	93	84	13	19	10	6	16	#	—	—	65	51	—	—	—	18	29	—	—	—	8	11	—
Hungary.....	97	95	28	67	28	12	6	1	—	—	29	31	29	—	—	23	24	24	—	—	9	8	8
Iceland.....	94	85	51	75	69	36	23	3	—	—	12	11	11	—	—	28	26	26	—	—	16	15	16
Ireland.....	102	84	11	37	3	1	2	#	—	21	38	39	43	—	—	13	12	10	—	—	5	6	—
Israel.....	92	88	#	17	2	1	#	#	—	—	12	12	13	—	—	25	25	26	—	—	15	17	18
Italy.....	92	86	26	74	21	6	3	#	—	—	29	28	27	—	—	23	25	25	—	—	8	8	8
Japan.....	96	94	#	3	1	—	—	#	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Korea, Republic of.....	96	93	#	7	1	#	#	#	—	—	65	70	70	—	—	32	34	36	—	—	6	7	8
Luxembourg.....	85	83	38	69	44	24	14	#	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mexico.....	60	46	12	19	26	3	1	2	—	—	16	18	19	—	—	9	10	10	—	—	3	3	3
Netherlands.....	98	88	37	61	42	27	16	1	14	18	29	32	32	12	13	24	26	26	6	5	7	8	8
New Zealand.....	94	78	15	29	14	10	8	3	—	21	34	35	36	—	15	23	21	23	—	—	11	11	12
Norway.....	95	92	39	87	38	18	9	1	9	14	19	19	19	14	17	30	29	28	6	8	14	13	13
Poland.....	97	95	36	91	38	12	6	#	—	—	31	34	34	—	—	30	31	32	—	—	6	6	6
Portugal.....	97	87	25	48	28	16	10	4	6	—	27	29	31	5	—	21	19	18	2	—	8	8	7
Slovak Republic.....	94	90	31	80	36	7	2	#	(²)	(²)	22	25	26	(²)	(²)	16	21	23	(²)	(²)	5	7	7
Slovenia.....	99	94	32	84	25	26	—	1	(²)	(²)	37	41	42	(²)	(²)	35	38	39	(²)	(²)	11	11	11
Spain.....	96	82	20	40	22	13	8	1	15	21	34	34	35	11	14	22	21	22	4	5	9	8	9
Sweden.....	100	98	38	93	27	15	12	2	8	9	17	16	16	11	11	32	28	28	7	6	16	14	15
Switzerland.....	91	87	—	78	49	22	—	—	6	6	12	13	14	11	12	20	22	22	5	6	10	11	11
Turkey.....	60	50	6	26	—	—	—	—	—	7	20	25	29	—	4	11	14	17	—	2	4	5	6
United Kingdom.....	93	76	12	27	10	6	4	1	15	16	28	29	30	7	11	13	12	13	—	—	7	7	7
United States.....	93	85	7	23	5	#	#	#	37	41	45	47	47	15	17	23	24	26	8	9	11	11	12
Other reporting countries																							
Brazil.....	86	83	30	55	31	19	14	3	—	—	10	14	13	—	—	9	12	13	—	—	5	7	7
Russian Federation.....	72	40	#	14	5	2	2	#	(²)	(²)	41	44	—	(²)	(²)	26	27	—	(²)	(²)	—	#	—

—Not available.

#Rounds to zero.

¹Refers to the mean of the data values for all reporting OECD countries, to which each country reporting data contributes equally. The average includes all current OECD countries for which a given year's data are available, even if they were not members of OECD in that year. However, if data were reported for less than 75 percent of the countries that were members of OECD in a given year, the average for that year is omitted.

²Country did not exist in its current form in the given year.

³Data for 1985 are for the former West Germany.

NOTE: Data refer to programs classified by the Organization for Economic Cooperation and Development (OECD) as International Standard Classification of Education (ISCED) level 3, level 5A (first and second award), level 5B, and level 6. ISCED

level 3 corresponds to secondary education in the United States. ISCED levels 5A (first and second award), 5B, and 6 together make up total tertiary education, which corresponds to 2-year and 4-year college undergraduate and graduate programs in the United States. Includes both full-time and part-time students. Some increases in enrollment rates may be due to more complete reporting by countries. Enrollment figures may not be directly comparable due to differing definitions of postsecondary (tertiary) education and the age at which it begins. Differences in reference dates between enrollment and population data can result in enrollment rates that exceed 100 percent. Postsecondary data for Luxembourg are not shown because tertiary students study for only 1 year in Luxembourg.

SOURCE: Organization for Economic Cooperation and Development (OECD), *Education at a Glance*, selected years, 1987 through 2001; and Online Education Database, retrieved April 17, 2012, from <http://stats.oecd.org/Index.aspx>. (This table was prepared April 2012.)

Table 458. Pupil/teacher ratios in public and private elementary and secondary schools, by level of education and country: Selected years, 2000 through 2010

Country	Elementary							Junior high school (lower secondary)							Senior high school (upper secondary)						
	2000	2005	2006	2007	2008	2009	2010	2000	2005	2006	2007	2008	2009	2010	2000	2005	2006	2007	2008	2009	2010
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
OECD average¹	17.7	17.0	16.4	16.2	16.2	16.0	15.9	—	14.0	13.6	13.4	13.5	13.5	13.5	13.7	13.5	13.1	13.1	13.1	13.4	13.6
Australia.....	17.3	16.2	16.0	15.9	15.8	15.8	15.7	—	—	—	—	—	—	—	—	12.1 ^{2,3}	12.2 ^{2,3}	12.1 ^{2,3}	12.0 ^{2,3}	12.0 ^{2,3}	12.0 ^{2,3}
Austria.....	—	14.1	13.9	13.6	12.9	12.6	12.2	—	10.6	10.4	10.3	9.9	9.6	9.3	—	11.3	11.3	11.0	10.5	10.2	10.1
Belgium.....	15.0 ⁴	12.8	12.6	12.6 ⁵	12.6 ⁵	12.5 ⁵	12.4 ⁵	—	9.4	9.4	9.2 ⁵	8.1 ⁵	8.1 ⁵	8.1 ⁵	9.7 ^{3,6}	9.9 ⁶	10.2 ⁶	10.2 ^{5,6}	10.8 ^{5,6}	10.2 ^{5,6}	10.1 ^{5,6}
Canada.....	18.1	—	—	—	—	—	—	18.1	—	—	—	16.6 ^{4,7}	17.7 ^{4,7}	—	19.5	—	—	16.4 ^{3,4,7,8}	14.7	15.8	—
Chile.....	—	25.9	25.5	24.7	24.1	22.4	24.6	—	25.9	25.5	24.7	24.1	22.4	25.1	—	26.6	26.3	25.7	25.2	24.7	26.1
Czech Republic.....	19.7	17.5	17.3	18.7	18.1	18.4	18.7	14.7	13.5	12.3	12.3	11.8	11.5	11.2	11.5	12.8	11.9	12.3	12.2	12.2	12.1
Denmark.....	10.4	—	—	—	—	—	—	11.4	11.9 ⁷	11.4 ⁷	11.2 ⁷	10.1 ⁷	9.9 ⁷	11.5 ⁷	14.4	—	—	—	—	—	—
Estonia.....	—	—	14.1	14.4	16.4	16.2	16.2	—	—	—	—	12.3	11.4	16.0	15.7	14.9	—	13.3	12.2 ⁶	12.4 ⁶	16.8 ⁶
Finland.....	16.9	15.9	15.0	15.0	14.4	13.6	14.0	10.7	10.0	9.7	9.9	10.6	10.1	9.8	17.0 ^{6,9}	18.0 ^{6,9}	15.8 ^{6,9}	15.9 ⁶	15.9 ⁶	16.6 ⁶	17.1 ⁶
France.....	19.8	19.4	19.3 ⁵	19.7 ⁵	19.9 ⁵	19.7 ⁵	18.7 ⁵	14.7	14.2	14.1 ⁵	14.3 ⁵	14.6 ⁵	14.9 ⁵	15.0 ⁵	10.4	10.3	9.7 ⁵	9.6 ⁵	9.4 ⁵	9.6 ⁵	9.7 ⁵
Germany.....	19.8	18.8	18.7	18.3	18.0	17.4	16.7	15.7	15.5	15.5	15.2	15.0	15.1	14.9	13.9	14.0	14.3	14.3	14.0	13.9	13.2
Greece.....	13.4	11.1	10.6	10.1	10.1 ¹⁰	—	—	10.8	7.9	8.0	7.7	7.7 ¹⁰	—	—	10.5	8.8	8.3	7.3	7.3 ¹⁰	—	—
Hungary.....	10.9	10.6	10.4	10.2	10.6	10.7	10.8	10.9	10.4	10.2	10.2	10.9	10.8	10.7	11.4 ⁶	12.2	12.3	12.1	12.3	12.8	12.5
Iceland.....	—	—	—	—	—	—	—	12.7 ⁷	11.3 ⁷	10.6 ⁷	10.4 ⁷	10.0 ⁷	9.9 ⁷	10.3 ⁷	9.7	10.8 ⁶	10.8 ⁶	10.2 ⁶	10.6 ⁶	10.9 ⁶	11.3
Ireland.....	21.5	17.9	19.4	17.9	17.8	15.9	15.9	—	—	—	—	—	—	—	15.9 ^{3,6}	15.5 ^{3,6}	14.6 ^{3,6}	13.2 ^{3,6,8}	12.8 ^{3,6,8}	12.6 ^{3,6,8}	14.4 ^{3,6,8}
Israel.....	—	17.3	17.2	16.4	16.3	17.0	20.6 ⁸	—	13.4	14.1	12.4	12.2	13.7	12.8 ⁸	—	13.4	13.2	11.8	10.9	10.8	11.0 ⁸
Italy.....	11.0	10.6	10.7	10.5	10.6 ⁸	10.7 ⁸	11.3 ⁸	10.4	10.1	10.3	9.4	9.7 ⁸	10.0 ⁸	11.9 ⁸	10.2	11.0	11.0	10.8	11.8 ⁸	11.8 ⁸	12.1 ⁸
Japan.....	20.9	19.4	19.2	19.0	18.8	18.6	18.4	16.8	15.1	14.9	14.8	14.7	14.5	14.4	14.0	13.0 ⁶	12.7 ⁶	12.5 ⁶	12.3 ⁶	12.2 ⁶	12.2 ⁶
Korea, Republic of..	32.1	28.0	26.7	25.6	24.1	22.5	21.1	21.5	20.8	20.8	20.5	20.2	19.9	19.7	20.9	16.0	15.9	16.2	16.5	16.7	16.5
Luxembourg.....	15.9 ⁸	—	11.3 ⁸	11.2 ⁸	12.1 ⁸	11.6	10.1	—	—	—	—	—	—	—	9.2 ^{3,8}	9.0 ^{3,8}	9.0 ^{3,6,8}	9.0 ^{3,8}	9.1 ^{3,8}	9.1 ³	9.1 ³
Mexico.....	27.2	28.3	28.0	28.0	28.0	28.1	28.1	34.8	33.7	33.4	33.3	33.9	33.0	32.7	26.5	25.8	25.4	25.7	25.8	25.6	26.9
Netherlands.....	16.8 ⁴	15.9 ⁴	15.3 ⁴	15.6 ⁴	15.8 ^{4,8}	15.8 ^{4,8}	15.7 ^{4,8}	—	—	—	—	—	—	—	17.1 ³	16.2 ³	15.8 ^{3,6}	15.7 ^{3,6}	15.8 ^{3,6,8}	16.1 ^{3,6,8}	16.5 ^{3,6,8}
New Zealand.....	20.6	18.1	17.7	17.5	17.1	16.3	16.2	19.9	16.8	16.6	16.2	16.2	16.3	16.3	13.1	12.9	12.7	13.3	12.8	12.8	14.4
Norway.....	12.4	—	10.9 ⁸	11.0 ⁸	10.8 ⁸	10.7 ⁸	10.5 ⁸	9.9	—	10.2 ⁸	10.2 ⁸	10.1 ⁸	9.9 ⁸	9.9 ⁸	9.7	—	9.7 ^{6,8}	9.8 ^{6,8}	9.9 ^{6,8}	9.4 ^{6,8}	9.4 ⁸
Poland.....	12.7	11.7	11.5	11.0	10.5	10.2	10.0	11.5	12.7	12.6	12.4	12.9	12.9	12.7	16.9	12.9	12.8	12.2	12.2	12.0	12.1
Portugal.....	12.1	10.8	10.6	11.8	11.3	11.3	10.9	10.4	8.2	8.3	7.9	8.1	7.6	7.9	7.9	8.0	7.5 ⁶	8.4 ⁶	7.3 ⁶	7.7 ⁶	7.2 ⁶
Slovak Republic.....	18.3	18.9	18.6	17.9	18.6	17.7	17.1	13.5	14.1	13.7	13.9	14.5	14.0	13.6	12.8	14.3	14.2	14.1	15.1	15.1	14.6
Slovenia.....	—	15.0	14.9	15.2	15.8	16.7	16.2	—	11.1	10.2	9.5	8.9	7.9	8.0	—	14.6	14.0 ⁶	13.9 ⁶	13.7 ⁶	14.3 ⁶	14.3 ⁶
Spain.....	14.9	14.3	14.2	13.6	13.1	13.3	13.2	—	12.5	12.5	11.7	10.3	10.1	10.1	11.9 ³	8.1	7.8	7.7	8.7	9.3	9.6
Sweden.....	12.8	12.2	12.1	12.3	12.2	12.1	11.7	12.8	12.0	11.4	11.5	11.4	11.3	11.4	15.2	14.0	13.8	13.6	14.7	13.2	13.1
Switzerland ⁹	—	14.6	15.1	14.8	15.4	15.4	14.9	—	11.7	12.3	12.3	12.1	12.0	11.8	—	10.5 ²	10.5 ²	10.6 ²	10.4 ²	10.4 ²	10.3 ²
Turkey.....	30.5	25.8	26.7	26.2	24.4	22.9	21.7	—	†	†	†	†	†	†	14.0	16.2	15.8	16.2	17.0	16.9	17.6
United Kingdom.....	21.2	20.7	19.8	19.4	20.2	19.9	19.8	17.6 ²	17.0	16.7	16.7	15.0	16.1	17.1	12.5 ²	11.8 ^{2,6}	11.6 ^{2,6}	11.3 ^{2,6}	12.4 ⁶	12.3 ⁶	15.2 ⁶
United States.....	15.8	14.9	14.6	14.6	15.0	14.8	14.5	16.3	15.1	14.7	14.7	14.8	14.3	14.0	14.1	16.0	15.7	15.6	15.6	15.1	15.0
Other reporting countries																					
Brazil.....	—	22.9	22.5	25.8	24.5	24.0	23.4	—	18.1	17.6	22.3	21.2	21.0	20.4	—	17.6	17.0	20.2	18.4	18.1	17.3
Russian Federation.....	—	—	—	17.0 ⁸	17.3 ⁸	17.9 ⁸	19.2 ⁸	—	—	—	—	—	—	—	—	11.2 ^{6,11}	9.9 ^{3,6,11}	8.8 ^{3,6,12}	8.7 ^{3,6,12}	8.7 ^{3,6,12}	11.3 ^{3,6,12}

—Not available.

†Not applicable. This level of education does not exist within the national education structure; students in the age group normally associated with this education level are reported in other levels.

¹Refers to the mean of the data values for all reporting Organization for Economic Cooperation and Development (OECD) countries, to which each country reporting data contributes equally. The average includes all current OECD countries for which a given year's data are available, even if they were not members of OECD in that year. However, if data were reported for less than 75 percent of the countries that were members of OECD in a given year, the average for that year is omitted.²Includes only general programs.³Includes junior high school data.⁴Includes preprimary data.⁵Excludes independent private institutions.⁶Includes postsecondary non-higher-education.⁷Includes elementary school data.⁸Public schools only.⁹Includes occupation-specific education corresponding to that offered at the vocational associate's degree level in the United States.¹⁰Data included for Greece for 2008 are from 2007.¹¹Excludes general programs.¹²Excludes part-time personnel in public institutions.

NOTE: The pupil/teacher ratio is the number of full-time-equivalent students divided by the number of full-time-equivalent teachers, including teachers for students with disabilities and other special teachers. In this table, elementary school corresponds to International Standard Classification of Education (ISCED) level 1 (U.S. grades 1 through 6), junior high school corresponds to ISCED level 2 (U.S. grades 7 through 9), and senior high school corresponds to ISCED level 3 (U.S. grades 10 through 12).

SOURCE: Organization for Economic Cooperation and Development (OECD), Online Education Database; and *Education at a Glance*, 2002 through 2012. (This table was prepared June 2012.)

Table 459. Teachers' statutory teaching and total working time and average class size in public elementary and secondary schools, by level of education and country: 2010

Country	Statutory teaching and total working time												Average class size	
	Number of weeks of instruction			Number of days of instruction			Net teaching time in hours			Total working time in hours				
	Elementary	Junior high school (lower secondary)	Senior high school (upper secondary) ¹	Elementary	Junior high school (lower secondary)	Senior high school (upper secondary) ¹	Elementary	Junior high school (lower secondary)	Senior high school (upper secondary) ¹	Elementary	Junior high school (lower secondary)	Senior high school (upper secondary) ¹	Elementary	Junior high school (lower secondary)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
OECD average²	38	38	38	187	185	183	782	704	658	1,678	1,673	1,676	21	23
Australia ³	40	40	40	196	196	193	868	819	803	†	†	†	23	23
Austria ³	38	38	38	180	180	180	779	607	589	1,776	1,776	†	18	22
Belgium (Flemish) ³	37	37	37	179	180	180	761	675	630	†	†	†	—	—
Belgium (French) ³	38	38	38	183	183	183	732	671	610	†	†	†	21	—
Canada ³	37	37	37	183	183	183	799	740	744	†	†	†	—	—
Chile ³	38	38	38	179	179	179	1,087	1,087	1,087	2,068	2,068	2,068	27	28
Czech Republic ³	41	41	41	196	196	196	862	647	617	1,696	1,696	1,696	20	21
Denmark ⁴	42	42	42	200	200	200	650	650	377	1,680	1,680	1,680	20	21
England ⁴	38	38	38	190	190	190	684	703	703	1,265	1,265	1,265	—	—
Estonia ⁵	39	39	39	175	175	175	630	630	578	1,540	1,540	1,540	18	19
Finland ⁶	38	38	38	189	189	189	680	595	553	†	†	†	19	20
France ¹	35	35	35	—	—	—	918	646	632	†	†	†	23	24
Germany ³	40	40	40	193	193	193	805	756	713	1,793	1,793	1,793	21	25
Greece ³	36	31	31	177	153	153	589	415	415	†	†	†	17	22
Hungary ⁶	37	37	37	183	183	183	604	604	604	1,864	1,864	1,864	21	22
Iceland ³	37	37	35	180	180	170	624	624	544	1,800	1,800	1,800	18	20
Ireland ³	37	33	33	183	167	167	915	735	735	†	†	†	24	—
Israel ³	38	37	37	183	175	175	820	598	521	†	†	†	29	31
Italy ⁶	39	39	39	175	175	175	770	630	630	†	†	†	19	21
Japan ⁴	40	40	40	201	201	198	707	602	500	1,876	1,876	1,876	28	33
Korea, Republic of ⁵	40	40	40	220	220	220	807	627	616	1,680	1,680	1,680	27	35
Luxembourg ³	36	36	36	176	176	176	739	634	634	†	†	†	15	19
Mexico ³	42	42	36	200	200	172	800	1,047	843	†	†	†	20	28
Netherlands ^{5,7}	40	—	—	195	—	—	930	750	750	1,659	1,659	1,659	22	—
New Zealand ³	39	38	38	194	192	190	930	845	760	†	†	†	—	—
Norway ³	38	38	38	190	190	190	741	654	523	1,688	1,688	1,688	†	†
Poland ³	38	38	37	186	184	183	502	497	494	1,520	1,504	1,496	19	23
Portugal ⁵	37	37	37	173	173	173	865	761	761	1,456	1,456	1,456	20	22
Scotland ⁵	38	38	38	190	190	190	855	855	855	1,365	1,365	1,365	—	—
Slovak Republic ³	38	38	38	189	189	189	841	652	624	1,583	1,583	1,583	18	21
Slovenia ³	40	40	40	190	190	190	690	690	633	—	—	—	18	20
Spain ³	37	37	36	176	176	171	880	713	693	1,425	1,425	1,425	20	24
Sweden	†	†	†	†	†	†	†	†	†	1,767	1,767	1,767	—	—
Switzerland	—	—	—	—	—	—	—	—	—	—	—	—	19	19
Turkey ³	37	†	37	175	†	175	621	†	551	1,816	†	1,816	26	†
United Kingdom	—	—	—	—	—	—	—	—	—	—	—	—	26	21
United States ⁴	36	36	36	180	180	180	1,097	1,068	1,051	1,913	1,977	1,998	20	24
Other reporting countries														
Brazil	40	40	40	200	200	200	800	800	800	800	800	800	26	30
China	35	35	35	175	175	175	—	—	—	—	—	—	37	54
Indonesia ⁴	44	44	44	244	200	200	697	544	638	1,069	1,069	1,069	27	36
Russian Federation ⁴	34	35	35	164	169	169	615	507	507	†	†	†	17	18

—Not available.

†Not applicable according to the Organization for Economic Cooperation and Development (OECD).

¹General programs only.

²Refers to the mean of the data values for all reporting OECD countries, to which each country or country component reporting data contributes equally.

³Typical teaching time reported.

⁴Actual teaching time reported.

⁵Maximum teaching time reported.

⁶Minimum teaching time reported.

⁷Average class size data are for 2006.

NOTE: In this table, elementary school corresponds to International Standard Classification of Education (ISCED) level 1 (U.S. grades 1 through 6), junior high school corresponds to ISCED level 2 (U.S. grades 7 through 9), and senior high school corresponds to ISCED level 3 (U.S. grades 10 through 12).

SOURCE: Organization for Economic Cooperation and Development (OECD), *Education at a Glance*, 2012. (This table was prepared June 2012.)

Table 460. Average fourth-grade scores and annual instructional time in mathematics and science, by country or other education system: 2011
(Standard errors appear in parentheses)

Country or other education system ¹	Total instructional hours per year	Mathematics				Science			
		Average score ²	Instructional time in mathematics		Average score ²	Instructional time in science			
			Hours per year	As a percent of total instructional hours		Hours per year	As a percent of total instructional hours		
1	2	3	4	5	6	7	8		
TIMSS average³	897 (2.0)	500 (†)	162 (0.5)	18 (0.1)	500 (†)	85 (0.5)	10 (0.1)		
Armenia	851 ⁴ (17.1)	452 (3.5)	139 ⁴ (1.7)	16 (0.2)	416 (3.8)	54 ⁵ (0.6)	6 (0.1)		
Australia	1,008 (6.9)	516 (2.9)	230 ⁵ (5.8)	23 (0.6)	516 (2.8)	65 ⁵ (2.3)	6 (0.2)		
Austria	808 (6.9)	508 (2.6)	146 (2.1)	18 (0.3)	532 (2.8)	96 (2.3)	12 (0.3)		
Azerbaijan ^{6,7}	804 (27.7)	463 (5.8)	130 (3.3)	18 (0.7)	438 (5.6)	61 (1.4)	8 (0.3)		
Bahrain	964 (10.8)	436 (3.3)	131 ⁴ (4.4)	14 (0.4)	449 (3.5)	85 ⁴ (2.7)	9 (0.3)		
Belgium (Flemish)-BEL	1,010 ⁴ (16.8)	549 (1.9)	224 ⁴ (4.1)	21 (0.3)	509 (2.0)	— (†)	— (†)		
Chile	1,228 ⁴ (22.6)	462 (2.3)	231 ⁵ (6.7)	19 (0.6)	480 (2.4)	161 ⁵ (6.4)	13 (0.5)		
Chinese Taipei-CHN	989 ⁴ (13.4)	591 (2.0)	133 (3.9)	12 (0.4)	552 (2.2)	90 (2.3)	9 (0.3)		
Croatia ⁶	776 (19.4)	490 (1.9)	134 (2.3)	18 (0.4)	516 (2.1)	95 (2.4)	13 (0.4)		
Czech Republic	782 (8.2)	511 (2.4)	163 (3.0)	21 (0.4)	536 (2.5)	60 (2.2)	8 (0.3)		
Denmark ⁶	863 ⁴ (9.4)	537 (2.6)	124 ⁵ (2.0)	15 (0.3)	528 (2.8)	62 ⁵ (1.9)	7 (0.2)		
England-GBR	970 ⁴ (8.3)	542 (3.5)	188 ⁵ (3.3)	19 (0.4)	529 (2.9)	76 ⁵ (3.2)	8 (0.3)		
Finland	779 (9.8)	545 (2.3)	139 (2.5)	18 (0.4)	570 (2.6)	98 (1.9)	13 (0.4)		
Georgia ^{7,8}	748 ⁴ (18.7)	450 (3.7)	148 ⁴ (3.9)	21 (0.6)	455 (3.8)	110 ⁴ (2.7)	16 (0.4)		
Germany	863 ⁴ (11.2)	528 (2.2)	163 ⁴ (3.1)	19 (0.3)	528 (2.9)	75 ⁵ (3.5)	8 (0.4)		
Hong Kong-CHN ⁶	1,059 ⁴ (11.2)	602 (3.4)	158 ⁴ (3.0)	15 (0.3)	535 (3.8)	88 ⁴ (4.2)	8 (0.4)		
Hungary	760 (12.2)	515 (3.4)	148 (3.3)	20 (0.5)	534 (3.7)	72 (2.2)	10 (0.3)		
Iran, Islamic Republic of	727 (11.2)	431 (3.5)	146 (3.9)	20 (0.4)	453 (3.7)	106 (3.2)	14 (0.4)		
Ireland	854 (#)	527 (2.6)	150 (2.8)	18 (0.3)	516 (3.4)	63 (6.6)	7 (0.2)		
Italy	1,085 (12.6)	508 (2.6)	214 (3.9)	20 (0.4)	524 (2.7)	78 ⁴ (1.8)	7 (0.2)		
Japan	891 (3.7)	585 (1.7)	150 (1.6)	17 (0.1)	559 (1.9)	91 (0.8)	10 (0.1)		
Kazakhstan ⁶	779 (10.6)	501 (4.5)	140 (2.7)	18 (0.4)	495 (5.1)	57 (1.3)	8 (0.2)		
Korea, Republic of	789 (11.4)	605 (1.9)	121 (3.0)	15 (0.4)	587 (2.0)	92 (2.5)	11 (0.4)		
Kuwait ⁶	928 ⁴ (23.1)	342 ⁹ (3.4)	120 ⁴ (4.9)	13 (0.4)	347 ¹⁰ (4.7)	85 ⁵ (5.8)	10 (0.6)		
Lithuania ^{6,8}	649 (9.0)	534 (2.4)	133 (2.6)	21 (0.5)	515 (2.4)	60 (1.5)	9 (0.3)		
Malta	891 ⁴ (0.2)	496 (1.3)	183 ⁴ (0.1)	21 (#)	446 (1.9)	39 ⁴ (0.1)	4 (#)		
Morocco	1,040 ⁴ (23.6)	335 ⁹ (4.0)	174 ⁵ (3.5)	17 (0.4)	264 ⁹ (4.5)	44 ⁵ (5.5)	5 (0.6)		
Netherlands ¹¹	1,074 ⁵ (9.9)	540 (1.7)	195 ⁵ (7.0)	18 (0.5)	531 (2.2)	42 ⁵ (2.4)	4 (0.2)		
New Zealand	925 (3.9)	486 (2.6)	168 (2.4)	18 (0.3)	497 (2.3)	52 ⁵ (3.0)	6 (0.3)		
Northern Ireland-GBR ¹¹	970 ⁴ (11.0)	562 (2.9)	232 ⁵ (6.1)	24 (0.6)	517 (2.6)	72 ⁵ (3.9)	8 (0.4)		
Norway ¹²	817 (10.7)	495 (2.8)	157 (4.1)	19 (0.6)	494 (2.3)	55 (2.2)	7 (0.3)		
Oman	999 ⁵ (17.4)	385 ¹⁰ (2.9)	170 ⁵ (3.1)	17 (0.3)	377 (4.3)	120 ⁵ (2.4)	12 (0.2)		
Poland	764 ⁴ (13.5)	481 (2.2)	157 ⁴ (3.0)	21 (0.5)	505 (2.6)	64 ⁴ (3.1)	8 (0.4)		
Portugal	940 ⁴ (13.1)	532 (3.4)	250 ⁴ (4.3)	27 (0.4)	522 (3.9)	162 ⁴ (4.1)	17 (0.8)		
Qatar ⁶	1,068 (9.1)	413 (3.5)	185 (6.3)	17 (0.6)	394 (4.3)	135 (6.8)	13 (0.6)		
Romania	796 (17.9)	482 (5.8)	148 (3.9)	19 (0.5)	505 (5.9)	56 (6.2)	7 (0.8)		
Russian Federation	660 ⁴ (8.0)	542 (3.7)	104 (1.0)	16 (0.2)	552 (3.5)	49 (0.7)	8 (0.2)		
Saudi Arabia	977 ⁴ (19.4)	410 (5.3)	147 ⁴ (6.6)	15 (0.5)	429 (5.4)	82 ⁴ (4.2)	8 (0.5)		
Serbia ⁶	778 (18.5)	516 (3.0)	153 (2.1)	20 (0.5)	516 (3.1)	72 (5.0)	10 (0.9)		
Singapore ⁶	1,012 (#)	606 (3.2)	208 (3.2)	21 (0.3)	583 (3.4)	96 (2.1)	9 (0.2)		
Slovak Republic	780 (8.8)	507 (3.8)	147 (1.4)	19 (0.1)	532 (3.8)	101 (4.3)	13 (0.6)		
Slovenia	684 (#)	513 (2.2)	169 (2.6)	25 (0.4)	520 (2.7)	101 (1.2)	15 (0.2)		
Spain	884 ⁴ (9.7)	482 (2.9)	167 ⁴ (2.3)	19 (0.2)	505 (3.0)	145 ⁴ (2.6)	16 (0.3)		
Sweden	849 ⁴ (11.3)	504 (2.0)	138 ⁵ (3.8)	17 (0.5)	533 (2.7)	75 ⁵ (3.0)	9 (0.4)		
Thailand	1,201 ⁴ (20.9)	458 (4.8)	167 (5.2)	14 (0.6)	472 (5.6)	109 (4.9)	9 (0.5)		
Tunisia	963 ⁴ (22.9)	359 ¹⁰ (3.9)	175 ⁴ (2.9)	19 (0.3)	346 ¹⁰ (5.3)	93 ⁴ (5.4)	10 (0.6)		
Turkey	900 (19.3)	469 (4.7)	126 (2.5)	15 (0.4)	463 (4.5)	94 (1.8)	11 (0.3)		
United Arab Emirates	1,025 ⁴ (8.5)	434 (2.0)	154 ⁵ (2.4)	15 (0.2)	428 (2.5)	108 ⁵ (3.0)	11 (0.3)		
United States ⁶	1,078 (7.3)	541 (1.8)	206 ⁴ (4.6)	19 (0.5)	544 (2.1)	105 ⁴ (3.1)	10 (0.3)		
Yemen	831 ⁴ (14.1)	248 ⁹ (6.0)	135 ⁴ (6.4)	16 (0.7)	209 ⁹ (7.3)	91 ⁴ (5.6)	11 (0.6)		
Benchmarking education systems									
Abu Dhabi-UAE	1,033 ⁴ (18.1)	417 (4.6)	150 ⁵ (4.3)	15 (0.4)	411 (4.9)	110 ⁵ (6.8)	11 (0.6)		
Alberta-CAN ⁶	1,006 (8.8)	507 (2.5)	169 ⁵ (3.2)	17 (0.4)	541 (2.4)	130 ⁵ (4.1)	13 (0.6)		
Dubai-UAE	993 ⁴ (0.7)	468 (1.6)	158 ⁵ (2.3)	16 (0.2)	461 (2.3)	99 ⁵ (1.6)	10 (0.2)		
Florida-USA ^{8,13,14}	1,073 ⁴ (19.7)	545 (2.9)	217 ⁵ (8.8)	20 (0.9)	545 (3.7)	113 ⁵ (9.6)	10 (0.8)		
North Carolina-USA ^{6,8,14}	1,113 ⁴ (22.9)	554 (4.2)	221 ⁴ (13.5)	20 (1.2)	538 (4.6)	94 ⁴ (6.0)	9 (0.4)		
Ontario-CAN	969 (7.4)	518 (3.1)	201 ⁴ (4.1)	21 (0.5)	528 (3.0)	92 ⁴ (3.2)	10 (0.3)		
Quebec-CAN	916 (5.1)	533 (2.4)	229 (5.0)	25 (0.6)	516 (2.7)	50 (1.7)	5 (0.2)		

—Not available.

†Not applicable.

#Rounds to zero.

¹Most of the education systems represent complete countries, but some represent subnational entities such as U.S. states, Canadian provinces, and England (which is part of the United Kingdom). The name of each subnational entity appears in italics and includes as a suffix the three-letter International Organization for Standardization (ISO) abbreviation for its complete country. Examples include *Florida-USA*, *Ontario-CAN*, and *England-GBR*.

²Trends in International Mathematics and Science Study (TIMSS) scores are reported on a scale from 0 to 1,000, with the scale average set at 500 and the standard deviation set at 100.

³The TIMSS average includes only education systems that are members of the International Association for the Evaluation of Educational Achievement (IAE), which develops and implements TIMSS at the international level. "Benchmarking" education systems are not members of the IEA and are therefore not included in the average.

⁴Data are available for at least 70 percent but less than 85 percent of students.

⁵Data are available for at least 50 percent but less than 70 percent of students.

⁶National Defined Population covers 90 to 95 percent of National Target Population.

⁷Exclusion rates for Azerbaijan and Georgia are slightly underestimated as some conflict zones were not covered and no official statistics were available.

⁸National Target Population does not include all of the International Target Population defined by TIMSS.

⁹The TIMSS & PIRLS International Study Center has reservations about the reliability of the average achievement score because the percentage of students with achievement too low for estimation exceeds 25 percent.

¹⁰The TIMSS & PIRLS International Study Center has reservations about the reliability of the average achievement score because the percentage of students with achievement too low for estimation exceeds 15 percent, though it is less than 25 percent.

¹¹Met guidelines for sample participation rates only after replacement schools were included.

¹²Nearly satisfied guidelines for sample participation rates after replacement schools were included.

¹³National Defined Population covers less than 90 percent of National Target Population (but at least 77 percent).

¹⁴All U.S. state data are based on public school students only.

NOTE: Countries were required to sample students in the grade that corresponded to the end of 4 years of formal schooling, providing that the mean age at the time of testing was at least 9.5 years. Instructional times shown in this table are actual or implemented times (as opposed to intended times prescribed by the curriculum). Principals reported total instructional hours per day and school days per year. Total instructional hours per year were calculated by multiplying the number of school days per year by the number of instructional hours per day. Teachers reported instructional hours per week in mathematics and science. Instructional hours per year in mathematics and science were calculated by dividing weekly instructional hours by the number of school days per week and then multiplying by the number of school days per year.

SOURCE: International Association for the Evaluation of Educational Achievement (IEA), Trends in International Mathematics and Science Study (TIMSS), 2011; *TIMSS 2011 International Results in Mathematics*, by Ina V.S. Mullis et al.; and *TIMSS 2011 International Results in Science*, by Michael O. Martin et al. (This table was prepared December 2012.)

Table 461. Average eighth-grade scores and annual instructional time in mathematics and science, by country or other education system: 2011
[Standard errors appear in parentheses]

Country or other education system ¹	Total instructional hours per year		Mathematics				Science							
			Average score ²		Instructional time in mathematics		Average score ²		Instructional time in science ³					
					Hours per year	As a percent of total instructional hours			Hours per year	As a percent of total instructional hours				
1	2		3		4		5		6		7		8	
TIMSS average⁴	1,031	(2.3)	500	(†)	138	(0.5)	14	(0.1)	500	(†)	158	(0.8)	11	(0.1)
Armenia.....	979 ⁵	(12.8)	467	(2.7)	143 ⁵	(3.0)	15	(0.2)	437	(3.1)	240 ⁶	(4.9)	†	(†)
Australia.....	1,039	(7.2)	505	(5.1)	143 ⁵	(3.5)	14	(0.3)	519	(4.8)	131 ⁶	(4.5)	12	(0.4)
Bahrain.....	1,019	(1.1)	409 ⁷	(2.0)	142 ⁵	(2.5)	14	(0.3)	452	(2.0)	130 ⁶	(2.8)	13	(0.3)
Chile.....	1,245 ⁵	(23.5)	416	(2.6)	193 ⁵	(4.5)	15	(0.3)	461	(2.5)	134 ⁶	(3.8)	11	(0.3)
Chinese Taipei-CHN.....	1,153	(11.7)	609	(3.2)	166	(2.4)	15	(0.2)	564	(2.3)	157	(2.7)	14	(0.3)
England-GBR ⁹	992 ⁵	(8.4)	507	(5.5)	116 ⁵	(2.1)	11	(0.3)	533	(4.9)	102 ⁶	(3.1)	10	(0.4)
Finland.....	934	(11.7)	514	(2.5)	105	(1.8)	11	(0.2)	552	(2.5)	190 ⁶	(6.0)	†	(†)
Georgia ^{9,10}	833 ⁵	(10.8)	431	(3.8)	123 ⁵	(3.3)	15	(0.5)	420	(3.0)	198 ⁶	(6.8)	†	(†)
Ghana.....	1,153 ⁵	(18.9)	331 ¹¹	(4.3)	165 ⁵	(6.8)	14	(0.6)	306 ⁷	(5.2)	148 ⁶	(6.1)	13	(0.4)
Hong Kong-CHN.....	1,026 ⁵	(11.3)	586	(3.8)	138 ⁵	(2.9)	13	(0.3)	535	(3.4)	103 ⁶	(4.6)	10	(0.4)
Hungary.....	836	(12.2)	505	(3.5)	119	(1.9)	15	(0.3)	522	(3.1)	236	(4.8)	28 !	(13.1)
Indonesia.....	1,494 ⁵	(40.9)	386 ⁷	(4.3)	173 ⁵	(7.9)	12	(0.6)	406	(4.5)	190 ⁶	(12.2)	10	(0.5)
Iran, Islamic Republic of.....	994	(15.9)	415 ⁷	(4.3)	124	(3.3)	13	(0.3)	474	(4.0)	120	(3.6)	12	(0.4)
Israel ¹²	1,108 ⁵	(14.1)	516	(4.1)	165 ⁵	(3.0)	15	(0.2)	516	(4.0)	132	(3.9)	12	(0.4)
Italy.....	1,085	(9.4)	498	(2.4)	155	(2.5)	14	(0.2)	501	(2.5)	73	(1.0)	7	(0.1)
Japan.....	1,016	(6.7)	570	(2.6)	108	(1.4)	11	(0.1)	558	(2.4)	128	(1.7)	12	(0.3)
Jordan.....	1,041	(11.9)	406 ⁷	(3.7)	130	(3.8)	13	(0.4)	449	(4.0)	134	(3.1)	13	(0.4)
Kazakhstan.....	920	(9.9)	487	(4.0)	117	(3.2)	13	(0.4)	490	(4.3)	244	(4.8)	27 !	(11.0)
Korea, Republic of.....	1,006	(12.1)	613	(2.9)	137	(1.8)	13	(0.2)	560	(2.0)	126	(2.5)	11	(0.2)
Lebanon.....	1,028 ⁵	(12.7)	449	(3.7)	178 ⁵	(3.9)	17	(0.4)	406	(4.9)	†	(†)	†	(†)
Lithuania ⁹	898	(13.9)	502	(2.5)	132	(2.7)	15	(0.4)	514	(2.6)	251 ⁶	(5.2)	†	(†)
Macedonia, Republic of.....	1,023 ⁵	(21.4)	426 ⁷	(5.2)	122 ⁵	(4.6)	13	(0.6)	407	(5.4)	334 ⁶	(14.7)	†	(†)
Malaysia.....	1,198 ⁵	(13.7)	440	(5.4)	123 ⁵	(3.4)	10	(0.3)	426	(6.3)	126	(3.6)	10	(0.3)
Morocco.....	1,303 ⁵	(24.9)	371 ¹¹	(2.0)	148 ⁵	(2.1)	12	(0.2)	376	(2.2)	144 ⁶	(2.0)	†	(†)
New Zealand.....	959	(4.4)	488	(5.5)	141	(1.8)	15	(0.2)	512	(4.6)	130 ⁶	(2.6)	14	(0.3)
Norway.....	880	(6.3)	475	(2.4)	125	(3.4)	14	(0.4)	494	(2.6)	101	(3.3)	11	(0.4)
Oman.....	1,044 ⁵	(17.7)	366 ⁷	(2.8)	161 ⁵	(5.1)	16	(0.4)	420	(3.2)	161 ⁶	(3.8)	16	(0.3)
Palestinian National Authority.....	918	(7.3)	404 ⁷	(3.5)	134	(4.0)	15	(0.4)	420	(3.2)	107	(3.4)	12	(0.4)
Qatar.....	1,054	(1.3)	410 ⁷	(3.1)	162	(3.6)	15	(0.4)	419	(3.4)	131	(6.9)	12	(0.5)
Romania.....	984	(15.5)	458	(4.0)	145	(3.7)	15	(0.3)	465	(3.5)	281	(10.1)	†	(†)
Russian Federation ¹³	882	(8.7)	539	(3.6)	142	(2.0)	16	(0.3)	542	(3.2)	208	(1.6)	24 !	(8.8)
Saudi Arabia.....	1,050 ⁵	(20.9)	394 ⁷	(4.6)	134 ⁵	(5.4)	13	(0.4)	436	(3.9)	124 ⁶	(6.8)	12	(0.5)
Singapore ¹³	1,106	(#)	611	(3.8)	138	(1.7)	13	(0.2)	590	(4.3)	115	(2.1)	11	(0.2)
Slovenia.....	798	(#)	505	(2.2)	121	(1.5)	15	(0.2)	543	(2.7)	251	(4.6)	31	(4.6)
Sweden.....	969 ⁵	(13.4)	484	(1.9)	97 ⁶	(2.2)	10	(0.3)	509	(2.5)	94 ⁶	(3.1)	9	(0.4)
Syrian Arab Republic.....	811	(14.2)	380 ⁷	(4.5)	118 ⁵	(4.7)	15	(0.5)	426	(3.9)	150 ⁶	(7.5)	†	(†)
Thailand.....	1,270 ⁵	(15.1)	427	(4.3)	129	(4.3)	10	(0.3)	451	(3.9)	119	(2.9)	9	(0.3)
Tunisia.....	1,298 ⁵	(25.4)	425	(2.8)	131 ⁵	(3.0)	10	(0.2)	439	(2.5)	64 ⁶	(1.9)	5	(0.1)
Turkey.....	889	(16.7)	452	(3.9)	117	(1.8)	14	(0.3)	483	(3.4)	99	(1.1)	12	(0.2)
Ukraine.....	901	(10.7)	479	(3.9)	132	(3.5)	15	(0.4)	501	(3.4)	239	(4.0)	27 !	(11.4)
United Arab Emirates.....	1,046 ⁵	(8.0)	456	(2.1)	157 ⁵	(2.9)	15	(0.3)	465	(2.4)	115 ⁶	(2.7)	11	(0.3)
United States ¹³	1,114	(6.6)	509	(2.6)	157 ⁶	(3.2)	14	(0.3)	525	(2.6)	139 ¹⁴	(2.4)	13 ¹⁴	(0.2)
Benchmarking education systems														
Abu Dhabi-UAE.....	1,045 ⁵	(16.6)	449	(3.7)	158 ⁵	(5.8)	15	(0.5)	461	(4.0)	111 ⁶	(4.8)	11	(0.5)
Alabama-USA ^{9,15}	1,135 ⁵	(16.0)	466	(5.9)	166 ⁶	(8.9)	15	(0.9)	485	(6.2)	167 ⁶	(6.0)	15	(0.5)
Alberta-CAN ¹³	1,031	(10.0)	505	(2.6)	156	(4.2)	19	(0.4)	546	(2.4)	145 ⁶	(4.0)	10	(0.4)
California-USA ^{9,13,15}	1,040 ⁵	(15.2)	493	(4.9)	172 ⁶	(8.0)	17	(0.7)	499	(4.6)	†	(†)	14	(0.7)
Colorado-USA ^{9,15}	1,148	(17.0)	518	(4.9)	173 ⁵	(8.6)	15	(0.8)	542	(4.4)	138 ⁶	(6.0)	12	(0.5)

See notes at end of table.

