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#### Annex



## TYPICAL GRADUATION AGES

The typical graduation age is the age at the end of the last school/academic year of the corresponding level and programme when the degree is obtained. The typical age is based on the assumption of full-time attendance in the regular education system without grade repetition. (Note that at some levels of education the term "graduation age" may not translate literally and is used here purely as a convention.)

Table X1.1a

Typical graduation ages in upper secondary education

	Programme orientation		Educational/labour market destination					
	General programmes	Pre-vocational or vocational programmes	ISCED 3A programmes	ISCED 3B programmes	ISCED 3C short programmes <sup>1</sup>	ISCED 3C long programmes		
Australia Belgium Czech Republic Denmark Finland	m	m	17	m	m	m		
Belgium	18	18	18	a	18	18		
Czech Republic	18	18	18	18	a	17		
Denmark	19-20	19-20	19-20	a	a	19-20		
Finland	19	19	19	a	a	a		
France	18-19	17-20	18-19	19-20	17-20	18-21		
Germany	19	19	19	19	a	a		
Greece	18	17-18	18	a	a	17-18		
Hungary	18-20	16-17	18-20	20-22	16-17	18		
Iceland	19	19	19	18	17	19		
Ireland	18	18	18	a	a	18		
Italy	19	19	19	19	17	a		
Japan	18	16-18	18	18	16	16		
Korea	17-18	17-18	17-18	a	a	17-18		
Luxembourg	19	17-19	17-19	19	n	17-19		
Mexico	18	19	18	a	19	19		
Netherlands	17-18	18-20	17-18	a	a	18-20		
New Zealand	m	m	18	17	17	17		
Norway	18-19	18-19	18-19	a	18-19	16-18		
Poland	19	20	19-20	a	18	a		
Slovak Republic	18	16-18	18	a	17	16		
Spain	17	15-17	17	a	15-17	17		
Sweden	19	19	19	a	a	19		
Switzerland	m	m	18-20	18-20	17-19	17-19		
Turkey	16	16	16	a	a	m		
United States	18	a	18	a	a	a		
Argentina	17	17	17	a	a	a		
Brazil	17	17	17	17	a	17		
Chile	18	18	18	18		_		
China	18	18	18		a 17-18	a 18		
Egypt <sup>2</sup>	17	17	17	a 17		17		
India	18	18	18		a m	m		
Indonesia	18	18-19	18	a 18				
Israel		18	18	18	a 18	a 18		
	18	17	17	17				
Jamaica	17				a	a		
Jordan <sup>2</sup>	18	18	18	a	18	18		
Malaysia <sup>3</sup>	17-19	17	19	a	a	17		
Paraguay <sup>2</sup>	17	17	17	a	a	17		
Peru	17	17	17	17	a	a		
Philippines <sup>2</sup>	16	a	16	a	a	a		
Russian Federation		17-18	17	a	m	m		
Thailand	17	17	17	17	a	a		
Tunisia <sup>2</sup>	19	19	19	19	a	19		
Philippines <sup>2</sup> Russian Federation Thailand Tunisia <sup>2</sup> Uruguay <sup>2</sup> Zimbabwe <sup>2</sup>	17	18	18	18	a	a		
Zimbabwe <sup>2</sup>	19	17	19	a	a	17		

 $<sup>1. \,</sup> Duration \, categories \, for \, ISCED \, 3C \, - \, Short; \, at \, least \, one \, year \, shorter \, than \, ISCED \, 3A/3B \, programmes; \, Long; \, of \, similar \, duration \, to \, ISCED \, 3A \, or \, 3B \, programmes.$ 

Source: OECD.

OECD estimate.
 OECD estimate for general and pre-vocational/vocational programmes.

 $\label{thm:thm:condition} \mbox{Table X1.1b} \\ \mbox{Typical graduation ages in post-secondary non-tertiary education}$ 

		Educational/labour market destination	
	ISCED 4A programmes	ISCED 4B programmes	ISCED 4C programmes
🙎 Belgium	19	a	19-21
Belgium Canada Czech Republ Denmark Finland	a	a	20
Zech Republ	20	a	20
Denmark	21-22	a	21-22
Finland	a	a	25-29
France	18-21	a	19-21
Germany	22	22	a
Greece	a	a	19-20
Hungary	20-22	a	19-22
Iceland	a	a	21
Ireland	a	a	19
Italy	a	a	20
Korea	a	a	a
Luxembourg	a	a	20-25
Mexico	a	a	a
Netherlands	a	a	18-20
New Zealand	18	18	18
Norway	20-25	a	20-25
Poland	a	21	a
Slovak Republ	c 20-21	a	a
Spain	18	18	a
Sweden	m	m	19-20
Switzerland	19-21	21-23	a
Turkey	a	a	a
United States	a	a	20
Argentina	a	a	a
Brazil	a	a	a
China	a	20	20
Indonesia	a	a	a
Jordan <sup>1</sup>	a	a	a
Malaysia¹	20	18	19
Paraguay	a	a	a
Peru	a	a	m
Philippines <sup>1</sup>	19	19	17
Russian Feder	tion a	a	18
Malaysia¹ Paraguay Peru Philippines¹ Russian Feder Thailand¹ Tunisia	a	a	19
Z Tunisia	a	21	a

1. OECD estimate. Source: OECD.

Table X1.1c

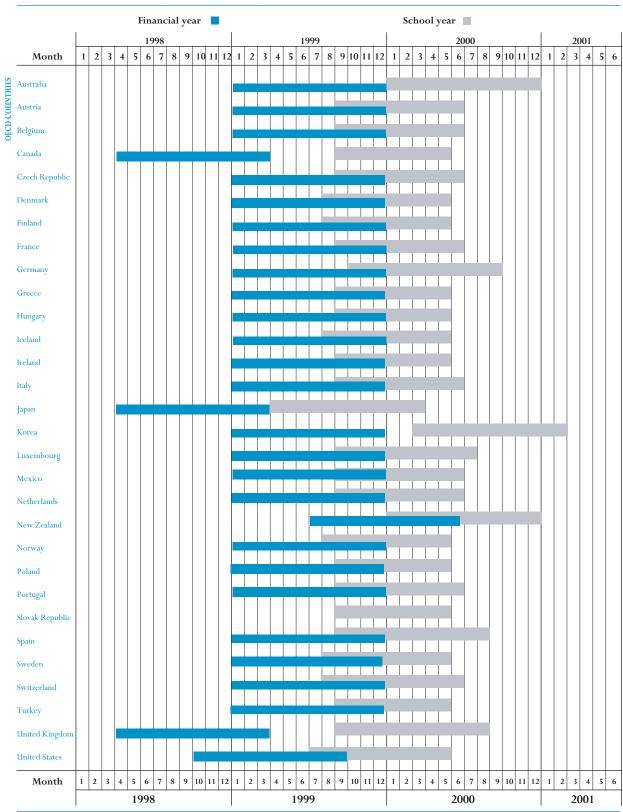
Typical graduation ages in tertiary education

		Tertiary-type A (ISCED 5A)			Advanced research
	Tertiary-type B (ISCED 5B)	3 to less than 5 years	5 years	6 years or more	programmes (ISCED 6
Australia Austria Belgium Canada Czech Republic	m	20	22-23	a	25-29
Austria	m	22	23	a	25
Belgium	m	m	m	m	25-29
Canada	m	22	26	26	29
Czech Republic	22	22	24	a	27
Denmark	21-25	22-24	25-26	27	30
Finland	21-22	25-29	25-29	30-34	29
France	20-21	21-22	23-24	25	25-26
Germany	21	25	26	a	28
Hungary	m	m	m	m	30
Iceland	22-24	23	25	27	29
Ireland	20	22	23	24	27
Italy	22-23	22	23-25	25-27	27-29
Japan	20	22	22	23	27
Korea	m	m	m	m	26
Netherlands	m	m	m	m	25
New Zealand	m	m	m	m	28
Norway	m	m	m	m	29
Poland	m	24	25	26	m
Portugal	m	m	m	m	27-29
Slovak Republic	20-21	m	m	m	27
Spain	19	m	m	m	25-27
Sweden	22-23	23-25	25-26	a	27-29
Switzerland	m	23-26	23-26	28	29
Turkey	m	m	m	m	28-29
United Kingdom	m	21	23	24	24
United States	20	21	23	25	28

Source: OECD.