Table 461. Average eighth-grade scores and annual instructional time in mathematics and science, by country or other education system: 2011—Continued
[Standard errors appear in parentheses]

Country or other education system ¹	Total instructional hours per year	Mathematics				Science			
		Average score ²	Instructional time in mathematics		Average score ²	Instructional time in science ³			
			Hours per year	As a percent of total instructional hours		Hours per year	As a percent of total instructional hours		
1	2	3	4	5	6	7	8		
<i>Connecticut-USA</i> ^{9,13,15}	1,071 (19.3)	518 (4.8)	144 ⁵ (4.4)	14 (0.5)	532 (4.6)	139 ⁶ (6.2)	13 (0.6)		
<i>Dubai-UAE</i>	1,022 ⁵ (1.5)	478 (2.1)	155 ⁵ (3.6)	15 (0.3)	485 (2.5)	125 ⁶ (3.6)	11 (0.3)		
<i>Florida-USA</i> ^{9,13,15}	1,119 ⁵ (17.0)	513 (6.4)	144 ⁶ (7.4)	13 (0.7)	530 (7.3)	†	†		
<i>Indiana-USA</i> ^{9,13,15}	1,133 ⁵ (14.9)	522 (5.1)	149 ⁶ (6.9)	13 (0.7)	533 (4.8)	132 ⁶ (6.5)	12 (0.6)		
<i>Massachusetts-USA</i> ^{9,13,15}	1,087 (13.6)	561 (5.3)	154 ⁵ (5.4)	14 (0.6)	567 (5.1)	156 ⁶ (6.1)	15 (0.6)		
<i>Minnesota-USA</i> ^{9,15}	1,043 (14.8)	545 (4.6)	142 ⁵ (7.5)	14 (0.7)	553 (4.6)	140 ⁶ (8.3)	14 (0.9)		
<i>North Carolina-USA</i> ^{9,12,15}	1,159 (16.0)	537 (6.8)	185 ⁶ (9.7)	16 (0.8)	532 (6.3)	†	†		
<i>Ontario-CAN</i> ¹³	971 ⁵ (7.5)	512 (2.5)	181 ⁵ (3.9)	16 (0.5)	521 (2.5)	96 ⁵ (3.5)	11 (0.3)		
<i>Quebec-CAN</i>	913 (3.3)	532 (2.3)	147 (4.1)	15 (0.5)	520 (2.5)	102 ⁵ (3.0)	14 (0.4)		

†Not applicable.
#Rounds to zero.
!Interpret data with caution. The coefficient of variation (CV) for this estimate is between 30 and 50 percent.
‡Reporting standards not met. Either data are available for less than 50 percent of the students or the coefficient of variation (CV) is 50 percent or greater.
¹Most of the education systems represent complete countries, but some represent subnational entities such as U.S. states, Canadian provinces, and England (which is part of the United Kingdom). The name of each subnational entity appears in italics and includes as a suffix the three-letter International Organization for Standardization (ISO) abbreviation for its complete country. Examples include *Florida-USA*, *Ontario-CAN*, and *England-GBR*.
²Trends in International Mathematics and Science Study (TIMSS) scores are reported on a scale from 0 to 1,000, with the scale average set at 500 and the standard deviation set at 100.
³General/integrated science instructional time is shown for the 27 participating countries that teach science as a general or integrated subject at the eighth grade. For the 15 participating countries that teach the sciences as separate subjects (biology, chemistry, etc.) at the eighth grade, total instructional time across science subjects is shown.
⁴The TIMSS average includes only education systems that are members of the International Association for the Evaluation of Educational Achievement (IAE), which develops and implements TIMSS at the international level. "Benchmarking" education systems are not members of the IEA and are therefore not included in the average.
⁵Data are available for at least 70 percent but less than 85 percent of students.
⁶Data are available for at least 50 percent but less than 70 percent of students.
⁷The TIMSS & PIRLS International Study Center has reservations about the reliability of the average achievement score because the percentage of students with achievement too low for estimation exceeds 15 percent, though it is less than 25 percent.
⁸Nearly satisfied guidelines for sample participation rate after replacement schools were included.

⁹National Target Population does not include all of the International Target Population defined by TIMSS.
¹⁰Exclusion rates for Georgia are slightly underestimated as some conflict zones were not covered and no official statistics were available.
¹¹The TIMSS & PIRLS International Study Center has reservations about the reliability of the average achievement score because the percentage of students with achievement too low for estimation exceeds 25 percent.
¹²National Defined Population covers less than 90 percent of National Target Population (but at least 77 percent).
¹³National Defined Population covers 90 to 95 percent of National Target Population.
¹⁴Data are for 2007 and are from *TIMSS 2007 International Results in Science*. Met guidelines for sample participation rates only after replacement schools were included. Data are available for at least 50 percent but less than 70 percent of students.
¹⁵All U.S. state data are based on public school students only.
NOTE: Countries were required to sample students in the grade that corresponded to the end of 8 years of formal schooling, providing that the mean age at the time of testing was at least 13.5 years. Instructional times shown in this table are actual or implemented times (as opposed to intended times prescribed by the curriculum). Principals reported total instructional hours per day and school days per year. Total instructional hours per year were calculated by multiplying the number of school days per year by the number of instructional hours per day. Teachers reported instructional hours per week in mathematics and science. Instructional hours per year in mathematics and science were calculated by dividing weekly instructional hours by the number of school days per week and then multiplying by the number of school days per year.
SOURCE: International Association for the Evaluation of Educational Achievement (IEA), Trends in International Mathematics and Science Study (TIMSS), 2011; *TIMSS 2011 International Results in Mathematics*, by Ina V.S. Mullis et al.; and *TIMSS 2011 International Results in Science*, by Michael O. Martin et al. (This table was prepared December 2012.)

Table 462. Average reading literacy scale scores of fourth-graders and percentage whose schools emphasize reading skills and strategies at or before second grade or at third grade, by sex and country or other education system: 2001, 2006, and 2011
[Standard errors appear in parentheses]

Country or other education system ¹	Average reading literacy scale score ²						Percent of fourth-graders in 2011, by grade at which reading skills and strategies emphasized ³							
	2001		2006		2011		At or before second grade		At third grade					
					Total	Male	Female							
1	2	3	4	5	6	7	8	9	10	11	12			
PIRLS average⁴	500	(†)	500	(†)	500	(†)	504	(0.5)	520	(0.5)	28	(0.5)	68	(0.5)
Australia.....	—	(†)	—	(†)	527	(2.2)	519	(2.7)	536	(2.7)	73	(4.0)	27	(4.0)
Austria.....	—	(†)	538	(2.2)	529	(2.0)	525	(2.3)	533	(2.2)	29	(4.2)	71	(4.2)
Azerbaijan ⁵	—	(†)	—	(†)	462	(3.3)	456	(3.5)	470	(3.6)	19	(3.6)	79	(3.8)
Belgium (Flemish)-BEL.....	—	(†)	500	(2.6)	506	(2.9)	504	(3.1)	509	(3.1)	29	(5.0)	70	(5.1)
Bulgaria.....	550	(3.8)	507	(4.4)	532	(4.1)	524	(4.3)	539	(4.5)	25	(3.5)	74	(3.6)
Canada.....	—	(†)	—	(†)	548	(1.6)	542	(2.1)	555	(1.7)	55	(2.7)	44	(2.7)
Chinese Taipei-CHN.....	—	(†)	535	(2.0)	553	(1.9)	546	(2.1)	561	(2.1)	17	(3.0)	80	(3.0)
Colombia.....	422	(4.4)	—	(†)	448	(4.1)	448	(4.6)	447	(4.6)	13	(3.3)	81	(3.6)
Croatia.....	—	(†)	—	(†)	553	(1.9)	546	(2.2)	560	(2.1)	31	(4.1)	68	(4.2)
Czech Republic.....	537	(2.3)	—	(†)	545	(2.2)	542	(2.5)	549	(2.5)	24	(3.8)	74	(4.0)
Denmark.....	—	(†)	546	(2.3)	554	(1.7)	548	(2.1)	560	(1.9)	21	(2.4)	79	(2.4)
England-GBR.....	553	(3.4)	539	(2.6)	552	(2.6)	540	(3.1)	563	(3.0)	84	(3.3)	15	(3.2)
Finland.....	—	(†)	—	(†)	568	(1.9)	558	(2.2)	578	(2.3)	10	(2.6)	87	(2.8)
France.....	525	(2.4)	522	(2.1)	520	(2.6)	518	(2.4)	522	(3.4)	18	(3.3)	81	(3.4)
Georgia ⁵	—	(†)	471	(3.1)	488	(3.1)	477	(4.0)	499	(2.7)	20	(2.8)	79	(2.9)
Germany.....	539	(1.9)	548	(2.2)	541	(2.2)	537	(2.7)	545	(2.3)	30	(3.4)	69	(3.3)
Hong Kong-CHN.....	528	(3.1)	564	(2.4)	571	(2.3)	563	(2.5)	579	(2.3)	16	(3.5)	81	(3.8)
Hungary.....	543	(2.2)	551	(3.0)	539	(2.9)	532	(3.2)	547	(3.2)	28	(4.1)	71	(4.0)
Indonesia.....	—	(†)	405	(4.1)	428	(4.2)	419	(4.3)	437	(4.5)	‡	(†)	88	(3.2)
Iran, Islamic Republic of.....	414	(4.2)	421	(3.1)	457	(2.8)	448	(4.3)	467	(4.3)	7	(1.6)	85	(2.4)
Ireland.....	—	(†)	—	(†)	552	(2.3)	544	(3.0)	559	(2.9)	40	(4.0)	60	(4.0)
Israel.....	509	(2.8)	512	(3.3)	541	(2.7)	538	(3.4)	544	(3.1)	59	(4.7)	41	(4.7)
Italy.....	541	(2.4)	551	(2.9)	541	(2.2)	540	(2.7)	543	(2.4)	15	(2.5)	84	(2.5)
Lithuania.....	543	(2.6)	537	(1.6)	528	(2.0)	520	(2.4)	537	(2.4)	23	(3.3)	76	(3.4)
Malta.....	—	(†)	—	(†)	477	(1.4)	468	(2.0)	486	(1.9)	14	(0.1)	86	(0.1)
Morocco.....	350	(9.6)	323	(5.9)	310	(3.9)	296	(4.6)	326	(4.0)	‡	(†)	48	(4.0)
Netherlands.....	554	(2.5)	547	(1.5)	546	(1.9)	543	(2.2)	549	(2.1)	22	(4.4)	78	(4.4)
New Zealand.....	529	(3.6)	532	(2.0)	531	(1.9)	521	(2.7)	541	(2.2)	73	(3.6)	27	(3.6)
Northern Ireland-GBR.....	—	(†)	—	(†)	558	(2.4)	550	(3.2)	567	(2.5)	55	(4.6)	45	(4.6)
Norway.....	499	(2.9)	498	(2.6)	507	(1.9)	500	(2.7)	514	(2.2)	14	(3.4)	83	(3.9)
Oman.....	—	(†)	—	(†)	391	(2.8)	371	(3.4)	411	(3.0)	4	(0.9)	86	(2.0)
Poland.....	—	(†)	519	(2.4)	526	(2.1)	519	(2.7)	533	(2.5)	6	(2.1)	94	(2.1)
Portugal.....	—	(†)	—	(†)	541	(2.6)	534	(2.8)	548	(3.0)	25	(4.1)	75	(4.1)
Qatar.....	—	(†)	353	(1.1)	425	(3.5)	411	(4.2)	441	(4.7)	24	(3.0)	66	(3.4)
Romania.....	512	(4.6)	489	(5.0)	502	(4.3)	495	(4.3)	510	(4.8)	14	(3.4)	85	(3.5)
Russian Federation.....	528	(4.4)	565	(3.4)	568	(2.7)	559	(3.1)	578	(2.8)	50	(3.7)	50	(3.7)
Saudi Arabia.....	—	(†)	—	(†)	430	(4.4)	402	(8.2)	456	(3.1)	7	(1.7)	78	(3.5)
Singapore.....	528	(5.2)	558	(2.9)	567	(3.3)	559	(3.6)	576	(3.5)	46	(#)	54	(#)
Slovak Republic.....	518	(2.8)	531	(2.8)	535	(2.8)	530	(2.8)	540	(3.1)	24	(3.2)	76	(3.3)
Slovenia.....	502	(2.0)	522	(2.1)	530	(2.0)	523	(2.7)	539	(2.2)	8	(1.8)	87	(2.4)
Spain.....	—	(†)	513	(2.5)	513	(2.3)	511	(2.8)	516	(2.5)	29	(3.2)	71	(3.2)
Sweden.....	561	(2.2)	549	(2.3)	542	(2.1)	535	(2.5)	549	(2.4)	37	(4.5)	63	(4.5)
Trinidad and Tobago.....	—	(†)	436	(4.9)	471	(3.8)	456	(4.3)	487	(4.5)	32	(3.8)	66	(4.0)
United Arab Emirates.....	—	(†)	—	(†)	439	(2.2)	425	(3.5)	452	(3.0)	15	(1.3)	68	(2.2)
United States.....	542	(3.8)	540	(3.5)	556	(1.5)	551	(1.7)	562	(1.9)	75	(2.7)	24	(2.7)
Benchmarking education systems														
Abu Dhabi-UAE.....	—	(†)	—	(†)	424	(4.7)	406	(6.3)	442	(5.5)	11	(2.6)	61	(4.4)
Alberta-CAN.....	—	(†)	560	(2.4)	548	(2.9)	543	(3.1)	553	(3.1)	52	(4.5)	48	(4.5)
Andalusia-ESP.....	—	(†)	—	(†)	515	(2.3)	511	(2.8)	519	(2.4)	26	(3.6)	74	(3.6)
Dubai-UAE.....	—	(†)	—	(†)	476	(2.0)	470	(3.5)	483	(3.9)	28	(0.3)	66	(0.3)
Florida-USA ¹⁵	—	(†)	—	(†)	569	(8.10)	561	(8.10)	576	(8.10)	82	(4.7)	18	(4.7)
Maltese-MLT.....	—	(†)	—	(†)	457	(1.5)	445	(2.2)	470	(2.0)	14	(0.1)	86	(0.1)
Ontario-CAN.....	548	(3.3)	555	(2.7)	552	(2.6)	546	(2.8)	558	(3.3)	75	(4.0)	25	(4.0)
Quebec-CAN.....	537	(3.0)	533	(2.8)	538	(2.1)	531	(2.4)	544	(2.6)	23	(3.9)	75	(4.1)

—Not available.
†Not applicable.
#Rounds to zero.
!Interpret data with caution. The coefficient of variation (CV) for this estimate is between 30 and 50 percent.
‡Reporting standards not met. The coefficient of variation (CV) for this estimate is 50 percent or greater.
*Most of the education systems represent complete countries, but some represent subnational entities such as U.S. states, Canadian provinces, and England (which is part of the United Kingdom). The name of each subnational entity appears in italics and includes as a suffix the three-letter International Organization for Standardization (ISO) abbreviation for its complete country. Examples include *Florida-USA*, *Ontario-CAN*, and *England-GBR*.
²Progress in International Reading Literacy Study (PIRLS) scores are reported on a scale from 0 to 1,000, with the scale average set at 500 and the standard deviation set at 100.
³Based on principals' reports of the earliest grade at which each of 11 reading skills and strategies first receive a major emphasis in instruction. A school is counted as emphasizing reading skills and strategies at a certain grade (or before) only if its principal reported that all 11 skills and strategies are emphasized at that grade (or before). A small percentage of fourth-graders (1 percent in the United States) are not shown because their schools first emphasized reading skills and strategies at fourth grade or later.
⁴The PIRLS average includes only education systems that are members of the International Association for the Evaluation of Educational Achievement (IAE), which develops and implements PIRLS

at the international level. "Benchmarking" education systems are not members of the IEA and are therefore not included in the average.
⁵Exclusion rates for Azerbaijan and Georgia are slightly underestimated as some conflict zones were not covered and no official statistics were available for 2011.
⁶National Defined Population covers 90 percent to 95 percent of National Target Population.
⁷Met guidelines for sample participation rates only after replacement schools were included.
⁸National Target Population does not include all of the International Target Population.
⁹National Defined Population covers less than 90 percent of National Target Population.
¹⁰National Defined Population covers less than 80 percent of National Target Population.
¹¹Nearly satisfied guidelines for sample participation rates after replacement schools were included.
¹²The TIMSS & PIRLS International Study Center has reservations about the reliability of the average achievement score because the percentage of students with achievement too low for estimation exceeds 25 percent.
¹³Data are available for at least 70 percent but less than 85 percent of students.
¹⁴The TIMSS & PIRLS International Study Center has reservations about the reliability of the average achievement score because the percentage of students with achievement too low for estimation exceeds 15 percent, though it is less than 25 percent.
¹⁵All data for Florida are based on public schools only.
SOURCE: International Association for the Evaluation of Educational Achievement (IEA), Progress in International Reading Literacy Study (PIRLS), 2001, 2006, and 2011. (This table was prepared February 2013).

Table 463. Average reading literacy, mathematics literacy, and science literacy scores of 15-year-old students, by sex and country: 2009
[Standard errors appear in parentheses]

Country or other jurisdiction	Reading literacy			Mathematics literacy			Science literacy		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
1	2	3	4	5	6	7	8	9	10
OECD total¹	492 (1.2)	475 (1.4)	508 (1.2)	488 (1.2)	496 (1.3)	481 (1.3)	496 (1.2)	498 (1.5)	494 (1.3)
OECD average²	493 (0.5)	474 (0.6)	513 (0.5)	496 (0.5)	501 (0.6)	490 (0.6)	501 (0.5)	501 (0.6)	501 (0.6)
Australia	515 (2.3)	496 (2.9)	533 (2.6)	514 (2.5)	519 (3.0)	509 (2.8)	527 (2.5)	527 (3.1)	528 (2.8)
Austria	470 (2.9)	449 (3.8)	490 (4.0)	496 (2.7)	506 (3.4)	486 (4.0)	494 (3.2)	498 (4.2)	490 (4.4)
Belgium	506 (2.3)	493 (3.4)	520 (2.9)	515 (2.3)	526 (3.3)	504 (3.0)	507 (2.5)	510 (3.6)	503 (3.2)
Canada	524 (1.5)	507 (1.8)	542 (1.7)	527 (1.6)	533 (2.0)	521 (1.7)	529 (1.6)	531 (1.9)	526 (1.9)
Chile	449 (3.1)	439 (3.9)	461 (3.6)	421 (3.1)	431 (3.7)	410 (3.6)	447 (2.9)	452 (3.5)	443 (3.5)
Czech Republic	478 (2.9)	456 (3.7)	504 (3.0)	493 (2.8)	495 (3.9)	490 (3.0)	500 (3.0)	498 (4.0)	503 (3.2)
Denmark	495 (2.1)	480 (2.5)	509 (2.5)	503 (2.6)	511 (3.0)	495 (2.9)	499 (2.5)	505 (3.0)	494 (2.9)
Estonia	501 (2.6)	480 (2.9)	524 (2.8)	512 (2.6)	516 (2.9)	508 (2.9)	528 (2.7)	527 (3.1)	528 (3.1)
Finland	536 (2.3)	508 (2.6)	563 (2.4)	541 (2.2)	542 (2.5)	539 (2.5)	554 (2.3)	546 (2.7)	562 (2.6)
France	496 (3.4)	475 (4.3)	515 (3.4)	497 (3.1)	505 (3.8)	489 (3.4)	498 (3.6)	500 (4.6)	497 (3.5)
Germany	497 (2.7)	478 (3.6)	518 (2.9)	513 (2.9)	520 (3.6)	505 (3.3)	520 (2.8)	523 (3.7)	518 (3.3)
Greece	483 (4.3)	459 (5.5)	506 (3.5)	466 (3.9)	473 (5.4)	459 (3.3)	470 (4.0)	465 (5.1)	475 (3.7)
Hungary	494 (3.2)	475 (3.9)	513 (3.6)	490 (3.5)	496 (4.2)	484 (3.9)	503 (3.1)	503 (3.8)	503 (3.5)
Iceland	500 (1.4)	478 (2.1)	522 (1.9)	507 (1.4)	508 (2.0)	505 (1.9)	496 (1.4)	496 (2.1)	495 (2.0)
Ireland	496 (3.0)	476 (4.2)	515 (3.1)	487 (2.5)	491 (3.4)	483 (3.0)	508 (3.3)	507 (4.3)	509 (3.8)
Israel	474 (3.6)	452 (5.2)	495 (3.4)	447 (3.3)	451 (4.7)	443 (3.3)	455 (3.1)	453 (4.4)	456 (3.2)
Italy	486 (1.6)	464 (2.3)	510 (1.9)	483 (1.9)	490 (2.3)	475 (2.2)	489 (1.8)	488 (2.5)	490 (2.0)
Japan	520 (3.5)	501 (5.6)	540 (3.7)	529 (3.3)	534 (5.3)	524 (3.9)	539 (3.4)	534 (5.5)	545 (3.9)
Korea, Republic of	539 (3.5)	523 (4.9)	558 (3.8)	546 (4.0)	548 (6.2)	544 (4.5)	538 (3.4)	537 (5.0)	539 (4.2)
Luxembourg	472 (1.3)	453 (1.9)	492 (1.5)	489 (1.2)	499 (2.0)	479 (1.3)	484 (1.2)	487 (2.0)	480 (1.6)
Mexico	425 (2.0)	413 (2.1)	438 (2.1)	419 (1.8)	425 (2.1)	412 (1.9)	416 (1.8)	419 (2.0)	413 (1.9)
Netherlands	508 (5.1)	496 (5.1)	521 (5.3)	526 (4.7)	534 (4.8)	517 (5.1)	522 (5.4)	524 (5.3)	520 (5.9)
New Zealand	521 (2.4)	499 (3.6)	544 (2.6)	519 (2.3)	523 (3.2)	515 (2.9)	532 (2.6)	529 (4.0)	535 (2.9)
Norway	503 (2.6)	480 (3.0)	527 (2.9)	498 (2.4)	500 (2.7)	495 (2.8)	500 (2.6)	498 (3.0)	502 (2.8)
Poland	500 (2.6)	476 (2.8)	525 (2.9)	495 (2.8)	497 (3.0)	493 (3.2)	508 (2.4)	505 (2.7)	511 (2.8)
Portugal	489 (3.1)	470 (3.5)	508 (2.9)	487 (2.9)	493 (3.3)	481 (3.1)	493 (2.9)	491 (3.4)	495 (3.0)
Slovak Republic	477 (2.5)	452 (3.5)	503 (2.8)	497 (3.1)	498 (3.7)	495 (3.4)	490 (3.0)	490 (4.0)	491 (3.2)
Slovenia	483 (1.0)	456 (1.6)	511 (1.4)	501 (1.2)	502 (1.8)	501 (1.7)	512 (1.1)	505 (1.7)	519 (1.6)
Spain	481 (2.0)	467 (2.2)	496 (2.2)	483 (2.1)	493 (2.3)	474 (2.5)	488 (2.1)	492 (2.5)	485 (2.3)
Sweden	497 (2.9)	475 (3.2)	521 (3.1)	494 (2.9)	493 (3.1)	495 (3.3)	495 (2.7)	493 (3.0)	497 (3.2)
Switzerland	501 (2.4)	481 (2.9)	520 (2.7)	534 (3.3)	544 (3.7)	524 (3.4)	517 (2.8)	520 (3.2)	512 (3.0)
United Kingdom	464 (3.5)	443 (3.7)	486 (4.1)	445 (4.4)	451 (4.6)	440 (5.6)	454 (3.6)	448 (3.8)	460 (4.5)
United States	494 (2.3)	481 (3.5)	507 (2.9)	492 (2.4)	503 (3.2)	482 (3.3)	514 (2.5)	519 (3.6)	509 (3.2)
United States	500 (3.7)	488 (4.2)	513 (3.8)	487 (3.6)	497 (4.0)	477 (3.8)	502 (3.6)	509 (4.2)	495 (3.7)
Non-OECD education systems									
Albania	385 (4.0)	355 (5.1)	417 (3.9)	377 (4.0)	372 (4.7)	383 (4.2)	391 (3.9)	377 (4.8)	406 (4.0)
Argentina	398 (4.6)	379 (5.1)	415 (4.9)	388 (4.1)	394 (4.5)	383 (4.4)	401 (4.6)	397 (5.1)	404 (4.8)
Azerbaijan	362 (3.3)	350 (3.7)	374 (3.3)	431 (2.8)	435 (3.1)	427 (3.0)	373 (3.1)	370 (3.4)	377 (3.2)
Brazil	412 (2.7)	397 (2.9)	425 (2.8)	386 (2.4)	394 (2.4)	379 (2.6)	405 (2.4)	407 (2.6)	404 (2.6)
Bulgaria	429 (6.7)	400 (7.3)	461 (5.8)	428 (5.9)	426 (6.2)	430 (6.0)	439 (5.9)	430 (6.8)	450 (5.3)
Colombia	413 (3.7)	408 (4.5)	418 (4.0)	381 (3.2)	398 (4.0)	366 (3.3)	402 (3.6)	413 (4.3)	392 (3.7)
Croatia	476 (2.9)	452 (3.4)	503 (3.7)	460 (3.1)	465 (3.6)	454 (3.9)	486 (2.8)	482 (3.5)	491 (3.9)
Dubai (United Arab Emirates)	459 (1.1)	435 (1.7)	485 (1.5)	453 (1.1)	454 (1.5)	451 (1.6)	466 (1.2)	453 (1.8)	480 (1.6)
Hong Kong-China	533 (2.1)	518 (3.3)	550 (2.8)	555 (2.7)	561 (4.2)	547 (3.4)	549 (2.8)	550 (3.8)	548 (3.4)
Indonesia	402 (3.7)	383 (3.8)	420 (3.9)	371 (3.7)	371 (4.1)	372 (4.0)	383 (3.8)	378 (4.2)	387 (4.0)
Jordan	405 (3.3)	377 (4.7)	434 (4.1)	387 (3.7)	386 (5.1)	387 (5.2)	415 (3.5)	398 (5.5)	433 (4.2)
Kazakhstan	390 (3.1)	369 (3.2)	412 (3.4)	405 (3.0)	405 (3.1)	405 (3.3)	400 (3.1)	396 (3.4)	405 (3.5)
Kyrgyzstan	314 (3.2)	287 (3.8)	340 (3.2)	331 (2.9)	328 (3.4)	334 (2.8)	330 (2.9)	318 (3.7)	340 (2.9)
Latvia	484 (3.0)	460 (3.4)	507 (3.1)	482 (3.1)	483 (3.5)	481 (3.4)	494 (3.1)	490 (3.7)	497 (3.2)
Liechtenstein	499 (2.8)	484 (4.5)	516 (4.5)	536 (4.1)	547 (5.2)	523 (5.9)	520 (3.4)	527 (5.0)	511 (5.1)
Lithuania	468 (2.4)	439 (2.8)	498 (2.6)	477 (2.6)	474 (3.1)	480 (3.0)	491 (2.9)	483 (3.5)	500 (2.9)
Macao-China	487 (0.9)	470 (1.3)	504 (1.2)	525 (0.9)	531 (1.3)	520 (1.4)	511 (1.0)	510 (1.3)	512 (1.2)
Montenegro	408 (1.7)	382 (2.1)	434 (2.1)	403 (2.0)	408 (2.2)	396 (2.4)	401 (2.0)	395 (2.4)	408 (2.6)
Panama	371 (6.5)	354 (7.0)	387 (7.3)	360 (5.2)	362 (5.6)	357 (6.1)	376 (5.7)	375 (6.4)	377 (6.6)
Peru	370 (4.0)	359 (4.2)	381 (4.9)	365 (4.0)	374 (4.6)	356 (4.4)	369 (3.5)	372 (3.7)	367 (4.4)
Qatar	372 (0.8)	347 (1.3)	397 (1.0)	368 (0.7)	366 (1.2)	371 (1.0)	379 (0.9)	366 (1.4)	393 (1.0)
Romania	424 (4.1)	403 (4.6)	445 (4.3)	427 (3.4)	429 (3.9)	425 (3.8)	428 (3.4)	423 (3.9)	433 (3.7)
Russian Federation	459 (3.3)	437 (3.6)	482 (3.4)	468 (3.3)	469 (3.7)	467 (3.5)	478 (3.3)	477 (3.7)	480 (3.5)
Serbia	442 (2.4)	422 (3.3)	462 (2.5)	442 (2.9)	448 (3.8)	437 (3.2)	443 (2.4)	442 (3.1)	443 (2.8)
Shanghai-China	556 (2.4)	536 (3.0)	576 (2.3)	600 (2.8)	599 (3.7)	601 (3.1)	575 (2.3)	574 (3.1)	575 (2.3)
Singapore	526 (1.1)	511 (1.7)	542 (1.5)	562 (1.4)	565 (1.9)	559 (2.0)	542 (1.4)	541 (1.8)	542 (1.8)
Chinese Taipei	495 (2.6)	477 (3.7)	514 (3.6)	543 (3.4)	546 (4.8)	541 (4.8)	520 (2.6)	520 (3.7)	521 (4.0)
Thailand	421 (2.6)	400 (3.3)	438 (3.1)	419 (3.2)	421 (3.9)	417 (3.8)	425 (3.0)	418 (3.8)	431 (3.4)
Trinidad and Tobago	416 (1.2)	387 (1.9)	445 (1.6)	414 (1.3)	410 (2.3)	418 (1.5)	410 (1.2)	401 (2.1)	419 (1.4)
Tunisia	404 (2.9)	387 (3.2)	418 (3.0)	371 (3.0)	378 (3.3)	366 (3.2)	401 (2.7)	401 (2.9)	400 (2.8)
Uruguay	426 (2.6)	404 (3.2)	445 (2.8)	427 (2.6)	433 (3.0)	421 (2.9)	427 (2.6)	427 (3.2)	428 (2.6)

¹Illustrates how a country compares with the OECD area as a whole. Computed taking the OECD countries as a single entity, to which each country contributes in proportion to the number of 15-year-olds enrolled in its schools.

²Refers to the mean of the data values for all OECD countries, to which each country contributes equally, regardless of the absolute size of the student population of each country.

NOTE: PISA scores are reported on a scale from 0 to 1,000.

SOURCE: Organization for Economic Cooperation and Development (OECD), Program for International Student Assessment (PISA), 2009, *PISA 2009 Results: What Students Know and Can Do—Student Performance in Reading, Mathematics and Science (Volume I)*. (This table was prepared December 2010.)

Table 464. Average reading scores and percentage distribution of 15-year-old students scoring at each reading literacy proficiency level, by country: 2009

[Standard errors appear in parentheses]

Country or other jurisdiction	Average reading score		Percentage distribution at levels of reading proficiency ¹															
			Below level 1b		Level 1b		Level 1a		Level 2		Level 3		Level 4		Level 5		Level 6	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
OECD total².....	492	(1.2)	1.1	(0.07)	4.8	(0.15)	13.8	(0.26)	24.4	(0.30)	27.9	(0.32)	19.9	(0.31)	7.0	(0.24)	1.0	(0.13)
OECD average³.....	493	(0.5)	1.1	(0.05)	4.6	(0.08)	13.1	(0.13)	24.0	(0.16)	28.9	(0.16)	20.7	(0.16)	6.8	(0.10)	0.8	(0.03)
Australia.....	515	(2.3)	1.0	(0.12)	3.3	(0.27)	10.0	(0.39)	20.4	(0.57)	28.5	(0.73)	24.1	(0.65)	10.7	(0.54)	2.1	(0.31)
Austria.....	470	(2.9)	1.9	(0.42)	8.1	(0.81)	17.5	(0.99)	24.1	(0.96)	26.0	(0.92)	17.4	(0.85)	4.5	(0.45)	0.4 !	(0.13)
Belgium.....	506	(2.3)	1.1	(0.25)	4.7	(0.46)	11.9	(0.64)	20.3	(0.67)	25.8	(0.85)	24.9	(0.75)	10.1	(0.51)	1.1	(0.19)
Canada.....	524	(1.5)	0.4	(0.06)	2.0	(0.19)	7.9	(0.34)	20.2	(0.61)	30.0	(0.69)	26.8	(0.58)	11.0	(0.41)	1.8	(0.17)
Chile.....	449	(3.1)	1.3	(0.24)	7.4	(0.77)	21.9	(0.95)	33.2	(1.11)	25.6	(1.15)	9.3	(0.71)	1.3	(0.25)	#	(t)
Czech Republic.....	478	(2.9)	0.8 !	(0.29)	5.5	(0.60)	16.8	(1.06)	27.4	(0.99)	27.0	(1.00)	17.4	(0.97)	4.7	(0.45)	0.4 !	(0.12)
Denmark.....	495	(2.1)	0.4	(0.11)	3.1	(0.30)	11.7	(0.72)	26.0	(0.94)	33.1	(1.21)	20.9	(1.11)	4.4	(0.45)	0.3 !	(0.12)
Estonia.....	501	(2.6)	0.3 !	(0.13)	2.4	(0.38)	10.6	(0.86)	25.6	(1.26)	33.8	(1.00)	21.2	(0.81)	5.4	(0.52)	0.6 !	(0.20)
Finland.....	536	(2.3)	0.2	(0.07)	1.5	(0.20)	6.4	(0.44)	16.7	(0.62)	30.1	(0.85)	30.6	(0.88)	12.9	(0.74)	1.6	(0.24)
France.....	496	(3.4)	2.3	(0.52)	5.6	(0.53)	11.8	(0.84)	21.1	(1.03)	27.2	(1.04)	22.4	(1.07)	8.5	(0.74)	1.1	(0.25)
Germany.....	497	(2.7)	0.8	(0.23)	4.4	(0.46)	13.3	(0.79)	22.2	(0.87)	28.8	(1.09)	22.8	(0.88)	7.0	(0.57)	0.6	(0.15)
Greece.....	483	(4.3)	1.4	(0.38)	5.6	(0.86)	14.3	(1.07)	25.6	(1.06)	29.3	(1.20)	18.2	(0.98)	5.0	(0.54)	0.6	(0.17)
Hungary.....	494	(3.2)	0.6 !	(0.23)	4.7	(0.82)	12.3	(0.95)	23.8	(1.24)	31.0	(1.25)	21.6	(1.11)	5.8	(0.67)	0.3 !	(0.13)
Iceland.....	500	(1.4)	1.1	(0.18)	4.2	(0.43)	11.5	(0.71)	22.2	(0.80)	30.6	(0.94)	21.9	(0.84)	7.5	(0.62)	1.0	(0.19)
Ireland.....	496	(3.0)	1.5	(0.36)	3.9	(0.47)	11.8	(0.71)	23.3	(1.00)	30.6	(0.91)	21.9	(0.91)	6.3	(0.50)	0.7 !	(0.22)
Israel.....	474	(3.6)	3.9	(0.66)	8.0	(0.66)	14.7	(0.63)	22.5	(0.96)	25.5	(0.95)	18.1	(0.73)	6.4	(0.54)	1.0	(0.16)
Italy.....	486	(1.6)	1.4	(0.23)	5.2	(0.32)	14.4	(0.45)	24.0	(0.54)	28.9	(0.55)	20.2	(0.48)	5.4	(0.30)	0.4	(0.10)
Japan.....	520	(3.5)	1.3	(0.6)	3.4	(0.49)	8.9	(0.66)	18.0	(0.84)	28.0	(0.88)	27.0	(0.95)	11.5	(0.71)	1.9	(0.36)
Korea, Republic of.....	539	(3.5)	‡	(t)	0.9 !	(0.30)	4.7	(0.63)	15.4	(1.01)	33.0	(1.23)	32.9	(1.42)	11.9	(0.96)	1.0	(0.20)
Luxembourg.....	472	(1.3)	3.1	(0.27)	7.3	(0.45)	15.7	(0.59)	24.0	(0.70)	27.0	(0.65)	17.3	(0.61)	5.2	(0.43)	0.5 !	(0.15)
Mexico.....	425	(2.0)	3.2	(0.34)	11.4	(0.48)	25.5	(0.56)	33.0	(0.57)	21.2	(0.59)	5.3	(0.39)	0.4	(0.07)	#	(t)
Netherlands.....	508	(5.1)	‡	(t)	1.8	(0.31)	12.5	(1.36)	24.7	(1.53)	27.6	(1.24)	23.5	(1.66)	9.1	(1.00)	0.7	(0.22)
New Zealand.....	521	(2.4)	0.9	(0.22)	3.2	(0.45)	10.2	(0.58)	19.3	(0.75)	25.8	(0.76)	24.8	(0.81)	12.9	(0.76)	2.9	(0.38)
Norway.....	503	(2.6)	0.5	(0.14)	3.4	(0.39)	11.0	(0.66)	23.6	(0.84)	30.9	(0.86)	22.1	(1.16)	7.6	(0.87)	0.8	(0.20)
Poland.....	500	(2.6)	0.6	(0.15)	3.1	(0.35)	11.3	(0.66)	24.5	(1.08)	31.0	(0.98)	22.3	(0.99)	6.5	(0.55)	0.7	(0.15)
Portugal.....	489	(3.1)	0.6	(0.14)	4.0	(0.41)	13.0	(0.97)	26.4	(1.09)	31.6	(1.09)	19.6	(0.92)	4.6	(0.48)	0.2 !	(0.10)
Slovak Republic.....	477	(2.5)	0.8 !	(0.28)	5.6	(0.62)	15.9	(0.83)	28.1	(1.04)	28.5	(1.14)	16.7	(0.79)	4.2	(0.48)	0.3 !	(0.11)
Slovenia.....	483	(1.0)	0.8	(0.09)	5.2	(0.34)	15.2	(0.49)	25.6	(0.71)	29.2	(0.86)	19.3	(0.80)	4.3	(0.54)	0.3 !	(0.12)
Spain.....	481	(2.0)	1.2	(0.18)	4.7	(0.39)	13.6	(0.64)	26.8	(0.84)	32.6	(0.95)	17.7	(0.68)	3.2	(0.29)	‡	(t)
Sweden.....	497	(2.9)	1.5	(0.25)	4.3	(0.38)	11.7	(0.71)	23.5	(0.99)	29.8	(0.98)	20.3	(0.92)	7.7	(0.59)	1.3	(0.25)
Switzerland.....	501	(2.4)	0.7	(0.15)	4.1	(0.38)	12.1	(0.62)	22.7	(0.70)	29.7	(0.78)	22.6	(0.82)	7.4	(0.68)	0.7 !	(0.22)
Turkey.....	464	(3.5)	0.8	(0.19)	5.6	(0.63)	18.1	(0.98)	32.2	(1.16)	29.1	(1.07)	12.4	(1.11)	1.8	(0.38)	#	(t)
United Kingdom.....	494	(2.3)	1.0	(0.20)	4.1	(0.35)	13.4	(0.64)	24.9	(0.72)	28.8	(0.84)	19.8	(0.79)	7.0	(0.47)	1.0	(0.19)
United States.....	500	(3.7)	0.6	(0.13)	4.0	(0.45)	13.1	(0.84)	24.4	(0.86)	27.6	(0.83)	20.6	(0.90)	8.4	(0.75)	1.5	(0.42)

See notes at end of table.

Table 464. Average reading scores and percentage distribution of 15-year-old students scoring at each reading literacy proficiency level, by country: 2009—Continued
 [Standard errors appear in parentheses]

Country or other jurisdiction	Average reading score	Percentage distribution at levels of reading proficiency ¹							
		Below level 1b	Level 1b	Level 1a	Level 2	Level 3	Level 4	Level 5	Level 6
1	2	3	4	5	6	7	8	9	10
Non-OECD education systems									
Albania.....	385 (4.0)	11.3 (0.92)	18.7 (1.32)	26.6 (1.18)	25.6 (1.33)	14.4 (1.18)	3.1 (0.48)	‡ (†)	‡ (†)
Argentina.....	398 (4.6)	10.8 (1.10)	15.8 (1.25)	25.0 (1.30)	25.4 (1.22)	16.0 (1.04)	6.0 (0.83)	0.9 (0.23)	‡ (†)
Azerbaijan.....	362 (3.3)	9.7 (1.05)	26.1 (1.14)	36.9 (1.21)	21.5 (1.17)	5.3 (0.77)	0.5 ! (0.15)	# (†)	‡ (†)
Brazil.....	412 (2.7)	5.0 (0.38)	16.0 (0.67)	28.6 (0.81)	27.1 (0.78)	15.9 (0.86)	6.1 (0.53)	1.2 (0.21)	‡ (†)
Bulgaria.....	429 (6.7)	8.0 (1.09)	12.9 (1.36)	20.1 (1.35)	23.4 (1.15)	21.8 (1.43)	11.0 (1.14)	2.6 (0.50)	0.2 ! (0.08)
Colombia.....	413 (3.7)	4.2 (0.71)	13.9 (0.99)	29.0 (1.22)	30.6 (1.11)	17.1 (1.03)	4.6 (0.48)	0.5 ! (0.16)	# (†)
Croatia.....	476 (2.9)	1.0 (0.21)	5.0 (0.45)	16.5 (0.97)	27.4 (1.02)	30.6 (1.21)	16.4 (0.97)	3.1 (0.40)	‡ (†)
Dubai (United Arab Emirates).....	459 (1.1)	3.7 (0.23)	9.4 (0.45)	17.9 (0.50)	25.4 (0.71)	23.5 (0.77)	14.8 (0.71)	4.8 (0.49)	0.5 ! (0.18)
Hong Kong-China.....	533 (2.1)	0.2 ! (0.08)	1.5 (0.30)	6.6 (0.59)	16.1 (0.75)	31.4 (0.90)	31.8 (0.89)	11.2 (0.70)	1.2 (0.26)
Indonesia.....	402 (3.7)	1.7 (0.38)	14.1 (1.31)	37.6 (1.64)	34.3 (1.38)	11.2 (1.35)	1.0 ! (0.34)	‡ (†)	‡ (†)
Jordan.....	405 (3.3)	6.9 (0.62)	13.6 (0.78)	27.6 (0.96)	31.8 (0.98)	16.5 (0.99)	3.4 (0.44)	0.2 ! (0.09)	‡ (†)
Kazakhstan.....	390 (3.1)	7.5 (0.65)	20.4 (0.99)	30.7 (0.88)	24.1 (0.93)	13.1 (0.87)	3.7 (0.49)	0.4 ! (0.12)	‡ (†)
Kyrgyzstan.....	314 (3.2)	29.8 (1.25)	29.7 (0.91)	23.8 (0.94)	11.5 (0.83)	4.2 (0.57)	1.0 (0.28)	‡ (†)	‡ (†)
Latvia.....	484 (3.0)	0.4 ! (0.15)	3.3 (0.57)	13.9 (1.00)	28.8 (1.45)	33.5 (1.21)	17.2 (1.01)	2.9 (0.44)	‡ (†)
Liechtenstein.....	499 (2.8)	‡ (†)	2.8 ! (1.15)	12.8 (1.83)	24.0 (2.85)	31.1 (2.76)	24.6 (2.34)	4.2 ! (1.39)	‡ (†)
Lithuania.....	468 (2.4)	0.9 (0.26)	5.5 (0.56)	17.9 (0.87)	30.0 (1.03)	28.6 (0.94)	14.1 (0.80)	2.8 (0.38)	0.1 ! (0.06)
Macao-China.....	487 (0.9)	0.3 ! (0.09)	2.6 (0.25)	12.0 (0.43)	30.6 (0.63)	34.8 (0.67)	16.9 (0.50)	2.8 (0.25)	‡ (†)
Montenegro.....	408 (1.7)	5.9 (0.53)	15.8 (0.80)	27.8 (0.81)	28.0 (0.88)	16.8 (0.85)	5.0 (0.46)	0.6 (0.17)	‡ (†)
Panama.....	371 (6.5)	13.3 (1.83)	23.1 (1.78)	28.9 (1.79)	20.7 (1.43)	10.1 (1.36)	3.4 (0.68)	0.5 ! (0.23)	‡ (†)
Peru.....	370 (4.0)	14.1 (0.93)	22.0 (1.01)	28.7 (1.10)	22.1 (0.94)	10.1 (0.86)	2.6 (0.51)	0.4 ! (0.21)	# (†)
Qatar.....	372 (0.8)	17.8 (0.33)	22.4 (0.48)	23.2 (0.63)	18.3 (0.44)	11.1 (0.48)	5.4 (0.27)	1.5 (0.16)	0.2 ! (0.07)
Romania.....	424 (4.1)	4.1 (0.69)	12.7 (1.08)	23.6 (1.25)	31.6 (1.31)	21.2 (1.31)	6.1 (0.71)	0.7 (0.17)	‡ (†)
Russian Federation.....	459 (3.3)	1.6 (0.35)	6.8 (0.58)	19.0 (0.79)	31.6 (0.97)	26.8 (0.88)	11.1 (0.66)	2.8 (0.43)	0.3 ! (0.11)
Serbia.....	442 (2.4)	2.0 (0.36)	8.8 (0.67)	22.1 (0.87)	33.2 (1.02)	25.3 (0.96)	7.9 (0.56)	0.8 (0.16)	# (†)
Shanghai-China.....	556 (2.4)	0.1 ! (0.04)	0.6 (0.14)	3.4 (0.47)	13.3 (0.86)	28.5 (1.16)	34.7 (1.04)	17.0 (0.99)	2.4 (0.45)
Singapore.....	526 (1.1)	0.4 (0.11)	2.7 (0.26)	9.3 (0.50)	18.5 (0.60)	27.6 (0.81)	25.7 (0.73)	13.1 (0.54)	2.6 (0.34)
Chinese Taipei.....	495 (2.6)	0.7 (0.18)	3.5 (0.35)	11.4 (0.63)	24.6 (0.80)	33.5 (1.09)	21.0 (0.97)	4.8 (0.76)	0.4 ! (0.20)
Thailand.....	421 (2.6)	1.2 (0.29)	9.9 (0.82)	31.7 (1.12)	36.8 (1.15)	16.7 (0.82)	3.3 (0.52)	‡ (†)	‡ (†)
Trinidad and Tobago.....	416 (1.2)	9.6 (0.51)	14.2 (0.61)	21.0 (0.81)	25.0 (0.94)	19.0 (0.86)	8.9 (0.51)	2.1 (0.27)	0.2 ! (0.07)
Tunisia.....	404 (2.9)	5.5 (0.52)	15.0 (0.78)	29.6 (1.10)	31.5 (1.22)	15.1 (1.04)	3.1 (0.52)	‡ (†)	‡ (†)
Uruguay.....	426 (2.6)	5.5 (0.58)	12.5 (0.68)	23.9 (0.70)	28.0 (0.73)	20.3 (0.73)	8.1 (0.51)	1.7 (0.26)	‡ (†)

†Not applicable.