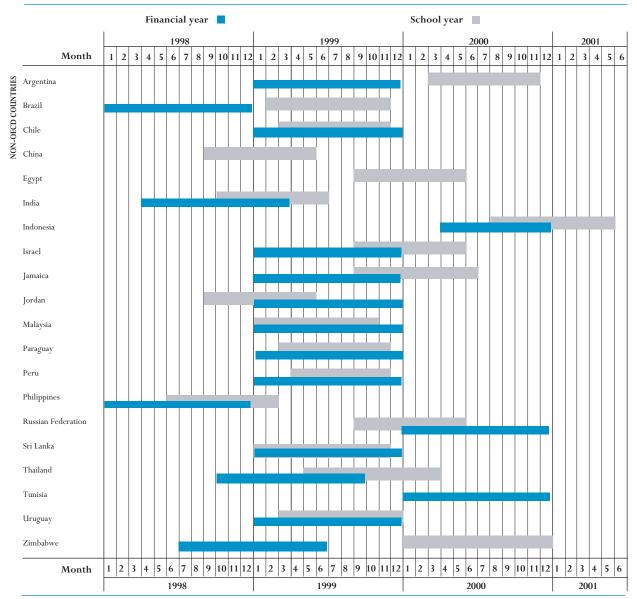
Annex 1

 $\label{eq:Table X1.2a} Table~X1.2a~$  School years and financial years as used for the calculation of the indicators



Source : OECD.

 $\label{eq:Table X1.2b} Table~X1.2b~$  School years and financial years as used for the calculation of the indicators



Source : OECD.

## Annex



# BASIC REFERENCE STATISTICS

Table X2.1.

Overview of the economic context using basic variables (reference period: calendar year 1999, 1999 current prices)

		Total public expenditure as a percentage of GDP	GDP per capita (in equiva- lent US dollars converted using PPPs)	GDP deflator (1995 =100)	Labour force participation rate <sup>1</sup>	Unemployment rate <sup>1</sup>
IES	Australia	34.4	25 559	105.28	73.9	7.0
DECD COUNTRIES	Austria	51.1	25 704	103.50	72.2	4.7
mo	Belgium	50.1	24 669	105.45	65.0	8.6
DC	Canada	m	26 462	103.68	76.9	7.6
OEC	Czech Republic	45.2	13 553	134.16	73.1	8.7
	Denmark	54.6	27 679	108.60	81.1	5.1
	Finland	49.5	23 429	104.72	74.0	10.2
	France <sup>2</sup>	52.2	23 155	104.00	68.1	11.8
	Germany	47.8	24 627	103.30	71.8	8.7
	Greece	52.1	15 799	124.29	64.1	10.8
	Hungary	36.3	11 505	175.32	60.2	7.0
	Iceland	40.9	27 695	114.74	89.8	2.0
	Ireland	32.6	26 006	117.51	67.6	5.8
	Italy	48.0	23 952	112.59	60.6	11.3
	Japan	38.2	24 933	98.06	78.1	4.7
	Korea	23.8	13 647	110.29	66.9	6.3
	Luxembourg	42.6	43 069	110.18	63.3	2.4
	Mexico	19.6	8 357	203.94	65.3	2.0
	Netherlands	45.8	26 440	106.78	74.1	3.6
	New Zealand	m	19 423	103.56	76.4	6.8
	Norway	47.4	29 013	113.41	82.0	3.2
	Poland	44.0	8 991	161.57	67.6	12.5
	Portugal	43.7	17 063	114.81	74.4	4.4
	Slovak Republic	31.3	11 152	124.80	m	m
	Spain	39.7	19 044	111.57	64.4	15.8
	Sweden	57.1	23 476	104.76	79.5	7.1
	Switzerland	36.1	28 778	100.75	84.9	3.1
	Turkey	m	5 966	882.32	59.2	7.3
	United Kingdom	38.8	23 303	112.24	77.6	6.0
	United States	m	33 725	106.73	79.5	4.2

<sup>1.</sup> Austria, Greece and the Netherlands: Reference period calendar year 1998.

<sup>2.</sup> Excluding Over Sea Departments (DOM).

Table X2.2. Basic reference statistics (reference period: calendar year 1999, 1999 current prices)

	Gross Domestic Product reported for the calendar year (in millions of local currency) <sup>1</sup>	Gross Domestic Product (adjusted to the national financial year) <sup>2</sup>	Total public expenditure (in millions of local currency)	Total population in thou- sands (mid-year estimates)	Purchasing Power Parity (PPP)
Australia <sup>1</sup>	629 212	629 212	216 602	18 937	1.30
Austria	2 706 068	2 706 068	1 381 502	8 092	13.01
Belgium	9 501 583	9 501 583	4 761 994	10 222	37.68
Canada	960 206	915 981	m	30 493	1.19
Czech Republic	1 887 325	1 887 325	852 242	10 285	13.54
Denmark	1 213 595	1 213 595	663 051	5 321	8.24
Finland	716 370	716 370	354 936	5 165	5.92
France <sup>3</sup>	8 730 475	8 730 475	4 554 093	59 099	6.38
Germany	3 861 200	3 861 200	1 847 510	82 087	1.91
Greece	38 389 050	38 389 050	20 011 550	10 534	230.68
Hungary	11 393 499	11 393 499	4 140 835	10 067	98.37
Iceland	623 419	623 419	255 283	277	81.21
Ireland	70 116	70 116	22 832	3 745	0.72
Italy	2 146 350 000	2 146 350 000	1 031 140 000	57 646	1 554.48
Japan	511 837 100	514 835 375	195 575 600	126 686	162.04
Korea	482 744 175	482 744 175	114 685 126	46 858	754.89
Luxembourg	744 232	744 232	316 780	436	39.66
Mexico	4 583 762	4 583 762	898 886	97 428	5.63
Netherlands	823 446	823 446	377 144	15 809	1.97
New Zealand <sup>1</sup>	105 852	105 852	m	3 811	1.43
Norway	1 197 457	1 197 457	567 018	4 462	9.25
Poland	615 115	615 115	270 619	38 654	1.77
Portugal	21 694 862	21 694 862	9 475 440	9 990	127.27
Slovak Republic	815 330	815 330	255 396	5 396	13.55
Spain	94 088 400	94 088 400	37 335 000	39 626	124.68
Sweden	2 004 651	2 004 651	1 144 257	8 858	9.64
Switzerland	388 569	388 569	140 395	7 144	1.89
Turkey	77 415 272 000	77 415 272 000	m	65 819	197 156.62
United Kingdom	901 269	870 171	349 235	59 501	0.65
United States	9 206 900	9 085 225	m	272 996	1.00

 $<sup>1.\,</sup>Australia$  and New Zealand: GDP calculated for the financial year.

<sup>2.</sup> For countries where GDP is not reported for the same reference period as data on educational finance, GDP is estimated as: (wt-1)\*(GDPt - 1) + (wt)\* (GDPt), where wt and wt-1 are the weights for the respective portions of the two reference periods for GDP which fall within the educational financial year. Adjustments were made in Chapter B for Canada, Japan, the United Kingdom and the United States.

3. Excluding Over Sea Departments (DOM).

Table X2.3.

Basic reference statistics (reference period: calendar year 1995, 1995 current prices)