#Rounds to zero.

!Interpret data with caution. The coefficient of variation (CV) for this estimate is between 30 and 50 percent.

‡Reporting standards not met. Either there are too few cases for a reliable estimate or the coefficient of variation (CV) is 50 percent or greater.

¹Level 1b: Able to locate a single piece of explicitly stated information in a prominent position in a short, syntactically simple text and make simple connections between adjacent pieces of information. Level 1a: Able to locate explicitly stated information, recognize the main theme in a text about a familiar topic, and make a simple connection between information in the text and common, everyday knowledge. Level 2: Able to locate information which may need to be inferred and may need to meet several conditions, recognize the main idea in a text, understand relationships, construe meaning within part of the text when the information is not prominent, and make comparisons or connections between the text and outside knowledge by drawing on personal experience and attitudes. Level 3: Able to recognize the relationship between several pieces of information that must meet multiple conditions; integrate parts of a text in order to identify a main idea, understand a relationship, or construe the meaning of a word or phrase; compare, contrast or categorize where the required information is not prominent or there is much competing information or other obstacles in the text; make connections, comparisons, and explanations; evaluate a feature of the text; and demonstrate an understanding of the text by relating it to everyday knowledge or by drawing on less common knowledge. Level 4: Able to locate and organize embedded information, interpret the meaning of language by taking into account the text as a whole, understand and apply categories in an unfamiliar con-

text, use formal knowledge to hypothesize about or critically evaluate a text, and demonstrate an understanding of long or complex texts with unfamiliar form or content. Level 5: Able to locate and organize deeply embedded information, infer relevant information in the text, perform critical evaluation or form a hypothesis by drawing on specialized knowledge, and fully understand texts with unfamiliar form or content. Level 6: Able to make multiple inferences, comparisons, and contrasts that are both detailed and precise; demonstrate full understanding of texts and integrate information from more than one text; deal with unfamiliar ideas in the presence of prominent competing information; generate abstract categories for interpretation; hypothesize about or critically evaluate a complex text on an unfamiliar topic, taking into account multiple criteria or perspectives; and apply sophisticated understandings from beyond the text.

²Illustrates how a country compares with the OECD area as a whole. Computed by taking the OECD countries as a single entity to which each country contributes in proportion to the number of 15-year-olds enrolled in its schools.

³Refers to the mean of the data values for all OECD countries, to which each country contributes equally, regardless of the absolute size of the student population of each country.

NOTE: PISA scores are reported on a scale from 0 to 1,000. Detail may not sum to totals because of rounding.

SOURCE: Organization for Economic Cooperation and Development (OECD), Program for International Student Assessment (PISA), 2009, *PISA 2009 Results: What Students Know and Can Do—Student Performance in Reading, Mathematics, and Science (Volume I)*. (This table was prepared December 2010.)

Table 465. Average mathematics scores and percentage distribution of 15-year-old students scoring at each mathematics literacy proficiency level, by country: 2009
 [Standard errors appear in parentheses]

Country or other jurisdiction	Average mathematics score	Percentage distribution at levels of mathematics proficiency ¹													
		Below level 1		Level 1		Level 2		Level 3		Level 4		Level 5		Level 6	
1	2	3		4		5		6		7		8		9	
OECD total²	488 (1.2)	9.3 (0.25)	15.5 (0.33)	22.7 (0.31)	23.5 (0.24)	17.3 (0.30)	8.9 (0.24)	2.8 (0.16)							
OECD average³	496 (0.5)	8.0 (0.12)	14.0 (0.13)	22.0 (0.15)	24.3 (0.17)	18.9 (0.15)	9.6 (0.12)	3.1 (0.08)							
Australia.....	514 (2.5)	5.1 (0.33)	10.8 (0.53)	20.3 (0.61)	25.8 (0.54)	21.7 (0.56)	11.9 (0.54)	4.5 (0.56)							
Austria.....	496 (2.7)	7.8 (0.75)	15.4 (0.90)	21.2 (0.88)	23.0 (0.89)	19.6 (0.93)	9.9 (0.70)	3.0 (0.35)							
Belgium.....	515 (2.3)	7.7 (0.63)	11.3 (0.54)	17.5 (0.69)	21.8 (0.73)	21.3 (0.76)	14.6 (0.56)	5.8 (0.44)							
Canada.....	527 (1.6)	3.1 (0.25)	8.3 (0.42)	18.8 (0.48)	26.5 (0.86)	25.0 (0.68)	13.9 (0.45)	4.4 (0.27)							
Chile.....	421 (3.1)	21.7 (1.19)	29.4 (1.09)	27.3 (0.98)	14.8 (0.96)	5.6 (0.59)	1.2 (0.29)	† (†)							
Czech Republic.....	493 (2.8)	7.0 (0.83)	15.3 (0.82)	24.2 (1.00)	24.4 (1.09)	17.4 (0.81)	8.5 (0.64)	3.2 (0.39)							
Denmark.....	503 (2.6)	4.9 (0.49)	12.1 (0.80)	23.0 (0.91)	27.4 (1.06)	21.0 (0.89)	9.1 (0.83)	2.5 (0.47)							
Estonia.....	512 (2.6)	3.0 (0.42)	9.6 (0.68)	22.7 (0.86)	29.9 (0.94)	22.7 (0.81)	9.8 (0.79)	2.2 (0.43)							
Finland.....	541 (2.2)	1.7 (0.25)	6.1 (0.45)	15.6 (0.83)	27.1 (0.95)	27.8 (0.87)	16.7 (0.79)	4.9 (0.53)							
France.....	497 (3.1)	9.5 (0.88)	13.1 (1.07)	19.9 (0.94)	23.8 (1.12)	20.1 (1.01)	10.4 (0.72)	3.3 (0.48)							
Germany.....	513 (2.9)	6.4 (0.63)	12.2 (0.72)	18.8 (0.88)	23.1 (0.87)	21.7 (0.92)	13.2 (0.87)	4.6 (0.46)							
Greece.....	466 (3.9)	11.3 (1.22)	19.1 (1.01)	26.4 (1.25)	24.0 (1.05)	13.6 (0.78)	4.9 (0.56)	0.8 (0.16)							
Hungary.....	490 (3.5)	8.1 (0.99)	14.2 (0.95)	23.2 (1.18)	26.0 (1.24)	18.4 (1.02)	8.1 (0.79)	2.0 (0.45)							
Iceland.....	507 (1.4)	5.7 (0.43)	11.3 (0.52)	21.3 (0.88)	27.3 (0.90)	20.9 (0.90)	10.5 (0.67)	3.1 (0.40)							
Ireland.....	487 (2.5)	7.3 (0.63)	13.6 (0.74)	24.5 (1.09)	28.6 (1.20)	19.4 (0.92)	5.8 (0.59)	0.9 (0.20)							
Israel.....	447 (3.3)	20.5 (1.17)	18.9 (0.90)	22.5 (0.92)	20.1 (0.87)	12.0 (0.71)	4.7 (0.51)	1.2 (0.28)							
Italy.....	483 (1.9)	9.1 (0.44)	15.9 (0.48)	24.2 (0.59)	24.6 (0.48)	17.3 (0.57)	7.4 (0.40)	1.6 (0.15)							
Japan.....	529 (3.3)	4.0 (0.57)	8.5 (0.65)	17.4 (0.90)	25.7 (1.08)	23.5 (1.04)	14.7 (0.88)	6.2 (0.78)							
Korea, Republic of.....	546 (4.0)	1.9 (0.49)	6.2 (0.72)	15.6 (0.99)	24.4 (1.21)	26.3 (1.30)	17.7 (0.97)	7.8 (0.96)							
Luxembourg.....	489 (1.2)	9.6 (0.53)	14.4 (0.57)	22.7 (0.72)	23.1 (0.98)	19.0 (0.82)	9.0 (0.61)	2.3 (0.36)							
Mexico.....	419 (1.8)	21.9 (0.79)	28.9 (0.59)	28.3 (0.61)	15.6 (0.56)	4.7 (0.36)	0.7 (0.11)	# (†)							
Netherlands.....	526 (4.7)	2.8 (0.59)	10.6 (1.33)	19.0 (1.37)	23.9 (0.98)	23.9 (1.25)	15.4 (1.18)	4.4 (0.52)							
New Zealand.....	519 (2.3)	5.3 (0.53)	10.2 (0.54)	19.1 (0.84)	24.4 (0.88)	22.2 (0.98)	13.6 (0.74)	5.3 (0.45)							
Norway.....	498 (2.4)	5.5 (0.50)	12.7 (0.83)	24.3 (0.93)	27.5 (1.02)	19.7 (0.86)	8.4 (0.58)	1.8 (0.34)							
Poland.....	495 (2.8)	6.1 (0.54)	14.4 (0.75)	24.0 (0.88)	26.1 (0.77)	19.0 (0.85)	8.2 (0.61)	2.2 (0.41)							
Portugal.....	487 (2.9)	8.4 (0.62)	15.3 (0.83)	23.9 (0.93)	25.0 (1.03)	17.7 (0.79)	7.7 (0.63)	1.9 (0.35)							
Slovak Republic.....	497 (3.1)	7.0 (0.68)	14.0 (0.79)	23.2 (1.08)	25.0 (1.54)	18.1 (1.24)	9.1 (0.69)	3.6 (0.63)							
Slovenia.....	501 (1.2)	6.5 (0.40)	13.8 (0.60)	22.5 (0.67)	23.9 (0.69)	19.0 (0.79)	10.3 (0.57)	3.9 (0.36)							
Spain.....	483 (2.1)	9.1 (0.48)	14.6 (0.58)	23.9 (0.58)	26.6 (0.63)	17.7 (0.62)	6.7 (0.39)	1.3 (0.16)							
Sweden.....	494 (2.9)	7.5 (0.65)	13.6 (0.72)	23.4 (0.81)	25.2 (0.75)	19.0 (0.88)	8.9 (0.64)	2.5 (0.35)							
Switzerland.....	534 (3.3)	4.5 (0.40)	9.0 (0.65)	15.9 (0.63)	23.0 (0.92)	23.5 (0.80)	16.3 (0.78)	7.8 ! (0.75)							
Turkey.....	445 (4.4)	17.7 (1.35)	24.5 (1.11)	25.2 (1.18)	17.4 (1.07)	9.6 (0.90)	4.4 (0.91)	1.3 (0.46)							
United Kingdom.....	492 (2.4)	6.2 (0.46)	14.0 (0.71)	24.9 (0.88)	27.2 (1.10)	17.9 (0.96)	8.1 (0.63)	1.8 (0.27)							
United States.....	487 (3.6)	8.1 (0.72)	15.3 (0.98)	24.4 (0.97)	25.2 (0.95)	17.1 (0.93)	8.0 (0.85)	1.9 (0.46)							

See notes at end of table.

Table 465. Average mathematics scores and percentage distribution of 15-year-old students scoring at each mathematics literacy proficiency level, by country: 2009—Continued
 [Standard errors appear in parentheses]

Country or other jurisdiction	Average mathematics score		Percentage distribution at levels of mathematics proficiency ¹													
			Below level 1		Level 1		Level 2		Level 3		Level 4		Level 5		Level 6	
1	2		3		4		5		6		7		8		9	
Non-OECD education systems																
Albania.....	377	(4.0)	40.5	(1.76)	27.2	(1.22)	20.2	(1.25)	9.1	(0.85)	2.6	(0.58)	0.4	(0.16)	#	(†)
Argentina.....	388	(4.1)	37.2	(1.75)	26.4	(1.11)	20.8	(1.09)	10.9	(0.95)	3.9	(0.66)	0.8	(0.26)	‡	(†)
Azerbaijan.....	431	(2.8)	11.5	(0.96)	33.8	(1.24)	35.3	(1.29)	14.8	(1.04)	3.6	(0.51)	0.9	(0.34)	‡	(†)
Brazil.....	386	(2.4)	38.1	(1.25)	31.0	(0.91)	19.0	(0.75)	8.1	(0.64)	3.0	(0.32)	0.7	(0.19)	‡	(†)
Bulgaria.....	428	(5.9)	24.5	(1.91)	22.7	(1.08)	23.4	(1.11)	17.5	(1.36)	8.2	(0.90)	3.0	(0.70)	0.8 !	(0.36)
Colombia.....	381	(3.2)	38.8	(2.02)	31.6	(1.30)	20.3	(1.28)	7.5	(0.66)	1.6	(0.33)	‡	(†)	#	(†)
Croatia.....	460	(3.1)	12.4	(0.85)	20.8	(0.94)	26.7	(0.83)	22.7	(0.97)	12.5	(0.84)	4.3	(0.51)	0.6 !	(0.22)
Dubai (United Arab Emirates).....	453	(1.1)	17.6	(0.49)	21.2	(0.59)	23.0	(0.79)	19.6	(0.63)	12.1	(0.55)	5.3	(0.39)	1.2	(0.19)
Hong Kong-China.....	555	(2.7)	2.6	(0.40)	6.2	(0.53)	13.2	(0.67)	21.9	(0.84)	25.4	(0.91)	19.9	(0.82)	10.8	(0.78)
Indonesia.....	371	(3.7)	43.5	(2.21)	33.1	(1.54)	16.9	(1.14)	5.4	(0.91)	0.9 !	(0.32)	‡	(†)	‡	(†)
Jordan.....	387	(3.7)	35.4	(1.67)	29.9	(1.20)	22.9	(1.03)	9.5	(0.94)	2.1	(0.44)	‡	(†)	#	(†)
Kazakhstan.....	405	(3.0)	29.6	(1.31)	29.6	(0.94)	23.5	(0.88)	12.0	(0.80)	4.2	(0.48)	0.9 !	(0.29)	‡	(†)
Kyrgyzstan.....	331	(2.9)	64.8	(1.43)	21.8	(0.98)	9.3	(0.76)	3.3	(0.51)	0.7 !	(0.24)	#	(†)	‡	(†)
Latvia.....	482	(3.1)	5.8	(0.69)	16.7	(1.15)	27.2	(1.04)	28.2	(1.08)	16.4	(1.01)	5.1	(0.50)	0.6	(0.15)
Liechtenstein.....	536	(4.1)	3.0 !	(0.99)	6.5	(1.61)	15.0	(2.18)	26.2	(2.26)	31.2	(3.25)	13.0	(2.45)	5.0	(1.42)
Lithuania.....	477	(2.6)	9.0	(0.79)	17.3	(0.85)	26.1	(1.10)	25.3	(0.98)	15.4	(0.77)	5.7	(0.56)	1.3	(0.26)
Macao-China.....	525	(0.9)	2.8	(0.25)	8.2	(0.46)	19.6	(0.58)	27.8	(0.90)	24.5	(0.78)	12.8	(0.43)	4.3	(0.28)
Montenegro.....	403	(2.0)	29.6	(1.07)	28.8	(1.00)	24.6	(1.04)	12.2	(0.68)	3.8	(0.35)	0.9	(0.20)	‡	(†)
Panama.....	360	(5.2)	51.5	(2.90)	27.3	(1.72)	13.9	(1.51)	5.6	(0.92)	1.4	(0.36)	‡	(†)	#	(†)
Peru.....	365	(4.0)	47.6	(1.81)	25.9	(1.16)	16.9	(1.26)	6.8	(0.70)	2.1	(0.43)	0.5 !	(0.18)	‡	(†)
Qatar.....	368	(0.7)	51.1	(0.56)	22.7	(0.64)	13.1	(0.48)	7.2	(0.35)	4.2	(0.25)	1.5	(0.17)	0.3	(0.08)
Romania.....	427	(3.4)	19.5	(1.42)	27.5	(1.15)	28.6	(1.39)	17.3	(1.02)	5.9	(0.77)	1.2	(0.33)	‡	(†)
Russian Federation.....	468	(3.3)	9.5	(0.92)	19.0	(1.16)	28.5	(1.03)	25.0	(1.00)	12.7	(0.87)	4.3	(0.57)	1.0	(0.27)
Serbia.....	442	(2.9)	17.6	(1.04)	22.9	(0.84)	26.5	(1.07)	19.9	(0.97)	9.5	(0.62)	2.9	(0.41)	0.6	(0.18)
Shanghai-China.....	600	(2.8)	1.4	(0.26)	3.4	(0.38)	8.7	(0.63)	15.2	(0.79)	20.8	(0.79)	23.8	(0.80)	26.6	(1.19)
Singapore.....	562	(1.4)	3.0	(0.26)	6.8	(0.57)	13.1	(0.56)	18.7	(0.80)	22.8	(0.62)	20.0	(0.87)	15.6	(0.63)
Chinese Taipei.....	543	(3.4)	4.2	(0.48)	8.6	(0.65)	15.5	(0.68)	20.9	(0.88)	22.2	(0.86)	17.2	(0.92)	11.3	(1.16)
Thailand.....	419	(3.2)	22.1	(1.37)	30.4	(0.92)	27.3	(1.09)	14.0	(0.85)	4.9	(0.57)	1.0	(0.27)	‡	(†)
Trinidad and Tobago.....	414	(1.3)	30.1	(0.79)	23.1	(0.97)	21.2	(0.89)	15.4	(0.63)	7.7	(0.44)	2.1	(0.25)	0.3 !	(0.15)
Tunisia.....	371	(3.0)	43.4	(1.66)	30.2	(1.46)	18.7	(0.90)	6.1	(0.69)	1.3 !	(0.44)	‡	(†)	#	(†)
Uruguay.....	427	(2.6)	22.9	(1.16)	24.6	(1.08)	25.1	(0.99)	17.0	(0.73)	7.9	(0.55)	2.1	(0.34)	0.3 !	(0.12)

†Not applicable.

#Rounds to zero.

!Interpret data with caution. The coefficient of variation (CV) for this estimate is between 30 and 50 percent.

‡Reporting standards not met. Either there are too few cases for a reliable estimate or the coefficient of variation (CV) is 50 percent or greater.

¹Level 1: Able to answer questions involving familiar contexts where all relevant information is present and the questions are clearly defined. Level 2: Able to interpret and recognize situations in contexts that require no more than direct inference; extract relevant information from a single source; employ basic algorithms, formulae, procedures, or conventions; and employ direct reasoning for literal interpretations of results. Level 3: Able to execute clearly described procedures; select and apply simple problem-solving strategies; interpret and use representations based on different information sources; and develop short communications reporting one's interpretations, results, and reasoning. Level 4: Able to work effectively with explicit models for complex concrete situations that may involve constraints or call for making assumptions, select and integrate different representations, reason with some insight, and construct and communicate explanations and arguments based on one's interpretations and actions. Level 5: Able to develop

and work with models for complex situations; select and evaluate appropriate problem-solving strategies; work strategically using broad, well-developed thinking and reasoning skills; and communicate one's interpretations and reasoning. Level 6: Able to conceptualize, generalize, and utilize information; link different information sources and representations; perform advanced mathematical thinking and reasoning; develop new approaches and strategies for attacking novel situations; and formulate and precisely communicate actions and reflections regarding findings and interpretations.

²Illustrates how a country compares with the OECD area as a whole. Computed by taking the OECD countries as a single entity to which each country contributes in proportion to the number of 15-year-olds enrolled in its schools.

³Refers to the mean of the data values for all OECD countries, to which each country contributes equally, regardless of the absolute size of the student population of each country.

NOTE: PISA scores are reported on a scale from 0 to 1,000. Detail may not sum to totals because of rounding.

SOURCE: Organization for Economic Cooperation and Development (OECD), Program for International Student Assessment (PISA), 2009, *PISA 2009 Results: What Students Know and Can Do—Student Performance in Reading, Mathematics and Science (Volume I)*. (This table was prepared December 2010.)

Table 466. Average science scores and percentage distribution of 15-year-old students scoring at each science literacy proficiency level, by country: 2009

[Standard errors appear in parentheses]

Country or other jurisdiction	Average science score	Percentage distribution at levels of science proficiency ¹													
		Below Level 1		Level 1		Level 2		Level 3		Level 4		Level 5		Level 6	
1	2	3		4		5		6		7		8		9	
OECD total².....	496 (1.2)	5.4 (0.19)	14.6 (0.32)	24.8 (0.28)	27.1 (0.25)	19.6 (0.32)	7.3 (0.25)	1.1 (0.10)							
OECD average³.....	501 (0.5)	5.0 (0.10)	13.0 (0.14)	24.4 (0.16)	28.6 (0.17)	20.6 (0.16)	7.4 (0.15)	1.1 (0.04)							
Australia.....	527 (2.5)	3.4 (0.27)	9.2 (0.48)	20.0 (0.59)	28.4 (0.65)	24.5 (0.66)	11.5 (0.58)	3.1 (0.50)							
Austria.....	494 (3.2)	6.7 (0.83)	14.3 (0.99)	23.8 (1.00)	26.6 (1.04)	20.6 (1.03)	7.1 (0.61)	1.0 (0.19)							
Belgium.....	507 (2.5)	6.4 (0.57)	11.7 (0.61)	20.7 (0.65)	27.2 (0.76)	24.0 (0.82)	9.0 (0.59)	1.1 (0.19)							
Canada.....	529 (1.6)	2.0 (0.21)	7.5 (0.37)	20.9 (0.49)	31.2 (0.62)	26.2 (0.65)	10.5 (0.45)	1.6 (0.15)							
Chile.....	447 (2.9)	8.4 (0.83)	23.9 (1.07)	35.2 (0.94)	23.6 (1.07)	7.9 (0.69)	1.1 (0.22)	# (†)							
Czech Republic.....	500 (3.0)	4.7 (0.57)	12.6 (0.90)	25.6 (0.97)	28.8 (1.25)	19.9 (0.87)	7.2 (0.58)	1.2 (0.22)							
Denmark.....	499 (2.5)	4.1 (0.42)	12.5 (0.65)	26.0 (0.77)	30.6 (1.07)	20.1 (0.85)	5.9 (0.55)	0.9 (0.23)							
Estonia.....	528 (2.7)	1.3 (0.31)	7.0 (0.72)	21.3 (1.07)	34.3 (1.10)	25.7 (1.07)	9.0 (0.63)	1.4 (0.26)							
Finland.....	554 (2.3)	1.1 (0.19)	4.9 (0.41)	15.3 (0.73)	28.8 (0.95)	31.2 (1.08)	15.4 (0.74)	3.3 (0.34)							
France.....	498 (3.6)	7.1 (0.82)	12.2 (0.83)	22.1 (1.25)	28.8 (1.32)	21.7 (1.02)	7.3 (0.70)	0.8 (0.22)							
Germany.....	520 (2.8)	4.1 (0.51)	10.7 (0.81)	20.1 (0.86)	27.3 (1.08)	25.0 (1.18)	10.9 (0.68)	1.9 (0.29)							
Greece.....	470 (4.0)	7.2 (1.07)	18.1 (1.04)	29.8 (0.96)	27.9 (1.20)	14.0 (0.95)	2.8 (0.31)	0.3 ! (0.11)							
Hungary.....	503 (3.1)	3.8 (0.93)	10.4 (0.86)	25.5 (1.13)	33.2 (1.32)	21.8 (1.19)	5.1 (0.55)	0.3 ! (0.13)							
Iceland.....	496 (1.4)	5.5 (0.48)	12.5 (0.63)	25.8 (0.75)	30.4 (0.94)	18.8 (0.84)	6.1 (0.43)	0.8 (0.19)							
Ireland.....	508 (3.3)	4.4 (0.69)	10.7 (1.01)	23.3 (1.17)	29.9 (0.99)	22.9 (0.95)	7.5 (0.68)	1.2 (0.23)							
Israel.....	455 (3.1)	13.9 (1.06)	19.2 (0.72)	26.0 (1.04)	24.1 (0.76)	12.8 (0.72)	3.5 (0.36)	0.5 (0.13)							
Italy.....	489 (1.8)	6.1 (0.39)	14.5 (0.50)	25.5 (0.63)	29.5 (0.54)	18.6 (0.53)	5.3 (0.29)	0.5 (0.07)							
Japan.....	539 (3.4)	3.2 (0.52)	7.5 (0.68)	16.3 (0.87)	26.6 (0.83)	29.5 (0.98)	14.4 (0.73)	2.6 (0.39)							
Korea, Republic of.....	538 (3.4)	1.1 (0.32)	5.2 (0.68)	18.5 (1.15)	33.1 (1.13)	30.4 (1.14)	10.5 (0.90)	1.1 (0.31)							
Luxembourg.....	484 (1.2)	8.4 (0.52)	15.3 (0.88)	24.3 (0.69)	27.1 (0.87)	18.2 (0.91)	6.0 (0.49)	0.7 (0.12)							
Mexico.....	416 (1.8)	14.5 (0.60)	32.8 (0.64)	33.6 (0.60)	15.8 (0.61)	3.1 (0.27)	0.2 (0.05)	# (†)							
Netherlands.....	522 (5.4)	2.6 (0.53)	10.6 (1.33)	21.8 (1.53)	26.9 (1.07)	25.3 (1.69)	11.2 (1.10)	1.5 (0.30)							
New Zealand.....	532 (2.6)	4.0 (0.53)	9.4 (0.52)	18.1 (1.01)	25.8 (0.88)	25.1 (0.74)	14.0 (0.72)	3.6 (0.36)							
Norway.....	500 (2.6)	3.8 (0.48)	11.9 (0.92)	26.6 (0.95)	31.1 (0.71)	20.1 (0.82)	5.9 (0.65)	0.5 ! (0.16)							
Poland.....	508 (2.4)	2.3 (0.33)	10.9 (0.69)	26.1 (0.80)	32.1 (0.81)	21.2 (0.97)	6.8 (0.49)	0.8 (0.19)							
Portugal.....	493 (2.9)	3.0 (0.35)	13.5 (0.92)	28.9 (1.08)	32.3 (1.08)	18.1 (1.00)	3.9 (0.51)	0.3 ! (0.13)							
Slovak Republic.....	490 (3.0)	5.0 (0.58)	14.2 (0.89)	27.6 (1.03)	29.2 (0.95)	17.7 (0.85)	5.6 (0.53)	0.7 (0.20)							
Slovenia.....	512 (1.1)	3.1 (0.22)	11.7 (0.45)	23.7 (0.66)	28.7 (1.05)	23.0 (0.72)	8.7 (0.61)	1.2 (0.27)							
Spain.....	488 (2.1)	4.6 (0.37)	13.6 (0.75)	27.9 (0.67)	32.3 (0.69)	17.6 (0.57)	3.7 (0.26)	0.2 (0.05)							
Sweden.....	495 (2.7)	5.8 (0.51)	13.4 (0.75)	25.6 (0.80)	28.4 (0.84)	18.7 (0.86)	7.1 (0.56)	1.0 (0.22)							
Switzerland.....	517 (2.8)	3.5 (0.31)	10.6 (0.58)	21.3 (1.09)	29.8 (1.02)	24.1 (1.03)	9.2 (0.73)	1.5 (0.23)							
Turkey.....	454 (3.6)	6.9 (0.81)	23.0 (1.13)	34.5 (1.16)	25.2 (1.24)	9.1 (1.13)	1.1 (0.29)	# (†)							
United Kingdom.....	514 (2.5)	3.8 (0.34)	11.2 (0.68)	22.7 (0.73)	28.8 (0.97)	22.2 (0.83)	9.5 (0.61)	1.9 (0.25)							
United States.....	502 (3.6)	4.2 (0.54)	13.9 (0.93)	25.0 (0.87)	27.5 (0.80)	20.1 (0.94)	7.9 (0.78)	1.3 (0.28)							

See notes at end of table.

Table 466. Average science scores and percentage distribution of 15-year-old students scoring at each science literacy proficiency level, by country: 2009—Continued

[Standard errors appear in parentheses]

Country or other jurisdiction	Average science score	Percentage distribution at levels of science proficiency ¹									
		Below Level 1	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			
1	2	3	4	5	6	7	8	9			
Non-OECD education systems											
Albania.....	391 (3.9)	26.3 (1.55)	31.0 (1.28)	27.7 (1.24)	12.9 (1.34)	2.0 (0.38)	‡ (†)	‡ (†)	‡ (†)	‡ (†)	
Argentina.....	401 (4.6)	25.2 (1.70)	27.2 (1.37)	26.7 (1.20)	15.4 (1.12)	4.8 (0.69)	0.6 (0.18)	# (†)	# (†)	# (†)	
Azerbaijan.....	373 (3.1)	31.5 (1.68)	38.5 (1.13)	22.4 (1.07)	6.7 (0.76)	0.8 (0.22)	# (†)	‡ (†)	‡ (†)	‡ (†)	
Brazil.....	405 (2.4)	19.7 (0.90)	34.5 (0.99)	28.8 (0.90)	12.6 (0.81)	3.9 (0.38)	0.6 (0.11)	# (†)	# (†)	# (†)	
Bulgaria.....	439 (5.9)	16.5 (1.63)	22.3 (1.55)	26.6 (1.31)	21.0 (1.36)	10.9 (1.01)	2.4 (0.48)	‡ (†)	‡ (†)	‡ (†)	
Colombia.....	402 (3.6)	20.4 (1.81)	33.7 (1.23)	30.2 (1.40)	13.1 (1.04)	2.5 (0.34)	0.1 ! (0.05)	# (†)	# (†)	# (†)	
Croatia.....	486 (2.8)	3.6 (0.47)	14.9 (0.99)	30.0 (1.07)	31.1 (1.03)	16.7 (0.98)	3.5 (0.57)	‡ (†)	‡ (†)	‡ (†)	
Dubai (United Arab Emirates).....	466 (1.2)	11.0 (0.47)	19.5 (0.57)	26.0 (0.78)	22.9 (0.73)	14.9 (0.59)	4.8 (0.35)	0.8 (0.21)	0.8 (0.21)	0.8 (0.21)	
Hong Kong-China.....	549 (2.8)	1.4 (0.31)	5.2 (0.61)	15.1 (0.73)	29.4 (0.99)	32.7 (0.99)	14.2 (0.94)	2.0 (0.30)	2.0 (0.30)	2.0 (0.30)	
Indonesia.....	383 (3.8)	24.6 (1.77)	41.0 (1.54)	27.0 (1.55)	6.9 (1.01)	0.5 ! (0.22)	# (†)	‡ (†)	‡ (†)	‡ (†)	
Jordan.....	415 (3.5)	18.0 (1.20)	27.6 (1.13)	32.2 (1.21)	17.6 (1.12)	4.1 (0.51)	0.5 ! (0.18)	# (†)	# (†)	# (†)	
Kazakhstan.....	400 (3.1)	22.4 (1.31)	33.0 (1.08)	27.9 (1.14)	12.8 (0.82)	3.6 (0.62)	0.3 ! (0.16)	# (†)	# (†)	# (†)	
Kyrgyzstan.....	330 (2.9)	52.9 (1.32)	29.0 (0.94)	13.3 (0.76)	4.0 (0.54)	0.7 (0.20)	# (†)	‡ (†)	‡ (†)	‡ (†)	
Latvia.....	494 (3.1)	2.3 (0.56)	12.5 (1.00)	29.1 (1.07)	35.5 (1.16)	17.6 (1.06)	3.0 (0.47)	‡ (†)	‡ (†)	‡ (†)	
Liechtenstein.....	520 (3.4)	‡ (†)	9.9 (1.94)	23.8 (3.07)	29.8 (3.67)	25.4 (2.67)	9.0 (1.74)	‡ (†)	‡ (†)	‡ (†)	
Lithuania.....	491 (2.9)	3.5 (0.65)	13.5 (0.77)	28.9 (1.02)	32.4 (1.18)	17.0 (0.84)	4.3 (0.41)	0.4 ! (0.13)	0.4 ! (0.13)	0.4 ! (0.13)	
Macao-China.....	511 (1.0)	1.5 (0.21)	8.1 (0.36)	25.2 (0.77)	37.8 (0.74)	22.7 (0.98)	4.5 (0.47)	0.2 ! (0.08)	0.2 ! (0.08)	0.2 ! (0.08)	
Montenegro.....	401 (2.0)	22.2 (1.01)	31.4 (0.98)	29.4 (1.04)	13.6 (0.79)	3.1 (0.39)	‡ (†)	‡ (†)	‡ (†)	‡ (†)	
Panama.....	376 (5.7)	32.8 (2.74)	32.4 (1.96)	23.2 (1.93)	9.3 (1.19)	2.2 (0.46)	‡ (†)	‡ (†)	‡ (†)	‡ (†)	
Peru.....	369 (3.5)	35.3 (1.50)	33.0 (1.29)	21.7 (1.21)	8.0 (0.79)	1.8 (0.37)	‡ (†)	‡ (†)	‡ (†)	‡ (†)	
Qatar.....	379 (0.9)	36.4 (0.58)	28.8 (0.54)	18.8 (0.56)	9.8 (0.30)	4.8 (0.23)	1.3 (0.14)	0.1 ! (0.05)	0.1 ! (0.05)	0.1 ! (0.05)	
Romania.....	428 (3.4)	11.9 (1.13)	29.5 (1.57)	34.1 (1.73)	19.7 (1.18)	4.4 (0.59)	0.4 ! (0.12)	# (†)	# (†)	# (†)	
Russian Federation.....	478 (3.3)	5.5 (0.67)	16.5 (1.06)	30.7 (1.14)	29.0 (1.15)	13.9 (0.91)	3.9 (0.50)	0.4 ! (0.17)	0.4 ! (0.17)	0.4 ! (0.17)	
Serbia.....	443 (2.4)	10.1 (0.82)	24.3 (0.96)	33.9 (1.17)	23.6 (0.75)	7.1 (0.57)	1.0 (0.18)	# (†)	# (†)	# (†)	
Shanghai-China.....	575 (2.3)	0.4 (0.11)	2.8 (0.36)	10.5 (0.66)	26.0 (0.99)	36.1 (1.12)	20.4 (0.96)	3.9 (0.45)	3.9 (0.45)	3.9 (0.45)	
Singapore.....	542 (1.4)	2.8 (0.24)	8.7 (0.52)	17.5 (0.58)	25.4 (0.83)	25.7 (0.70)	15.3 (0.67)	4.6 (0.50)	4.6 (0.50)	4.6 (0.50)	
Chinese Taipei.....	520 (2.6)	2.2 (0.34)	8.9 (0.60)	21.1 (0.91)	33.3 (1.04)	25.8 (1.10)	8.0 (0.74)	0.8 (0.22)	0.8 (0.22)	0.8 (0.22)	
Thailand.....	425 (3.0)	12.2 (1.10)	30.6 (1.01)	34.7 (1.34)	17.5 (0.95)	4.4 (0.51)	0.6 ! (0.27)	# (†)	# (†)	# (†)	
Trinidad and Tobago.....	410 (1.2)	25.1 (0.87)	24.9 (0.92)	25.2 (0.88)	16.0 (0.79)	7.1 (0.40)	1.8 (0.23)	‡ (†)	‡ (†)	‡ (†)	
Tunisia.....	401 (2.7)	21.3 (1.17)	32.4 (1.08)	30.9 (1.00)	13.0 (0.85)	2.2 (0.43)	‡ (†)	# (†)	# (†)	# (†)	
Uruguay.....	427 (2.6)	17.0 (0.94)	25.6 (0.86)	29.3 (1.01)	19.5 (1.02)	7.1 (0.51)	1.4 (0.22)	0.1 ! (0.04)	0.1 ! (0.04)	0.1 ! (0.04)	

†Not applicable.

#Rounds to zero.

!Interpret data with caution. The coefficient of variation (CV) for this estimate is between 30 and 50 percent.

‡Reporting standards not met. Either there are too few cases for a reliable estimate or the coefficient of variation (CV) is 50 percent or greater.

¹Level 1: Able to present scientific explanations that are obvious and that follow explicitly from given evidence. Level 2: Able to provide possible explanations in familiar contexts, draw conclusions based on simple investigations, and make literal interpretations of the results of scientific inquiry or technological problem solving. Level 3: Able to select facts to explain phenomena and apply simple models or inquiry strategies, develop short statements using facts, and make decisions based on scientific knowledge. Level 4: Able to select and integrate explanations from different disciplines of science or technology, link those explanations directly to aspects of life situations, and communicate decisions using scientific knowledge and evidence. Level 5: Able to apply scientific concepts and knowledge to many complex life situations, select and evaluate appropriate scientific evidence, bring critical insights to situations, and

construct explanations based on evidence and arguments based on critical analysis. Level 6: Able to consistently explain and apply scientific knowledge in a variety of complex life situations; use evidence from different sources to justify decisions; clearly and consistently demonstrate advanced scientific thinking and reasoning; and develop arguments in support of recommendations and decisions that center on personal, social, or global situations.

²Illustrates how a country compares with the OECD area as a whole. Computed by taking the OECD countries as a single entity to which each country contributes in proportion to the number of 15-year-olds enrolled in its schools.

³Refers to the mean of the data values for all OECD countries, to which each country contributes equally, regardless of the absolute size of the student population of each country.

NOTE: PISA scores are reported on a scale from 0 to 1,000. Detail may not sum to totals because of rounding.

SOURCE: Organization for Economic Cooperation and Development (OECD), Program for International Student Assessment (PISA), 2009, *PISA 2009 Results: What Students Know and Can Do—Student Performance in Reading, Mathematics and Science (Volume I)*. (This table was prepared December 2010.)

Table 467. Percentage of the population 25 to 64 years old who completed high school, by age group and country: Selected years, 2001 through 2010
[Standard errors appear in parentheses]

Country	2001		2005		2009			2010				
	Total, 25 to 64 years old	25 to 34 years old	Total, 25 to 64 years old	25 to 34 years old	Total, 25 to 64 years old	25 to 34 years old	Total, 25 to 64 years old	25 to 34 years old	35 to 44 years old	45 to 54 years old	55 to 64 years old	
1	2	3	4	5	6	7	8	9	10	11	12	
OECD average¹	64.2	74.0	72.8	82.6	73.3 (0.03)	81.5 (0.06)	74.0 (0.03)	81.9 (0.06)	77.8 (0.06)	71.6 (0.07)	62.3 (0.08)	
Australia.....	58.9	70.7	65.0	78.6	71.0 (0.29)	82.9 (0.49)	73.2 (0.41)	84.8 (0.62)	76.6 (0.74)	69.2 (0.86)	58.4 (1.12)	
Austria ^{2,3}	75.7	83.3	80.6	87.5	81.9 (0.12)	88.4 (0.22)	82.5 (0.12)	88.0 (0.23)	85.8 (0.21)	81.6 (0.22)	73.0 (0.30)	
Belgium ²	58.5	75.3	66.1	80.9	70.6 (0.19)	83.1 (0.33)	70.5 (0.19)	82.1 (0.34)	78.4 (0.33)	66.2 (0.37)	54.5 (0.42)	
Canada.....	81.9	89.3	85.2	90.8	87.6 (0.12)	92.0 (0.20)	88.4 (0.12)	92.2 (0.20)	91.2 (0.20)	87.6 (0.22)	82.1 (0.30)	
Chile ⁴	—	—	50.0	64.3	69.0 (0.19)	85.6 (0.24)	71.4 (0.19)	86.6 (0.24)	75.8 (0.28)	66.7 (0.32)	53.3 (0.41)	
Czech Republic.....	86.2	92.5	89.9	93.9	91.4 (0.08)	94.2 (0.14)	91.9 (0.08)	94.2 (0.14)	95.1 (0.12)	91.6 (0.16)	86.3 (0.18)	
Denmark.....	80.2	86.3	81.0	87.4	76.3 (0.17)	85.7 (0.43)	75.7 (0.17)	79.8 (0.42)	80.9 (0.34)	73.8 (0.32)	68.5 (0.31)	
Estonia.....	—	—	89.1	87.4	88.9 (0.31)	86.3 (0.73)	89.1 (0.30)	86.4 (0.73)	90.8 (0.53)	93.7 (0.44)	85.0 (0.71)	
Finland.....	73.8	86.8	78.8	89.4	82.0 (0.12)	90.4 (0.21)	83.0 (0.12)	90.8 (0.20)	89.0 (0.21)	84.6 (0.23)	69.6 (0.28)	
France ⁵	63.9	78.4	66.3	81.1	70.0 (0.10)	83.9 (0.17)	70.8 (0.09)	83.8 (0.16)	77.1 (0.16)	66.8 (0.18)	55.6 (0.19)	
Germany.....	82.6	85.5	83.1	84.1	85.5 (0.06)	86.0 (0.13)	85.8 (0.06)	86.5 (0.12)	86.8 (0.11)	86.5 (0.10)	83.1 (0.13)	
Greece.....	51.4	72.6	57.1	73.6	61.2 (0.12)	74.9 (0.23)	65.2 (0.12)	78.9 (0.21)	72.4 (0.22)	61.8 (0.23)	43.8 (0.25)	
Hungary.....	70.2	80.9	76.4	85.0	80.6 (0.10)	86.0 (0.18)	81.3 (0.10)	86.3 (0.19)	83.2 (0.19)	80.5 (0.20)	74.5 (0.21)	
Iceland.....	56.9	61.2	62.9	69.0	65.9 (0.50)	70.0 (0.93)	66.5 (0.50)	72.4 (0.92)	71.8 (1.00)	64.4 (0.96)	55.0 (1.10)	
Ireland.....	57.6	73.4	64.5	81.1	71.5 (0.12)	85.8 (0.18)	73.5 (0.12)	86.9 (0.18)	79.5 (0.21)	67.3 (0.27)	50.5 (0.32)	
Israel.....	—	—	79.2	85.7	81.8 (0.15)	87.4 (0.25)	82.1 (0.15)	88.1 (0.24)	84.1 (0.29)	78.2 (0.34)	73.9 (0.38)	
Italy.....	43.3	57.5	50.1	65.9	54.3 (0.08)	70.3 (0.17)	55.2 (0.08)	71.0 (0.18)	59.2 (0.16)	51.1 (0.16)	38.2 (0.16)	
Japan.....	83.1	93.6	—	—	— (†)	— (†)	— (†)	— (†)	— (†)	— (†)	— (†)	
Korea, Republic of.....	68.0	94.6	75.5	97.3	79.9 (0.20)	97.5 (0.15)	80.4 (0.20)	97.8 (0.14)	94.9 (0.20)	73.4 (0.43)	42.9 (0.63)	
Luxembourg.....	52.7	59.4	65.9	76.5	77.3 (0.41)	83.8 (0.80)	77.7 (0.40)	84.0 (0.80)	80.5 (0.71)	74.7 (0.78)	69.1 (0.96)	
Mexico.....	21.6	25.4	21.3	24.0	35.2 (0.06)	41.9 (0.12)	36.2 (0.06)	43.6 (0.12)	37.3 (0.12)	33.4 (0.13)	22.7 (0.15)	
Netherlands ^{2,5}	65.0	74.0	71.8	81.3	73.4 (0.09)	82.4 (0.17)	73.0 (0.09)	82.7 (0.18)	77.9 (0.17)	71.0 (0.17)	60.8 (0.21)	
New Zealand.....	75.7	81.8	78.7	85.2	72.2 (0.43)	79.3 (0.84)	73.0 (0.37)	79.4 (0.73)	76.6 (0.67)	72.0 (0.71)	62.5 (0.83)	
Norway ²	85.2	93.4	77.2	83.5	80.7 (0.16)	83.6 (0.33)	80.6 (0.16)	83.0 (0.34)	83.2 (0.29)	77.7 (0.34)	78.6 (0.34)	
Poland.....	45.9	51.7	51.4	62.5	88.0 (0.10)	93.5 (0.15)	88.7 (0.07)	93.7 (0.10)	91.8 (0.12)	88.8 (0.13)	79.2 (0.16)	
Portugal.....	19.9	32.5	26.5	42.8	29.9 (0.16)	48.2 (0.38)	31.9 (0.16)	52.1 (0.39)	33.9 (0.32)	22.3 (0.26)	15.7 (0.24)	
Slovak Republic.....	85.1	93.7	85.7	93.0	90.9 (0.12)	94.8 (0.19)	91.0 (0.12)	94.1 (0.20)	94.1 (0.20)	90.6 (0.24)	83.3 (0.29)	
Slovenia.....	—	—	80.3	91.2	83.3 (0.19)	93.5 (0.27)	83.3 (0.19)	93.5 (0.27)	85.6 (0.39)	80.8 (0.37)	72.2 (0.46)	
Spain.....	40.0	57.1	48.8	63.9	51.8 (0.08)	64.1 (0.16)	52.9 (0.08)	64.7 (0.16)	59.5 (0.15)	47.7 (0.16)	32.3 (0.16)	
Sweden.....	80.6	90.7	83.6	90.6	85.8 (0.09)	91.2 (0.16)	86.5 (0.08)	91.1 (0.13)	91.3 (0.12)	86.7 (0.15)	76.9 (0.18)	
Switzerland.....	87.4	91.8	83.0	87.9	86.9 (0.19)	90.0 (0.36)	86.1 (0.12)	90.2 (0.24)	87.5 (0.21)	85.3 (0.23)	81.0 (0.27)	
Turkey.....	24.3	30.2	27.2	35.7	31.1 (0.09)	41.6 (0.18)	31.2 (0.09)	42.2 (0.18)	28.3 (0.17)	24.3 (0.17)	18.8 (0.19)	
United Kingdom ^{3,5}	63.0	68.0	66.7	72.9	73.7 (0.09)	81.6 (0.17)	75.1 (0.18)	82.9 (0.35)	77.6 (0.35)	73.7 (0.36)	64.9 (0.41)	
United States.....	87.7	88.1	87.8	86.7	88.6 (0.12)	88.3 (0.19)	89.0 (0.14)	88.4 (0.24)	88.3 (0.24)	89.6 (0.23)	89.6 (0.25)	
Other reporting countries												
Brazil ⁴	—	—	29.5	38.0	40.7 (0.11)	52.5 (0.19)	— (†)	— (†)	— (†)	— (†)	— (†)	
Russian Federation ⁶	88.0	91.0	—	—	— (†)	— (†)	— (†)	— (†)	— (†)	— (†)	— (†)	

—Not available.

†Not applicable.

¹Refers to the mean of the data values for all reporting Organization for Economic Cooperation and Development (OECD) countries, to which each country reporting data contributes equally. The average includes all current OECD countries for which a given year's data are available, even if they were not members of OECD in that year.

²Data from 2000 reported for 2001.

³Data in 2005 columns include some International Standard Classification of Education (ISCED) 3C short programs.

⁴Data from 2004 reported for 2005.

⁵Data in 2001 columns include some ISCED 3C short programs.

⁶Data from 2002 reported for 2001.

NOTE: Data in this table refer to degrees classified as International Standard Classification of Education (ISCED) level 3. ISCED level 3 corresponds to high school completion in the United States. ISCED 3C short programs do not correspond to high school completion; these short programs are excluded from this table except where otherwise noted. Standard errors are not available for 2001 and 2005.

SOURCE: Organization for Economic Cooperation and Development (OECD), *Education at a Glance*, 2002, 2007, 2011, and 2012. (This table was prepared June 2012.)

Table 468. Percentage of the population 25 to 64 years old who attained selected levels of postsecondary education, by age group and country: 2001 and 2010
 [Standard errors appear in parentheses]

Country	Total, any postsecondary degree				2010									
	2001		2010		Vocational degree ¹					Bachelor's or higher degree ²				
	Total, 25 to 64 years old	25 to 34 years old	Total, 25 to 64 years old	25 to 34 years old	Total, 25 to 64 years old	25 to 34 years old	35 to 44 years old	45 to 54 years old	55 to 64 years old	Total, 25 to 64 years old	25 to 34 years old	35 to 44 years old	45 to 54 years old	55 to 64 years old
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
OECD average³	22.6	27.3	30.7 (0.05)	37.8 (0.10)	10.2 (0.03)	10.9 (0.07)	11.7 (0.07)	10.1 (0.07)	8.5 (0.07)	22.0 (0.04)	28.5 (0.09)	23.6 (0.08)	18.9 (0.08)	15.9 (0.08)
Australia	29.0	33.5	37.6 (0.45)	44.4 (0.85)	10.7 (0.29)	10.2 (0.52)	11.2 (0.55)	11.0 (0.58)	10.1 (0.69)	26.9 (0.41)	34.2 (0.81)	28.4 (0.79)	23.8 (0.79)	19.5 (0.90)
Austria	14.1	14.3	19.3 (0.26)	20.8 (0.54)	7.3 (0.19)	5.4 (0.29)	7.4 (0.32)	8.2 (0.28)	8.1 (0.44)	12.0 (0.25)	15.4 (0.49)	13.4 (0.39)	10.4 (0.40)	8.4 (0.43)
Belgium	27.6	37.5	35.0 (0.20)	43.8 (0.44)	17.8 (0.16)	20.5 (0.36)	19.9 (0.32)	16.4 (0.29)	14.1 (0.29)	17.2 (0.16)	23.3 (0.37)	19.5 (0.32)	14.5 (0.28)	11.5 (0.27)
Canada	41.6	50.5	50.6 (0.23)	56.5 (0.43)	24.2 (0.17)	25.8 (0.38)	26.1 (0.30)	24.1 (0.26)	20.4 (0.28)	26.4 (0.22)	30.7 (0.42)	30.7 (0.38)	22.7 (0.32)	21.8 (0.34)
Chile ⁴	10.1	12.3	26.8 (0.18)	38.5 (0.34)	10.3 (0.13)	13.1 (0.23)	12.8 (0.22)	9.3 (0.20)	4.9 (0.18)	16.5 (0.15)	25.4 (0.30)	14.7 (0.23)	12.1 (0.22)	14.0 (0.28)
Czech Republic ⁵	11.1	11.3	16.8 (0.10)	22.6 (0.25)	[5] (†)	[5] (†)	[5] (†)	[5] (†)	[5] (†)	16.8 (0.10)	22.6 (0.25)	16.3 (0.21)	15.9 (0.21)	11.5 (0.16)
Denmark	26.8	27.5	33.3 (0.19)	37.6 (0.50)	6.3 (0.10)	6.2 (0.25)	7.1 (0.22)	6.5 (0.18)	5.2 (0.15)	27.0 (0.17)	31.4 (0.48)	29.7 (0.39)	24.7 (0.31)	22.7 (0.28)
Estonia	—	—	35.3 (0.79)	37.8 (1.73)	13.3 (0.55)	14.0 (1.24)	12.2 (0.91)	15.1 (1.07)	11.7 (1.02)	21.9 (0.71)	23.8 (1.59)	21.0 (1.34)	23.4 (1.30)	18.9 (1.29)
Finland	32.3	38.2	38.1 (0.24)	39.2 (0.52)	14.7 (0.18)	2.5 (0.17)	18.4 (0.42)	20.7 (0.40)	16.2 (0.35)	23.5 (0.21)	36.7 (0.52)	27.3 (0.48)	18.3 (0.39)	13.8 (0.32)
France	23.0	34.2	29.0 (0.09)	42.9 (0.21)	11.5 (0.06)	16.9 (0.16)	13.7 (0.13)	9.1 (0.11)	6.4 (0.09)	17.5 (0.08)	26.0 (0.19)	20.0 (0.16)	12.6 (0.13)	11.9 (0.12)
Germany	23.2	21.8	26.6 (0.08)	26.1 (0.19)	9.6 (0.05)	7.2 (0.10)	9.9 (0.11)	10.9 (0.11)	9.9 (0.12)	17.0 (0.07)	18.9 (0.16)	18.2 (0.14)	15.7 (0.13)	15.5 (0.14)
Greece	17.8	24.0	24.6 (0.33)	30.9 (0.59)	7.2 (0.16)	10.9 (0.34)	8.1 (0.31)	5.8 (0.28)	3.2 (0.22)	17.5 (0.29)	20.0 (0.51)	18.4 (0.49)	17.4 (0.49)	13.3 (0.28)
Hungary	14.1	14.7	20.1 (0.10)	26.0 (0.24)	0.6 (0.02)	1.4 (0.06)	— (†)	— (†)	— (†)	19.6 (0.10)	24.7 (0.24)	18.6 (0.20)	18.1 (0.19)	16.4 (0.18)
Iceland	24.8	26.6	32.5 (0.50)	36.2 (0.99)	3.8 (0.20)	2.2 (0.30)	5.6 (0.51)	4.2 (0.40)	3.2 (0.39)	28.7 (0.48)	34.0 (0.98)	33.2 (1.04)	26.3 (0.89)	19.3 (0.87)
Ireland	35.6	47.8	37.3 (0.13)	48.2 (0.26)	15.6 (0.10)	18.4 (0.20)	18.4 (0.20)	13.0 (0.19)	9.9 (0.19)	21.8 (0.11)	29.7 (0.24)	23.9 (0.22)	16.8 (0.21)	11.6 (0.20)
Israel	—	—	45.6 (0.20)	44.2 (0.38)	15.0 (0.14)	12.4 (0.25)	15.9 (0.29)	16.1 (0.30)	17.0 (0.32)	30.5 (0.18)	31.8 (0.35)	33.0 (0.37)	28.3 (0.37)	27.6 (0.38)
Italy	10.0	11.8	14.8 (0.07)	20.7 (0.19)	# (†)	# (†)	# (†)	0.5 (†)	# (†)	14.4 (0.07)	20.5 (0.19)	15.3 (0.15)	11.5 (0.14)	10.3 (0.14)
Japan	33.8	47.7	44.8 (0.20)	56.7 (0.40)	19.5 (0.16)	23.7 (0.34)	23.6 (0.32)	19.6 (0.32)	11.6 (0.30)	25.3 (0.18)	33.0 (0.38)	26.0 (0.33)	26.2 (0.36)	17.4 (0.35)
Korea, Republic of	24.2	39.5	39.7 (0.25)	65.0 (0.46)	12.2 (0.17)	26.0 (0.43)	13.0 (0.31)	5.7 (0.22)	1.5 (0.16)	27.5 (0.23)	39.0 (0.47)	33.8 (0.44)	21.0 (0.40)	11.2 (0.40)
Luxembourg	18.1	23.4	35.5 (0.46)	44.2 (1.08)	14.7 (0.34)	18.1 (0.84)	16.8 (0.67)	12.2 (0.58)	10.7 (0.64)	20.8 (0.39)	26.1 (0.96)	24.7 (0.77)	15.8 (0.65)	14.6 (0.73)
Mexico ⁵	15.0	17.9	17.4 (0.00)	21.8 (0.00)	1.1 (0.00)	1.3 (0.00)	1.1 (0.00)	1.3 (0.00)	0.7 (0.00)	16.2 (0.00)	20.6 (0.00)	15.1 (0.00)	15.0 (0.00)	11.3 (0.00)
Netherlands	23.2	26.5	32.4 (0.10)	40.8 (0.23)	2.5 (0.03)	2.4 (0.07)	2.9 (0.07)	2.7 (0.06)	2.1 (0.06)	29.8 (0.10)	38.4 (0.23)	30.7 (0.19)	27.4 (0.17)	23.9 (0.18)
New Zealand	29.2	28.5	40.7 (0.41)	46.4 (0.89)	16.4 (0.31)	14.9 (0.64)	15.5 (0.58)	17.9 (0.60)	17.2 (0.65)	24.3 (0.36)	31.5 (0.83)	27.0 (0.71)	21.1 (0.64)	16.6 (0.64)
Norway	30.2	37.9	37.3 (0.20)	47.3 (0.45)	2.1 (0.06)	1.0 (0.09)	2.0 (0.11)	2.7 (0.13)	2.7 (0.14)	35.2 (0.20)	46.2 (0.45)	39.0 (0.38)	30.7 (0.38)	24.6 (0.36)
Poland ⁶	11.9	15.2	22.9 (0.09)	37.4 (0.21)	[5] (†)	[5] (†)	[5] (†)	[5] (†)	[5] (†)	22.9 (0.09)	37.4 (0.21)	23.4 (0.19)	15.1 (0.15)	12.9 (0.14)
Portugal ⁵	9.0	13.7	15.4 (0.51)	24.8 (1.02)	[5] (†)	[5] (†)	[5] (†)	[5] (†)	[5] (†)	15.4 (0.51)	24.8 (1.02)	16.2 (0.80)	10.4 (0.69)	8.9 (0.56)
Slovak Republic	10.9	11.9	17.3 (0.16)	24.0 (0.29)	0.7 (0.04)	0.6 (0.05)	0.6 (0.07)	0.8 (0.08)	0.9 (0.10)	16.6 (0.16)	23.5 (0.28)	15.3 (0.32)	13.9 (0.32)	11.8 (0.35)
Slovenia	—	—	23.7 (0.22)	31.3 (0.51)	10.6 (0.16)	12.2 (0.36)	11.5 (0.35)	10.1 (0.28)	8.6 (0.29)	13.1 (0.17)	19.2 (0.43)	15.3 (0.40)	9.9 (0.28)	7.7 (0.27)
Spain	23.6	35.5	30.7 (0.08)	39.2 (0.17)	9.2 (0.05)	12.2 (0.11)	11.6 (0.10)	7.0 (0.08)	4.0 (0.07)	21.5 (0.07)	26.9 (0.15)	23.8 (0.13)	18.6 (0.12)	13.7 (0.12)
Sweden	31.6	36.9	34.2 (0.11)	42.2 (0.23)	8.8 (0.06)	8.2 (0.13)	8.3 (0.12)	9.4 (0.13)	9.1 (0.12)	25.4 (0.10)	34.0 (0.22)	28.8 (0.20)	20.6 (0.18)	18.4 (0.17)
Switzerland	25.4	25.6	35.2 (0.16)	40.5 (0.39)	10.8 (0.11)	9.9 (0.24)	12.4 (0.21)	11.2 (0.21)	9.2 (0.20)	24.3 (0.15)	30.6 (0.37)	25.8 (0.28)	22.1 (0.28)	18.5 (0.27)
Turkey ⁷	8.9	10.2	13.1 (0.07)	17.4 (0.13)	[5] (†)	[5] (†)	[5] (†)	[5] (†)	[5] (†)	13.1 (0.07)	17.4 (0.13)	12.2 (0.12)	9.4 (0.12)	9.5 (0.14)
United Kingdom	26.0	30.0	38.2 (0.21)	46.0 (0.46)	10.2 (0.13)	8.1 (0.25)	11.1 (0.26)	11.7 (0.26)	9.6 (0.25)	28.0 (0.19)	37.9 (0.45)	29.5 (0.38)	23.5 (0.35)	20.4 (0.35)
United States	37.3	39.1	41.7 (0.24)	42.3 (0.38)	10.0 (0.1)	9.5 (0.22)	10.3 (0.20)	10.6 (0.22)	9.2 (0.23)	31.7 (0.22)	32.8 (0.36)	33.1 (0.38)	29.4 (0.41)	31.7 (0.42)
Other reporting countries														
Brazil ^{4,5,6}	7.7	6.7	10.9 (0.07)	11.6 (0.12)	[5] (†)	[5] (†)	[5] (†)	[5] (†)	[5] (†)	10.9 (0.07)	11.6 (0.12)	11.3 (0.13)	10.7 (0.14)	8.9 (0.16)
China ⁴	4.6	6.1	— (†)	— (†)	— (†)	— (†)	— (†)	— (†)	— (†)	— (†)	— (†)	— (†)	— (†)	— (†)
Russian Federation ⁷	54.0	55.5	— (†)	— (†)	— (†)	— (†)	— (†)	— (†)	— (†)	— (†)	— (†)	— (†)	— (†)	— (†)

—Not available.

†Not applicable.

#Rounds to zero.

¹The vocational degree data in this table refer to degrees classified as International Standard Classification of Education (ISCED) level 5B. ISCED level 5B corresponds to the associate's degree in the United States.²ISCED 5A, first award, corresponds to the bachelor's degree in the United States; ISCED 5A, second award, corresponds to master's and first-professional degrees in the United States; and ISCED 6 corresponds to doctor's degrees.³Refers to the mean of the data values for all reporting Organization for Economic Cooperation and Development (OECD) countries, to which each country reporting data contributes equally. The average includes all current OECD countries for

which a given year's data are available, even if they were not members of OECD in that year.

⁴Data from 2000 reported for 2001.⁵Columns for bachelor's or higher degree include vocational degree data.⁶Data from 2009 reported for 2010.⁷Data from 2002 reported for 2001.

NOTE: Standard errors are not available for 2001.

SOURCE: Organization for Economic Cooperation and Development (OECD), *Education at a Glance*, 2002 and 2012. (This table was prepared June 2012.)

Table 469. Percentage of the population 25 to 64 years old who attained a bachelor's or higher level degree, by age group and country: Selected years, 1999 through 2010

[Standard errors appear in parentheses]

Country	1999		2001		2003		2005		2006		2007		2008		2009		2010	
	Total, 25 to 64 years old	25 to 34 years old	Total, 25 to 64 years old	25 to 34 years old	Total, 25 to 64 years old	25 to 34 years old	Total, 25 to 64 years old	25 to 34 years old	Total, 25 to 64 years old	25 to 34 years old	Total, 25 to 64 years old	25 to 34 years old	Total, 25 to 64 years old	25 to 34 years old	Total, 25 to 64 years old	25 to 34 years old	Total, 25 to 64 years old	25 to 34 years old
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
OECD average¹	14.0	16.5	15.1	18.2	16.9	21.0	18.8	23.9	19.5	24.6	20.0	25.4	20.8	26.6	21.4 (0.03)	27.7 (0.08)	22.0 (0.04)	28.5 (0.09)
Australia.....	17.7	20.1	19.2	23.9	20.5	24.9	22.7	29.2	23.8	29.2	24.1	30.6	25.5	31.9	26.8 (0.29)	34.6 (0.62)	26.9 (0.41)	34.2 (0.81)
Austria ²	6.1	6.8	6.8	6.9	7.3	8.4	9.1	11.6	10.1	12.9	10.4	13.3	10.7	13.5	11.4 (0.10)	15.3 (0.25)	12.0 (0.25)	15.4 (0.49)
Belgium.....	12.0	16.0	12.7	17.8	13.0	18.2	13.8	19.1	14.1	19.4	14.0	18.2	16.4	22.8	17.5 (0.16)	24.2 (0.38)	17.2 (0.16)	23.3 (0.37)
Canada.....	19.1	23.1	20.4	25.1	22.0	27.5	23.3	28.2	24.0	29.3	24.6	29.5	25.2	29.8	25.4 (0.16)	30.1 (0.34)	26.4 (0.22)	30.7 (0.42)
Chile ^{2,3}	8.2	9.6	9.0	10.7	11.9	15.5	—	—	—	—	—	—	15.7	22.3	16.4 (0.15)	24.0 (0.30)	16.5 (0.15)	25.4 (0.30)
Czech Republic ⁴	10.8	10.9	11.1	11.3	11.7	11.7	13.1	14.2	13.5	15.2	13.7	15.5	14.5	17.7	15.5 (0.10)	20.2 (0.23)	16.8 (0.10)	22.6 (0.25)
Denmark.....	—	—	21.5	21.7	25.0	27.2	26.0	30.7	27.1	31.7	25.5	32.0	27.5	34.9	27.1 (0.18)	36.2 (0.60)	27.0 (0.17)	31.4 (0.48)
Estonia.....	—	—	—	—	—	—	22.2	24.1	22.2	24.1	22.2	25.2	22.3	23.5	22.7 (0.41)	21.7 (0.87)	21.9 (0.71)	23.8 (1.59)
Finland.....	13.9	15.6	14.8	18.0	16.4	23.1	18.1	26.6	19.2	29.4	20.9	31.8	21.5	32.9	22.6 (0.13)	36.0 (0.34)	23.5 (0.21)	36.7 (0.52)
France.....	11.0	15.3	11.9	17.5	14.2	21.9	14.8	22.3	15.6	23.7	15.9	23.8	16.4	23.7	17.3 (0.08)	25.7 (0.20)	17.5 (0.08)	26.0 (0.19)
Germany.....	13.0	12.9	13.5	13.5	14.1	14.0	14.8	15.1	15.1	15.6	16.1	16.4	17.5	17.1	17.1 (0.06)	18.9 (0.14)	17.0 (0.07)	18.9 (0.16)
Greece.....	12.2	16.6	12.4	16.6	12.6	16.5	14.5	17.0	15.1	17.7	15.4	18.7	16.8	18.6	16.9 (0.09)	19.3 (0.21)	17.5 (0.29)	20.0 (0.51)
Hungary ⁵	13.5	13.7	14.1	14.7	15.3	16.6	16.9	19.1	17.4	20.1	17.7	21.1	18.7	22.9	19.4 (0.10)	24.1 (0.23)	19.6 (0.10)	24.7 (0.24)
Iceland.....	17.8	22.3	18.8	21.1	—	—	25.9	32.5	25.6	28.5	26.1	27.9	27.9	30.6	28.8 (0.48)	33.4 (0.96)	28.7 (0.48)	34.0 (0.98)
Ireland ²	10.6	16.1	14.0	19.8	16.3	23.0	18.4	26.2	19.9	28.2	21.1	29.9	22.2	30.6	20.9 (0.11)	28.8 (0.23)	21.8 (0.11)	29.7 (0.24)
Israel.....	—	—	—	—	27.0	27.2	29.8	34.8	29.8	34.8	28.3	28.1	28.8	28.9	29.4 (0.18)	29.5 (0.35)	30.5 (0.18)	31.8 (0.35)
Italy ⁵	9.3	10.0	10.0	11.8	—	—	11.7	15.5	12.4	16.7	13.0	18.3	14.0	19.6	14.1 (0.06)	19.9 (0.15)	14.4 (0.07)	20.5 (0.19)
Japan.....	18.3	23.0	19.2	24.3	20.9	26.4	22.3	27.9	23.0	29.7	23.1	29.0	24.3	30.9	24.6 (0.11)	31.8 (0.27)	25.3 (0.18)	33.0 (0.38)
Korea, Republic of.....	16.9	23.2	17.5	25.0	21.7	29.9	22.7	31.7	23.5	32.9	24.4	33.9	25.6	34.5	27.1 (0.23)	37.6 (0.47)	27.5 (0.23)	39.0 (0.47)
Luxembourg.....	11.7	13.1	11.4	15.1	—	—	17.0	23.8	16.4	22.7	17.7	23.8	20.0	27.9	20.2 (0.39)	24.1 (0.93)	20.8 (0.39)	26.1 (0.96)
Mexico.....	11.9	14.1	13.3	15.3	13.6	16.0	13.8	17.0	14.4	17.5	14.9	18.4	14.9	18.5	15.9 (0.05)	20.2 (0.10)	16.2 (0.00)	20.6 (0.00)
Netherlands.....	20.1	22.7	20.9	24.1	—	—	28.3	33.8	28.4	34.3	29.1	35.1	29.8	37.5	30.0 (0.09)	37.6 (0.22)	29.8 (0.10)	38.4 (0.23)
New Zealand.....	13.1	15.6	13.9	16.9	16.1	20.7	19.7	26.2	23.0	29.8	25.3	33.0	25.1	33.6	23.2 (0.41)	30.8 (0.96)	24.3 (0.36)	31.5 (0.83)
Norway ²	25.3	30.6	27.6	35.4	28.5	37.4	30.3	38.9	30.5	39.8	31.9	40.8	33.6	43.8	34.5 (0.20)	45.5 (0.45)	35.2 (0.20)	46.2 (0.45)
Poland ^{2,4}	11.3	12.3	11.9	15.2	14.2	20.4	16.9	25.5	17.9	28.0	18.7	30.0	19.6	32.1	21.2 (0.12)	35.4 (0.29)	22.9 (0.09)	37.4 (0.21)
Portugal ⁶	7.1	9.3	6.6	10.6	8.4	13.2	12.8	19.1	13.5	20.0	13.7	21.4	14.3	23.2	14.7 (0.12)	23.3 (0.32)	15.4 (0.51)	24.8 (1.02)
Slovak Republic.....	—	—	10.3	11.2	11.2	12.6	12.8	15.4	13.3	15.7	13.3	16.8	14.0	17.8	15.0 (0.15)	19.7 (0.34)	16.6 (0.16)	23.5 (0.28)
Slovenia.....	—	—	—	—	—	—	10.6	15.2	10.6	15.2	11.7	17.6	11.8	18.4	12.6 (0.17)	18.7 (0.42)	13.1 (0.17)	19.2 (0.43)
Spain.....	14.8	22.1	16.9	23.9	17.9	25.8	19.9	27.0	19.8	26.0	20.0	26.0	20.0	25.7	20.1 (0.07)	25.0 (0.15)	21.5 (0.07)	26.9 (0.15)
Sweden.....	13.1	11.1	16.9	19.7	18.5	23.8	20.6	28.4	21.7	30.6	22.6	31.5	23.4	32.4	24.3 (0.11)	33.9 (0.26)	25.4 (0.10)	34.0 (0.22)
Switzerland.....	14.5	16.6	15.8	15.9	17.5	19.6	19.0	21.9	19.9	23.2	21.3	25.6	23.3	28.8	24.7 (0.24)	30.5 (0.56)	24.3 (0.15)	30.6 (0.37)
Turkey ⁴	7.1	7.6	8.9	10.2	9.7	11.4	9.7	11.8	10.4	12.8	10.8	13.6	12.0	15.5	12.7 (0.07)	16.6 (0.13)	13.1 (0.07)	17.4 (0.13)
United Kingdom.....	16.6	18.8	18.0	21.0	19.3	24.2	20.8	26.9	21.7	28.6	22.7	29.4	23.6	30.7	26.9 (0.09)	36.3 (0.21)	28.0 (0.19)	37.9 (0.45)
United States.....	27.5	28.7	28.3	29.9	29.4	30.0	29.6	30.3	29.9	29.9	30.9	31.0	31.5	32.3	31.4 (0.16)	32.1 (0.32)	31.7 (0.22)	32.8 (0.36)
Other reporting countries																		
Brazil ^{2,4}	7.5	6.5	7.6	6.6	—	—	—	—	—	—	9.6	10.0	10.8	11.0	10.9 (0.07)	11.6 (0.12)	— (†)	— (†)

—Not available.

†Not applicable.

¹Refers to the mean of the data values for all reporting Organization for Economic Cooperation and Development (OECD) countries, to which each country reporting data contributes equally. The average includes all current OECD countries for which a given year's data are available, even if they were not members of OECD in that year.

²Data from 1998 reported for 1999.

³Data from 2000 reported for 2001.

⁴Data include vocational degrees.

⁵Data for 1999 to 2003 include vocational degrees.

⁶Data for 2005 to 2010 include vocational degrees.

NOTE: Data in this table refer to degrees classified as International Standard Classification of Education (ISCED) level 5A (first and second award) and as level 6. ISCED 5A, first award, corresponds to the bachelor's degree in the United States; ISCED 5A, second award, corresponds to master's and first-professional degrees in the United States; and ISCED 6 corresponds to doctor's degrees. Standard errors are not available for years prior to 2009.

SOURCE: Organization for Economic Cooperation and Development (OECD), *Education at a Glance*, 2001 through 2012. (This table was prepared June 2012.)

Table 470. Percentage of the population 25 to 64 years old who attained a postsecondary vocational degree, by age group and country: Selected years, 1999 through 2010
 [Standard errors appear in parentheses]

Country	1999		2001		2003		2005		2006		2007		2008		2009		2010	
	Total, 25 to 64 years old	25 to 34 years old	Total, 25 to 64 years old	25 to 34 years old	Total, 25 to 64 years old	25 to 34 years old	Total, 25 to 64 years old	25 to 34 years old	Total, 25 to 64 years old	25 to 34 years old	Total, 25 to 64 years old	25 to 34 years old	Total, 25 to 64 years old	25 to 34 years old	Total, 25 to 64 years old	25 to 34 years old	Total, 25 to 64 years old	25 to 34 years old
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
OECD average¹	8.4	10.5	8.9	10.8	9.5	11.2	8.8	9.8	9.0	10.0	9.4	10.1	9.7	10.4	10.4 (0.03)	11.0 (0.07)	10.2 (0.03)	10.9 (0.07)
Australia.....	9.0	8.8	9.7	9.7	10.8	11.4	9.0	8.9	9.2	9.6	9.6	10.2	10.1	9.8	10.1 (0.20)	10.2 (0.39)	10.7 (0.29)	10.2 (0.52)
Austria ²	4.7	5.8	7.3	7.4	7.2	7.0	8.7	8.1	7.5	6.3	7.2	5.6	7.4	5.9	7.6 (0.08)	5.8 (0.16)	7.3 (0.19)	5.4 (0.29)
Belgium.....	13.9	17.9	14.9	19.7	16.0	20.7	17.3	21.5	17.7	22.5	18.1	23.1	15.9	19.5	15.9 (0.15)	18.3 (0.34)	17.8 (0.16)	20.5 (0.36)
Canada.....	20.2	23.7	21.2	25.4	22.0	25.3	22.8	25.6	22.9	25.5	23.7	26.3	23.6	26.1	24.1 (0.16)	26.0 (0.32)	24.2 (0.17)	25.8 (0.38)
Chile ^{2,3}	0.9	1.4	1.0	1.6	1.2	1.7	—	—	—	—	—	—	8.5	11.5	8.0 (0.11)	11.0 (0.22)	10.3 (0.13)	13.1 (0.23)
Denmark.....	—	—	5.3	5.8	6.9	7.8	7.6	9.1	7.6	9.1	6.7	8.1	7.0	8.2	7.2 (0.11)	8.5 (0.35)	6.3 (0.10)	6.2 (0.25)
Estonia.....	—	—	—	—	—	—	11.1	8.7	11.1	8.7	11.1	9.4	12.0	12.3	13.2 (0.33)	14.8 (0.75)	13.3 (0.55)	14.0 (1.24)
Finland.....	17.4	21.8	17.5	20.2	16.9	16.7	16.6	11.0	15.9	9.0	15.4	7.5	15.0	5.4	14.7 (0.11)	3.4 (0.13)	14.7 (0.18)	2.5 (0.17)
France.....	10.5	15.6	11.2	16.7	9.2	15.5	10.0	17.0	10.6	17.7	10.9	17.7	11.1	16.9	11.6 (0.07)	17.5 (0.18)	11.5 (0.06)	16.9 (0.16)
Germany.....	9.9	8.6	9.7	8.2	9.9	7.8	9.7	7.4	8.9	6.8	8.7	6.5	9.0	6.5	9.3 (0.05)	6.8 (0.09)	9.6 (0.05)	7.2 (0.10)
Greece.....	5.5	8.6	5.4	7.4	5.7	7.1	6.7	8.4	7.0	9.0	7.4	9.4	6.6	9.6	6.7 (0.06)	10.1 (0.16)	7.2 (0.16)	10.9 (0.34)
Hungary.....	—	—	—	—	—	—	0.2	0.5	0.3	0.6	#	0.9	#	1.0	# (†)	1.0 (#)	0.6 (0.02)	1.4 (0.06)
Iceland.....	4.6	5.3	6.0	5.5	—	—	4.7	3.3	3.9	3.0	3.7	3.2	3.4	2.2	3.9 (0.21)	2.5 (0.31)	3.8 (0.20)	2.2 (0.30)
Ireland ²	10.5	13.4	21.6	28.1	10.0	14.1	10.6	14.4	10.9	14.0	11.1	14.0	11.7	14.5	14.9 (0.10)	18.7 (0.20)	15.6 (0.10)	18.4 (0.20)
Israel.....	—	—	—	—	15.9	14.8	16.0	15.1	16.0	15.1	15.2	13.4	15.1	13.4	15.5 (0.14)	13.4 (0.26)	15.0 (0.14)	12.4 (0.25)
Italy.....	—	—	—	—	—	—	0.5	0.6	0.5	0.6	0.5	0.6	#	#	# (†)	# (†)	# (†)	# (†)
Japan.....	13.4	22.1	14.6	23.4	16.5	25.2	17.7	25.3	17.5	24.4	17.9	24.6	18.5	24.1	19.1 (0.10)	23.9 (0.25)	19.5 (0.16)	23.7 (0.34)
Korea, Republic of.....	5.8	11.9	6.7	14.5	7.8	16.7	8.9	19.3	9.5	20.1	10.2	21.6	10.9	23.3	11.6 (0.16)	25.5 (0.42)	12.2 (0.17)	26.0 (0.43)
Luxembourg.....	6.6	8.1	6.7	8.3	8.9	12.1	9.6	13.2	7.6	10.8	8.8	11.9	7.7	10.8	14.6 (0.34)	20.4 (0.87)	14.7 (0.34)	18.1 (0.84)
Mexico.....	1.3	2.2	1.7	2.7	1.8	2.7	1.1	1.2	1.0	1.1	1.0	1.1	1.1	1.2	1.1 (0.01)	1.2 (0.03)	1.1 (0.00)	1.3 (0.00)
Netherlands.....	2.5	2.4	2.3	2.4	—	—	1.8	1.6	1.8	1.7	1.7	1.6	2.4	2.2	2.8 (0.03)	2.5 (0.07)	2.5 (0.03)	2.4 (0.07)
New Zealand.....	13.9	10.4	15.3	11.6	14.8	11.7	7.4	4.6	15.3	13.8	15.7	14.3	14.9	13.9	16.9 (0.36)	15.9 (0.76)	16.4 (0.31)	14.9 (0.64)
Norway ²	2.0	2.2	2.6	2.6	2.5	2.4	2.4	1.9	2.4	1.7	2.4	1.9	2.4	1.8	2.2 (0.06)	1.4 (0.11)	2.1 (0.06)	1.0 (0.09)
Portugal.....	2.7	3.0	2.4	3.1	2.4	3.1	—	—	—	—	—	—	—	—	(†)	(†)	(†)	(†)
Slovak Republic.....	—	—	0.6	0.6	0.6	0.6	0.8	0.9	0.9	0.9	0.7	0.7	0.8	0.6	0.8 (0.04)	0.9 (0.08)	0.7 (0.04)	0.6 (0.05)
Slovenia.....	—	—	—	—	—	—	9.6	9.5	9.6	9.5	10.6	12.4	10.8	11.7	10.8 (0.16)	11.7 (0.35)	10.6 (0.16)	12.2 (0.36)
Spain.....	6.2	11.4	6.7	11.6	7.2	11.7	8.3	12.8	8.7	13.2	9.0	13.0	9.2	13.0	9.5 (0.05)	13.2 (0.11)	9.2 (0.05)	12.2 (0.11)
Sweden.....	15.6	20.7	14.7	17.1	14.9	16.7	9.1	8.9	8.8	8.5	8.7	8.5	8.6	8.4	8.7 (0.07)	8.5 (0.15)	8.8 (0.06)	8.2 (0.13)
Switzerland.....	9.1	9.3	9.6	9.7	9.4	9.8	9.7	9.1	9.9	9.0	10.0	9.5	10.4	9.7	10.3 (0.17)	9.4 (0.36)	10.8 (0.11)	9.9 (0.24)
United Kingdom.....	8.2	8.4	8.0	9.0	8.7	8.9	8.8	8.1	8.7	8.2	9.1	7.7	9.0	7.7	10.0 (0.06)	8.5 (0.12)	10.2 (0.13)	8.1 (0.25)
United States.....	8.3	8.7	9.0	9.2	9.0	8.6	9.4	9.0	9.6	9.3	9.4	9.3	9.6	9.3	9.8 (0.08)	8.9 (0.15)	10.0 (0.12)	9.5 (0.22)

—Not available.

†Not applicable.

#Rounds to zero.

¹Refers to the mean of the data values for all reporting Organization for Economic Cooperation and Development (OECD) countries, to which each country reporting data contributes equally. The average includes all current OECD countries for which a given year's data are available, even if they were not members of OECD in that year.

²Data from 1998 reported for 1999.³Data from 2000 reported for 2001.

NOTE: Data in this table refer to degrees classified as International Standard Classification of Education (ISCED) level 5B. ISCED level 5B corresponds to the associate's degree in the United States. Standard errors are not available for years prior to 2009.

SOURCE: Organization for Economic Cooperation and Development (OECD), *Education at a Glance*, 2001 through 2012. (This table was prepared June 2012.)

Table 471. Number of bachelor's degree recipients per 100 persons at the typical age of graduation, by sex and country: 2003 through 2009

Country	Typical age of graduation, 2009	Total							Male							Female						
		2003	2004	2005	2006	2007	2008	2009	2003	2004	2005	2006	2007	2008	2009	2003	2004	2005	2006	2007	2008	2009
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
OECD average¹	—	—	33.9	34.7	36.2	37.5	39.1	38.9	—	27.6	27.5	28.7	30.0	31.0	31.0	—	40.5	42.3	44.0	45.3	47.5	47.1
Australia.....	21-23	54.8	46.9	59.9	59.6	60.7	58.9	58.5	46.7	37.4	47.9	47.4	48.6	47.0	46.9	63.4	57.0	72.5	72.5	73.4	71.4	70.8
Austria.....	22-26	19.0	19.6	20.4	21.7	22.4	25.8	30.3	18.7	19.0	19.0	20.4	20.8	22.7	25.9	19.4	20.3	21.8	22.9	24.0	29.1	34.7
Belgium (Flemish) ²	22-24	—	18.3	18.4	19.0	35.4	27.0	—	—	17.5	17.0	17.9	32.6	24.4	—	—	19.0	19.8	20.2	38.2	29.6	—
Canada.....	22-24	—	31.5	33.6	39.3	35.2	39.5	38.9	—	24.3	25.2	29.5	26.5	29.1	29.3	—	39.1	42.2	49.7	44.3	50.6	49.0
Chile.....	23-26	—	25.1	11.5	15.0	14.5	14.7	17.6	—	22.9	9.7	13.0	11.9	11.7	13.2	—	27.5	13.4	17.0	17.3	17.8	22.1
Czech Republic.....	23-25	17.3	21.0	26.0	30.7	36.4	39.2	39.7	15.9	18.8	22.6	26.5	31.0	32.2	30.4	18.8	23.4	29.5	35.2	42.1	46.6	49.7
Denmark.....	24-26	38.6	49.9	52.9	50.3	50.9	50.3	48.3	25.1	35.6	37.2	37.0	38.3	38.3	35.3	52.3	64.4	69.2	63.7	63.9	62.6	61.7
Estonia.....	21-23	—	—	28.5	26.4	27.3	23.8	22.9	—	—	17.6	15.4	17.6	14.9	13.7	—	—	39.5	37.8	37.3	32.8	32.7
Finland ³	24-26	55.8	54.7	53.8	57.3	58.8	79.8	42.3	40.4	39.5	38.8	40.6	41.3	55.3	28.7	72.2	70.5	69.7	74.5	77.4	105.6	56.6
France.....	20-25	41.5	40.0	—	34.2	33.8	33.9	33.0	34.9	33.4	—	30.6	30.2	30.3	29.8	48.4	46.9	—	37.9	37.5	37.6	36.3
Germany.....	24-27	19.5	20.6	20.5	21.0	23.2	25.5	28.9	19.3	20.3	20.0	20.0	22.0	24.0	27.4	19.7	20.9	21.1	22.0	24.4	27.0	30.5
Greece ²	22-27	—	19.1	23.9	23.5	21.7	26.6	—	—	13.3	16.3	16.1	14.7	18.3	—	—	25.4	32.2	31.7	29.4	35.5	—
Hungary.....	23-25	33.6	37.3	41.5	38.2	38.8	37.6	39.0	24.6	26.6	29.0	26.1	26.2	25.2	27.1	43.2	48.4	54.5	51.0	51.8	50.4	51.2
Iceland.....	24-26	44.2	50.5	56.3	62.8	62.8	55.9	50.7	29.4	31.4	33.6	37.7	38.0	34.1	30.7	59.1	70.3	80.5	89.6	88.0	78.9	72.2
Ireland.....	21-23	36.8	38.6	40.7	42.8	44.8	46.0	47.1	29.7	31.9	33.3	33.4	36.4	36.9	38.5	44.0	45.3	48.0	52.5	53.4	55.2	55.4
Israel.....	26-29	—	32.3	32.9	33.4	36.1	36.3	36.4	—	25.3	25.7	26.8	29.1	29.6	30.8	—	39.6	40.2	40.3	43.1	43.1	42.0
Italy.....	23-25	27.8	40.1	44.8	42.7	38.7	35.8	34.6	24.0	33.3	37.3	35.1	31.6	29.5	28.5	31.6	47.2	52.7	50.6	46.1	42.3	40.9
Japan.....	21-23	34.4	36.3	36.9	38.7	38.8	40.6	41.5	40.1	41.4	41.3	42.8	42.9	44.9	46.1	28.5	31.0	32.2	34.3	34.4	36.0	36.7
Korea, Republic of.....	22-24	31.7	32.3	35.5	41.0	42.9	48.7	50.0	32.1	31.5	34.8	40.2	42.7	49.0	51.0	31.2	33.2	36.2	41.7	43.2	48.5	48.8
Mexico.....	23-26	14.3	13.8	15.2	18.1	18.2	17.8	19.0	13.3	13.1	14.5	16.7	16.8	16.2	17.4	15.3	14.4	15.9	19.5	19.7	19.3	20.7
Netherlands.....	23	42.5	42.9	47.2	49.2	47.8	46.0	45.6	36.4	37.2	40.2	42.9	41.7	39.8	39.4	48.7	48.6	54.3	55.7	54.1	52.3	51.9
New Zealand.....	21-23	39.0	47.6	49.0	53.5	53.8	50.0	50.7	29.1	34.9	36.6	40.6	41.6	37.6	38.9	49.1	61.0	62.0	67.0	66.0	63.0	63.1
Norway.....	22-25	42.0	43.3	42.1	45.1	45.0	46.1	44.3	30.0	31.5	28.8	31.9	31.8	33.9	32.0	54.2	55.3	55.8	58.8	58.7	58.8	57.3
Poland.....	23-25	—	44.4	45.0	44.8	46.6	48.2	49.4	—	32.6	32.8	32.9	34.4	35.0	35.9	—	56.6	57.6	57.1	59.2	61.9	63.3
Portugal.....	22-23	—	32.9	33.7	34.9	46.0	50.4	44.3	—	20.4	21.7	22.7	35.0	40.3	35.9	—	45.6	46.0	47.4	57.4	60.9	53.1
Slovak Republic.....	22-25	—	28.3	30.1	33.7	37.9	57.6	61.7	—	24.4	25.6	26.0	26.8	38.7	42.8	—	32.4	34.8	41.8	49.6	77.3	81.5
Slovenia.....	24-25	—	—	21.6	21.6	21.1	22.6	27.9	—	—	14.3	14.2	13.9	14.4	17.2	—	—	29.4	29.3	29.0	31.7	39.6
Spain.....	20-23	32.0	35.2	35.0	35.3	34.7	35.5	37.4	25.5	27.5	27.1	27.1	26.6	27.3	28.8	38.9	43.2	43.3	43.8	43.3	44.2	46.4
Sweden.....	25	38.4	39.9	44.0	43.3	42.2	40.9	38.1	28.6	29.7	30.8	29.8	29.1	27.9	25.8	48.5	50.5	57.6	57.2	55.8	54.7	51.0
Switzerland.....	24-27	20.9	22.4	25.0	27.0	28.9	30.6	29.2	23.5	24.0	26.1	26.8	28.7	29.2	27.0	18.4	20.9	23.9	27.1	29.2	32.0	31.5
Turkey.....	22-26	—	14.0	11.3	15.4	17.0	19.5	20.8	—	15.2	11.8	16.3	17.9	20.6	22.4	—	12.7	10.7	14.5	15.9	18.4	19.2
United Kingdom.....	20-24	—	39.2	39.8	39.0	39.0	40.2	39.9	—	34.2	34.1	33.0	32.9	33.5	33.8	—	44.3	45.7	45.2	45.4	47.2	46.3
United States.....	21-23	33.4	33.2	34.2	35.5	36.5	37.3	37.8	27.6	27.5	28.1	29.1	30.1	31.0	31.4	39.4	39.2	40.7	42.4	43.4	43.9	44.5
Other reporting countries																						
Brazil.....	22-24	—	15.6	17.5	21.3	22.7	25.6	24.9	—	11.8	13.3	16.2	18.4	19.9	17.9	—	19.4	21.6	26.4	27.0	31.3	32.0
Russian Federation.....	21-22	—	—	45.9	43.7	48.6	52.7	51.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—

—Not available.