	Gross Domestic Product reported for the calendar year (in millions of local currency) <sup>1</sup>	Gross Domestic Product (adjusted to the national financial year) <sup>2</sup>	Gross Domestic Product (1999 constant prices, base year=1995) <sup>1</sup>	Total public expen- diture (in millions of local currency)	Total population in thousand (mid-year estimates)	Purchasing Power Parity (PPP)
Australia¹ Austria Belgium Canada Czech Republic	502 828	502 828	597 681	188 394	18 072	1.29
Austria	2 370 726	2 370 726	2 614 606	1 294 685	8 047	13.73
Belgium	8 161 733	8 161 733	9 010 388	4 330 957	10 137	36.74
Canada	800 334	755 180	926 160	386 082	29 354	1.18
Czech Republic	1 381 049	1 381 049	1 406 725	783 678	10 327	10.81
Denmark	1 009 756	1 009 756	1 117 464	596 033	5 222	8.42
Finland	564 566	564 566	684 100	321 141	5 108	5.86
France <sup>3</sup>	7 662 391	7 662 391	8 401 029	4 104 369	58 020	6.46
Germany	3 523 000	3 523 000	3 737 800	1 928 460	81 661	2.02
Greece	27 235 205	27 235 205	30 885 829	14 895 505	10 454	203.08
Hungary	5 614 042	5 614 042	6 498 680	2 327 299	10 229	60.55
Iceland	451 372	451 372	543 328	186 846	267	75.87
Ireland	41 502	41 502	59 670	16 111	3 601	0.63
Italy	1 787 278 000	1 787 278 000	1 906 388 000	936 613 000	57 301	1 550.31
Japan	497 739 400	483 738 700	521 986 724	180 014 200	125 570	169.94
Korea	377 349 800	377 349 800	437 709 420	74 550 100	45 093	730.50
Luxembourg	533 300	533 300	675 464	245 719	413	38.87
Mexico	1 837 019	1 837 019	2 247 589	380 924	90 903	2.96
Netherlands	666 035	666 035	771 195	368 872	15 460	2.03
New Zealand <sup>1</sup>	92 679	92 679	102 215	36 441	3 656	1.47
Norway	928 745	928 745	1 055 851	457 033	4 358	9.14
Poland	308 104	308 104	380 701	147 561	38 588	1.14
Portugal	16 201 007	16 201 007	18 896 766	6 970 107	9 917	119.07
Slovak Republic	546 032	546 032	653 309	m	5 364	11.90
Spain	72 841 700	72 841 700	84 332 000	32 046 100	39 223	122.08
Sweden	1 713 316	1 713 316	1 913 547	1 098 782	8 827	9.73
Switzerland	363 329	363 329	385 666	133 827	7 041	2.01
Turkey	7 762 456 000	7 762 456 000	8 774 067 634	m	61 646	22 334.21
United Kingdom	719 176	678 972	803 019	317 104	58 612	0.65
United States	7 338 400	7 166 250	8 626 700	m	263 073	1.00

<sup>1.</sup> Australia and New Zealand: GDP calculated for the financial year.

<sup>2.</sup> For countries where GDP is not reported for the same reference period as data on educational finance, GDP is estimated as: (wt-1)\*(GDPt - 1) +(wt)\* (GDPt), where wt and wt-1 are the weights for the respective portions of the two reference periods for GDP which fall within the educational financial year. Adjustments were made in Chapter B for Canada, Japan, the United Kingdom and the United States.

<sup>3.</sup> Excluding Over Sea Departments (DOM).

Table X2.4. Reference statistics used in the calculation of teachers' salaries

	Purchasing Power Parity (PPP) (1999/2000) <sup>1</sup>	Purchasing Power Parity (PPP) (2000) <sup>2</sup>	Gross Domestic Product (in millions of local currency, calendar year 2000)	Total population in thousands (calen- dar year 2000)	GDP per capita (in equivalent US dollars converted using PPPs, calen- dar year 2000)	Reference year for salary data	Adjustments for inflation
Australia	1.30	1.31	672 796	19 157	26 800	2000	0.978
Australia Austria Belgium (Fl.) Belgium (Fr.) Czech Republic	13.53	13.48	2 818 695	8 110	25 788	1998/1999	1.012
Belgium (Fl.)	36.92	36.77	10 017 934	10 254	26 570	1999/2000	1.000
Belgium (Fr.)	36.92	36.77	10 017 934	10 254	26 570	1999/2000	1.000
Czech Republic	13.44	13.38	1 959 479	10 272	14 262	1999/2000	1.000
Denmark	8.60	8.66	1 315 526	5 338	28 448	April 1 2000	0.991
England	0.65	0.65	934 924	59 766	23 966		1.000
Finland	6.17	6.20	782 876	5 176	24 414	2000	0.984
France	6.59	6.55	9 214 720	60 431	23 276	1999/2000	1.000
Germany	1.96	1.93	3 961 600	82 168	24 931	1999/2000	1.000
Greece	240.21	241.44	41 406 732	10 558	16 244	1999	1.017
Hungary	103.61	106.48	13 075 210	10 024	12 251	1999/2000	1.000
Iceland	86.09	86.74	673 660	281	27 608	1999	1.015
Ireland	0.73	0.74	81 489	3 787	28 895	1999/2000	1.000
Italy	1 601.18	1 602.74	2 257 066 000	57 728	24 395	1999/2000	1.000
Japan³	155.19	152.27	511 835 900	126 919	26 484	1999	1.000
Korea <sup>3</sup>	631.57	620.22	517 096 590	47 275	17 636	2000	1.000
Mexico	5.85	6.09	5 426 786	97 221	9 164		1.000
Netherlands	2.00	2.01	883 884	15 920	27 662	1999/2000	1.000
New Zealand	1.47	1.47	111 776	3 831	19 808	1999/2000	1.000
Norway	10.16	10.82	1 423 864	4 491	29 311	1999	1.078
Portugal	129.45	130.15	22 860 162	10 005	17 556	1999/2000	1.000
Scotland	0.65	0.65	934 924	59 766	23 966	1999/2000	1.000
Spain	131.27	132.17	101 293 600	39 927	19 194	1999	1.017
Sweden	9.72	9.66	2 082 748	8 871	24 308	1999/2000	1.000
Switzerland	1.89	1.88	404 392	7 185	29 892	1998/1999	1.011
Turkey	229 780.57	273 987.20	124 982 454 000	66 835	6 825	1999	1.227
United States	1.00	1.00	9 839 200	275 423	35 724	1999/2000	1.000

Used in the calculation of teachers' salaries at starting, mid and top levels.
 Used in the calculation of teachers' salaries relative to GDP per capita.
 No adjustment for inflation.

#### **General notes**

#### **Definitions**

Gross Domestic Product (GDP) refers to the producers' value of the gross outputs of resident producers, including distributive trades and transport, less the value of purchasers' intermediate consumption plus import duties. GDP is expressed in local money (in millions). For countries which provide this information for a reference year that is different from the calendar year (such as Australia and New Zealand), adjustments are made by linearly weighting their GDP between two adjacent national reference years to match the calendar year.

The GDP deflator is obtained by dividing the GDP expressed at current prices by the GDP expressed at constant prices. This provides an indication of the relative price level in a country. Data are based on the year 1995.

GDP per capita is the Gross Domestic Product (in equivalent US dollars converted using PPPs) divided by the population.

Purchasing Power Parity exchange rates (PPP) are the currency exchange rates that equalise the purchasing power of different currencies. This means that a given sum of money when converted into different currencies at the PPP rates will buy the same basket of goods and services in all countries. In other words, PPPs are the rates of currency conversion which eliminate the differences in price levels among countries. Thus, when expenditure on GDP for different countries is converted into a common currency by means of PPPs, it is, in effect, expressed at the same set of international prices so that comparisons between countries reflect only differences in the volume of goods and services purchased.

**Total public expenditure** as used for the calculation of the education indicators, corresponds to the non-repayable current and capital expenditure of all levels of government. Current expenditure includes final consumption expenditure (e.g., compensation of employees, consumption intermediate goods and services, consumption of fixed capital, and military expenditure), property income paid, subsidies, and other current transfers paid (e.g., social security, social assistance, pensions and other welfare benefits). Capital expenditure is spending to acquire and/or improve fixed capital assets, land, intangible assets, government stocks, and non-military, non-financial assets, and spending to finance net capital transfers.

The unemployment rate is calculated as the percentage of unemployed people in the labour force, where unemployment is defined according to the guidelines of the International Labour Office (ILO). The labour force participation rate for a particular age group relates to the percentage of individuals in the population of that age group who are either employed or unemployed, where these terms are defined according to the ILO guidelines. Rates for age groups are defined correspondingly.