¹Refers to the mean of the data values for all reporting OECD countries, to which each country reporting data contributes equally. The average includes all current OECD countries for which a given year's data are available, even if they were not members of OECD in that year. However, if data were reported for less than 75 percent of the countries that were members of OECD in a given year, the average for that year is omitted.

²Reference year for typical age of graduation is 2008.

³Structural changes in the Finnish higher education system accounted for much of the increase in Finnish degree recipients in 2008, as well as the decrease in 2009. Students had a strong incentive to complete their degrees in 2008. Students who did not complete their degrees in 2008 may have had to spend extra time or take additional courses in order to meet new requirements that went into effect in 2009.

NOTE: Data in this table refer to degrees classified by the Organization for Economic Cooperation and Development (OECD) as International Standard Classification of Education (ISCED) level 5A, first award. This level corresponds to the bachelor's

degree in the United States. The recipients-per-100-persons ratio relates the number of people of all ages earning bachelor's degrees in a particular year to the number of people in the population at the typical age of graduation. The typical age is based on full-time attendance and normal progression through the education system (without repeating coursework, taking time off, etc.); this age varies across countries because of differences in their education systems and differences in program duration. This age is presented for the most recent year of data and may differ from previous years; please see previously published volumes of the *Digest of Education Statistics* for the typical age of graduation in previous years. Data for Luxembourg are not shown because tertiary students study for only 1 year in Luxembourg. Some data have been revised from previously published figures.

SOURCE: Organization for Economic Cooperation and Development (OECD), *Education at a Glance*, 2005 through 2012; and Online Education Database, retrieved April 20, 2012, from <http://stats.oecd.org/Index.aspx>. (This table was prepared April 2012.)

Table 472. Percentage of bachelor's and higher level degrees awarded to women, by field of study and country: 2010

Country	All fields ¹	Education	Humanities and arts	Health and welfare	Social sciences, business, and law	Personal, transport, environmental protection, and security services	Engineering, manufacturing, and construction	Sciences, mathematics, and computer science					Agriculture
								Total	Life sciences	Physical sciences	Mathematics and statistics	Computer science	
1	2	3	4	5	6	7	8	9	10	11	12	13	14
OECD average²	58.0	77.4	66.6	74.2	57.6	52.4	27.2	41.6	64.2	43.8	45.9	19.7	53.6
Australia ³	56.7	74.6	63.8	75.3	53.9	55.0	24.3	37.3	55.1	48.1	39.9	19.6	55.4
Austria.....	53.1	78.7	66.4	66.1	56.0	44.5	24.7	35.0	66.8	34.9	37.0	15.4	62.6
Belgium.....	54.6	75.9	65.3	65.5	58.0	39.2	25.4	35.5	51.4	33.2	44.4	10.3	54.3
Canada ³	59.8	76.7	64.6	83.4	57.8	59.6	23.5	49.0	62.6	44.8	42.4	17.9	57.5
Chile.....	56.6	72.2	60.2	70.0	51.5	52.4	26.1	33.0	52.4	41.8	47.7	16.6	47.8
Czech Republic.....	59.3	79.6	71.5	79.2	67.3	42.7	23.9	38.6	70.4	46.6	51.7	12.5	59.9
Denmark.....	59.7	74.4	65.5	80.1	52.3	23.0	32.0	37.3	67.4	38.4	36.2	20.9	72.9
Estonia.....	68.8	97.4	80.8	85.3	71.4	68.3	37.8	49.5	72.1	51.2	82.5	25.3	56.5
Finland.....	60.0	81.7	74.3	86.4	66.4	76.4	21.5	46.3	76.2	50.3	47.5	28.4	55.3
France ³	54.5	76.4	71.8	60.2	60.5	42.5	30.1	37.6	62.7	38.7	36.1	15.8	54.8
Germany.....	55.3	73.7	73.1	69.4	53.5	55.1	22.0	44.3	67.4	42.7	61.4	15.3	54.1
Greece.....	61.8	76.1	78.2	59.4	64.5	#	40.7	47.6	69.1	49.3	47.9	38.5	47.6
Hungary.....	63.5	80.2	73.4	78.1	67.9	60.6	22.6	39.4	70.2	47.8	54.7	17.7	48.9
Iceland.....	67.0	83.8	68.8	87.6	59.0	69.8	40.3	47.9	73.5	43.4	23.1	18.8	63.2
Ireland.....	57.4	76.1	61.6	80.3	54.4	52.2	20.7	42.0	59.8	44.4	30.8	21.9	52.8
Israel.....	57.4	81.1	59.5	76.9	56.2	72.7	26.3	44.1	62.8	40.2	37.4	25.1	54.2
Italy.....	59.4	91.5	74.3	67.9	58.0	50.3	32.7	52.4	70.9	40.7	53.4	15.0	33.0
Japan.....	41.6	59.4	68.8	56.4	35.3	90.2	11.1	25.6	—	—	—	—	38.4
Korea, Republic of.....	47.2	71.1	66.6	65.0	43.5	34.3	23.3	39.2	48.4	46.9	54.8	20.9	39.4
Mexico.....	55.0	72.9	58.3	65.7	59.2	25.0	28.5	48.0	59.2	40.3	44.2	41.7	35.4
Netherlands.....	56.7	79.7	57.3	74.7	53.3	53.2	19.5	22.7	62.3	24.2	32.0	10.9	55.2
New Zealand.....	60.6	80.7	63.9	79.2	56.7	53.0	30.2	44.3	58.9	45.8	47.8	23.6	55.1
Norway.....	60.9	74.9	58.7	82.5	55.7	46.0	26.7	36.2	74.7	38.5	31.1	19.7	57.8
Poland.....	65.7	80.2	76.1	74.9	68.6	55.6	33.3	45.4	73.1	65.3	66.3	16.0	56.2
Portugal.....	60.1	84.7	61.1	78.3	62.6	45.6	30.9	54.2	69.6	49.2	60.2	23.7	58.0
Slovak Republic.....	64.2	78.2	69.2	83.7	68.8	44.3	31.4	42.9	69.8	53.0	54.9	11.7	47.1
Slovenia.....	65.1	84.0	77.5	77.0	69.0	58.6	32.8	49.7	72.9	44.7	52.9	13.4	63.6
Spain.....	59.4	75.6	64.6	76.3	60.2	55.9	33.9	41.0	66.9	51.3	51.1	19.0	48.8
Sweden.....	63.7	79.7	62.3	82.7	60.9	51.5	29.4	47.0	66.1	48.3	36.2	24.4	63.6
Switzerland.....	50.7	71.8	62.2	68.4	46.9	51.6	19.5	34.4	52.9	32.3	31.8	8.2	71.0
Turkey.....	46.1	57.0	58.0	60.6	42.5	31.7	28.1	44.8	60.9	43.3	49.1	23.3	33.3
United Kingdom.....	55.2	75.9	62.2	74.0	54.3	61.2	22.6	37.5	50.8	42.6	40.3	18.7	65.8
United States.....	57.7	77.8	58.9	79.3	54.4	55.0	21.7	43.5	57.9	39.4	41.6	21.1	50.6
Other reporting countries													
Argentina ³	59.7	80.0	71.4	67.7	60.7	46.8	31.8	50.3	71.1	60.2	69.2	27.2	38.3
Brazil.....	62.8	76.8	52.4	77.2	57.0	71.4	28.3	37.8	72.0	45.1	45.7	18.4	40.7
China.....	46.8	—	—	—	—	—	—	—	—	—	—	—	—
Indonesia.....	53.1	55.5	52.3	53.3	55.2	#	50.7	52.8	#	53.0	52.3	53.0	52.4
Saudi Arabia.....	65.0	70.1	71.8	50.2	58.1	—	3.6	73.4	81.3	75.3	79.0	59.4	24.0
South Africa ³	58.1	73.3	63.1	73.3	57.9	70.4	27.0	46.5	64.9	48.8	37.6	34.3	45.9

—Not available.

#Rounds to zero.

¹May contain fields not shown in this table.

²Refers to the mean of the data values for all reporting Organization for Economic Cooperation and Development (OECD) countries, to which each country reporting data contributes equally.

³Data are for 2009 instead of 2010.

NOTE: Data in this table refer to degrees classified by OECD as International Standard Classification of Education (ISCED) level 5A (first and second award) or level 6. ISCED 5A, first award, corresponds to the bachelor's degree in the United States; ISCED 5A, second award, corresponds to master's and first-professional degrees in the United States; and ISCED 6 corresponds to doctor's degrees. Data for Luxembourg are not shown because tertiary students study for only 1 year in Luxembourg.

SOURCE: Organization for Economic Cooperation and Development (OECD), *Education at a Glance, 2012*. (This table was prepared June 2012.)

Table 473. Percentage of bachelor's degrees awarded in mathematics, science, and engineering, by field of study and country: Selected years, 1990 through 2009

Country	All mathematics, science, and engineering degrees ¹							Natural sciences ²							Mathematics and computer science ³							Engineering						
	1990	1995	2000	2005	2007	2008	2009	1990	1995	2000	2005	2007	2008	2009	1990	1995	2000	2005	2007	2008	2009	1990	1995	2000	2005	2007	2008	2009
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
OECD average⁴	—	—	22.7	22.7	22.2	21.9	21.0	—	—	5.7	4.8	4.6	4.7	4.6	—	—	4.1	5.3	5.0	4.8	4.2	—	—	13.6	12.8	12.6	12.4	12.3
Australia.....	—	19.3	21.1	21.1	20.3	19.2	18.2	—	9.9	7.6	5.9	6.5	6.4	6.3	—	3.8	5.1	8.2	6.6	5.7	4.8	—	5.6	8.5	7.0	7.2	7.0	7.1
Austria.....	19.6	21.1	25.7	26.8	28.6	25.6	24.9	5.3	6.0	5.0	5.4	4.7	4.7	5.0	5.2	5.3	3.4	7.2	8.7	6.9	6.8	9.0	9.9	17.3	14.2	15.2	13.9	13.1
Belgium.....	—	—	23.6	24.7	24.2	21.3	19.3	—	—	6.4	5.7	5.4	3.8	4.3	—	—	2.3	5.2	3.7	2.5	1.7	—	—	14.9	13.8	15.1	15.0	13.3
Canada.....	16.4	16.7	20.0	20.7	21.1	20.5	20.3	6.0	6.5	8.1	6.5	8.9	9.4	9.3	4.2	3.8	4.3	5.9	4.6	3.6	3.4	6.2	6.4	7.6	8.2	7.7	7.5	7.6
Chile.....	—	—	—	22.9	19.9	20.0	18.9	—	—	—	3.2	1.8	2.0	1.5	—	—	—	2.6	2.1	2.3	2.6	—	—	—	17.2	16.0	15.6	14.8
Czech Republic.....	(⁵)	—	29.5	26.7	27.5	29.1	24.0	—	—	4.2	3.9	3.4	4.6	4.1	(⁵)	—	8.4	3.8	4.9	5.5	5.5	(⁵)	—	16.9	19.0	19.2	18.9	14.4
Denmark.....	—	—	10.5	16.3	19.0	18.7	17.5	4.4	2.5	6.8	2.4	2.7	2.7	3.0	—	—	3.1	3.1	2.3	2.7	2.8	21.7	17.0	—	10.8	13.9	13.3	11.7
Estonia.....	(⁵)	—	—	23.8	21.9	21.8	20.1	(⁵)	—	—	6.3	5.4	5.6	4.6	(⁵)	—	—	6.2	6.2	6.0	5.1	(⁵)	—	—	11.3	10.3	10.2	10.4
Finland.....	33.5	37.2	32.2	30.0	28.4	26.6	25.3	4.1	4.0	3.9	2.7	2.9	5.0	2.5	5.9	6.9	3.3	5.6	5.2	6.4	4.1	23.4	26.3	24.9	21.7	20.2	15.1	18.7
France.....	—	—	30.1	26.0	26.3	26.1	26.1	—	—	12.2	6.5	6.6	6.3	6.0	—	—	5.5	5.5	5.6	5.5	4.8	—	—	12.5	14.0	14.1	14.3	14.4
Germany.....	31.3	31.6	31.7	31.3	27.4	28.2	28.2	7.2	6.7	6.4	6.3	6.7	7.6	7.8	3.5	5.2	4.9	8.1	8.3	8.2	8.0	20.5	19.7	20.3	16.9	12.4	12.4	12.4
Greece.....	—	—	—	25.9	22.1	23.8	—	—	—	—	—	8.3	4.8	5.3	—	—	—	8.4	6.7	7.4	—	—	—	—	9.2	10.6	11.2	—
Hungary.....	—	—	12.6	11.0	15.3	15.1	17.1	—	—	1.1	1.2	1.3	1.4	2.8	—	—	1.2	2.4	5.9	5.3	4.5	—	—	10.4	7.4	8.1	8.4	9.7
Iceland.....	—	—	16.5	14.1	13.5	14.9	15.2	—	—	6.0	5.0	3.9	3.2	3.4	—	—	4.0	3.5	2.9	3.2	3.2	—	—	6.5	5.5	6.7	8.5	8.7
Ireland.....	34.1	32.3	29.3	17.7	22.7	22.8	19.4	14.1	16.9	11.5	3.5	—	—	5.9	6.3	4.7	7.2	4.4	—	—	3.5	13.7	10.7	10.6	9.9	6.9	9.5	9.9
Israel.....	—	—	19.0	26.7	21.7	21.0	21.3	—	—	3.1	5.1	5.5	5.2	5.0	—	—	6.8	7.5	4.1	4.1	4.2	—	—	9.1	14.1	12.1	11.7	12.1
Italy.....	19.7	19.5	27.5	23.9	22.3	22.0	22.6	7.6	6.8	5.9	4.8	4.6	4.8	5.0	3.9	3.8	3.2	2.2	2.1	2.1	2.2	8.3	8.9	18.4	16.9	15.6	15.1	15.4
Japan.....	—	—	22.3	20.8	20.1	20.0	19.5	2.4	3.4	—	—	—	—	—	—	—	—	—	—	—	—	21.0	19.3	18.9	17.4	16.7	16.6	16.3
Korea, Republic of.....	—	—	36.9	37.0	35.6	35.1	34.7	—	—	6.3	5.2	5.2	4.8	5.0	—	—	4.3	5.4	5.9	5.9	5.7	—	—	26.3	26.3	24.5	24.5	24.0
Mexico.....	—	—	23.0	27.3	26.5	26.8	25.9	—	—	2.2	2.6	2.7	2.8	2.8	—	—	6.7	9.3	8.5	8.3	7.4	—	—	14.1	15.3	15.4	15.7	15.6
Netherlands.....	21.1	—	16.2	14.9	14.0	13.7	13.5	7.1	—	3.2	2.5	1.3	1.2	1.2	1.6	1.6	1.9	4.6	4.9	4.8	4.6	12.4	—	11.1	7.7	7.7	7.7	7.7
New Zealand.....	19.5	—	17.8	19.9	17.6	20.7	21.1	8.2	—	11.2	6.7	6.2	7.7	8.0	5.5	—	1.9	7.6	5.5	5.7	6.0	5.8	3.2	4.7	5.6	5.9	7.3	7.0
Norway.....	12.9	16.8	11.6	13.7	12.8	13.4	14.2	2.1	3.1	0.7	0.8	1.6	1.7	1.9	0.6	0.5	3.4	4.7	3.0	3.2	3.0	10.2	13.2	7.5	8.2	8.2	8.5	9.3
Poland.....	—	—	16.7	17.7	21.4	19.9	19.0	—	—	2.7	2.3	3.9	3.8	3.7	—	—	2.0	5.3	5.6	5.0	4.7	—	—	12.0	10.1	12.0	11.1	10.7
Portugal.....	—	15.0	17.5	25.6	32.7	34.2	24.8	6.7	2.2	1.7	6.0	4.9	5.5	3.8	—	2.8	3.6	6.2	7.6	8.0	2.4	10.5	9.9	12.2	13.4	20.3	20.7	18.6
Slovak Republic.....	(⁵)	—	21.9	24.6	21.1	19.0	18.9	(⁵)	—	2.0	3.7	3.4	3.3	3.3	(⁵)	—	4.6	4.4	5.1	4.0	3.8	(⁵)	—	15.3	16.5	12.7	11.7	11.8
Slovenia.....	(⁵)	—	—	17.7	17.4	16.9	15.8	(⁵)	—	4.1	3.8	3.0	3.2	3.2	(⁵)	—	—	2.0	2.2	2.5	2.1	(⁵)	—	—	11.7	11.4	11.4	10.6
Spain.....	15.0	18.2	22.7	24.1	24.8	24.1	24.3	5.7	4.3	5.3	4.2	3.8	3.6	3.3	2.6	4.5	4.3	5.2	5.6	5.5	5.3	6.7	9.4	13.1	14.7	15.3	15.0	15.7
Sweden.....	24.0	26.4	27.7	26.9	24.4	22.9	22.9	4.1	3.9	3.7	3.6	3.5	3.5	3.7	4.7	5.5	3.7	4.0	3.3	2.6	2.6	15.2	17.0	20.3	19.2	17.6	16.9	16.6
Switzerland.....	23.0	22.3	25.1	24.2	23.0	20.8	20.4	11.2	10.4	6.0	6.9	6.3	6.2	5.7	3.7	3.7	1.8	4.7	4.2	3.9	3.0	8.1	8.3	17.3	12.7	12.5	10.7	11.6
Turkey.....	20.6	20.9	24.1	22.3	17.4	18.0	18.1	4.6	5.1	7.4	6.1	5.2	5.3	5.3	2.1	2.7	3.6	4.1	3.3	3.6	3.6	13.8	13.1	13.1	12.0	8.9	9.2	9.2
United Kingdom.....	—	—	28.5	26.0	24.6	24.0	24.3	—	—	12.5	9.2	9.1	9.2	9.5	—	—	5.8	8.3	6.9	6.2	6.0	—	—	10.2	8.4	8.5	8.6	8.8
United States.....	16.9	—	17.1	16.7	16.1	15.8	15.7	5.1	—	6.6	5.8	6.3	6.4	6.4	4.0	3.3	3.9	4.8	3.7	3.4	3.3	7.8	6.7	6.6	6.2	6.0	6.0	5.9
Other reporting countries																												
Brazil.....	—	—	—	11.4	11.6	11.1	11.0	—	—	—	3.2	3.2	3.3	2.9	—	—	—	3.5	3.1	2.9	2.9	—	—	—	4.8	5.3	4.9	5.2
Russian Federation.....	(⁵)	—	—	—	—	—	24.3	(⁵)	—	—	—	—	—	—	(⁵)	—	—	—	—	—	—	(⁵)	—	—	—	—	—	—

—Not available.

¹Includes life sciences, physical sciences, mathematics/statistics, computer science, and engineering.²Includes life sciences and physical sciences.³Includes mathematics/statistics and computer science.⁴Refers to the mean of the data values for all reporting OECD countries, to which each country reporting data contributes equally. The average includes all current OECD countries for which a given year's data are available, even if they were not members of OECD in that year. However, if data were reported for less than 75 percent of the countries that were members of OECD in a given year, the average for that year is omitted.⁵Country did not exist in its current form in the given year.

NOTE: Data in this table refer to degrees classified by OECD as International Standard Classification of Education (ISCED) level 5A, first award. This level corresponds to the bachelor's degree in the United States. Data for Luxembourg are not shown because tertiary students study for only 1 year in Luxembourg. Some data have been revised from previously published figures. Detail may not sum to totals because of rounding.

SOURCE: Organization for Economic Cooperation and Development (OECD), Online Education Database, retrieved March 23, 2012, from <http://stats.oecd.org/Index.aspx>; and unpublished tabulations. (This table was prepared March 2012.)

Table 474. Percentage of graduate degrees awarded in mathematics, science, and engineering, by field of study and country: Selected years, 1990 through 2009

Country	All mathematics, science, and engineering degrees ¹						Natural sciences ²						Mathematics and computer science ³						Engineering					
	1990	1996	2000	2005	2008	2009	1990	1996	2000	2005	2008	2009	1990	1996	2000	2005	2008	2009	1990	1996	2000	2005	2008	2009
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
OECD average⁴	—	—	28.5	24.7	23.3	22.6	—	—	11.1	8.9	7.4	6.9	—	—	5.4	4.9	5.0	4.2	—	—	12.7	11.4	11.2	11.7
Australia.....	—	14.0	15.2	20.0	18.8	18.9	—	5.4	4.0	3.1	3.1	3.0	—	3.8	4.9	8.7	8.3	7.6	—	4.7	6.3	8.1	7.5	8.3
Austria.....	37.7	38.8	39.2	38.6	31.8	33.4	12.3	17.5	16.7	15.0	7.5	7.6	4.6	4.7	4.7	6.6	11.3	10.8	20.8	16.6	17.7	16.9	13.0	14.9
Belgium.....	—	—	19.7	18.7	18.0	21.2	—	—	—	9.3	5.4	5.7	—	—	—	3.3	3.7	3.2	—	—	7.0	6.2	8.9	12.3
Canada.....	20.0	22.3	22.4	18.8	26.3	26.0	7.8	7.7	7.4	5.0	9.9	10.1	3.4	3.5	4.1	4.0	4.3	4.1	8.8	11.2	10.9	9.8	12.1	11.9
Chile.....	—	—	—	8.5	11.4	7.9	—	—	—	2.2	2.8	2.1	—	—	—	1.6	2.3	2.2	—	—	—	4.6	6.3	3.6
Czech Republic.....	⁽⁵⁾	—	21.0	26.1	22.2	26.9	⁽⁵⁾	—	5.3	8.3	5.7	6.5	⁽⁵⁾	—	7.9	5.6	3.8	3.9	⁽⁵⁾	—	7.7	12.3	12.7	16.5
Denmark.....	22.2	12.3	27.8	23.4	21.3	23.3	5.8	3.1	9.8	7.5	5.9	5.7	4.8	1.5	2.5	9.2	7.6	7.9	11.6	7.8	15.4	6.7	7.8	9.7
Estonia.....	⁽⁵⁾	—	—	23.9	28.6	27.3	⁽⁵⁾	—	—	10.0	8.2	8.3	⁽⁵⁾	—	—	5.0	7.7	5.7	⁽⁵⁾	—	—	8.9	12.6	13.3
Finland.....	30.6	28.3	28.7	30.5	31.7	34.3	14.7	11.6	11.3	11.6	12.5	5.8	5.4	4.0	2.4	4.1	4.0	3.7	10.5	12.7	14.9	14.8	15.2	24.8
France.....	—	—	26.4	28.4	28.8	28.0	—	—	13.5	12.5	10.8	11.0	—	—	5.6	7.0	6.8	6.7	—	—	7.3	8.9	11.2	10.3
Germany.....	33.2	38.6	38.1	30.9	33.7	32.2	23.5	25.5	24.9	14.8	15.1	14.7	2.3	3.5	3.7	4.8	6.3	6.1	7.4	9.5	9.5	11.3	12.3	11.4
Greece.....	—	—	—	42.8	33.0	—	—	—	—	22.3	6.2	—	—	—	—	5.3	11.0	—	—	—	—	15.2	15.7	—
Hungary.....	—	—	9.9	6.4	8.3	10.0	—	—	1.7	1.8	2.6	2.8	—	—	0.7	1.7	1.4	1.2	—	—	7.5	2.9	4.4	6.0
Iceland.....	—	—	35.9	23.0	10.6	12.7	—	—	19.4	9.5	5.8	4.6	—	—	#	3.0	1.1	0.9	—	—	16.5	10.5	3.7	7.2
Ireland.....	34.5	23.1	28.1	16.8	19.0	16.3	19.5	10.9	6.9	4.1	—	5.1	5.8	3.0	15.2	6.3	—	6.2	9.3	9.2	6.0	6.4	6.1	5.1
Israel.....	—	—	18.1	17.9	18.6	18.4	—	—	9.2	8.9	9.2	8.8	—	—	2.8	3.2	3.3	3.2	—	—	6.1	5.9	6.0	6.3
Italy.....	—	—	11.7	15.9	—	—	—	—	0.3	3.5	—	—	—	—	5.8	3.5	—	—	—	—	5.7	8.9	—	—
Japan.....	—	—	54.4	50.9	47.1	46.8	9.5	10.2	—	—	—	—	—	—	—	—	—	—	45.1	44.4	41.9	38.0	34.7	34.7
Korea, Republic of.....	—	—	48.4	43.9	24.1	24.2	—	—	8.5	9.5	4.4	4.7	—	—	5.7	2.0	1.2	1.4	—	—	34.3	32.4	18.4	18.1
Mexico.....	—	—	31.4 ⁶	14.7	12.1	12.1	—	—	18.9 ⁶	3.3	2.9	2.9	—	—	4.1 ⁶	3.2	3.3	2.3	—	—	8.4 ⁶	8.2	5.9	6.9
Netherlands.....	28.9	18.6	—	21.3	14.6	15.1	17.7	4.4	—	—	—	—	1.5	3.7	—	—	—	—	9.7	10.6	—	11.9	7.6	7.9
New Zealand.....	22.6	16.7	20.5	16.6	18.5	20.1	13.8	12.7	11.6	7.2	9.1	9.6	4.7	1.1	1.4	5.2	4.1	4.6	4.0	3.0	7.5	4.2	5.3	5.9
Norway.....	33.4	38.3	22.0	25.8	22.2	19.1	8.0	8.7	14.9	7.8	6.1	—	2.1	1.9	4.6	11.9	10.8	—	23.3	27.7	2.5	6.1	5.3	4.3
Poland.....	—	—	—	9.1	11.1	11.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.5	5.0	6.5
Portugal.....	—	—	39.3 ⁶	33.8	49.2	32.7	—	—	11.7 ⁶	12.0	12.2	7.2	—	—	9.4 ⁶	10.0	11.2	2.3	—	—	18.2 ⁶	11.9	25.8	23.2
Slovak Republic.....	⁽⁵⁾	—	38.1	36.8	28.0	25.4	⁽⁵⁾	—	12.6	10.8	6.3	5.3	⁽⁵⁾	—	4.7	4.2	2.2	3.7	⁽⁵⁾	—	20.9	21.8	19.6	16.5
Slovenia.....	⁽⁵⁾	—	24.2	19.9	18.2	—	⁽⁵⁾	—	6.4	7.2	6.1	6.1	⁽⁵⁾	—	—	4.2	2.7	2.4	⁽⁵⁾	—	—	13.6	10.1	9.7
Spain.....	26.9	36.0	—	37.5 ⁶	26.6	24.5	19.7	24.8	23.9 ⁶	23.8 ⁶	14.0	12.3	1.4	4.1	5.4 ⁶	4.6 ⁶	3.9	3.5	5.7	7.1	6.8 ⁶	9.1 ⁶	8.7	8.7
Sweden.....	48.5	32.3	40.5	23.7	28.1	32.0	19.4	9.2	14.3	8.0	8.5	8.3	9.2	5.9	4.0	2.8	4.0	5.2	19.9	17.1	22.2	12.9	15.6	18.5
Switzerland.....	30.2	40.1	42.7	32.0	28.9	29.5	22.0	25.8	11.7	11.7	12.4	12.5	1.7	4.1	19.5	3.4	3.1	3.9	6.5	10.1	11.6	16.9	13.3	13.1
Turkey.....	24.0	—	25.7	21.4	18.8	18.3	7.6	—	7.6	6.7	5.4	5.3	3.3	—	3.0	3.4	3.1	3.0	13.2	—	15.2	11.2	10.4	9.9
United Kingdom.....	—	—	21.7	20.3	20.3	20.4	—	—	7.4	5.5	5.5	5.8	—	—	5.0	5.7	5.2	4.8	—	—	9.2	9.0	9.7	9.8
United States.....	14.5	13.8	13.0	13.5	13.0	13.1	4.2	4.0	3.4	3.3	3.5	3.4	3.4	3.2	3.4	3.5	3.2	3.2	6.9	6.7	6.2	6.7	6.3	6.5

—Not available.

#Rounds to zero.

¹Includes life sciences, physical sciences, mathematics/statistics, computer science, and engineering.

²Includes life sciences and physical sciences.

³Includes mathematics/statistics and computer science.

⁴Refers to the mean of the data values for all reporting OECD countries, to which each country reporting data contributes equally. The average includes all current OECD countries for which a given year's data are available, even if they were not members of OECD in that year. However, if data were reported for less than 75 percent of the countries that were members of OECD in a given year, the average for that year is omitted.

⁵Country did not exist in its current form in the given year.

⁶Only includes doctor's (Ph.D.) degrees.

NOTE: Data in this table refer to degrees classified by OECD as International Standard Classification of Education (ISCED) level 5A, second award, and as ISCED 6. ISCED 5A, second award, corresponds to master's and first-professional degrees in the United States, and ISCED 6 corresponds to doctor's degrees. Data for Luxembourg are not shown because tertiary students study for only 1 year in Luxembourg. Some data have been revised from previously published figures. Detail may not sum to totals because of rounding.

SOURCE: Organization for Economic Cooperation and Development (OECD), Online Education Database, retrieved March 21, 2012, from <http://stats.oecd.org/Index.aspx>; and unpublished tabulations. (This table was prepared March 2012.)

Table 475. Employment to population ratios of 25- to 64-year-olds, by sex, highest level of educational attainment, and country: 2010

Country	Total population, 25 to 64 years old				Male				Female			
	All levels of education	Less than high school completion	High school completion	Associate's or higher degree	All levels of education	Less than high school completion	High school completion	Associate's or higher degree	All levels of education	Less than high school completion	High school completion	Associate's or higher degree
1	2	3	4	5	6	7	8	9	10	11	12	13
OECD average¹	72.4	55.5	73.7	83.1	80.0	66.1	80.9	87.6	65.0	45.7	65.8	78.7
Australia.....	77.7	65.1	80.5	84.0	85.9	77.3	87.8	89.7	69.6	55.0	70.6	79.3
Austria.....	75.6	56.1	77.9	85.7	81.2	64.7	81.8	89.3	70.0	51.4	73.7	81.4
Belgium.....	70.3	48.9	74.5	84.0	76.5	59.2	81.6	86.7	64.0	38.2	66.7	81.6
Canada.....	75.5	55.1	74.0	81.3	79.4	63.0	78.5	84.7	71.7	45.4	68.6	78.5
Chile.....	70.9	61.8	71.8	79.1	86.3	82.6	88.2	87.2	56.2	42.3	56.3	71.2
Czech Republic.....	73.5	43.2	74.5	83.3	83.0	53.1	83.3	91.0	63.7	38.3	65.0	75.0
Denmark.....	76.9	62.9	79.1	85.7	80.2	69.7	80.9	87.5	74.5	56.5	77.0	84.3
Estonia.....	70.0	44.8	68.6	79.9	70.7	45.7	71.9	81.1	69.4	43.3	65.0	79.2
Finland.....	74.7	55.0	74.1	84.1	76.3	59.1	76.1	86.8	73.0	49.4	71.6	82.1
France.....	71.5	55.4	74.4	83.6	76.3	62.4	78.6	86.8	66.9	49.3	69.8	80.8
Germany.....	76.2	55.3	76.3	86.9	81.8	65.5	80.8	90.1	70.5	48.2	71.9	82.8
Greece.....	66.6	56.7	67.1	79.8	79.3	73.8	80.9	84.3	53.9	39.6	53.3	75.1
Hungary.....	63.4	37.6	66.2	78.6	69.4	44.8	71.5	83.1	57.6	32.7	60.2	75.2
Iceland.....	82.3	76.5	82.0	89.1	85.8	81.2	85.8	91.2	79.1	71.8	76.5	87.4
Ireland.....	66.5	46.8	66.4	81.1	72.0	56.0	73.1	84.5	61.5	35.4	59.7	78.3
Israel.....	71.2	44.7	70.1	82.4	76.8	59.6	75.5	85.9	65.7	27.9	64.2	79.5
Italy.....	63.5	50.4	72.6	78.3	75.8	68.0	81.8	84.2	51.4	32.5	63.1	73.6
Japan.....	76.1	—	73.3	79.5	88.5	—	85.7	91.9	63.7	—	61.2	66.7
Korea, Republic of.....	71.8	65.0	70.6	76.3	85.5	77.4	84.7	89.1	58.0	57.1	56.8	60.1
Luxembourg.....	74.2	61.9	72.1	85.0	83.6	74.6	81.1	90.7	65.1	52.1	63.2	77.9
Mexico.....	67.7	63.0	71.6	80.4	88.2	87.7	90.1	88.2	49.6	42.5	56.3	71.6
Netherlands.....	77.3	61.1	80.0	87.5	84.0	74.5	85.0	89.8	70.7	49.3	75.0	85.0
New Zealand.....	78.6	68.4	82.0	83.8	86.2	76.3	88.8	90.5	72.4	61.7	73.0	78.7
Norway.....	81.1	63.9	81.8	90.4	83.8	68.1	84.5	91.6	79.1	59.6	78.2	89.4
Poland.....	67.0	39.9	65.6	84.8	74.3	49.6	74.2	88.8	60.1	30.9	56.2	82.0
Portugal.....	72.8	68.2	79.9	85.4	78.1	75.5	83.6	85.9	67.7	60.5	76.3	85.1
Slovak Republic.....	68.4	29.7	69.9	82.2	76.0	37.1	77.2	88.0	61.0	24.9	62.1	77.5
Slovenia.....	72.7	51.1	73.0	87.3	76.4	60.8	76.1	89.6	68.8	43.0	68.9	85.7
Spain.....	64.7	52.9	68.9	79.7	71.9	63.3	75.6	83.1	57.3	41.8	61.9	76.5
Sweden.....	81.5	63.8	82.0	88.1	84.8	73.7	85.5	89.2	78.4	51.1	77.9	87.3
Switzerland.....	81.4	68.3	80.0	88.7	87.9	76.3	86.5	92.5	74.9	63.3	74.4	83.0
Turkey.....	54.2	48.5	60.0	75.7	75.7	72.8	79.4	83.2	29.3	24.1	28.6	64.4
United Kingdom.....	75.0	56.0	76.8	85.1	81.2	66.3	81.8	88.6	68.8	48.1	71.0	81.7
United States.....	71.2	52.1	67.9	80.0	75.7	61.2	72.2	84.5	66.9	41.6	63.5	76.2
Other reporting countries												
Brazil.....	73.2	—	—	—	86.3	—	—	—	61.2	—	—	—

—Not available.

¹Refers to the mean of the data values for all reporting OECD countries, to which each country reporting data contributes equally.

NOTE: The "high school completion" columns include International Standard Classification of Education (ISCED) levels 3 and 4, with the exception of ISCED level 3C short programs. (ISCED 3C short programs do not correspond to high school completion in the United States and are included in the "less than high school completion" columns in this table.)

ISCED level 5B corresponds to the associate's degree in the United States in this table. Also included in the "associate's or higher degree" columns are the following higher level degrees: ISCED 5A, first award, which corresponds to the bachelor's degree in the United States; ISCED 5A, second award, which corresponds to master's and first-professional degrees in the United States; and ISCED 6, which corresponds to doctor's degrees. SOURCE: Organization for Economic Cooperation and Development (OECD), *Education at a Glance, 2012*. (This table was prepared June 2012.)

**Table 476. Gross domestic product per capita and public and private education expenditures per student, by level of education and country:
Selected years, 2005 through 2009**

Country	Gross domestic product per capita				Elementary and secondary education expenditures per student				Higher education expenditures per student			
	2005	2007	2008	2009	2005	2007	2008	2009	2005	2007	2008	2009
1	2	3	4	5	6	7	8	9	10	11	12	13
Current dollars												
OECD average¹	\$28,772	\$33,452	\$34,459	\$33,576	\$6,751	\$7,407	\$8,176	\$8,595	\$11,387	\$12,495	\$13,463	\$13,461
Australia.....	33,983	37,615	39,532	39,971	7,142	7,590	7,814	9,139	14,579	14,726	15,043	16,074
Austria.....	34,107	36,839	39,849	38,834	9,436	9,959	10,994	11,681	14,775	15,039	15,043	14,257
Belgium.....	32,077	34,662	36,879	36,698	7,306	8,333	9,706	9,783	11,960	13,482	15,020	15,443
Canada.....	—	38,883	38,522	—	7,774 ²	8,388 ²	8,997 ²	—	23,329 ^{3,4}	20,903 ³	20,932 ³	—
Chile.....	12,635	—	14,106	14,578	2,099	2,089	2,245	2,635	6,873	6,292	6,626	6,071
Czech Republic.....	20,280	23,995	25,845	25,614	4,098	4,712	5,236	5,615	6,649	8,209	8,318	8,237
Denmark ⁵	33,626	36,326	39,494	38,299	8,997	9,448	10,429	11,094	14,959	16,466	17,634	18,556
Estonia.....	16,660	20,620	21,802	19,789	3,736	4,637	6,054	6,149	3,869	5,653 ⁴	6,022 ⁴	6,373
Finland.....	30,468	35,322	37,795	35,848	6,610	7,216	8,068	8,314	12,285	13,566	15,402	16,569
France.....	29,644	32,495	34,233	33,724	7,456	8,070	8,559	8,861	10,995	12,773	14,079	14,642
Germany.....	30,496	34,683	37,171	36,048	7,039	7,243	7,859	8,534	12,446	13,823	15,390	15,711
Greece.....	25,472	27,793	29,920	29,381	5,493 ²	—	—	—	6,130	—	—	—
Hungary ³	17,014	18,763	20,700	20,154	4,027	4,371	4,626	4,506	6,244	6,721	7,327	8,518
Iceland.....	35,571	36,325	39,029	36,718	8,815	8,949	9,745	9,309	9,474 ⁵	9,309	10,429	9,939
Ireland.....	38,061	44,381	42,644	39,750	6,411	7,791	8,915 ³	9,615 ³	10,468	12,631	16,284 ³	16,420 ³
Israel.....	21,474	26,444	27,690	27,454	5,041	5,345	5,780	5,464	10,919	11,435	12,568	11,214
Italy.....	27,750	31,016	33,271	32,397	7,410 ³	7,771 ³	9,071 ³	8,943 ³	8,026 ³	8,673	9,553	9,562
Japan ⁶	30,290	33,635	33,902	32,324	7,343	8,012	8,301	8,502	12,326	14,201	14,890	15,957
Korea, Republic of.....	21,342	26,574	26,877	27,171	5,638	6,663	6,723	8,122	7,606	8,920	9,081	9,513
Luxembourg.....	69,984	82,456	89,732	82,972	15,930 ^{2,3}	15,579 ^{2,3}	16,909	18,018	—	—	—	—
Mexico.....	11,299	14,128	15,190	14,397	2,025	2,165	2,284	2,339	6,402	6,971	7,504	8,020
Netherlands.....	34,724	39,594	42,887	41,089	7,045	8,571	9,251	10,030	13,883	15,969	17,245	17,849
New Zealand.....	24,882	27,020	29,231	29,204	5,659	5,454	6,496	7,556	10,262	9,905	10,526	10,619
Norway.....	47,620	53,672	43,659	54,708	9,975	10,855	12,070	12,971	15,552	17,140	18,942	19,269
Poland ³	13,573	16,312	18,062	18,910	3,165	3,804	4,682	5,167	5,593	5,576	7,063	7,776
Portugal ³	19,967	22,638	24,962	24,935	5,646	5,898	6,276	7,288	8,787	10,398	10,373	10,481
Slovak Republic ⁶	15,881	20,270	23,205	22,620	2,740	3,296	4,006	4,781	5,783	5,736	6,560	6,758
Slovenia.....	23,043	26,557	29,241	27,150	7,065	7,267	8,555	8,670	8,573	8,559	9,263	9,311
Spain.....	27,270	31,469	33,173	32,146	6,411	7,671	8,522	8,818	10,089	12,548	13,366	13,614
Sweden.....	32,770	36,785	39,321	37,192	7,861	8,773	9,524	9,709	15,946	18,361	20,014	19,961
Switzerland ³	35,500	41,800	45,517	44,773	10,721	11,702	13,775	13,411	21,734	20,883	21,648	21,577
United Kingdom.....	31,580	34,957	36,817	34,483	6,888	8,622	9,169	9,602	13,506	15,463	15,310	16,338
United States.....	41,674	46,434	46,901	45,087	9,769	10,768	10,995	11,831	24,370	27,010	29,910	29,201
Constant 2011 dollars												
OECD average¹	\$33,140	\$36,291	\$36,002	\$35,204	\$7,775	\$8,035	\$8,542	\$9,012	\$13,116	\$13,555	\$14,066	\$14,114
Australia.....	39,142	40,807	41,301	41,910	8,226	8,234	8,163	9,582	16,793	15,976	15,716	16,854
Austria.....	39,285	39,965	41,632	40,717	10,869	10,804	11,486	12,247	17,018	16,316	15,717	14,949
Belgium.....	36,946	37,604	38,530	38,477	8,415	9,040	10,140	10,258	13,776	14,626	15,693	16,192
Canada.....	—	42,183	40,246	—	8,954 ²	9,100 ²	9,399 ²	—	26,871 ^{3,4}	22,677 ³	21,869 ³	—
Chile.....	14,553	—	14,737	15,284	2,417	2,266	2,345	2,763	7,916	6,826	6,923	6,365
Czech Republic.....	23,359	26,031	27,002	26,856	4,720	5,112	5,471	5,888	7,658	8,906	8,690	8,636
Denmark ⁵	38,731	39,409	41,262	40,156	10,363	10,250	10,896	11,632	17,230	17,863	18,423	19,456
Estonia.....	19,189	22,370	22,778	20,748	4,303	5,031	6,325	6,448	4,456	6,133 ⁴	6,292 ⁴	6,682
Finland.....	35,094	38,320	39,487	37,586	7,614	7,829	8,429	8,717	14,150	14,717	16,091	17,372
France.....	34,144	35,252	35,765	35,359	8,588	8,755	8,942	9,290	12,665	13,857	14,709	15,352
Germany.....	35,125	37,627	38,835	37,796	8,107	7,857	8,210	8,948	14,335	14,996	16,078	16,473
Greece.....	29,339	30,152	31,259	30,806	6,327 ²	—	—	—	7,061	—	—	—
Hungary ³	19,597	20,356	21,626	21,132	4,638	4,742	4,833	4,725	7,192	7,291	7,655	8,931
Iceland.....	40,971	39,408	40,776	38,498	10,153	9,708	10,181	9,760	10,913 ⁵	10,099	10,896	10,420
Ireland.....	43,839	48,148	44,552	41,677	7,384	8,453	9,314 ³	10,082 ³	12,057	13,703	17,013 ³	17,216 ³
Israel.....	24,734	28,688	28,929	28,786	5,806	5,799	6,039	5,729	12,577	12,406	13,131	11,758
Italy.....	31,962	33,648	34,760	33,968	8,534 ³	8,430 ³	9,477 ³	9,377 ³	9,244 ³	9,409	9,981	10,025
Japan ⁶	34,889	36,489	35,420	33,892	8,458	8,692	8,672	8,914	14,197	15,407	15,556	16,731
Korea, Republic of.....	24,582	28,829	28,080	28,488	6,494	7,228	7,024	8,516	8,761	9,677	9,488	9,974
Luxembourg.....	80,608	89,454	93,748	86,995	18,349 ^{2,3}	16,901 ^{2,3}	17,666	18,891	—	—	—	—

See notes at end of table.