#### Sources

The 2002 edition of the National Accounts of OECD countries: Main Aggregates, Volume I

The theoretical framework underpinning national accounts has been provided for many years by the United Nations' publication A System of National Accounts, which was released in 1968. An updated version was released in 1993 (commonly referred to as SNA93).

OECD Analytical Data Base, January 2002



### Annex



## SOURCES, METHODS AND TECHNICAL NOTES

Annex 3 on sources and methods is available in electronic form only. It can be found at www.oecd.org/els/education/eag2002.

## **GLOSSARY**

**Additional bonuses to base salary:** Additional bonuses to base salary refer to additional payments that teachers may acquire in addition to the amount received on the basis of educational qualification and experience (salary scale). These bonuses may be awarded for teaching in remote areas, for participating in school improvement projects or special activities or for excellence in teaching performance. See also *Teacher's salaries*.

Advanced Research Qualifications (ISCED 6): Advanced Research Qualifications refer to tertiary programmes that lead directly to the award of an advanced research qualification, e.g., Ph.D. The theoretical duration of these programmes is three years full-time in most countries (for a cumulative total of at least seven years full-time at the tertiary level), although the actual enrolment time is typically longer. The programmes are devoted to advanced study and original research. See also International Standard Classification of Education (ISCED).

Age: See Theoretical age, Typical age, Typical ending age, Typical graduation age and Typical starting age.

Ancillary services: See Expenditure on ancillary services.

Capital expenditure: Capital expenditure represents the value of educational capital acquired or created during the year in question - that is, the amount of capital formation - regardless of whether the capital outlay was financed from current revenue or by borrowing. Capital expenditure includes outlays on construction, renovation, and major repair of buildings and expenditure for new or replacement equipment. Although capital investment requires a large initial expenditure, the plant and facilities have a lifetime that extends over many years.

Class size: Class size is the average number of students per class, which is calculated by dividing the number of students enrolled by the number of classes. In order to ensure comparability between countries, special needs programmes have been excluded. Data include only regular programmes at these two levels of education and also exclude teaching in sub-groups outside the regular classroom setting. See also *Class*.

Combined school and work-based programmes: In combined school and work-based programmes, instruction is shared between school and the workplace, although instruction may take place primarily in the workplace. Programmes are classified as combined school and work-based if less than 75 per cent of the curriculum is presented in the school environment or through distance education. Programmes that are more than 90 per cent work-based are excluded. See also *General programmes*, *Programme orientation*, *School-based programmes* and *Vocational education*.

Comprehensive private internal rate of return: See Private internal rate of return.

**Compulsory core curriculum:** Compulsory core curriculum is the minimum required time devoted to core subjects and study areas within the compulsory curriculum. See also *Compulsory curriculum*, *Compulsory flexible curriculum*, *Intended instruction time* and *Non-compulsory curriculum*.

**Compulsory curriculum:** Compulsory curriculum refers to the amount and allocation of instruction time that has to be provided in every school and must be attended by all students. See also *Compulsory core curriculum*, *Compulsory flexible curriculum*, *Intended instruction time* and *Non-compulsory curriculum*.

**Compulsory education:** The legal age from which children are no longer compelled to attend school (*e.g.*, 15th birthday). The ending age of compulsory schooling is thus different from the ending age of an educational programme.

**Compulsory flexible curriculum:** Compulsory flexible curriculum refers to the part of the compulsory curriculum in which there is flexibility or choice for schools or students. For example, a school may choose to offer more classes than the minimum in science and only the minimum required number of classes in art within the compulsory time frame. See also *Compulsory core curriculum, Compulsory curriculum, Intended instruction time* and *Non-compulsory curriculum.* 

**Continuing education and training:** For the purpose of these indicators, continuing education and training for adults is defined as all kinds of general and job-related education and training that is organised, financed or sponsored by authorities, provided by employers or self-financed.