Table 476. Gross domestic product per capita and public and private education expenditures per student, by level of education and country: Selected years, 2005 through 2009—Continued

Country	Gross domestic product per capita				Elementary and secondary education expenditures per student				Higher education expenditures per student			
	2005	2007	2008	2009	2005	2007	2008	2009	2005	2007	2008	2009
1	2	3	4	5	6	7	8	9	10	11	12	13
Mexico	13,014	15,327	15,870	15,095	2,333	2,349	2,386	2,452	7,374	7,563	7,840	8,409
Netherlands	39,996	42,954	44,807	43,082	8,115	9,299	9,665	10,517	15,991	17,324	18,016	18,715
New Zealand.....	28,659	29,313	30,539	30,620	6,519	5,917	6,786	7,923	11,820	10,746	10,997	11,134
Norway.....	54,850	58,227	45,613	57,360	11,490	11,776	12,611	13,600	17,913	18,594	19,789	20,203
Poland ³	15,633	17,696	18,871	19,827	3,645	4,127	4,891	5,417	6,442	6,049	7,379	8,153
Portugal ³	22,999	24,560	26,079	26,145	6,503	6,398	6,557	7,641	10,121	11,281	10,837	10,989
Slovak Republic ⁶	18,292	21,990	24,244	23,717	3,156	3,575	4,186	5,012	6,661	6,223	6,854	7,086
Slovenia.....	26,542	28,810	30,549	28,466	8,137	7,883	8,938	9,091	9,875	9,285	9,677	9,763
Spain	31,410	34,140	34,658	33,705	7,384	8,322	8,903	9,246	11,621	13,613	13,965	14,274
Sweden.....	37,745	39,907	41,081	38,995	9,055	9,517	9,951	10,180	18,367	19,920	20,910	20,929
Switzerland ³	40,889	45,348	47,554	46,944	12,348	12,695	14,392	14,061	25,034	22,656	22,617	22,623
United Kingdom.....	36,375	37,924	38,465	36,155	7,934	9,354	9,579	10,068	15,557	16,776	15,995	17,130
United States.....	48,001	50,375	49,000	47,274	11,252	11,682	11,488	12,404	28,070	29,302	31,249	30,616

—Not available.

¹Refers to the mean of the data values for all reporting OECD countries, to which each country reporting data contributes equally. The average includes all current OECD countries for which a given year's data are available, even if they were not members of OECD in that year.

²Includes preprimary education.

³Public institutions only.

⁴Excludes occupation-specific education corresponding to that offered at the vocational associate's degree level in the United States.

⁵Postsecondary non-higher-education included in both secondary and higher education.

⁶Occupation-specific education corresponding to that offered at the vocational associate's degree level in the United States is included under elementary and secondary education instead of under higher education.

NOTE: Includes all expenditures by public and private education institutions (such as administration, instruction, ancillary services for students and families, and research and development) unless otherwise noted. Postsecondary non-higher-education is included in elementary and secondary education unless otherwise noted. Data adjusted to U.S. dollars using the purchasing-power-parity (PPP) index. Constant dollars based on the Consumer Price Index, prepared by the Bureau of Labor Statistics, U.S. Department of Labor.

SOURCE: Organization for Economic Cooperation and Development (OECD), *Education at a Glance*, 2008 through 2012. (This table was prepared June 2012.)

Table 477. Public and private direct expenditures on education institutions as a percentage of gross domestic product, by level of education and country: Selected years, 1995 through 2009

Country	All institutions (including preprimary education and subsidies to households, not separately shown)									Elementary and secondary institutions									Higher education institutions								
	Public direct expenditures						Direct expenditures, 2009			Public direct expenditures						Direct expenditures, 2009			Public direct expenditures						Direct expenditures, 2009		
	1995	2000 ¹	2005 ¹	2007 ¹	2008 ¹	Public ¹	Private	Total	1995	2000 ¹	2005 ¹	2007 ¹	2008 ¹	Public ¹	Private	Total	1995	2000 ¹	2005 ¹	2007 ¹	2008 ¹	Public ¹	Private	Total			
	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25			
OECD average²	4.9	4.9	5.0	4.8	5.1	5.4	0.9	6.3	3.5	3.4	3.5	3.3	3.5	3.7	0.3	4.0	0.9	1.0	1.0	1.0	1.1	1.1	0.5	1.6			
Australia.....	4.5	4.6	4.3	3.7	3.7	4.5	1.5	6.0	3.2	3.7	3.4	2.9	3.0	3.6	0.6	4.2	1.2	0.8	0.8	0.7	0.7	0.7	0.9	1.6			
Austria.....	5.3	5.4 ³	5.2	5.1	5.2	5.7	0.2	5.9	3.8	3.7 ³	3.5	3.5	3.5	3.8	0.1	3.9	0.9	1.2 ³	1.2	1.3	1.2	1.4	0.1	1.4			
Belgium.....	5.0	5.1	5.8	5.9	6.3	6.4	0.3	6.7	3.4	3.4 ⁴	3.9	3.9	4.3	4.3	0.2	4.4	0.9	1.2 ⁴	1.2	1.2	1.3	1.4	0.1	1.5			
Canada.....	5.8	5.2	4.8	4.6	6.1	—	—	—	4.0	3.3 ⁵	3.3 ^{5,6}	3.1 ⁶	3.6 ⁶	—	—	—	1.5	1.6 ⁵	1.5 ⁵	1.5	2.5	—	—	—			
Chile.....	—	4.2	3.3	3.1	3.7	4.1	2.9	7.0	—	3.2	2.7	2.5	3.0	3.3	0.9	4.2	—	0.6	0.3	0.3	0.3	0.3	1.9	2.1			
Czech Republic.....	4.8	4.2	4.1	4.1	3.9	4.2	0.6	4.8	3.4	2.8 ⁴	2.7	2.5	2.5	2.6	0.3	2.9	0.7	0.8 ⁴	0.8	1.0	0.9	1.0	0.2	1.3			
Denmark.....	6.5	6.4 ³	6.8	6.6	6.5	7.5	0.3	7.9	4.2	4.1 ^{3,7}	4.4 ⁷	4.2 ⁷	4.2 ⁷	4.7 ⁷	0.1 ⁷	4.8 ⁷	1.3	1.5 ^{3,7}	1.6 ⁷	1.6 ⁷	1.6 ⁷	1.8 ⁷	0.1 ⁷	1.9 ⁷			
Estonia.....	—	—	4.7	4.7	5.5	5.9	0.4	6.3	—	—	3.5	3.3	3.8	4.1	0.1	4.2	—	—	0.9	1.1	1.1	1.3	0.3	1.6			
Finland.....	6.6	5.5	5.9	5.5	5.7	6.3	0.1	6.4	4.2	3.5	3.8	3.6	3.8	4.1	#	4.1	1.7	1.7	1.6	1.6	1.8	0.1	1.9				
France.....	5.8	5.7	5.6	5.5	5.5	5.8	0.5	6.3	4.1	4.0	3.8	3.7	3.7	3.8	0.2	4.1	1.0	1.0	1.1	1.2	1.2	1.3	0.2	1.5			
Germany.....	4.5	4.3	4.2	4.0	4.1	4.5	0.8	5.3	2.9	2.9	2.8	2.6	2.6	2.9	0.4	3.3	1.0	1.0	0.9	0.9	1.0	1.1	0.2	1.3			
Greece.....	3.7	3.7 ³	4.0	—	—	—	—	—	2.8	2.7 ^{3,6}	2.5 ⁶	—	—	—	—	—	0.8	0.9 ³	1.4	—	—	—	—	—			
Hungary.....	4.9	4.4	5.1	4.9	4.8	4.8	—	—	3.3	2.8	3.3	3.2	3.0	3.0	—	—	0.8	0.9	0.9	0.9	0.9	1.0	—	—			
Iceland.....	4.5	5.7 ³	7.2	7.0	7.2	7.3	0.7	8.1	3.4	4.6 ³	5.2 ⁷	4.9	4.9	5.0	0.2	5.2	0.7	0.8 ³	1.1 ⁷	1.1	1.2	1.2	0.1	1.3			
Ireland.....	4.7	4.1	4.3	4.4	5.2	6.0	0.4	6.3	3.3	2.9 ⁴	3.3	3.4	4.0	4.6	0.1	4.7	0.9	1.2 ⁴	1.0	1.0	1.2	1.4	0.3	1.6			
Israel.....	—	6.6	6.2	5.9	5.9	5.8	1.3	7.2	—	4.5	4.2	3.9	4.0	3.8	0.2	4.0	—	1.1	1.0	1.0	0.9	1.0	0.6	1.6			
Italy.....	4.5	4.5	4.3	4.1	4.5	4.5	0.4	4.9	3.2	3.2	3.2	3.0	3.2	3.3	0.1	3.4	0.7	0.7	0.6	0.6	0.8	0.8	0.2	1.0			
Japan.....	3.6	3.5	3.4	3.3	3.3	3.6	1.7	5.2	2.8	2.7 ⁷	2.6 ⁷	2.5 ⁷	2.5 ⁷	2.7 ⁷	0.3 ⁷	3.0 ⁷	0.4	0.5 ⁷	0.5 ⁷	0.5 ⁷	0.5 ⁷	0.5 ⁷	1.0 ⁷	1.6 ⁷			
Korea, Republic of.....	3.6	4.3	4.3	4.2	4.7	4.9	3.1	8.0	3.0	3.3	3.4	3.1	3.4	3.6	1.1	4.7	0.3	0.6	0.6	0.6	0.7	1.9	2.6	—			
Luxembourg.....	4.3	—	—	—	—	—	—	—	4.2	—	3.7 ⁶	3.1 ⁶	2.8	3.2	0.1	3.3	0.1	—	—	—	—	—	—	—			
Mexico.....	4.6	4.7	5.3	4.7	4.7	5.0	1.2	6.2	3.4	3.3	3.7	3.1	3.1	3.3	0.7	4.0	0.8	0.8	0.9	0.9	0.9	1.0	0.4	1.4			
Netherlands.....	4.6	4.3	4.6	4.7	4.8	5.3	0.9	6.2	3.0	3.0	3.3	3.3	3.3	3.7	0.4	4.1	1.1	1.0	1.0	1.1	1.1	1.2	0.5	1.7			
New Zealand.....	5.3	5.8	5.2	4.8	5.4	6.1	1.3	7.4	3.8	4.6	4.0	3.5	3.8	4.5	0.7	5.2	1.1	0.9	0.9	1.0	1.1	1.1	0.5	1.6			
Norway.....	6.8	5.8	5.7	5.4	7.3	6.1	—	—	4.1	3.6	3.8	3.7	5.0	4.2	—	—	1.5	1.2	1.3	1.2	1.6	1.3	0.1	1.4			
Poland.....	5.2	5.2 ³	5.4	4.8	5.0	5.0	0.8	5.8	3.3	3.7 ³	3.7	3.4	3.4	3.5	0.2	3.6	0.8	0.8 ³	1.2	0.9	1.0	1.1	0.5	1.5			
Portugal.....	5.4	5.6 ³	5.3	5.1	4.7	5.5	0.4	5.9	4.1	4.1 ³	3.8	3.5	3.4	4.0	#	4.0	1.0	1.0 ³	0.9	1.1	0.9	1.0	0.4	1.4			
Slovak Republic.....	4.6	4.0 ³	3.7	3.4	3.5	4.1	0.6	4.7	—	2.7 ^{3,4,8}	2.5 ⁸	2.3 ⁸	2.2 ⁸	2.7 ⁸	0.3 ^{7,8}	3.1 ^{7,8}	—	0.7 ^{3,4,8}	0.7 ⁸	0.7 ⁸	0.7 ⁸	0.7 ⁸	0.3 ^{7,8}	0.9 ^{7,8}			
Slovenia.....	—	—	5.3	4.8	4.8	5.3	0.7	6.0	—	—	3.9	3.3	3.4	3.6	0.3	4.0	—	1.0	1.0	1.0	1.1	0.2	1.3	—			
Spain.....	4.8	4.3	4.1	4.2	4.5	4.9	0.7	5.6	3.5	3.1	2.7	2.7	2.9	3.1	0.2	3.3	0.8	0.9	0.9	0.9	1.0	1.1	0.3	1.3			
Sweden.....	6.6	6.3	6.2	6.1	6.1	6.6	0.2	6.7	4.4	4.4 ⁴	4.2	4.1	4.0	4.2	#	4.2	1.6	1.5 ⁴	1.5	1.4	1.4	1.6	0.2	1.8			
Switzerland.....	5.5	5.3	5.6	5.1	5.3	5.5	—	—	4.1	3.8	3.9	3.5	3.8	3.8	0.6	4.4	1.1	1.2	1.4	1.3	1.3	1.4	—	—			
Turkey.....	2.2	3.4 ³	—	—	—	—	—	—	1.4	2.4 ³	—	—	—	—	—	—	0.8	1.0 ³	—	—	—	—	—	—			
United Kingdom.....	4.6	4.5	5.0	5.2	5.1	5.3	0.7	6.0	3.8	3.4	3.8	4.1	4.2	4.5	#	4.5	0.7	0.7	0.9	0.7	0.6	0.6	0.7	1.3			
United States.....	5.0	4.8	4.8	5.0	5.1	5.3	2.1	7.3	3.5	3.5 ⁵	3.5	3.7	3.8	3.9	0.3	4.3	1.1	0.9 ⁵	1.0	1.0	1.0	1.0	1.6	2.6			
Other reporting countries																											
Brazil.....	—	—	4.4	5.2	5.3	5.5	—	—	—	—	3.3	4.0	4.1	4.3	—	—	—	—	0.8	0.8	0.8	0.8	—	—			
Russian Federation.....	3.4	3.0 ³	3.8	6.1	4.1	4.7	0.8	5.5	1.9	1.7	1.9	3.4	2.0	2.3	0.1	2.4	0.7	0.5	0.8	1.0	0.9	1.2	0.6	1.8			

—Not available.

#Rounds to zero.

¹Unless otherwise noted, includes public subsidies to households for payments to education institutions and direct expenditures on education institutions from international sources.

²Refers to the mean of the data values for all reporting Organization for Economic Cooperation and Development (OECD) countries, to which each country reporting data contributes equally. The average includes all current OECD countries for which a given year's data are available, even if they were not members of OECD in that year.

³Public subsidies to households not included in public expenditures.

⁴Direct expenditures on education institutions from international sources exceed 1.5 percent of all public expenditures.

⁵Postsecondary non-higher-education included in higher education.

⁶Preprimary education (for children ages 3 and older) included in elementary and secondary education.

⁷Postsecondary non-higher-education included in both secondary and higher education.

⁸Occupation-specific education corresponding to that offered at the vocational associate's degree level in the United States is included in secondary education.

NOTE: Public direct expenditures on education include both amounts spent directly by governments to hire educational personnel and to procure other resources, and amounts provided by governments to public or private institutions. Private direct expenditures exclude public subsidies that are used for payments to education institutions. Postsecondary non-higher-education is included in elementary and secondary education unless otherwise noted. All institutions total includes expenditures that could not be reported by level of education. Some data have been revised from previously published figures. Detail may not sum to totals because of rounding.

SOURCE: Organization for Economic Cooperation and Development (OECD), Online Education Database; and *Education at a Glance, 2007 through 2012*. U.S. Department of Education, National Center for Education Statistics, *International Education Indicators: A Time Series Perspective, 1985–1995* (NCES 2000-021). (This table was prepared June 2012.)

CHAPTER 7

Libraries and Adult Education

This chapter contains statistics on libraries and adult education. These data provide a capsule description of the magnitude and availability of library resources as well as the extent of adults' involvement in educational activities other than postsecondary degree programs.

The first section of the chapter (tables 478 to 483) deals with elementary and secondary school libraries, college and university libraries, and public libraries. It contains data on collections, population served, staff, and expenditures. Table 482 provides institutional-level information for the 60 largest college libraries in the country.

The second section of the chapter (tables 484 to 486) provides information about adults' participation in various types of educational activities, including basic skills and General Educational Development (GED) classes, English as a Second Language (ESL) classes, career-related classes, and personal-interest classes. Information on participation is shown for adults having various demographic characteristics and for adults living in different states.

Libraries

Among public schools that had a library in 2007–08, the average number of library staff per school was 1.7, including 0.8 certified library/media specialists (table 478). On average, public school libraries had larger numbers of books on a per student basis in 2007–08 (2,015 per 100 students) than in 1999–2000 (1,803 per 100 students) and 2003–04 (1,891 per 100 students). In 2007–08, public elementary school libraries had larger holdings than public secondary school libraries on a per student basis (2,316 books per 100 students, compared with 1,432 books per 100 students).

At postsecondary degree-granting institutions, library operating expenditures per full-time-equivalent (FTE) student were 1 percent higher in 2001–02 than in 1991–92, after adjustment for inflation (table 481). From 2001–02 to 2009–10, library operating expenditures per FTE student dropped 21 percent in inflation-adjusted dollars. Overall, there was a net decrease of 20 percent in library operating expenditures per FTE student between 1991–92 and 2009–10. In 2009–10, library operating expenditures per FTE student averaged \$441 (in current dollars) across all degree-granting institutions. The amount varied widely by institution control, however. Library operating expenditures averaged \$849 per FTE student attending a private nonprofit institution in 2009–10, compared with \$374 per FTE student attending a public institution, and \$71 per FTE student attending a private for-profit institution. In 2009–10,

the average number of volumes per FTE student also differed for public institutions (61 volumes), private nonprofit institutions (131 volumes), and private for-profit institutions (3 volumes). Across all degree-granting institutions, the average number of volumes per FTE student in 2009–10 was 69, which was 4 percent less than in 1991–92. The calculations of library operating expenditures and number of volumes per FTE student include both institutions with libraries and those without libraries. In 2009–10, there were libraries at 82 percent of degree-granting institutions overall, 93 percent of public institutions, 89 percent of private nonprofit institutions, and 57 percent of private for-profit institutions.

In 2009, there were 9,225 public libraries in the United States with a total of 816 million books and serial volumes (table 483). The annual number of visits per capita—that is, per resident of the areas served by the libraries—was 5.4, and the annual number of reference transactions per capita was 1.0.

Adult Education

The percentage of adults who reported participating in any adult education courses was higher in 2005 (44 percent) than in 1995 (40 percent) (table 486). Adults are defined here as people age 17 and over who are not enrolled in high school, and the same individual could report participating in multiple types of courses. In 2005, the percentage of adults who participated in career- or job-related courses (27 percent) was higher than the percentage who participated in personal-interest courses (21 percent). About 1 percent of adults participated in each of the following three types of adult education activities: basic skills/GED classes, ESL classes, and apprenticeship programs.

Among people age 17 and over who were employed, 39 percent participated in career- or job-related courses in 2005 (table 485). Participation rates varied for employees with different characteristics. For example, employed women's participation in career- or job-related courses was higher than that of employed men in 2005 (47 percent vs. 32 percent). For employees with some vocational or technical education, employees with some college (but no degree), and employees with an associate's or higher degree, rates of participation in career- or job-related courses were generally higher than for employees with less than high school completion or high school completion. For example, 53 percent of employees whose highest level of education was a bachelor's degree took such courses in 2005, compared with 25 percent of employees whose highest level was high school completion.

Table 478. Selected statistics on public school libraries/media centers, by level of school: 1999–2000, 2003–04, and 2007–08
[Standard errors appear in parentheses]

Selected statistic	1999–2000	2003–04				2007–08			
		Total	Elementary	Secondary	Combined elementary/secondary	Total	Elementary	Secondary	Combined elementary/secondary
1	2	3	4	5	6	7	8	9	10
Number of schools with libraries/media centers.....	77,300 (421)	78,300 (548)	57,400 (440)	16,300 (313)	4,600 (201)	81,900 (634)	59,700 (492)	17,800 (414)	4,400 (239)
Average number of staff per library/media center.....	1.89 (0.018)	1.76 (0.014)	1.66 (0.018)	2.09 (0.025)	1.74 (0.116)	1.72 (0.017)	1.65 (0.019)	2.04 (0.039)	1.42 (0.057)
Certified library/media specialists.....	0.81 (0.007)	0.79 (0.009)	0.73 (0.012)	1.03 (0.018)	0.73 (0.023)	0.78 (0.011)	0.73 (0.013)	0.98 (0.019)	0.66 (0.033)
Full-time.....	0.65 (0.007)	0.65 (0.009)	0.58 (0.010)	0.92 (0.018)	0.55 (0.027)	0.66 (0.010)	0.61 (0.012)	0.88 (0.018)	0.49 (0.032)
Part-time.....	0.16 (0.006)	0.14 (0.007)	0.15 (0.009)	0.11 (0.009)	0.18 (0.020)	0.13 (0.007)	0.13 (0.010)	0.10 (0.009)	0.18 (0.020)
Other professional staff.....	0.17 (0.007)	0.19 (0.008)	0.19 (0.011)	0.14 (0.010)	0.28 (0.036)	0.22 (0.010)	0.22 (0.013)	0.21 (0.021)	0.24 (0.027)
Full-time.....	0.12 (0.005)	0.13 (0.007)	0.14 (0.009)	0.11 (0.009)	0.16 (0.022)	0.13 (0.008)	0.13 (0.010)	0.14 (0.017)	0.15 (0.022)
Part-time.....	0.06 (0.004)	0.05 (0.005)	0.05 (0.006)	0.03 (0.004)	0.11 (0.031)	0.08 (0.007)	0.08 (0.009)	0.07 (0.013)	0.08 (0.017)
Other paid employees.....	0.91 (0.014)	0.78 (0.011)	0.75 (0.013)	0.93 (0.017)	0.73 (0.085)	0.72 (0.013)	0.70 (0.016)	0.86 (0.027)	0.51 (0.036)
Full-time.....	0.49 (0.008)	0.46 (0.009)	0.41 (0.011)	0.65 (0.017)	0.35 (0.028)	0.43 (0.013)	0.39 (0.016)	0.60 (0.022)	0.27 (0.028)
Part-time.....	0.41 (0.014)	0.33 (0.012)	0.34 (0.014)	0.28 (0.014)	0.38 (0.085)	0.29 (0.011)	0.31 (0.014)	0.26 (0.018)	0.24 (0.028)
Percent of libraries/media centers with certain media equipment									
Automated catalog.....	72.8 (0.69)	82.7 (0.66)	81.9 (0.89)	90.6 (0.76)	63.7 (2.59)	87.2 (0.71)	87.5 (0.94)	90.6 (1.08)	69.8 (2.88)
Automated circulation system.....	74.4 (0.65)	86.9 (0.61)	86.7 (0.82)	92.8 (0.80)	68.8 (2.45)	89.5 (0.68)	89.9 (0.87)	92.6 (0.98)	72.4 (3.15)
Media retrieval system ¹	— (†)	— (†)	— (†)	— (†)	— (†)	34.9 (1.05)	35.9 (1.33)	35.1 (1.66)	20.6 (2.32)
Connection to Internet.....	90.1 (0.57)	95.1 (0.35)	94.1 (0.48)	99.2 (0.22)	92.6 (1.40)	96.7 (0.40)	96.5 (0.51)	98.6 (0.51)	91.6 (1.90)
Digital video disc (DVD) player/video cassette recorder (VCR).....	— (†)	87.8 (0.60)	87.0 (0.70)	90.4 (1.19)	89.1 (1.53)	87.2 (0.77)	86.7 (1.02)	89.6 (1.00)	84.5 (2.20)
Disability assistance technologies, such as TDD.....	— (†)	11.9 (0.50)	10.2 (0.61)	18.0 (0.79)	11.7 (1.34)	23.9 (1.05)	23.0 (1.33)	26.4 (1.34)	25.9 (2.76)
Percent of libraries/media centers with certain services									
Students permitted to check out laptops.....	— (†)	— (†)	— (†)	— (†)	— (†)	27.5 (1.02)	26.9 (1.27)	29.8 (1.34)	26.1 (2.57)
Staff permitted to check out laptops.....	— (†)	— (†)	— (†)	— (†)	— (†)	45.9 (1.07)	45.2 (1.35)	50.1 (1.50)	38.5 (2.85)
Number of library computer workstations per 100 students.....	— (†)	2.3 (0.04)	2.2 (0.05)	2.5 (0.05)	2.7 (0.17)	2.6 (0.05)	2.5 (0.07)	2.9 (0.06)	3.0 (0.17)
Average holdings per 100 students at the end of the school year ²									
Books (number of volumes).....	1,803 (19.7)	1,891 (45.1)	2,127 (70.2)	1,376 (20.0)	2,407 (117.7)	2,015 (30.5)	2,316 (40.2)	1,432 (36.6)	2,439 (132.3)
Audio and video materials.....	59 (0.9)	80 (3.7)	86 (5.7)	65 (2.2)	97 (13.6)	90 (3.8)	93 (5.6)	81 (5.2)	107 (13.3)
Average additions per 100 students during the school year ²									
Books (number of volumes).....	— (†)	99.3 (2.08)	118.4 (3.13)	61.2 (1.75)	109.2 (8.40)	95.3 (2.21)	113.3 (3.26)	62.1 (2.67)	103.4 (7.41)
Audio and video materials.....	— (†)	5.1 (0.19)	5.3 (0.28)	4.4 (0.20)	6.9 (0.83)	5.4 (0.49)	5.9 (0.77)	4.5 (0.41)	5.7 (0.84)
Total expenditures for library/media materials per pupil ^{2,3}	\$23.37 (0.438)	\$16.24 (0.322)	\$16.00 (0.469)	\$16.11 (0.320)	\$21.24 (2.498)	\$16.11 (0.461)	\$16.18 (0.591)	\$15.90 (0.647)	\$17.00 (1.216)
Books.....	9.97 (0.153)	10.99 (0.299)	11.72 (0.452)	9.68 (0.275)	10.19 (0.631)	11.40 (0.291)	11.99 (0.389)	10.26 (0.504)	12.10 (1.094)
Audio and video materials.....	1.66 (0.032)	1.14 (0.045)	1.11 (0.053)	1.11 (0.062)	1.96 ! (0.619)	1.08 (0.055)	1.06 (0.088)	1.11 (0.054)	1.16 (0.152)
Current serial subscriptions.....	1.26 (0.016)	1.38 (0.025)	1.06 (0.031)	1.87 (0.049)	2.50 (0.148)	— (†)	— (†)	— (†)	— (†)
Electronic subscriptions.....	0.81 (0.018)	0.88 (0.033)	0.39 (0.042)	1.79 (0.061)	1.25 (0.249)	— (†)	— (†)	— (†)	— (†)

—Not available.

†Not applicable.

!Interpret data with caution. The coefficient of variation (CV) for this estimate is between 30 percent and 50 percent.

¹Centralized video distribution equipment with a scheduling and control server that telecasts video to classrooms.

²Average holdings, acquisitions, and expenditures are from the prior school year, while enrollment counts are from the current school year.

³Includes other expenditures not separately shown.

NOTE: Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey (SASS), "Public School Library Media Center Questionnaire," 1999–2000, 2003–04, and 2007–08; and "Charter School Questionnaire," 1999–2000. (This table was prepared November 2009.)

Table 479. Selected statistics on public school libraries/media centers, by level and enrollment size of school: 2007–08

[Standard errors appear in parentheses]

Selected statistic	All public school libraries/ media centers	Elementary school enrollment size					Secondary school enrollment size				
		Total	Less than 150	150 to 499	500 to 749	750 or more	Total	Less than 500	500 to 749	750 to 1,499	1,500 or more
1	2	3	4	5	6	7	8	9	10	11	12
Number of schools with libraries/media centers	81,900 (634)	59,700 (492)	3,300 (399)	31,100 (1054)	16,400 (812)	8,900 (534)	17,800 (414)	6,300 (353)	3,000 (246)	5,100 (273)	3,300 (198)
Average number of staff per library/media center	1.72 (0.017)	1.65 (0.019)	1.28 (0.099)	1.58 (0.027)	1.73 (0.045)	1.89 (0.053)	2.04 (0.039)	1.59 (0.071)	1.78 (0.068)	2.18 (0.054)	2.94 (0.081)
Certified library/media specialists	0.78 (0.011)	0.73 (0.013)	0.60 (0.069)	0.70 (0.019)	0.76 (0.024)	0.86 (0.030)	0.98 (0.019)	0.73 (0.035)	0.87 (0.035)	1.09 (0.026)	1.38 (0.046)
Full-time	0.66 (0.010)	0.61 (0.012)	0.25 (0.072)	0.53 (0.018)	0.71 (0.022)	0.81 (0.029)	0.88 (0.018)	0.57 (0.033)	0.80 (0.040)	1.02 (0.029)	1.31 (0.049)
Part-time	0.13 (0.007)	0.13 (0.010)	0.36 (0.070)	0.17 (0.014)	0.06 (0.016)	0.05 (0.013)	0.10 (0.009)	0.16 (0.019)	0.07 (0.020)	0.07 (0.017)	0.07 (0.022)
Other professional staff	0.22 (0.010)	0.22 (0.013)	0.20 (0.059)	0.23 (0.016)	0.20 (0.028)	0.21 (0.030)	0.21 (0.021)	0.27 (0.044)	0.20 (0.051)	0.16 (0.026)	0.15 (0.033)
Full-time	0.13 (0.008)	0.13 (0.010)	†	0.13 (0.014)	0.14 (0.021)	0.13 (0.021)	0.14 (0.017)	0.17 (0.039)	0.11 (0.027)	0.13 (0.023)	0.12 (0.025)
Part-time	0.08 (0.007)	0.08 (0.009)	0.10 † (0.034)	0.09 (0.012)	0.06 (0.016)	0.09 (0.023)	0.07 (0.013)	0.10 (0.027)	0.09 † (0.043)	0.04 † (0.013)	†
Other paid employees	0.72 (0.013)	0.70 (0.016)	0.48 (0.068)	0.65 (0.023)	0.78 (0.039)	0.82 (0.044)	0.86 (0.027)	0.59 (0.041)	0.71 (0.050)	0.93 (0.045)	1.40 (0.068)
Full-time	0.43 (0.013)	0.39 (0.016)	0.13 † (0.046)	0.33 (0.019)	0.46 (0.035)	0.59 (0.044)	0.60 (0.022)	0.34 (0.031)	0.51 (0.049)	0.66 (0.039)	1.07 (0.067)
Part-time	0.29 (0.011)	0.31 (0.014)	0.34 (0.064)	0.32 (0.023)	0.31 (0.032)	0.23 (0.036)	0.26 (0.018)	0.25 (0.032)	0.20 (0.029)	0.28 (0.035)	0.34 (0.053)
Percent of libraries/media centers with certain media equipment											
Automated catalog	87.2 (0.71)	87.5 (0.94)	57.1 (6.87)	86.6 (1.56)	91.6 (1.55)	94.4 (1.62)	90.6 (1.08)	79.6 (2.59)	94.0 (2.14)	97.2 (0.86)	98.4 (1.05)
Automated circulation system	89.5 (0.68)	89.9 (0.87)	57.1 (6.78)	89.4 (1.35)	94.8 (1.19)	95.0 (1.84)	92.6 (0.98)	83.0 (2.49)	96.0 (1.72)	98.4 (0.44)	98.7 (0.81)
Media retrieval system ¹	34.9 (1.05)	35.9 (1.33)	10.6 † (4.72)	29.3 (1.62)	43.9 (2.68)	53.7 (3.51)	35.1 (1.66)	32.8 (3.39)	34.1 (3.00)	37.9 (2.85)	36.4 (3.28)
Connection to Internet	96.7 (0.40)	96.5 (0.51)	81.0 (5.95)	96.9 (0.55)	98.0 (0.53)	98.5 (0.70)	98.6 (0.51)	96.0 (1.42)	99.9 (0.05)	100.0 (†)	100.0 (†)
Digital video disc (DVD) player/video cassette recorder(VCR)	87.2 (0.77)	86.7 (1.02)	80.0 (5.53)	86.3 (1.27)	87.4 (1.71)	89.1 (2.21)	89.6 (1.00)	87.3 (2.11)	89.9 (2.67)	92.3 (1.80)	89.3 (2.80)
Disability assistance technologies, such as TDD	23.9 (1.05)	23.0 (1.33)	14.7 (3.85)	20.2 (1.68)	24.6 (2.08)	33.1 (3.20)	26.4 (1.34)	18.4 (1.91)	26.7 (3.14)	28.4 (2.06)	38.0 (3.38)
Percent of libraries/media centers with certain services											
Students permitted to check out laptops	27.5 (1.02)	26.9 (1.27)	22.5 (6.15)	25.7 (1.72)	27.0 (2.23)	32.4 (3.13)	29.8 (1.34)	29.2 (2.84)	29.9 (3.18)	31.0 (2.40)	29.0 (2.76)
Staff permitted to check out laptops	45.9 (1.07)	45.2 (1.35)	30.7 (6.44)	42.4 (1.97)	48.4 (2.83)	54.6 (4.01)	50.1 (1.50)	46.3 (3.06)	49.7 (3.38)	54.5 (2.50)	51.1 (3.39)
Number of library computer workstations per 100 students	2.6 (0.05)	2.5 (0.07)	8.8 (1.24)	3.2 (0.13)	2.1 (0.10)	1.7 (0.11)	2.9 (0.06)	5.9 (0.28)	3.8 (0.22)	2.9 (0.10)	1.9 (0.08)
Average holdings per 100 students at the end of the school year ²											
Books (number of volumes)	2,015 (30.5)	2,316 (40.2)	6,384 (531.1)	2,993 (67.3)	2,117 (45.7)	1,559 (85.2)	1,432 (36.6)	3,203 (162.4)	1,854 (101.1)	1,332 (34.1)	975 (40.6)
Audio and video materials	90 (3.8)	93 (5.6)	157 (36.7)	105 (5.9)	89 (6.2)	82 (16.1)	81 (5.2)	132 (14.4)	138 (30.0)	83 (8.5)	52 (4.1)
Average additions per 100 students during the school year ²											
Books (number of volumes)	95.3 (2.21)	113.3 (3.26)	247.0 (38.53)	134.9 (5.28)	106.4 (5.76)	89.6 (6.32)	62.1 (2.67)	124.8 (11.48)	81.1 (8.27)	61.3 (4.78)	42.7 (2.66)
Audio and video materials	5.4 (0.49)	5.9 (0.77)	7.6 (2.14)	5.7 (0.44)	4.9 (0.55)	7.1 † (2.47)	4.5 (0.41)	6.4 (0.59)	6.1 (1.44)	4.8 (0.65)	3.4 (0.60)
Total expenditures for library/media materials per pupil ³	\$16.11 (0.461)	\$16.18 (0.591)	\$43.28 (11.551)	\$18.49 (0.700)	\$14.63 (0.799)	\$14.11 (1.496)	\$15.90 (0.647)	\$27.86 (3.234)	\$18.51 (1.931)	\$16.68 (1.171)	\$11.75 (0.773)
Books	11.40 (0.291)	11.99 (0.389)	21.99 (4.023)	13.80 (0.539)	11.25 (0.679)	10.23 (0.836)	10.26 (0.504)	17.30 (1.454)	13.47 (1.905)	10.87 (1.103)	7.26 (0.386)
Audio and video materials	1.08 (0.055)	1.06 (0.088)	†	1.24 (0.154)	0.88 (0.082)	1.01 (0.180)	1.11 (0.054)	1.57 (0.157)	1.20 (0.151)	1.19 (0.102)	0.91 (0.085)

†Not applicable.

‡Interpret data with caution. The coefficient of variation (CV) for this estimate is between 30 percent and 50 percent.

§Reporting standards not met. The coefficient of variation (CV) for this estimate is 50 percent or greater.

¹Centralized video distribution equipment with a scheduling and control server that telecasts video to classrooms.

²Average holdings, acquisitions, and expenditures are from the prior school year, while enrollment counts are from the current school year.

³Includes other expenditures not separately shown.

NOTE: Total includes combined elementary/secondary schools not separately shown. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey (SASS), "Public School Library Media Center Questionnaire," 2007–08. (This table was prepared November 2009.)

Table 480. Selected statistics on public school libraries/media centers, by state: 2007–08
[Standard errors appear in parentheses]

State	Percent of libraries/media centers offering selected services/equipment										Average number of staff per library/media center ²	Books (number of volumes) held at end of year per 100 students ³	Books (number of volumes) acquired during year per 100 students ³	Total expenditure for materials per student ³	Number of library computer workstations per 100 students
	Automated catalog	Automated circulation system	Laptops for student use outside of library/media center	Laptops for staff use outside of library/media center	Media retrieval system ¹	Connection to the Internet	DVD player/VCR								
1	2	3	4	5	6	7	8	9	10	11	12	13			
United States	87.2 (0.71)	89.5 (0.68)	27.5 (1.02)	45.9 (1.07)	34.9 (1.05)	96.7 (0.40)	87.2 (0.77)	1.7 (0.02)	2,015 (30.5)	95 (2.2)	\$16.1 (0.46)	2.6 (0.05)			
Alabama	91.5 (3.03)	95.0 (2.23)	30.2 (5.01)	55.3 (5.27)	29.4 (4.74)	99.3 (0.86)	96.4 (2.30)	1.8 (0.07)	1,888 (93.3)	105 (7.0)	19.3 (2.10)	2.4 (0.20)			
Alaska	72.4 (5.91)	67.8 (6.19)	32.0 (5.22)	37.8 (5.18)	18.9 (4.88)	83.9 (5.78)	68.7 (6.94)	1.1 (0.08)	3,427 (316.7)	114 (14.0)	12.8 (1.09)	3.0 (0.36)			
Arizona	79.6 (4.05)	82.6 (3.83)	25.9 (6.26)	36.5 (7.11)	46.4 (4.46)	96.8 (2.72)	87.4 (4.50)	1.8 (0.15)	2,083 (162.3)	101 (11.7)	12.7 (1.07)	2.5 (0.29)			
Arkansas	89.0 (3.88)	94.9 (2.67)	18.2 (4.04)	40.8 (4.96)	36.8 (3.99)	98.6 (1.54)	90.2 (2.96)	1.6 (0.06)	2,353 (449.9)	106 (11.5)	17.0 (1.12)	2.5 (0.21)			
California	85.2 (2.97)	92.2 (2.09)	11.1 (2.28)	29.5 (3.74)	17.9 (3.32)	95.6 (1.76)	65.1 (4.29)	1.4 (0.06)	1,740 (144.3)	79 (11.1)	13.0 (1.92)	1.6 (0.14)			
Colorado	95.6 (3.03)	90.4 (3.64)	29.2 (5.71)	49.3 (6.34)	27.7 (5.15)	98.2 (2.35)	88.6 (4.65)	1.9 (0.19)	2,102 (107.1)	96 (8.1)	15.4 (1.17)	4.0 (0.42)			
Connecticut	83.8 (4.46)	83.9 (4.60)	21.4 (4.02)	33.7 (5.29)	27.9 (4.71)	97.4 (1.88)	89.0 (3.79)	1.9 (0.09)	2,252 (111.6)	100 (6.9)	18.9 (1.16)	3.5 (0.22)			
Delaware	93.8 (2.10)	95.0 (1.61)	26.1 (5.10)	44.8 (6.25)	20.5 (4.63)	97.2 (1.04)	87.3 (3.38)	1.4 (0.06)	1,849 (70.8)	74 (7.1)	10.7 (0.93)	2.8 (0.29)			
District of Columbia	57.4 (6.15)	68.8 (5.03)	13.5 (3.54)	26.6 (5.16)	21.2 (3.69)	89.2 (2.81)	73.2 (4.87)	1.0 (0.07)	2,048 (245.8)	228 (36.3)	23.2 (4.09)	2.7 (0.27)			
Florida	94.5 (2.07)	94.3 (2.18)	19.2 (3.20)	64.1 (4.58)	67.5 (3.78)	99.4 (0.63)	90.7 (2.75)	1.9 (0.06)	1,576 (73.4)	77 (7.5)	13.3 (1.01)	2.5 (0.21)			
Georgia	98.5 (1.08)	98.5 (1.08)	36.6 (5.48)	66.1 (5.26)	81.4 (4.65)	99.6 (0.37)	97.8 (1.59)	2.1 (0.06)	1,745 (91.0)	90 (12.6)	15.4 (1.75)	2.0 (0.14)			
Hawaii	96.5 (1.70)	97.5 (1.83)	17.9 (4.91)	39.5 (6.01)	44.4 (7.30)	97.8 (1.51)	84.1 (3.63)	1.6 (0.09)	2,296 (116.8)	91 (8.5)	11.6 (0.81)	2.4 (0.20)			
Idaho	82.7 (6.15)	87.6 (6.43)	20.0 (5.61)	26.8 (5.52)	28.4 (4.88)	91.8 (5.12)	83.0 (5.98)	1.6 (0.10)	2,141 (117.8)	79 (21.0)	11.0 (0.99)	2.9 (0.25)			
Illinois	77.1 (4.90)	81.9 (4.94)	32.6 (4.77)	51.0 (5.18)	21.4 (4.58)	92.2 (3.87)	87.8 (3.35)	1.9 (0.11)	2,039 (109.1)	95 (10.1)	14.1 (1.05)	2.9 (0.27)			
Indiana	89.0 (5.40)	89.0 (4.77)	34.3 (5.42)	51.1 (5.48)	35.6 (6.33)	95.4 (3.32)	94.4 (3.78)	1.9 (0.20)	2,172 (116.8)	96 (12.9)	16.2 (1.36)	2.6 (0.32)			
Iowa	83.2 (4.98)	90.5 (4.28)	39.7 (5.70)	45.5 (6.80)	18.3 (4.87)	98.2 (1.96)	92.6 (5.05)	1.9 (0.09)	2,524 (145.2)	104 (8.9)	15.2 (1.60)	5.0 (0.59)			
Kansas	91.7 (4.37)	91.1 (3.91)	54.4 (7.94)	58.9 (8.22)	23.4 (7.24)	94.6 (3.52)	94.0 (3.52)	1.9 (0.08)	3,224 (341.8)	124 (15.0)	22.5 (5.96)	3.4 (0.75)			
Kentucky	90.9 (4.25)	92.4 (4.35)	27.1 (6.60)	49.8 (7.47)	71.1 (7.52)	95.6 (2.87)	94.0 (2.67)	1.7 (0.13)	2,000 (118.4)	114 (21.9)	17.5 (3.45)	2.6 (0.28)			
Louisiana	84.5 (6.24)	87.2 (5.66)	21.6 (5.22)	42.9 (5.93)	26.0 (4.74)	97.0 (2.56)	89.4 (4.92)	1.2 (0.09)	2,010 (147.8)	101 (17.9)	17.3 (3.18)	2.6 (0.25)			
Maine	73.8 (7.69)	71.5 (7.04)	43.2 (6.23)	45.5 (7.18)	9.5 (4.33)	88.4 (5.64)	73.4 (7.00)	1.7 (0.13)	3,650 (343.9)	168 (24.8)	27.9 (1.74)	2.8 (0.36)			
Maryland	91.4 (4.01)	99.5 (0.42)	32.2 (8.51)	53.6 (8.02)	54.0 (5.29)	97.4 (2.40)	90.6 (4.39)	1.5 (0.19)	1,635 (84.4)	88 (9.9)	19.6 (3.04)	2.9 (0.39)			
Massachusetts	75.0 (5.55)	74.7 (5.54)	32.6 (5.04)	33.7 (4.82)	18.2 (4.01)	98.2 (1.18)	80.3 (4.67)	1.3 (0.08)	1,868 (123.1)	75 (6.8)	12.1 (1.11)	2.8 (0.24)			
Michigan	83.4 (4.39)	90.6 (3.91)	33.6 (6.07)	49.3 (6.01)	48.8 (5.94)	99.8 (0.22)	92.8 (2.70)	1.5 (0.09)	2,136 (135.7)	62 (6.2)	9.0 (0.74)	4.7 (0.40)			
Minnesota	92.2 (2.68)	93.6 (2.39)	32.7 (4.35)	60.1 (4.46)	39.3 (3.88)	96.4 (1.90)	97.5 (0.89)	2.0 (0.08)	2,475 (136.2)	108 (9.8)	16.2 (1.46)	4.7 (0.40)			
Mississippi	75.8 (4.10)	85.6 (3.44)	20.0 (3.76)	45.6 (4.79)	31.6 (5.01)	95.5 (2.25)	88.6 (3.39)	1.5 (0.08)	1,778 (158.4)	143 (36.7)	18.5 (5.42)	2.2 (0.17)			
Missouri	93.9 (2.84)	92.8 (2.99)	18.3 (5.71)	35.6 (6.32)	20.6 (4.04)	98.4 (1.09)	96.0 (2.61)	1.7 (0.10)	2,439 (89.7)	141 (12.4)	25.5 (2.16)	2.9 (0.25)			
Montana	71.0 (3.93)	74.3 (3.31)	27.4 (3.76)	43.5 (4.84)	12.5 (3.15)	87.5 (3.51)	85.4 (2.88)	1.6 (0.07)	3,282 (154.3)	153 (11.4)	24.7 (3.25)	4.1 (0.25)			
Nebraska	83.1 (5.27)	82.0 (6.04)	42.7 (5.60)	50.9 (5.57)	29.8 (5.94)	93.2 (3.63)	96.8 (2.50)	1.9 (0.10)	3,063 (208.8)	103 (8.2)	20.0 (1.52)	5.5 (0.70)			
Nevada	84.8 (5.44)	93.1 (3.81)	21.1 (4.59)	32.8 (4.81)	60.5 (5.58)	97.9 (2.90)	83.5 (4.20)	1.6 (0.07)	1,695 (70.4)	107 (13.8)	14.0 (1.81)	2.6 (0.15)			
New Hampshire	84.6 (3.76)	83.7 (3.86)	45.5 (4.96)	44.9 (4.72)	8.0 (2.06)	97.4 (2.07)	91.8 (3.30)	1.8 (0.07)	2,314 (101.1)	111 (7.1)	26.0 (2.17)	2.6 (0.17)			
New Jersey	78.2 (7.17)	84.2 (5.37)	29.2 (9.32)	42.2 (11.24)	26.8 (6.91)	93.9 (4.35)	82.7 (6.87)	1.6 (0.11)	2,002 (129.6)	70 (11.7)	14.3 (1.33)	2.6 (0.31)			
New Mexico	77.8 (8.20)	83.2 (8.38)	18.6 (7.36)	38.8 (9.01)	18.1 (4.91)	93.1 (7.64)	90.7 (7.64)	1.4 (0.14)	2,238 (117.6)	173 (32.3)	25.6 (7.14)	2.4 (0.23)			
New York	79.9 (6.10)	77.5 (6.36)	27.3 (7.74)	41.1 (7.07)	17.4 (5.51)	96.9 (4.34)	82.6 (5.87)	1.9 (0.09)	1,912 (171.0)	97 (10.4)	16.8 (1.94)	2.6 (0.54)			
North Carolina	97.4 (1.59)	97.5 (1.65)	25.8 (6.12)	71.9 (6.73)	60.8 (5.62)	97.4 (1.63)	99.1 (0.56)	1.9 (0.08)	1,874 (104.2)	98 (7.4)	16.4 (1.29)	2.6 (0.23)			
North Dakota	72.3 (4.82)	66.6 (5.05)	40.5 (4.54)	47.7 (4.79)	13.0 (2.48)	97.9 (1.25)	77.6 (4.19)	1.6 (0.10)	3,876 (397.6)	166 (24.0)	22.2 (1.86)	3.2 (0.37)			
Ohio	90.0 (3.87)	91.1 (3.98)	22.9 (5.27)	37.1 (6.20)	36.4 (6.17)	98.1 (1.89)	83.4 (5.00)	1.5 (0.11)	1,864 (165.7)	76 (14.5)	13.5 (3.02)	2.7 (0.29)			
Oklahoma	80.7 (3.68)	86.3 (2.52)	25.7 (3.19)	42.8 (4.07)	19.0 (3.02)	96.2 (2.88)	95.1 (1.73)	1.9 (0.06)	2,152 (98.0)	105 (11.5)	17.8 (1.33)	2.9 (0.22)			
Oregon	77.8 (6.25)	82.2 (6.12)	35.2 (5.53)	47.0 (6.38)	27.3 (5.19)	98.5 (1.47)	89.7 (5.89)	1.8 (0.18)	3,041 (340.0)	103 (19.1)	11.9 (1.33)	3.8 (0.37)			
Pennsylvania	91.4 (4.74)	91.4 (4.74)	28.8 (5.44)	37.3 (6.87)	30.1 (6.19)	98.6 (1.37)	77.2 (4.60)	1.8 (0.11)	2,054 (132.0)	90 (9.1)	17.4 (2.10)	2.5 (0.21)			
Rhode Island	86.4 (5.24)	90.0 (4.37)	17.4 (5.86)	31.3 (6.21)	12.6 (4.16)	96.2 (2.74)	85.8 (5.21)	1.7 (0.08)	1,705 (85.1)	80 (8.7)	13.6 (1.14)	2.7 (0.27)			
South Carolina	97.6 (1.16)	98.3 (1.17)	37.1 (3.96)	72.9 (3.44)	81.1 (2.96)	99.2 (0.80)	92.7 (2.20)	2.0 (0.03)	1,859 (70.4)	99 (8.3)	17.9 (1.33)	2.3 (0.11)			
South Dakota	68.9 (5.38)	72.1 (5.31)	31.6 (4.34)	34.4 (4.40)	13.6 (2.86)	88.7 (3.26)	86.5 (3.67)	1.6 (0.10)	3,321 (221.1)	155 (17.8)	28.1 (3.71)	3.1 (0.22)			
Tennessee	90.3 (3.58)	94.3 (3.10)	24.6 (5.69)	41.1 (6.47)	32.5 (5.37)	98.0 (2.35)	88.2 (4.84)	1.6 (0.08)	1,788 (146.7)	75 (6.2)	12.1 (0.97)	2.2 (0.23)			
Texas	95.9 (1.55)	96.1 (1.58)	30.6 (6.46)	48.8 (6.29)	43.4 (7.18)	98.8 (0.78)	91.5 (3.46)	1.8 (0.07)	1,910 (107.2)	99 (11.5)	18.7 (2.69)	2.0 (0.15)			
Utah	92.6 (5.21)	92.3 (5.98)	10.6 (2.95)	31.6 (5.61)	41.7 (5.16)	93.5 (2.27)	93.2 (4.32)	1.6 (0.12)	1,554 (137.5)	93 (11.3)	14.7 (1.79)	2.0 (0.20)			
Vermont	80.0 (8.05)	77.2 (7.68)	46.6 (9.17)	52.0 (10.37)	†	97.9 (3.26)	92.1 (4.91)	1.7 (0.10)	3,828 (307.4)	171 (17.5)	32.5 (2.88)	3.5 (0.73)			
Virginia	94.9 (1.92)	96.6 (1.41)	47.1 (4.69)	68.8 (3.91)	56.4 (4.08)	98.4 (0.99)	98.2 (1.20)	2.0 (0.06)	1,840 (70.6)	104 (6.1)	18.4 (1.62)	2.3 (0.24)			
Washington	86.0 (3.87)	91.5 (3.27)	21.0 (4.38)	41.5 (4.92)	36.7 (5.18)	93.8 (2.62)	86.2 (3.43)	1.8 (0.17)	2,282 (108.6)	98 (11.7)	12.0 (0.95)	3.0 (0.21)			
West Virginia	61.3 (5.64)	64.4 (5.86)	20.5 (3.13)	37.0 (4.37)	25.2 (4.49)	93.0 (2.97)	78.3 (4.83)	0.9 (0.04)	1,881 (207.0)	61 (6.8)	8.6 (0.46)	3.6 (0.33)			
Wisconsin	94.5 (2.89)	94.1 (3.33)	24.7 (3.97)	46.9 (5.59)	30.2 (5.26)	94.5 (3.45)	97.5 (2.00)	2.1 (0.09)	2,894 (140.3)	180 (14.0)	35.6 (2.07)	4.6 (0.36)			
Wyoming	87.3 (3.87)	92.0 (3.46)	35.6 (3.87)	39.6 (4.19)	16.8 (3.12)	97.1 (1.98)	89.7 (2.75)	1.7 (0.09)	3,481 (170.5)	145 (27.1)	25.2 (2.34)	5.2 (0.34)			

†Not applicable.

‡Interpret data with caution. The coefficient of variation (CV) for this estimate is between 30 percent and 50 percent.

§Reporting standards not met. The coefficient of variation (CV) for this estimate is 50 percent or greater.

¹Centralized video distribution equipment with a scheduling and control server that telecasts video to classrooms.

²Includes professional and nonprofessional staff.

³Average holdings, acquisitions, and expenditures are from the prior school year, while enrollment counts are from the current school year.

NOTE: Standard errors appear in parentheses.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey (SASS), "Public School Library Media Center Questionnaire," 2007–08. (This table was prepared November 2009.)

Table 481. Collections, staff, and operating expenditures of degree-granting institution libraries: Selected years, 1981–82 through 2009–10

Collections, staff, and operating expenditures	1981–82	1987–88	1991–92	1997–98	2001–02	2003–04	2005–06	2007–08	2009–10			
									Total	Public	Private nonprofit	Private for-profit
1	2	3	4	5	6	7	8	9	10	11	12	13
Number of libraries	3,104	3,438	3,274	3,658	3,568	3,653	3,617	3,827	3,689	1,559	1,449	681
Percentage of institutions with libraries	—	—	—	90.0	85.0	86.2	84.6	87.9	82.1	93.2	89.2	56.8
Number of circulation transactions (in thousands)...	—	—	—	216,067	189,248	200,204	187,236	178,766	176,736	116,084	58,660	1,992
Number of circulation transactions per full-time equivalent (FTE) student.....	—	—	—	20	16	16	14	13	11	11	18	1
Enrollment (in thousands)												
Total enrollment ¹	12,372	12,767	14,359	14,502	15,928	16,911	17,487	18,248	20,428	14,811	3,765	1,852
Full-time-equivalent (FTE) enrollment ¹	9,015	9,230	10,361	10,615	11,766	12,688	13,201	13,783	15,496	10,750	3,178	1,568
Collections (in thousands)												
Number of volumes at end of year	567,826	718,504	749,429	878,906	954,030	982,590	1,015,658	1,052,531	1,076,027	654,865	416,144	5,019
Number of volumes added during year	19,507	21,907	20,982	24,551	24,574	24,615	22,241	23,990	27,164	15,249	11,419	495
Number of serial subscriptions at end of year ²	4,890	6,416	6,966	10,908	9,855	12,764	16,361	25,342	25,041	13,714	10,869	459
Microform units at end of year	—	—	—	1,062,082	1,143,678	1,173,287	1,166,295	1,157,365	1,124,941	768,270	355,326	1,344
E-books at end of year	—	—	—	—	10,318	32,775	64,366	102,502	158,652	91,552	61,554	5,546
Number of volumes per FTE student	63	78	72	83	81	77	77	76	69	61	131	3
Full-time-equivalent (FTE) library staff												
Total staff in regular positions ³	58,476	67,251	67,166	68,337	69,526	69,047	69,615	69,328	66,562	40,907	24,092	1,563
Librarians and professional staff	23,816	25,115	26,341	30,041	32,053	32,280	33,265	34,520	34,147	19,706	13,166	1,274
Other paid staff	34,660	40,733	40,421	38,026	37,473	36,767	36,350	34,808	32,415	21,201	10,925	289
Contributed services	—	1,403	404	270	—	—	—	—	—	—	—	—
Student assistants	—	33,821	29,075	28,373	25,305	25,038	23,976	24,110	22,382	12,700	9,017	665
FTE student enrollment per FTE staff member	154	137	154	155	169	184	190	199	233	263	132	1,003
Library operating expenditures⁴												
Total operating expenditures (in thousands of current dollars)	\$1,943,769	\$2,770,075	\$3,648,654	\$4,592,657	\$5,416,716	\$5,751,247	\$6,234,192	\$6,785,542	\$6,829,108	\$4,019,666	\$2,697,599	\$111,843
Salaries and wages	914,379 ⁵	1,451,551	1,889,368	2,314,380	2,753,404	2,913,221	3,102,561	3,342,082	3,401,649	2,055,389	1,280,579	65,681
Student hourly wages	100,847	(⁶)	(⁶)									
Fringe benefits	167,515	—	—	—	—	—	—	—	—	—	—	—
Preservation	30,351	34,144	43,126	42,919	46,499	42,976	41,102	41,591	31,212	17,436	13,682	94
Furniture/equipment	—	—	—	57,013	—	—	—	—	—	—	—	—
Computer hardware/software	—	—	—	164,379	155,791	143,042	153,002	158,698	142,652	92,073	48,684	1,894
Bibliographic utilities/networks/consortia	—	—	—	89,618	92,242	101,293	106,268	113,427	117,838	67,772	49,028	1,037
Information resources ⁷	561,199	891,281	1,197,293	1,600,995	1,944,490	2,114,555	2,334,382	2,621,491	2,649,086	1,514,816	1,094,136	40,135
Books and serial backfiles—paper	—	—	—	514,048	563,007	550,599	572,228	611,192	515,942	277,021	229,619	9,301
Books and serial backfiles—electronic	—	—	—	28,061	44,792	65,597	93,778	133,586	152,359	87,571	60,255	4,533
Current serials—paper	—	—	—	849,399	926,105	883,534	830,137	699,906	536,357	296,777	232,210	7,370
Current serials—electronic	—	—	—	125,470	297,657	480,138	691,585	1,004,393	1,249,726	760,412	474,194	15,121
Audiovisual materials	—	—	23,879	30,623	37,041	35,216	39,029	43,849	55,659	23,165	30,145	2,350
Document delivery/interlibrary loan	—	—	—	19,309	22,913	24,823	26,513	30,496	33,679	20,679	11,953	1,047
Other collection expenditures	561,199	891,281	1,173,414	34,086	52,976	74,648	81,113	98,069	105,364	49,191	55,760	413
Other library operating expenditures	169,478	393,099	518,867	323,354	424,290	436,160	496,877	508,253	486,672	272,179	211,491	3,002
Operating expenditures per full-time-equivalent (FTE) student												
In current dollars	216	300	352	433	460	453	472	492	441	374	849	71
In constant 2011–12 dollars ⁸	521	590	580	609	588	554	540	529	463	393	891	75
Information resource expenditures per FTE student												
In current dollars	62	97	116	151	165	167	177	190	171	141	344	26
In constant 2011–12 dollars ⁸	151	190	190	212	211	204	202	204	179	148	362	27
Operating expenditures (percentage distribution)												
Salaries and wages	47.0	52.4	51.8	50.4	50.8	50.7	49.8	49.3	49.8	51.1	47.5	58.7
Student hourly wages	5.2	(⁶)	(⁶)									
Fringe benefits	8.6	—	—	—	—	—	—	—	—	—	—	—
Preservation	1.6	1.2	1.2	0.9	0.9	0.7	0.7	0.6	0.5	0.4	0.5	0.1
Information resources	28.9	32.2	32.8	34.9	35.9	36.8	37.4	38.6	38.8	37.7	40.6	35.9
Other ⁹	8.7	14.2	14.2	13.8	12.4	11.8	12.1	11.5	10.9	10.7	11.5	5.3
Library operating expenditures as a percent of total institutional expenditures for educational and general purposes	3.5	3.2	3.0	—	—	—	—	—	—	—	—	—

—Not available.

¹Fall enrollment for the academic year specified.

²For 1997–98 and later years, includes microform and electronic serials.

³Excludes student assistants.

⁴Excludes capital outlay.

⁵Includes salary equivalents of contributed services staff.

⁶Included under salaries and wages.

⁷Includes resources not listed.

⁸Constant dollars based on the Consumer Price Index, prepared by the Bureau of Labor Statistics, U.S. Department of Labor, adjusted to a school-year basis.

⁹Includes furniture/equipment, computer hardware/software, and bibliographic utilities/networks/consortia as well as expenditures classified as “other library operating expenditures.”

NOTE: Data through 1995 are for institutions of higher education, while later data are for degree-granting institutions. Degree-granting institutions grant associate’s or higher degrees and participate in Title IV federal financial aid programs. The degree-granting classification is very similar to the earlier higher education classification, but it includes more 2-year colleges and excludes a few higher education institutions that did not grant degrees. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Library Statistics of Colleges and Universities*, 1981–82; Integrated Postsecondary Education Data System (IPEDS), “Academic Libraries Survey” (IPEDS-L:88–98), “Fall Enrollment Survey” (IPEDS-EF:87–98), and IPEDS Spring 2002 through Spring 2010, Enrollment component; Academic Libraries Survey (ALS), 2000 through 2010; and *Academic Libraries: 2010* (NCES 2012-365). (This table was prepared November 2012.)

Table 482. Collections, staff, operating expenditures, public service hours, and reference services of the 60 largest college and university libraries: Fiscal year 2010

Institution	Rank order, by number of volumes	Number of volumes at end of year (in thousands)	Number of e-books at end of year	Number of serials at end of year	Full-time-equivalent staff		Operating expenditures (in thousands of current dollars)		Public service hours per typical week	Gate count per typical week ¹	Annual reference information services to individuals ²	
					Total	Librarians	Total	Salaries and wages			Total	Consultations of 20 minutes or more
1	2	3	4	5	6	7	8	9	10	11	12	13
Harvard University (MA).....	1	16,833	161,554	157,854	1,089	394	\$133,427	\$84,272	168	28,867 ³	196,992	12,336
University of Illinois at Urbana-Champaign.....	2	13,159	453,562	123,857	483	105	40,327	21,218	144	125,938	109,918	—
Yale University (CT).....	3	12,788	1,000,000	106,481	621	168	84,140	36,189	111	28,867 ³	37,765	554
University of California, Berkeley.....	4	11,335	879,868	108,130	472	90	42,424	20,114	77	29,636	77,895	3,086
University of Michigan, Ann Arbor.....	5	10,779	1,875,374	83,062	719	223	67,223	33,396	168	85,770	128,565	5,093
Columbia University in the City of New York.....	6	10,265	1,061,823	167,721	533	156	55,913	26,129	109	79,028	133,868	8,383
University of Texas at Austin.....	7	9,991	633,376	100,006	533	135	46,276	22,206	120	99,302	38,398	1,128
University of California, Los Angeles.....	8	9,152	982,907	78,463	532	113	46,007	25,361	96	61,478	105,269	471
Stanford University (CA).....	9	8,819	588,809	35,877	664	151	69,129	31,922	105	20,974	110,745	6,935
Indiana University, Bloomington.....	10	8,678	940,231	106,138	482	99	33,899	15,796	168	88,998	134,561	—
University of Chicago (IL).....	11	8,367	1,470,379	116,750	306	70	33,320	13,150	146	32,535	16,842	226
University of Wisconsin, Madison.....	12	7,977	444,529	103,844	580	228	41,334	22,174	148	119,697	97,925	701
Cornell University (NY).....	13	7,532	642,103	104,000	486	106	44,200	21,643	145	79,710	71,454	4,475
University of Minnesota, Twin Cities.....	14	7,111	415,831	109,681	380	101	40,734	18,181	107	45,850	66,184	6,306
Princeton University (NJ).....	15	7,075	282,214	59,942	401	86	52,829	21,571	120	11,017	17,964	2,325
University of Washington, Seattle Campus.....	16	7,013	469,807	63,221	418	126	36,926	19,131	138	125,000	74,863	2,965
University of North Carolina at Chapel Hill.....	17	6,189	823,314	87,686	455	147	41,659	19,672	142	65,984	102,130	—
Duke University (NC).....	18	6,172	217,916	111,851	347	110	40,058	17,473	149	24,954	118,629	23,726
Ohio State University, Main Campus.....	19	6,162	463,952	90,965	455	79	42,440	16,981	168	69,870	12,360	9,305
University of Pittsburgh, Main Campus (PA).....	20	6,148	681,238	58,000	330	118	32,763	12,119	118	41,202 ³	111,814	—
University of Pennsylvania.....	21	5,929	509,365	98,145	392	121	40,461	18,556	116	40,000	5,180	324
University of Arizona.....	22	5,538	832,443	26,670	233	62	25,402	8,882	142	41,678	29,302	750
Pennsylvania State University, Main Campus.....	23	5,467	200,000	109,132	588	140	50,451	25,673	148	129,951	174,795	50,461
Michigan State University.....	24	5,453	592,024	110,673	245	68	25,409	10,517	138	81,300	62,758	2,486
University of Virginia, Main Campus.....	25	5,167	440,911	185,140	350	101	31,488	17,056	149	78,532	106,634	4,662
Rutgers University, New Brunswick (NJ).....	26	5,115	376,155	87,902	294	58	23,755	13,590	105	52,313	56,037	—
Northwestern University (IL).....	27	5,048	370,629	26,830	341	101	29,933	14,008	122	29,132	68,355	—
University of Oklahoma, Norman Campus.....	28	5,046	936,050	92,336	152	37	16,579	4,598	117	22,000	31,182	—
University of California, Davis.....	29	5,039	484,795	73,649	193	52	20,485	9,226	96	36,746	63,354	16,140
University of Colorado at Boulder.....	30	4,983	758,891	85,771	238	62	25,659	10,158	128	71,853	65,608	—
University of Kansas.....	31	4,877	404,676	18,313	253	61	19,536	9,398	140	31,790	95,233	4,632
University of Georgia.....	32	4,810	383,014	93,148	267	74	22,569	10,063	137	15,000	39,466	2,224
University of Florida.....	33	4,725	477,867	109,181	391	87	28,546	13,445	105	59,164	51,499	—
New York University.....	34	4,673	698,666	111,962	470	63	52,605	22,911	126	60,196	61,022	—
University of Iowa.....	35	4,639	946,531	68,653	207	61	23,649	9,453	116	35,000	73,528	2,913
Texas A & M University.....	36	4,577	936,270	108,064	355	92	40,367	14,344	145	57,493	33,000	—
Arizona State University.....	37	4,497	313,728	44,590	267	83	26,186	9,789	149	81,105	74,390	2,947
University of Cincinnati, Main Campus (OH).....	38	4,379	1,015,550	110,087	186	45	21,526	6,923	104	29,797	99,173	1,984
Brown University (RI).....	39	4,187	534,514	75,023	184	61	20,983	9,313	112	21,967	15,737	2,439
University of Southern California.....	40	4,181	399,112	86,758	368	75	44,482	16,809	160	60,352	116,316	7,284
Tulane University of Louisiana.....	41	4,158	742,844	96,379	187	48	16,777	6,131	118	15,000	36,831	—
Louisiana State University and Agricultural & Mechanical College.....	42	4,129	384,366	125,186	159	50	17,271	—	109	47,467	31,723	—
Miami University-Oxford (OH).....	43	4,112	572,506	93,225	121	43	9,395	4,475	168	37,715	55,007	7,025
University at Buffalo (NY).....	44	4,030	679,863	87,997	204	67	20,163	10,467	168	27,000	32,709	3,270
Temple University (PA).....	45	3,990	517,395	76,659	207	62	22,752	8,191	145	70,356	65,281	4,453
University of South Carolina, Columbia.....	46	3,964	128,066	67,016	269	68	19,500	7,506	111	26,666	103,239	571
University of Maryland, College Park.....	47	3,930	383,014	68,514	246	74	31,678	12,069	162	55,233	423,573	90,122
Washington University in St. Louis (MO).....	48	3,918	470,191	85,796	250	94	31,428	10,767	120	30,000	35,931	—
University of Kentucky.....	49	3,916	522,509	87,287	245	69	21,179	8,507	140	56,821	44,444	93
Brigham Young University (UT).....	50	3,851	440,649	80,292	395	87	29,878	13,157	105	75,066	75,387	11,984
University of Rochester (NY).....	51	3,827	225,297	29,573	209	96	19,993	7,727	119	10,239 ³	53,522	—
University of Notre Dame (IN).....	52	3,713	228,312	87,690	259	76	25,413	11,044	126	26,413	24,438	785
Johns Hopkins University (MD).....	53	3,701	675,275	141,636	279	114	31,846	11,783	120	30,000	51,420	3,220
Emory University (GA).....	54	3,620	380,834	66,992	256	80	33,592	12,661	112	50,884	9,037	3,730
North Carolina State University at Raleigh.....	55	3,567	420,980	66,205	263	98	25,189	12,302	146	44,109	33,213	3,487
University of Missouri, Columbia.....	56	3,562	409,409	55,814	192	52	18,343	7,020	114	52,027	38,134	—
University of California, San Diego.....	57	3,542	428,633	19,855	335	56	31,752	16,597	103	52,065	62,849	1,861
The University of Alabama.....	58	3,534	870,060	88,083	210	61	19,903	6,945	136	33,287	54,618	2,164
Auburn University (AL).....	59	3,473	765,710	9,541	116	27	13,087	5,138	146	26,851	115,232	—
University of Utah.....	60	3,442	155,669	76,314	312	65	21,201	11,515	142	41,829	202,287	8,013

—Not available.

¹The number of entries into the library in an average week. A single person can be counted more than once.

²Includes both in-person and virtual services.

³Estimated.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Academic Libraries Survey (ALS), fiscal year 2010. (This table was prepared June 2012.)

Table 483. Public libraries, books and serial volumes, library visits, circulation, and reference transactions, by state: Fiscal years 2008 and 2009

State	Number of public libraries		Number of books and serial volumes				Library visits per capita ¹		Circulation per capita ²		Reference transactions per capita ³	
			In thousands		Per capita							
	2008	2009	2008	2009	2008	2009	2008	2009	2008	2009	2008	2009
1	2	3	4	5	6	7	8	9	10	11	12	13
United States	9,221 ⁴	9,225 ⁴	816,099	815,909	2.8	2.7	5.1	5.4	7.7	8.1	1.0	1.0
Alabama.....	210	210	9,615	9,546	2.2	2.1	3.5	3.7	4.4	4.6	0.8	0.9
Alaska.....	86	87	2,491	2,532	3.7	3.7	5.1	5.1	6.3	6.4	0.6	0.7
Arizona.....	86	89	8,619	8,807	1.3	1.3	4.0	4.4	7.3	7.4	0.7	0.7
Arkansas.....	51	52	6,450	6,578	2.4	2.5	3.7	4.0	4.9	5.3	0.7	0.7
California.....	181	181	74,197	75,299	2.0	2.0	4.5	4.8	5.8	6.2	0.9	0.9
Colorado.....	115	114	12,039	11,916	2.5	2.4	6.3	6.7	12.0	13.0	1.2	1.2
Connecticut.....	195	195	15,609	15,646	4.4	4.5	6.8	7.0	9.4	9.7	1.4	1.3
Delaware.....	21	21	1,991	1,701	2.5	2.2	5.5	5.6	10.4	10.5	0.6	0.6
District of Columbia.....	1	1	2,063	2,130	3.5	3.6	4.6	4.9	3.0	3.9	1.4	1.4
Florida.....	80	80	32,736	32,643	1.7	1.7	4.5	4.8	6.2	6.8	1.6	1.6
Georgia.....	59	61	16,087	16,341	1.7	1.7	4.0	4.3	4.7	5.1	1.0	0.9
Hawaii.....	1	1	3,399	3,383	2.6	2.6	4.6	4.7	5.5	5.6	0.7	0.7
Idaho.....	104	104	4,192	4,275	3.1	3.2	6.4	6.8	9.4	10.3	0.8	0.9
Illinois.....	634	634	45,263	45,250	3.9	3.8	6.6	7.0	9.0	9.7	1.2	1.2
Indiana.....	238	238	25,873	25,672	4.5	4.5	7.2	7.4	13.7	14.1	1.0	1.0
Iowa.....	539	541	12,235	12,143	4.1	4.1	6.3	6.5	9.6	9.7	0.6	0.6
Kansas.....	327	328	10,381	10,314	4.4	4.3	6.2	6.6	11.4	11.8	1.1	1.1
Kentucky.....	116	117	8,674	8,849	2.1	2.1	4.4	4.5	6.7	6.9	0.9	0.7
Louisiana.....	68	68	11,641	11,651	2.6	2.6	3.3	3.5	4.0	4.2	1.2	1.4
Maine.....	272	269	6,505	6,536	5.4	5.4	5.9	5.9	7.7	7.9	0.6	0.6
Maryland.....	24	24	14,378	13,892	2.6	2.5	5.9	6.1	9.9	10.7	1.1	1.3
Massachusetts.....	370	370	32,713	32,969	5.1	5.1	6.5	6.5	8.4	8.9	0.9	0.8
Michigan.....	384	384	34,556	35,539	3.5	3.6	5.5	6.0	8.0	8.6	0.9	1.0
Minnesota.....	138	138	14,762	15,535	2.8	2.9	5.5	5.6	10.7	11.2	0.8	0.7
Mississippi.....	50	50	5,530	5,556	1.9	1.9	3.0	3.2	2.9	3.0	0.6	0.6
Missouri.....	152	150	18,034	17,592	3.5	3.4	5.5	5.9	9.4	10.1	1.1	1.1
Montana.....	80	80	2,732	2,731	3.0	3.0	4.5	4.9	6.5	6.9	0.5	0.5
Nebraska.....	270	269	6,643	6,345	5.1	4.7	6.9	6.8	10.5	10.4	0.9	0.8
Nevada.....	22	22	5,405	4,782	2.0	1.8	4.0	4.3	6.5	7.2	0.7	0.6
New Hampshire.....	231	230	6,210	6,217	4.7	4.7	5.6	5.9	8.4	8.9	0.6	0.6
New Jersey.....	303	301	30,342	30,230	3.6	3.6	5.9	6.1	7.3	7.8	1.0	1.0
New Mexico.....	91	91	4,578	4,615	2.9	2.9	4.8	5.0	6.3	6.5	0.9	0.8
New York.....	755	756	74,635	75,760	3.9	4.0	6.2	6.3	8.2	8.4	1.5	1.5
North Carolina.....	77	77	16,833	16,907	1.9	1.8	4.1	4.8	5.8	6.0	1.3	1.4
North Dakota.....	81	85	2,453	2,575	4.3	4.5	4.3	4.4	7.2	7.8	0.7	0.8
Ohio.....	251	251	46,893	45,818	4.1	4.0	8.0	8.0	16.7	17.0	1.8	1.8
Oklahoma.....	115	115	7,249	7,278	2.4	2.4	4.9	7.0	7.0	7.1	0.7	0.7
Oregon.....	126	127	9,407	9,927	2.8	2.7	6.6	6.8	15.4	15.4	0.8	0.8
Pennsylvania.....	457	458	29,837	28,180	2.5	2.4	4.0	4.1	5.8	6.0	0.7	0.7
Rhode Island.....	48	48	4,420	4,334	4.2	4.1	6.0	6.4	7.0	7.3	0.8	0.8
South Carolina.....	42	42	9,421	9,430	2.1	2.2	3.8	4.2	5.4	6.1	1.1	1.2
South Dakota.....	114	112	3,134	3,096	4.5	4.2	5.6	5.4	8.4	8.4	0.9	0.9
Tennessee.....	187	186	11,595	11,754	1.9	1.9	3.4	3.5	4.1	4.0	0.7	0.6
Texas.....	561	559	41,797	41,749	1.9	1.8	3.3	3.5	4.9	5.1	0.7	0.7
Utah.....	69	71	6,556	6,744	2.5	2.5	6.7	7.0	13.0	13.4	1.7	1.9
Vermont.....	183	184	2,900	2,964	4.8	4.9	6.4	6.5	7.7	7.8	0.8	0.8
Virginia.....	91	91	19,181	19,151	2.5	2.5	5.2	5.5	9.2	9.8	1.0	1.0
Washington.....	64	63	16,433	15,377	2.5	2.3	6.5	6.7	12.1	12.9	1.0	0.9
West Virginia.....	97	97	5,119	5,213	2.8	2.9	3.3	3.4	4.2	4.3	0.5	0.5
Wisconsin.....	381	380	19,843	19,956	3.5	3.5	6.3	6.4	10.9	11.5	0.9	0.9
Wyoming.....	23	23	2,447	2,484	4.7	4.7	6.8	7.1	9.0	9.5	1.1	1.2

¹The number of visits (entering the library for any purpose) per person during the year.

²The number of library materials lent per person during the year.

³A reference transaction is an information contact that involves the knowledge, use, recommendations, interpretation, or instructions in the use of one or more information sources by a member of the library staff.

⁴In 2008, of the 9,221 public libraries in the 50 states and the District of Columbia, 7,469 were single-outlet libraries and 1,752 were multiple-outlet libraries. In 2009, of the 9,225 public libraries in the 50 states and the District of Columbia, 7,466 were single-outlet libraries and 1,759 were multiple-outlet libraries. Single-outlet libraries consist of a central

library, bookmobile, or books-by-mail-only outlet. Multiple-outlet libraries have two or more direct service outlets, including some combination of one central library, branch(es), bookmobile(s), and/or books-by-mail-only outlets.

NOTE: Data include imputations for nonresponse. Detail may not sum to totals because of rounding. Per capita figures are based on unduplicated populations of the areas served by public libraries.

SOURCE: Institute of Museum and Library Services, *Public Libraries Survey*, fiscal years 2008 and 2009, retrieved October 28, 2011, from <https://harvester.census.gov/imls/pubs/pls/index.asp>. (This table was prepared October 2011.)

Table 484. Participants in state-administered adult basic education, secondary education, and English as a second language programs, by type of program and state or jurisdiction: Selected fiscal years, 2000 through 2010

State or jurisdiction	Total			2009				2010			
	2000	2005	2008	Total	Adult basic education	Adult secondary education	English as a second language	Total	Adult basic education	Adult secondary education	English as a second language
1	2	3	4	5	6	7	8	9	10	11	12
United States	2,629,643	2,543,953	2,364,051	2,157,155	979,604	256,323	921,228	1,990,118	921,374	230,163	838,581
Alabama	23,666	19,827	23,815	25,153	17,967	4,952	2,234	24,339	17,725	4,560	2,054
Alaska	5,312	3,791	3,179	3,326	2,129	476	721	3,176	2,010	360	806
Arizona	31,136	26,881	21,760	19,789	11,791	1,506	6,492	18,552	11,296	1,391	5,865
Arkansas	38,867	37,102	32,610	31,551	20,515	6,105	4,931	27,603	17,410	5,702	4,491
California	473,050	591,893	618,767	434,428	97,976	37,192	299,260	392,918	98,721	33,013	261,184
Colorado	13,818	15,011	14,203	14,298	3,929	1,331	9,038	12,873	3,836	1,240	7,797
Connecticut.....	30,844	31,958	27,859	28,255	7,472	7,502	13,281	25,924	7,234	6,618	12,072
Delaware.....	4,342	6,329	5,155	5,059	3,151	588	1,320	4,961	3,077	516	1,368
District of Columbia	3,667	3,646	3,956	4,247	2,362	223	1,662	3,808	2,362	189	1,555
Florida.....	404,912	348,119	260,931	256,498	113,430	30,288	112,780	239,653	105,307	25,475	108,871
Georgia.....	108,004	95,434	75,487	72,657	48,584	6,135	17,938	64,668	46,149	5,949	12,570
Hawaii.....	10,525	7,461	8,944	9,196	3,867	2,149	3,180	9,058	3,849	2,099	3,110
Idaho.....	10,506	7,744	7,535	7,429	4,541	546	2,342	6,675	4,066	484	2,125
Illinois.....	122,043	118,296	108,024	108,383	29,922	15,835	62,626	96,620	26,175	14,086	56,359
Indiana.....	42,135	43,498	40,226	35,995	22,939	6,791	6,265	28,571	19,815	3,945	4,811
Iowa.....	20,161	11,989	9,918	10,752	5,095	2,061	3,596	11,167	5,254	1,931	3,982
Kansas.....	11,248	9,475	8,916	9,024	4,381	902	3,741	8,100	3,873	863	3,364
Kentucky.....	31,050	30,931	40,235	39,218	26,972	8,207	4,039	38,654	26,410	8,468	3,776
Louisiana.....	30,929	29,367	26,633	30,559	24,588	3,696	2,275	27,270	22,340	3,142	1,788
Maine.....	12,430	8,151	6,270	8,604	4,448	2,400	1,756	6,776	3,800	1,611	1,365
Maryland.....	22,702	27,055	33,673	33,942	15,865	3,667	14,410	32,833	15,174	3,953	13,706
Massachusetts.....	24,053	21,448	21,491	20,372	4,813	3,295	12,264	20,314	4,888	3,473	11,953
Michigan.....	56,096	34,768	28,243	31,106	18,391	3,786	8,929	25,745	14,359	2,994	8,392
Minnesota.....	42,039	47,174	46,109	47,612	17,658	5,948	24,006	46,009	17,948	5,720	22,341
Mississippi.....	37,947	25,675	20,480	17,782	14,410	3,067	305	16,854	13,877	2,750	227
Missouri.....	41,089	37,052	36,161	35,542	24,217	4,244	7,081	31,397	21,612	3,655	6,130
Montana.....	4,892	3,291	3,151	3,735	2,753	772	210	3,494	2,581	720	193
Nebraska.....	7,917	10,226	8,435	8,588	4,213	906	3,469	8,485	4,108	893	3,484
Nevada.....	22,992	9,981	8,571	9,193	1,195	502	7,496	8,673	1,508	447	6,718
New Hampshire.....	5,962	5,804	5,806	5,589	1,770	1,671	2,148	5,740	1,676	1,737	2,327
New Jersey.....	44,317	40,889	32,823	33,901	11,626	1,400	20,875	30,976	12,152	1,325	17,499
New Mexico.....	23,243	24,132	22,920	23,248	12,941	2,069	8,238	21,466	12,154	1,725	7,587
New York.....	176,239	157,486	133,255	129,636	50,261	7,868	71,507	122,833	48,118	7,544	67,171
North Carolina.....	107,504	109,047	121,708	123,030	69,472	24,396	29,162	115,312	66,377	23,294	25,641
North Dakota.....	2,124	2,063	1,822	1,783	973	409	401	1,581	773	415	393
Ohio.....	65,579	50,869	50,537	46,402	32,588	6,729	6,725	41,692	30,093	5,341	6,258
Oklahoma.....	20,101	20,447	18,411	19,711	13,634	2,164	3,913	18,329	12,539	1,809	3,981
Oregon.....	25,228	21,668	23,600	22,976	10,310	2,924	9,742	20,851	9,914	2,592	8,345
Pennsylvania.....	49,369	54,274	52,795	34,975	21,407	5,257	8,311	30,577	17,957	4,037	8,583
Rhode Island.....	5,592	6,697	6,580	6,497	2,748	685	3,064	6,012	2,484	561	2,967
South Carolina.....	94,452	65,901	54,538	53,645	40,310	8,019	5,316	49,484	37,205	7,500	4,779
South Dakota.....	5,637	3,517	3,025	2,773	1,730	566	477	2,423	1,398	558	467
Tennessee.....	40,615	48,924	37,048	32,177	23,959	4,055	4,163	28,170	21,254	3,409	3,507
Texas.....	111,585	119,867	84,514	98,063	46,427	3,591	48,045	99,333	45,638	3,553	50,142
Utah.....	30,714	29,320	25,978	26,337	15,383	2,809	8,145	24,686	15,048	2,659	6,979
Vermont.....	1,146	2,015	2,505	2,461	1,841	379	241	1,590	1,019	277	294
Virginia.....	35,261	29,222	31,106	29,802	12,512	4,632	12,658	28,220	11,481	4,336	12,403
Washington.....	53,460	50,386	64,982	65,606	27,120	4,546	33,940	61,392	26,324	4,264	30,804
West Virginia.....	13,072	9,444	9,628	9,780	7,609	1,912	259	9,785	7,679	1,871	235
Wisconsin.....	27,304	26,029	23,856	23,694	13,791	4,324	5,579	21,523	11,964	4,334	5,225
Wyoming.....	2,767	2,379	2,877	3,136	1,618	846	672	2,973	1,661	775	537
Other jurisdictions	44,785	37,328	36,071	24,098	4,044	19,437	617	22,045	4,791	16,436	818
American Samoa.....	662	838	264	169	123	24	22	225	38	52	135
Federated States of Micronesia.....	0	0	0	0	0	0	0	0	0	0	0
Guam.....	1,092	1,062	1,154	633	382	166	85	539	364	59	116
Marshall Islands.....	335	0	0	0	0	0	0	0	0	0	0
Northern Marianas.....	680	740	583	607	387	77	143	607	369	90	148
Palau.....	132	206	51	63	0	63	0	56	0	56	0
Puerto Rico.....	41,043	33,463	34,019	22,626	3,152	19,107	367	20,464	3,873	16,172	419
U.S. Virgin Islands.....	841	1,019	0	0	0	0	0	154	147	7	0

NOTE: Adult basic education provides instruction in basic skills for adults 16 and over functioning at literacy levels below the secondary level. Adult secondary education provides instruction at the high school level for adults who are seeking to pass the GED or obtain an adult high school credential. English as a second language instruction is for adults who lack proficiency in English and who seek to improve their literacy and competence in English.

SOURCE: U.S. Department of Education, Office of Vocational and Adult Education (OVAE), OVAE National Reporting System, retrieved June 4, 2012, from <http://wdcrobcolp01.ed.gov/CFAPPS/OVAE/NRS/reports/index.cfm>. (This table was prepared June 2012.)

Table 485. Participation of employed persons, 17 years old and over, in career-related adult education during the previous 12 months, by selected characteristics of participants: 1995, 1999, and 2005

[Standard errors appear in parentheses]

Characteristic of employed person	1995		1999		2005						
	Percent of adults participating in career- or job-related courses	Number of career- or job-related courses taken, per employed adult	Percent of adults participating in career- or job-related courses	Number of career- or job-related courses taken, per employed adult	Employed persons, in thousands	Percent of adults participating				Number of career- or job-related courses taken ¹	
						In career- or job-related courses ¹	In apprenticeship programs	In personal interest courses	In informal learning activities for personal interest	In thousands	Per employed adult
1	2	3	4	5	6	7	8	9	10	11	12
Total	31.1 (0.54)	0.8 (0.02)	30.5 (1.14)	0.7 (0.03)	133,386 (1,508.1)	38.8 (0.83)	1.4 (0.24)	21.8 (0.94)	73.5 (1.01)	108,443	0.8 (0.03)
Sex											
Male	29.0 (0.72)	0.7 (0.02)	28.3 (1.15)	0.6 (0.03)	71,754 (934.7)	31.7 (1.22)	2.0 (0.37)	18.5 (1.30)	73.4 (1.52)	44,512	0.6 (0.03)
Female	33.4 (0.83)	0.9 (0.03)	32.9 (1.14)	0.8 (0.03)	61,632 (1,219.3)	47.1 (1.43)	0.8 (0.23)	25.8 (1.23)	73.6 (1.37)	63,931	1.0 (0.05)
Age											
17 through 24 years old.....	18.6 (1.01)	0.4 (0.02)	19.1 (1.91)	0.4 (0.06)	15,027 (1,030.4)	26.4 (3.01)	3.0 ! (1.03)	25.2 (3.37)	71.4 (3.15)	8,024	0.5 (0.09)
25 through 29 years old.....	31.2 (1.46)	0.8 (0.05)	34.3 (2.44)	0.8 (0.08)	14,555 (918.4)	36.1 (2.94)	3.1 ! (1.12)	24.5 (3.66)	70.9 (4.49)	9,493	0.7 (0.06)
30 through 34 years old.....	31.6 (1.30)	0.8 (0.04)	34.4 (2.50)	0.8 (0.08)	15,250 (977.2)	41.0 (3.06)	2.7 ! (1.10)	23.7 (2.63)	74.0 (2.54)	12,681	0.8 (0.07)
35 through 39 years old.....	35.1 (1.02)	0.9 (0.03)	29.2 (2.15)	0.7 (0.07)	15,286 (922.4)	41.7 (4.16)	1.0 ! (0.46)	21.6 (3.15)	77.7 (3.00)	13,807	0.9 (0.14)
40 through 44 years old.....	36.6 (1.29)	0.9 (0.04)	36.4 (2.44)	0.8 (0.07)	18,141 (946.3)	39.8 (2.73)	‡ (†)	23.3 (2.60)	71.2 (3.15)	15,586	0.9 (0.07)
45 through 49 years old.....	39.6 (1.94)	1.0 (0.06)	30.4 (2.42)	0.7 (0.06)	18,149 (842.5)	45.0 (2.15)	0.7 ! (0.29)	19.0 (2.09)	73.5 (2.68)	16,809	0.9 (0.06)
50 through 54 years old.....	34.4 (1.69)	0.9 (0.04)	34.7 (2.57)	0.8 (0.07)	14,624 (732.1)	42.6 (2.49)	0.7 ! (0.32)	19.5 (1.92)	76.3 (2.27)	14,881	1.0 (0.10)
55 through 59 years old.....	26.7 (1.86)	0.7 (0.06)	30.3 (2.83)	0.6 (0.08)	10,522 (676.0)	44.7 (2.98)	‡ (†)	18.3 (1.93)	73.0 (2.95)	9,901	0.9 (0.09)
60 through 64 years old.....	21.1 (2.41)	0.5 (0.06)	27.2 (3.80)	0.7 (0.15)	6,021 (498.8)	38.9 (3.97)	‡ (†)	23.4 (3.52)	73.0 (4.22)	4,919	0.8 (0.10)
65 years old and over.....	13.7 (1.86)	0.4 (0.06)	20.3 (4.21)	0.4 (0.08)	5,812 (493.3)	21.6 (3.48)	# (†)	17.4 (3.13)	74.2 (3.75)	2,343	0.4 (0.07)
65 through 69	13.1 (2.28)	0.4 (0.08)	— (†)	— (†)	3,385 (415.5)	19.1 (4.05)	# (†)	20.9 (4.88)	75.4 (5.18)	1,102	0.3 (0.08)
70 and over.....	14.6 (2.85)	0.4 (0.09)	— (†)	— (†)	2,427 (282.3)	25.1 (5.81)	# (†)	12.6 (2.93)	72.6 (6.11)	1,241	0.5 (0.14)
Race/ethnicity											
White	33.2 (0.61)	0.8 (0.02)	32.8 (0.98)	0.6 (0.03)	94,881 (1,538.6)	41.3 (0.93)	1.2 (0.25)	22.2 (1.11)	75.3 (1.17)	82,511	0.9 (0.03)
Black	26.2 (1.46)	0.7 (0.04)	28.1 (2.34)	1.0 (0.07)	13,773 (533.2)	39.2 (3.82)	1.7 ! (0.83)	23.5 (3.04)	66.9 (3.02)	10,311	0.7 (0.11)
Hispanic	18.1 (1.00)	0.4 (0.02)	16.4 (1.83)	0.5 (0.05)	15,741 (681.1)	25.0 (2.66)	2.9 (0.85)	16.2 (2.31)	65.8 (3.39)	8,786	0.6 (0.11)
Asian	— (†)	— (†)	— (†)	— (†)	3,770 (520.7)	36.9 (7.00)	‡ (†)	32.3 (7.26)	81.1 (5.88)	2,207	0.6 (0.12)
Pacific Islander	— (†)	— (†)	— (†)	— (†)	‡ (†)	‡ (†)	‡ (†)	‡ (†)	‡ (†)	‡ (†)	‡ (†)
Asian/Pacific Islander	25.5 (2.69)	0.6 (0.07)	32.8 (4.84)	0.4 ! (0.15)	— (†)	— (†)	— (†)	— (†)	— (†)	— (†)	— (†)
American Indian/Alaska Native	34.0 (6.32)	0.9 (0.20)	29.5 ! (11.52)	‡ (†)	‡ (†)	‡ (†)	‡ (†)	‡ (†)	‡ (†)	‡ (†)	‡ (†)
Two or more races	— (†)	— (†)	— (†)	— (†)	3,786 (562.7)	39.1 (6.85)	‡ (†)	22.6 (6.34)	77.6 (8.40)	3,083	0.8 (0.15)
Other races	25.3 (2.99)	0.7 (0.09)	— (†)	— (†)	‡ (†)	‡ (†)	‡ (†)	‡ (†)	‡ (†)	‡ (†)	‡ (†)
Highest level of education completed											
Less than high school completion.....	8.8 (1.05)	0.1 (0.02)	7.9 (2.29)	0.4 (0.05)	16,627 (838.2)	10.4 (2.11)	2.4 ! (0.90)	8.8 (1.54)	57.0 (3.76)	2,592	0.2 (0.03)
8th grade or less.....	6.1 ! (2.00)	0.1 ! (0.04)	— (†)	— (†)	5,016 (599.7)	2.7 (1.12)	‡ (†)	3.8 ! (1.71)	46.7 (7.11)	197	# (†)
9th through 12th grade, no completion.....	10.0 (1.27)	0.2 (0.02)	— (†)	— (†)	11,610 (792.8)	13.7 (2.99)	‡ (†)	11.0 (2.06)	61.5 (4.05)	2,396	0.2 (0.04)
High school completion.....	20.9 (0.79)	0.4 (0.02)	21.4 (1.45)	0.8 (0.03)	34,121 (1,147.2)	24.7 (1.76)	1.3 ! (0.46)	17.1 (1.89)	63.4 (2.55)	16,640	0.5 (0.05)
Some vocational/technical ..	32.3 (2.50)	0.8 (0.07)	28.7 (5.76)	0.9 (0.17)	3,744 (393.1)	48.2 (5.92)	‡ (†)	25.5 (4.61)	74.0 (5.54)	3,802	1.0 (0.17)
Some college.....	29.9 (0.91)	0.7 (0.03)	29.0 (1.78)	0.7 (0.06)	24,479 (1,067.7)	39.9 (2.36)	1.9 ! (0.69)	25.2 (2.50)	79.8 (2.04)	18,437	0.8 (0.05)
Associate's degree	39.2 (1.58)	1.0 (0.05)	39.7 (3.07)	0.9 (0.09)	9,943 (730.7)	50.4 (3.71)	2.3 ! (0.84)	19.1 (2.86)	78.4 (3.88)	14,224	1.4 (0.21)
Bachelor's degree.....	44.6 (1.33)	1.2 (0.04)	43.8 (2.01)	1.0 (0.06)	26,475 (902.7)	53.1 (1.88)	‡ (†)	29.0 (1.77)	78.7 (1.94)	28,099	1.1 (0.06)
Some graduate work (or study).....	50.2 (1.63)	1.4 (0.05)	46.8 (4.17)	1.2 (0.14)	17,998 (735.4)	61.1 (2.16)	‡ (†)	28.6 (2.01)	88.8 (1.16)	24,649	1.4 (0.07)
No degree	44.3 (3.18)	1.2 (0.10)	54.2 (4.94)	1.2 (0.14)	2,125 (227.9)	53.8 (5.79)	‡ (†)	39.3 (6.05)	75.0 (5.64)	2,412	1.1 (0.16)
Masters	50.5 (1.99)	1.4 (0.06)	45.3 (2.97)	1.1 (0.11)	11,330 (614.7)	62.7 (2.98)	‡ (†)	28.2 (2.27)	90.5 (1.40)	15,394	1.4 (0.09)
Doctor's	40.4 (6.42)	1.0 (0.16)	34.4 (4.79)	0.7 (0.12)	1,600 (227.2)	49.0 (5.80)	‡ (†)	28.8 (4.76)	87.8 (4.35)	2,204	1.4 (0.36)
Professional.....	67.6 (3.89)	2.0 (0.15)	67.6 (6.98)	1.9 (0.31)	2,943 (382.7)	66.5 (6.39)	‡ (†)	22.1 (5.05)	92.9 (2.21)	4,639	1.6 (0.21)

See notes at end of table.

Table 485. Participation of employed persons, 17 years old and over, in career-related adult education during the previous 12 months, by selected characteristics of participants: 1995, 1999, and 2005—Continued

[Standard errors appear in parentheses]

Characteristic of employed person	1995		1999		Employed persons, in thousands		2005				Number of career- or job-related courses taken ¹	
	Percent of adults participating in career- or job-related courses	Number of career- or job-related courses taken, per employed adult	Percent of adults participating in career- or job-related courses	Number of career- or job-related courses taken, per employed adult	Employed persons, in thousands	Percent of adults participating				In thousands	Per employed adult	
						In career- or job-related courses ¹	In apprenticeship programs	In personal interest courses	In informal learning activities for personal interest			
1	2	3	4	5	6	7	8	9	10	11	12	
Locale²												
City.....	— (t)	— (t)	— (t)	— (t)	39,283 (1,391.3)	39.6 (1.67)	2.2 (0.60)	23.1 (1.43)	74.0 (1.77)	34,327	0.9 (0.05)	
Suburban.....	— (t)	— (t)	— (t)	— (t)	48,452 (1,555.0)	41.1 (1.87)	1.2 (0.32)	23.3 (1.38)	74.2 (1.49)	39,802	0.8 (0.04)	
Town.....	— (t)	— (t)	— (t)	— (t)	17,616 (1,060.7)	36.0 (2.64)	‡ (t)	19.6 (2.83)	71.7 (3.02)	12,947	0.7 (0.07)	
Rural.....	— (t)	— (t)	— (t)	— (t)	27,847 (885.2)	35.4 (2.14)	1.4 ! (0.58)	19.0 (2.19)	72.7 (2.22)	21,135	0.8 (0.06)	
Occupation												
Executive, administrative, or managerial occupations.....	42.9 (1.49)	1.2 (0.05)	40.6 (2.06)	1.0 (0.07)	14,596 (707.6)	53.6 (2.79)	‡ (t)	29.5 (2.89)	77.7 (2.87)	16,567	1.1 (0.09)	
Engineers, surveyors, and architects.....	44.2 (4.46)	1.1 (0.12)	52.1 (6.96)	1.0 (0.16)	1,987 (244.9)	56.3 (5.68)	‡ (t)	30.5 (6.36)	81.0 (4.73)	2,323	1.2 (0.16)	
Natural scientists and mathematicians.....	59.7 (3.97)	1.7 (0.15)	46.0 (6.61)	0.8 (0.14)	4,130 (445.4)	51.5 (5.64)	‡ (t)	31.2 (4.83)	85.3 (5.44)	3,693	0.9 (0.11)	
Social scientists and workers, religious workers, and lawyers....	59.5 (2.61)	1.8 (0.11)	56.9 (5.66)	1.7 (0.24)	4,697 (480.9)	66.8 (4.48)	‡ (t)	28.3 (3.81)	88.6 (2.95)	7,822	1.7 (0.29)	
Teachers, elementary/secondary.....	53.9 (2.23)	1.5 (0.08)	52.1 (3.53)	1.2 (0.11)	7,085 (568.5)	67.7 (4.16)	‡ (t)	31.5 (3.93)	83.0 (2.79)	12,233	1.7 (0.13)	
Teachers, postsecondary and counselors, librarians, and archivists.....	41.6 (4.57)	1.0 (0.15)	35.6 (5.85)	0.7 (0.14)	2,393 (420.9)	53.1 (8.63)	‡ (t)	17.7 (4.91)	90.9 (3.97)	2,122	0.9 (0.09)	
Health diagnosing and treating practitioners.....	68.6 (5.85)	2.0 (0.23)	65.2 (11.99)	1.5 ! (0.50)	978 (208.8)	78.9 (7.10)	‡ (t)	27.4 ! (9.60)	86.6 (5.37)	1,951	2.0 (0.25)	
Registered nurses, pharmacists, dietitians, therapists, and physician's assistants....	72.8 (3.02)	2.2 (0.14)	72.2 (5.04)	1.8 (0.21)	2,794 (238.8)	79.7 (4.60)	‡ (t)	29.4 (4.17)	84.3 (3.70)	4,984	1.8 (0.15)	
Writers, artists, entertainers, and athletes.....	23.4 (2.89)	0.5 (0.07)	30.6 (6.21)	0.6 (0.18)	2,969 (405.2)	29.9 (5.69)	‡ (t)	31.8 (6.15)	88.9 (4.39)	1,865	0.6 (0.15)	
Health technologists and technicians.....	50.0 (4.08)	1.4 (0.12)	41.8 (6.00)	1.0 (0.19)	3,060 (436.7)	70.6 (7.31)	‡ (t)	27.8 (6.48)	77.5 (6.40)	4,473	1.5 (0.18)	
Technologists and technicians, except health.....	43.8 (2.67)	1.1 (0.10)	37.6 (4.87)	1.0 (0.15)	1,774 (336.5)	29.4 (8.10)	‡ (t)	5.3 ! (2.02)	75.2 (8.98)	1,015	0.6 (0.17)	
Marketing and sales occupations.....	25.2 (1.26)	0.6 (0.03)	21.1 (2.27)	0.4 (0.06)	14,845 (971.9)	32.3 (3.17)	‡ (t)	20.8 (2.64)	70.5 (3.53)	7,724	0.5 (0.05)	
Administrative support occupations, including clerical.....	30.8 (1.15)	0.7 (0.03)	27.4 (2.02)	0.6 (0.05)	21,167 (1,179.4)	36.1 (2.95)	0.8 ! (0.40)	28.2 (2.28)	72.9 (2.37)	15,443	0.7 (0.10)	
Service occupations.....	22.6 (1.25)	0.6 (0.04)	21.0 (2.15)	0.5 (0.07)	17,180 (1,033.7)	33.7 (3.13)	1.1 ! (0.36)	16.2 (2.31)	69.0 (2.74)	13,029	0.8 (0.10)	
Agriculture, forestry, and fishing occupations.....	12.4 (2.47)	0.3 (0.07)	12.2 ! (4.09)	0.2 ! (0.07)	2,522 (423.8)	22.4 ! (7.61)	‡ (t)	23.0 ! (11.03)	62.9 (11.04)	960	0.4 ! (0.12)	
Mechanics and repairers.....	29.1 (2.62)	0.7 (0.08)	15.0 (3.40)	0.3 (0.09)	5,241 (521.6)	28.3 (4.47)	4.0 ! (1.44)	12.6 (3.24)	69.3 (4.36)	2,669	0.5 (0.09)	
Construction and extractive occupations.....	18.6 (2.33)	0.3 (0.04)	13.2 (3.16)	0.2 (0.06)	6,827 (647.1)	12.4 (3.04)	5.3 ! (2.26)	7.8 (1.88)	69.0 (5.25)	2,323	0.3 ! (0.13)	
Precision production ³	25.6 (4.04)	0.6 (0.12)	18.3 ! (6.52)	0.4 ! (0.12)	10,483 (839.3)	23.5 (3.79)	‡ (t)	14.0 (3.34)	64.9 (3.74)	4,904	0.5 (0.07)	
Production workers.....	14.8 (1.13)	0.3 (0.02)	23.0 (3.17)	0.5 (0.08)	— (t)	— (t)	— (t)	— (t)	— (t)	—	— (t)	

See notes at end of table.

Table 485. Participation of employed persons, 17 years old and over, in career-related adult education during the previous 12 months, by selected characteristics of participants: 1995, 1999, and 2005—Continued

[Standard errors appear in parentheses]

Characteristic of employed person	1995		1999		2005						
	Percent of adults participating in career- or job-related courses	Number of career- or job-related courses taken, per employed adult	Percent of adults participating in career- or job-related courses	Number of career- or job-related courses taken, per employed adult	Employed persons, in thousands	Percent of adults participating				Number of career- or job-related courses taken ¹	
						In career- or job-related courses ¹	In apprenticeship programs	In personal interest courses	In informal learning activities for personal interest	In thousands	Per employed adult
1	2	3	4	5	6	7	8	9	10	11	12
Transportation and material moving.....	15.8 (1.83)	0.3 (0.04)	18.4 (3.62)	0.3 (0.06)	7,858 (742.5)	15.2 (2.81)	‡ (†)	10.5 (3.10)	62.5 (5.32)	1,935	0.2 (0.05)
Handlers, equipment cleaners, helpers, and laborers	11.7 (2.77)	0.2 (0.06)	‡ (†)	‡ (†)	— (†)	— (†)	— (†)	— (†)	— (†)	—	— (†)
Miscellaneous occupations.	38.8 (3.50)	1.0 (0.11)	14.2 ! (4.62)	0.3 ! (0.08)	801 (189.4)	17.2 ! (6.87)	‡ (†)	8.7 ! (4.31)	48.3 (13.96)	409	‡ (†)
Annual household income											
\$10,000 or less	12.6 (1.31)	0.2 (0.03)	9.5 ! (3.09)	0.2 ! (0.05)	4,425 (444.8)	16.7 (4.35)	‡ (†)	26.2 ! (7.96)	69.7 (5.72)	1,556	0.4 ! (0.12)
\$5,000 or less	8.7 (1.91)	0.1 (0.03)	— (†)	— (†)	1,635 (252.7)	19.1 (6.52)	‡ (†)	22.9 ! (7.91)	60.9 (8.84)	850	‡ (†)
\$5,001 to \$10,000	15.1 (1.62)	0.3 (0.04)	— (†)	— (†)	2,791 (454.1)	15.3 (5.68)	‡ (†)	28.1 ! (12.27)	74.8 (6.88)	706	0.3 ! (0.10)
\$10,001 to \$15,000	15.1 (1.71)	0.4 (0.04)	8.3 (1.88)	0.1 (0.03)	4,814 (633.4)	22.2 (5.77)	‡ (†)	17.3 ! (5.25)	64.5 (7.57)	2,189	0.5 (0.12)
\$15,001 to \$20,000	20.1 (1.36)	0.4 (0.03)	16.3 (2.75)	0.3 (0.05)	4,515 (398.8)	18.2 (3.09)	5.7 ! (2.71)	11.5 (1.96)	60.4 (5.11)	1,322	0.3 (0.05)
\$20,001 to \$25,000	20.4 (1.52)	0.5 (0.05)	18.8 (2.79)	0.4 (0.08)	5,593 (490.2)	23.8 (4.02)	1.1 ! (0.51)	13.3 (3.21)	71.5 (4.11)	2,817	0.5 (0.10)
\$25,001 to \$30,000	24.7 (1.34)	0.5 (0.03)	22.2 (2.73)	0.5 (0.07)	7,444 (680.4)	31.4 (4.88)	‡ (†)	16.7 (3.77)	73.5 (3.91)	4,322	0.6 (0.11)
\$30,001 to \$40,000	30.2 (1.13)	0.8 (0.03)	26.6 (2.82)	0.6 (0.07)	13,123 (928.5)	35.1 (3.45)	1.5 ! (0.65)	21.7 (3.71)	69.1 (3.55)	8,224	0.6 (0.06)
\$40,001 to \$50,000	34.7 (1.30)	0.8 (0.04)	32.3 (2.34)	0.7 (0.07)	13,647 (1,058.4)	31.5 (3.01)	1.8 ! (0.72)	20.1 (3.32)	73.5 (2.78)	10,072	0.7 (0.10)
\$50,001 to \$75,000	40.0 (1.18)	1.0 (0.04)	36.6 (1.86)	0.9 (0.06)	33,665 (1,430.4)	42.7 (1.80)	1.2 ! (0.51)	20.9 (2.10)	71.3 (2.55)	28,991	0.9 (0.06)
More than \$75,000	45.2 (1.40)	1.3 (0.04)	42.5 (1.79)	1.0 (0.06)	46,160 (1,263.3)	48.1 (1.57)	1.3 ! (0.39)	26.0 (1.37)	79.2 (1.55)	48,951	1.1 (0.05)

—Not available.

†Not applicable.

#Rounds to zero.

!Interpret data with caution. The coefficient of variation (CV) for this estimate is between 30 and 50 percent.

‡Reporting standards not met. The coefficient of variation (CV) for this estimate is 50 percent or greater.

¹The 2005 estimates on participation in career- or job-related courses were based on responses to multiple questions. Specifically, respondents were first asked what courses they had taken, and then whether each course was career- or job-related. In contrast, 1995 and 1999 respondents were asked a single, general question about whether they had participated in any career- or job-related courses. Therefore, 2005 results may not be comparable to results from the earlier years.

²Detail may not sum to totals due to missing locale information.

³For 2005, figures include "Production workers" occupations data.

NOTE: Data do not include persons enrolled in high school or below. Race categories exclude persons of Hispanic ethnicity. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Adult Education Survey (AE-NHES:1995, AE-NHES:1999, and AE-NHES:2005) of the National Household Education Surveys Program. (This table was prepared October 2010.)

Table 486. Participation rate of persons, 17 years old and over, in adult education during the previous 12 months, by selected characteristics of participants: Selected years, 1991 through 2005

[Standard errors appear in parentheses]

Characteristic of participant	Percent taking any program, class, or course					Percent taking specific programs, classes, or courses, 2005						Percent doing informal learning activities for personal interest, 2005
	1991	1995	1999	2001	2005	Basic skills/ General Educational Development (GED) classes	English as a second language (ESL) classes	Part-time post-secondary education ¹	Career- or job-related courses	Apprenticeship programs	Personal-interest courses	
1	2	3	4	5	6	7	8	9	10	11	12	13
Total	33.0 (0.68)	40.2 (0.48)	44.5 (0.77)	46.4 (0.55)	44.4 (0.74)	1.3 (0.22)	0.9 (0.17)	5.0 (0.29)	27.0 (0.63)	1.2 (0.18)	21.4 (0.71)	70.5 (0.79)
Sex												
Male.....	32.6 (1.09)	38.2 (0.65)	41.7 (1.15)	43.1 (0.83)	41.0 (1.20)	1.4 (0.41)	0.9 ! (0.29)	5.0 (0.44)	24.5 (0.99)	1.7 (0.31)	18.3 (1.08)	70.8 (1.10)
Female.....	33.2 (0.97)	42.1 (0.59)	47.1 (1.02)	49.5 (0.78)	47.5 (1.01)	1.2 (0.19)	0.9 (0.15)	5.1 (0.37)	29.2 (0.95)	0.7 (0.15)	24.2 (0.88)	70.2 (1.03)
Age												
17 to 24 years old.....	37.8 (1.46)	47.0 (1.12)	49.9 (2.34)	52.8 (2.04)	52.8 (2.79)	6.0 (1.48)	1.7 ! (0.61)	11.5 (1.34)	21.3 (2.22)	2.7 (0.76)	26.3 (2.60)	69.2 (2.54)
25 to 29 years old.....	40.0 (2.33)	49.6 (1.31)	56.5 (2.53)	52.9 (2.60)	51.6 (3.82)	1.8 (0.48)	3.3 ! (1.48)	9.1 (1.50)	29.5 (2.48)	3.2 ! (1.06)	20.9 (2.78)	66.8 (3.75)
30 to 34 years old.....	37.6 (2.88)	47.3 (1.41)	56.2 (2.57)	53.7 (2.18)	52.7 (2.52)	1.9 ! (0.66)	1.6 ! (0.64)	8.4 (1.28)	33.8 (2.71)	2.5 ! (0.89)	23.2 (2.23)	73.8 (2.22)
35 to 39 years old.....	42.1 (2.71)	47.7 (1.15)	50.1 (2.43)	54.0 (1.71)	48.6 (3.21)	0.4 ! (0.16)	0.7 ! (0.26)	6.1 (0.90)	32.6 (3.29)	0.9 ! (0.36)	20.7 (2.67)	75.5 (2.69)
40 to 44 years old.....	49.2 (3.28)	50.9 (1.15)	50.5 (2.43)	53.5 (1.88)	48.9 (2.43)	0.8 ! (0.31)	0.6 ! (0.23)	4.7 (0.77)	34.8 (2.30)	0.9 ! (0.42)	23.4 (2.29)	71.5 (2.62)
45 to 49 years old.....	40.0 (2.43)	48.7 (1.66)	49.8 (2.69)	55.4 (2.02)	49.0 (2.09)	+	0.6 ! (0.25)	3.2 (0.48)	37.7 (1.83)	0.5 ! (0.23)	19.3 (1.88)	71.6 (2.52)
50 to 54 years old.....	26.8 (3.31)	42.5 (1.38)	47.2 (2.51)	51.1 (2.22)	46.6 (2.36)	+	0.3 ! (0.15)	4.5 (0.75)	35.2 (2.25)	0.6 ! (0.28)	20.3 (1.64)	75.6 (1.89)
55 to 59 years old.....	29.0 (3.74)	32.2 (1.66)	38.0 (2.60)	44.1 (1.98)	42.2 (2.78)	+	+	1.9 (0.43)	31.9 (2.39)	+	18.0 (1.63)	69.5 (2.56)
60 to 64 years old.....	17.4 (1.90)	23.7 (1.89)	31.4 (2.83)	30.8 (2.18)	37.9 (3.00)	+	+	0.9 ! (0.36)	20.9 (2.07)	+	24.1 (2.40)	71.4 (3.04)
65 to 69 years old.....	14.2 (2.97)	18.1 (1.46)	25.4 (2.54)	20.5 (1.74)	26.2 (2.67)	+	+	0.5 ! (0.22)	8.1 (1.36)	+	20.9 (2.41)	67.6 (2.52)
70 years old and over.....	8.6 (1.25)	13.8 (1.09)	15.0 (1.38)	21.7 (1.37)	21.5 (1.44)	+	+	+	4.0 (0.78)	+	17.9 (1.33)	62.9 (1.82)
Racial/ethnic group												
White.....	34.1 (0.82)	41.5 (0.54)	44.4 (0.89)	47.4 (0.59)	45.6 (0.84)	0.9 (0.23)	0.2 ! (0.08)	4.9 (0.35)	29.1 (0.70)	0.9 (0.17)	22.1 (0.87)	73.0 (0.92)
Black.....	25.9 (2.23)	37.0 (1.45)	46.3 (2.30)	43.3 (1.50)	46.4 (2.81)	1.9 (0.49)	+	5.4 (0.97)	27.0 (2.53)	1.5 ! (0.73)	23.7 (2.11)	65.3 (2.02)
Hispanic.....	31.4 (2.63)	33.7 (1.18)	41.3 (2.51)	41.7 (2.28)	37.8 (2.43)	2.6 (0.72)	5.6 (1.22)	5.7 (1.55)	16.9 (1.72)	2.2 (0.63)	15.4 (1.75)	57.5 (2.86)
Asian.....	— (t)	— (t)	— (t)	— (t)	48.3 (5.39)	+	2.6 ! (1.03)	7.6 ! (2.62)	27.2 (4.70)	+	26.5 (5.06)	81.1 (4.10)
Pacific Islander.....	— (t)	— (t)	— (t)	— (t)	+	+	+	+	+	+	+	+
Asian/Pacific Islander.....	35.9 (5.55)	39.7 (2.92)	51.1 (4.63)	49.5 (3.81)	+	+	+	+	+	+	+	+
American Indian/Alaska Native.....	29.3 ! (11.55)	38.8 (4.85)	36.3 (9.16)	50.2 (8.28)	36.3 (10.17)	+	+	4.4 ! (1.82)	23.0 ! (8.51)	+	13.0 ! (6.16)	70.6 (9.18)
Two or more races.....	— (t)	— (t)	— (t)	— (t)	39.4 (4.94)	5.1 ! (2.17)	+	3.2 ! (1.07)	23.8 (4.06)	1.3 ! (0.59)	21.0 (4.13)	77.6 (5.28)
Highest level of education completed												
8th grade or less.....	7.7 (1.44)	10.0 (1.10)	14.7 (2.92)	19.7 (2.84)	15.5 (2.47)	1.9 (0.57)	4.3 ! (1.70)	+	1.7 ! (0.55)	+	7.3 (1.24)	38.1 (3.27)
9th through 12th grade, no completion.....	15.8 (2.25)	20.2 (1.38)	25.6 (2.55)	25.5 (1.53)	27.2 (2.40)	7.9 (1.69)	1.1 ! (0.41)	2.1 (0.57)	7.6 (1.44)	1.5 ! (0.61)	12.5 (1.53)	55.7 (2.52)
High school completion.....	24.1 (1.10)	30.7 (0.84)	34.8 (1.37)	33.9 (1.07)	33.0 (1.62)	0.5 ! (0.24)	0.7 ! (0.24)	2.5 (0.36)	17.2 (1.18)	1.1 ! (0.35)	16.8 (1.27)	63.6 (1.93)
Some vocational/technical.....	34.2 (3.80)	41.9 (2.16)	41.1 (3.97)	50.7 (3.51)	43.3 (4.30)	+	+	4.5 ! (1.42)	28.3 (3.71)	+	23.2 (3.09)	77.6 (3.98)
Some college.....	41.4 (1.67)	49.3 (0.92)	51.1 (1.76)	57.4 (1.29)	51.1 (1.79)	+	+	8.6 (1.06)	28.8 (1.54)	1.4 ! (0.47)	26.8 (1.80)	79.8 (1.52)
Associate's degree.....	49.2 (5.82)	56.1 (1.85)	56.6 (2.93)	62.5 (2.15)	56.5 (3.64)	+	+	6.6 (1.42)	40.8 (3.27)	1.9 ! (0.66)	20.1 (2.48)	75.9 (3.70)
Bachelor's degree.....	51.1 (2.46)	56.9 (1.20)	60.3 (1.84)	64.5 (1.39)	59.8 (1.56)	+	+	6.3 (0.82)	44.1 (1.61)	0.4 ! (0.17)	28.6 (1.55)	79.3 (1.72)
Some graduate work (or study).....	55.1 (2.90)	59.9 (1.55)	63.6 (1.96)	68.9 (1.64)	66.3 (1.99)	+	+	8.7 (0.86)	49.3 (2.15)	+	30.7 (1.77)	88.0 (1.06)
No degree.....	— (t)	62.2 (2.67)	64.7 (4.39)	64.2 (3.54)	65.3 (4.84)	+	+	14.5 (2.55)	40.5 (4.68)	+	38.7 (4.81)	78.2 (4.34)
Master's.....	— (t)	59.1 (1.88)	65.7 (2.64)	70.7 (2.10)	67.5 (2.59)	+	+	8.9 (1.31)	51.4 (2.81)	+	30.6 (2.04)	88.8 (1.33)
Doctor's.....	— (t)	54.0 (6.99)	53.1 (4.73)	63.7 (3.98)	58.0 (4.94)	+	+	10.1 ! (3.14)	34.0 (4.53)	+	31.4 (3.95)	90.3 (3.26)
Professional.....	— (t)	65.9 (3.91)	72.5 (5.75)	72.8 (3.79)	68.2 (5.77)	+	+	+	59.0 (6.35)	+	23.9 (4.35)	91.6 (2.15)
Urbanicity												
City.....	— (t)	— (t)	— (t)	— (t)	45.8 (1.46)	1.4 (0.31)	1.6 (0.38)	5.7 (0.59)	26.3 (1.24)	1.8 (0.43)	22.5 (1.10)	69.2 (1.39)
Suburban.....	— (t)	— (t)	— (t)	— (t)	46.9 (1.33)	0.9 (0.23)	0.9 ! (0.36)	5.8 (0.55)	29.7 (1.26)	0.9 (0.22)	23.4 (1.16)	73.4 (1.28)
Town.....	— (t)	— (t)	— (t)	— (t)	41.8 (2.33)	2.7 ! (1.16)	0.4 ! (0.14)	4.2 (0.87)	25.6 (1.74)	0.5 ! (0.21)	18.5 (1.96)	70.5 (2.43)
Rural.....	— (t)	— (t)	— (t)	— (t)	39.5 (2.04)	0.8 (0.22)	+	3.3 (0.59)	24.2 (1.38)	1.2 ! (0.40)	18.3 (1.76)	67.6 (1.76)
Labor force status												
In labor force.....	40.7 (0.96)	49.8 (0.69)	52.1 (0.94)	— (t)	52.3 (0.93)	1.4 (0.32)	0.8 (0.19)	6.4 (0.39)	37.1 (0.83)	1.5 (0.24)	21.9 (0.91)	73.0 (0.94)
Employed.....	42.0 (1.00)	50.7 (0.53)	52.5 (0.96)	— (t)	53.4 (0.94)	1.1 (0.31)	0.7 (0.20)	6.5 (0.39)	38.8 (0.83)	1.4 (0.24)	21.8 (0.94)	73.5 (1.01)
Unemployed.....	26.0 (3.24)	36.6 (1.91)	44.9 (4.60)	— (t)	37.8 (4.26)	5.8 (1.60)	1.9 ! (0.79)	5.2 (1.37)	13.5 (2.16)	+	22.1 (3.99)	66.7 (3.80)
Not in labor force.....	15.7 (0.91)	21.3 (0.69)	24.9 (1.17)	— (t)	27.6 (1.18)	1.1 (0.24)	1.3 (0.36)	2.3 (0.45)	5.7 (0.55)	0.6 ! (0.22)	20.5 (0.97)	65.2 (1.27)

See notes at end of table.

Table 486. Participation rate of persons, 17 years old and over, in adult education during the previous 12 months, by selected characteristics of participants: Selected years, 1991 through 2005—Continued

[Standard errors appear in parentheses]

Characteristic of participant	Percent taking any program, class, or course					Percent taking specific programs, classes, or courses, 2005						Percent doing informal learning activities for personal interest, 2005
	1991	1995	1999	2001	2005	Basic skills/General Educational Development (GED) classes	English as a second language (ESL) classes	Part-time post-secondary education ¹	Career- or job-related courses	Apprenticeship programs	Personal-interest courses	
1	2	3	4	5	6	7	8	9	10	11	12	13
Occupation												
Executive, administrative, or managerial occupations	49.3 (3.45)	55.8 (1.92)	57.0 (2.11)	66.2 (1.61)	64.1 (2.73)	± (†)	± (†)	6.0 (1.10)	51.8 (2.82)	± (†)	28.8 (2.89)	78.6 (2.71)
Engineers, surveyors, and architects	62.6 (7.85)	65.5 (4.18)	79.8 (6.01)	68.1 (4.46)	71.2 (5.68)	± (†)	± (†)	9.3 ! (3.21)	55.6 (5.60)	± (†)	31.4 (6.19)	81.1 (4.63)
Natural scientists and mathematicians . . .	48.2 (9.86)	72.3 (3.52)	60.5 (6.74)	74.0 (4.46)	69.1 (4.63)	± (†)	± (†)	9.2 (2.49)	49.6 (5.27)	± (†)	30.2 (4.53)	85.5 (5.16)
Social scientists and workers, religious workers, and lawyers	55.6 (6.01)	76.6 (2.61)	79.3 (4.35)	83.5 (3.05)	77.7 (4.11)	± (†)	± (†)	12.8 (3.16)	64.3 (4.42)	± (†)	29.2 (3.52)	89.4 (2.78)
Teachers, elementary/secondary	56.0 (4.20)	54.8 (4.64)	66.5 (5.61)	79.9 (2.95)	79.7 (2.59)	± (†)	± (†)	8.3 ! (3.16)	65.0 (3.99)	± (†)	31.7 (3.78)	83.8 (2.62)
Teachers: college, university, postsecondary institutions	45.5 (8.31)	76.7 (1.98)	78.4 (3.11)	69.4 (4.60)	61.3 (6.96)	± (†)	± (†)	± (†)	49.0 (8.50)	± (†)	19.5 (4.98)	91.7 (3.58)
Health diagnosing and treating practitioners	67.1 (13.73)	71.1 (5.78)	79.8 (9.02)	78.5 (6.38)	88.8 (5.59)	± (†)	± (†)	15.4 (2.47)	79.5 (6.59)	± (†)	31.9 (9.15)	84.5 (5.63)
Registered nurses, pharmacists, dietitians, therapists, and physician's assistants	59.6 (6.69)	86.7 (2.47)	85.4 (4.10)	82.7 (3.83)	85.4 (4.05)	± (†)	± (†)	7.9 (2.17)	78.2 (4.89)	± (†)	27.4 (3.73)	83.1 (3.92)
Writers, artists, entertainers, and athletes	42.9 (6.63)	49.9 (4.37)	50.0 (6.93)	46.8 (6.03)	52.5 (6.59)	± (†)	± (†)	5.4 ! (2.16)	27.8 (5.02)	± (†)	35.3 (6.42)	88.2 (3.89)
Health technologists and technicians ...	68.6 (10.03)	74.8 (3.64)	66.9 (6.16)	85.6 (3.25)	72.1 (8.37)	± (†)	± (†)	6.0 ! (2.11)	63.2 (8.67)	± (†)	24.6 (5.91)	75.6 (7.26)
Technologists and technicians, except health and engineering	53.0 (6.49)	64.3 (2.84)	59.6 (5.07)	70.2 (3.32)	33.8 (8.53)	± (†)	± (†)	7.1 ! (3.19)	29.1 (7.68)	± (†)	6.2 ! (2.14)	76.0 (8.80)
Marketing and sales occupations	34.4 (2.38)	44.2 (1.34)	44.4 (2.73)	51.1 (2.10)	45.7 (3.00)	1.7 ! (0.59)	± (†)	4.5 (0.88)	30.2 (2.77)	± (†)	21.5 (2.43)	68.9 (3.37)
Administrative support occupations, including clerical	29.9 (1.74)	51.7 (1.25)	50.1 (2.29)	58.7 (1.72)	54.6 (2.70)	1.1 ! (0.53)	± (†)	6.6 (0.98)	33.5 (2.70)	± (†)	27.7 (2.18)	73.8 (2.33)
Service occupations	25.2 (1.82)	46.5 (1.38)	50.9 (2.74)	49.3 (2.24)	44.7 (2.47)	1.6 (0.39)	1.9 ! (0.88)	6.8 (1.42)	28.5 (2.64)	1.4 ! (0.57)	17.5 (2.10)	65.4 (2.71)
Agriculture, forestry, and fishing occupations	14.3 ! (5.19)	26.4 (3.55)	34.3 (7.16)	46.4 (6.80)	44.4 (9.02)	± (†)	± (†)	± (†)	20.3 ! (6.92)	± (†)	21.6 ! (10.05)	64.0 (10.03)
Mechanics and repairers	32.1 (4.72)	47.6 (2.70)	42.2 (5.44)	35.1 (3.40)	40.1 (5.10)	± (†)	± (†)	6.0 ! (1.89)	27.4 (4.26)	3.8 ! (1.38)	12.7 (3.18)	69.3 (4.27)
Construction and extractive occupations	21.9 (3.38)	38.0 (2.45)	34.5 (4.78)	32.3 (3.19)	27.6 (3.73)	± (†)	1.1 ! (0.49)	3.2 ! (1.08)	12.3 (2.54)	5.2 ! (1.89)	11.4 (2.72)	72.3 (4.48)
Precision production ²	31.2 (6.09)	43.0 (4.32)	38.3 (8.48)	35.1 (6.19)	33.0 (3.98)	± (†)	0.4 ! (0.16)	4.2 ! (1.42)	22.2 (3.41)	± (†)	13.3 (2.99)	63.9 (3.46)
Production workers	21.1 (2.31)	30.7 (1.29)	38.0 (3.47)	39.4 (2.82)	— (†)	— (†)	— (†)	— (†)	— (†)	— (†)	— (†)	— (†)
Transportation, material moving	20.7 (4.69)	28.4 (2.32)	33.3 (4.25)	30.4 (3.29)	34.6 (5.27)	± (†)	± (†)	± (†)	14.7 (2.63)	3.2 ! (1.57)	11.2 (2.85)	60.8 (4.98)
Handler, equipment, cleaners, helpers, and laborers	20.8 (3.49)	25.1 (2.70)	19.6 (4.56)	18.2 (3.20)	— (†)	— (†)	— (†)	— (†)	— (†)	— (†)	— (†)	— (†)
Miscellaneous occupations	— (†)	56.6 (3.61)	43.0 (7.98)	64.9 (7.07)	39.2 (11.25)	± (†)	± (†)	± (†)	15.7 ! (5.81)	± (†)	7.8 ! (3.63)	52.2 (12.32)
Annual household income												
\$5,000 or less	13.6 (1.70)	21.3 (1.59)	21.0 (3.22)	25.1 (2.92)	35.9 (4.83)	± (†)	± (†)	3.6 ! (1.52)	13.7 (4.00)	± (†)	17.2 (3.59)	52.9 (4.97)
\$5,001 to \$10,000	17.5 (2.14)	23.9 (1.37)	24.5 (3.39)	28.0 (2.74)	29.6 (4.49)	2.4 ! (0.92)	1.5 ! (0.71)	1.7 ! (0.81)	8.4 (2.11)	± (†)	21.8 (4.75)	61.0 (3.75)
\$10,001 to \$15,000	22.8 (2.60)	26.7 (1.61)	22.8 (2.45)	28.6 (2.30)	25.0 (3.41)	2.4 (0.69)	0.8 ! (0.33)	3.3 ! (1.17)	11.3 (2.52)	± (†)	15.5 (3.14)	58.6 (4.43)
\$15,001 to \$20,000	21.9 (2.35)	31.8 (1.55)	31.4 (2.75)	30.2 (2.48)	24.3 (2.54)	1.0 ! (0.38)	± (†)	3.3 ! (1.19)	10.1 (1.37)	2.6 ! (1.20)	12.9 (2.00)	61.1 (3.17)
\$20,001 to \$25,000	26.7 (3.20)	31.4 (1.27)	35.8 (2.81)	35.2 (2.27)	28.2 (2.51)	1.7 ! (0.78)	1.9 ! (0.62)	4.4 (1.26)	12.8 (2.04)	1.1 ! (0.50)	13.6 (1.88)	63.2 (3.11)
\$25,001 to \$30,000	32.1 (2.51)	37.9 (1.47)	36.7 (2.61)	38.3 (2.43)	38.6 (3.63)	± (†)	± (†)	6.8 ! (2.09)	20.2 (3.37)	± (†)	18.4 (2.52)	71.0 (3.38)
\$30,001 to \$40,000	35.6 (1.84)	42.7 (0.86)	45.2 (2.05)	44.6 (1.54)	42.7 (2.65)	1.9 ! (0.65)	1.0 ! (0.49)	3.7 (0.68)	22.8 (2.27)	1.1 ! (0.39)	23.0 (2.49)	68.7 (2.36)
\$40,001 to \$50,000	44.8 (1.84)	46.8 (1.39)	47.9 (2.31)	49.1 (1.93)	41.4 (2.92)	1.6 ! (0.53)	± (†)	2.9 (0.55)	22.4 (2.00)	1.5 ! (0.56)	20.5 (2.47)	71.9 (2.62)
\$50,001 to \$75,000	46.6 (2.03)	52.0 (0.94)	55.1 (1.80)	55.7 (1.48)	47.7 (1.74)	0.4 ! (0.19)	± (†)	5.8 (0.69)	33.0 (1.37)	0.9 ! (0.36)	20.5 (1.67)	70.6 (2.15)
More than \$75,000	48.7 (3.15)	58.0 (1.27)	56.9 (1.66)	— (†)	— (†)	— (†)	— (†)	— (†)	— (†)	— (†)	— (†)	— (†)
\$75,001 to \$100,000	— (†)	— (†)	— (†)	59.7 (1.91)	56.4 (2.28)	± (†)	± (†)	7.5 (0.89)	38.6 (2.26)	1.8 ! (0.64)	25.3 (1.51)	75.0 (1.97)
More than \$100,000	— (†)	— (†)	— (†)	59.3 (1.82)	58.4 (2.11)	± (†)	± (†)	6.1 (0.70)	39.4 (1.80)	± (†)	28.2 (1.62)	81.2 (1.68)

—Not available.

†Not applicable.

!Interpret data with caution. The coefficient of variation (CV) for this estimate is between 30 and 50 percent.

‡Reporting standards not met. Either there are too few cases for a reliable estimate or the coefficient of variation (CV) is 50 percent or greater.

¹Includes college and university degree programs, post-degree certificate programs, and vocational certificate programs.

²For 2005, figures include "Production workers" occupations data.

NOTE: Adult education is defined as all education activities, except full-time enrollment in higher education credential programs. Data do not include persons enrolled in high school or below. Race categories exclude persons of Hispanic ethnicity. SOURCE: U.S. Department of Education, National Center for Education Statistics, Adult Education Survey (AE-NHES:1991, AE-NHES:1995, AE-NHES:1999, and AE-NHES:2005) and Adult Education and Lifelong Learning Survey (AELL-NHES:2001) of the National Household Education Surveys Program. (This table was prepared November 2010.)