**Core services:** See Expenditure on educational core services.

**Country of birth:** See *Native students*, *First-generation students* and *Non-native students*.

**Current expenditure:** Current expenditure is expenditure on goods and services consumed within the current year, which needs to be made recurrently to sustain the production of educational services. Minor expenditure on items of equipment, below a certain cost threshold, is also reported as current spending. Current expenditure includes final consumption expenditure, property income paid, subsidies and other current transfers (e.g., social security, social assistance, pensions and other welfare benefits). See also Final consumption expenditure, Property income paid, and Other current transfers.

**Direct expenditure on educational institutions:** Direct expenditure on educational institutions are purchases by a government agency of educational resources to be used by educational institutions (e.g., direct payments of teachers' salaries by a central or regional education ministry, direct payments by a municipality to building contractors for the construction of school buildings, and procurement of textbooks by a central or regional authority for subsequent distribution to local authorities or schools) and payments by a government agency to educational institutions that have the responsibility for purchasing educational resources themselves (e.g., a government appropriation or block grant to a university, which the university then uses to pay staff salaries and to buy other resources; government allocations of funds to fiscally autonomous public schools; government subsidies to private schools; and government payments under contract to private companies conducting educational research). Direct expenditure by a government agency does not include tuition payments received from students (or their families) enrolled in public schools under that agency's jurisdiction, even if the tuition payments flow, in the first instance, to the government agency rather than to the institution in question. See also *Instructional educational institutions* and *Non-instructional educational institutions*.

**Dropouts:** Dropouts are defined as those students who leave the specified level in the educational system without obtaining a first qualification. See also *Survival rates*.

**Duration of programme:** Programme duration refers to the standard number of years in which a student can complete the education programme.

Earnings: Earnings are annual money earnings as direct payment for labour services provided, before taxes. Income from other sources, such as government social transfers, investment income, net increase in the value of an owner operated business and any other income not directly related to work are not to be included. See also *Relative earnings*.

**Educational attainment:** Educational attainment is expressed by the highest completed level of education, defined according to the International Standard Classification of Education (ISCED).

**Educational institution:** An educational institution is an entity that provides instructional services to individuals or education-related services to individuals and other educational institutions. See *Private institution* and *Public institution*.

**Educational personnel:** The classification is based on function and organises staff into four main functional categories. The classification is: i) Instructional personnel; ii) Professional support for students; iii) Management/Quality control/Administration; and iv) Maintenance and operations personnel. Teaching staff (teachers) and teachers' aides make up the category instructional personnel. For the purposes of Indicator D2, only teaching staff is taken into account. See also Full-time teacher, Full-time equivalent teacher, Instructional personnel, Maintenance and operations personnel, Management/Quality control/Administration, Part-time teacher, Professional support for students, Ratio of students to teaching staff, Teaching staff and Teaching time.

**Employed:** The employed, which is defined according to the guidelines of the International Labour Office (ILO), are those who during the survey reference week: work for pay (employees) or profit (self-employed and unpaid family workers) for at least one hour or; have a job but are temporarily not at work (through injury, illness, holiday or vacation, strike or lock-out, educational or training leave, maternity or parental leave, etc.) and have a formal attachment to their job. See also *Labour force*, *Participation rate*, *Unemployed*, *Unemployment rate* and *Work status*.

**Enrolment rate:** Enrolment rates are expressed as net enrolment rates, which are calculated by dividing the number of students of a particular age group enrolled in all levels of education by the number of people in the population in that age group.

**Entry rates:** Entry rates are expressed as net entry rates, which represent the proportion of people of a synthetic age-cohort who enter the tertiary level of education, irrespective of changes in the population sizes and of differences between OECD countries in the typical entry age. The net entry rate of a specific age is obtained by dividing the number of first-time entrants to each type of tertiary education of that age by the total population in the corresponding age group (multiplied by 100). The sum of net entry rates is calculated by adding the net entry rates for each single year of age. See also *New entrants*.

**Expected years of schooling:** See School expectancy.

**Expenditure on Research and Development (R&D):** Expenditure on Research and Development (R&D) refers to all expenditure on research performed at universities and at other institutions of tertiary education, regardless of whether the research is funded from general institutional funds or through separate grants or contracts from public or private sponsors. This includes all research institutes and experimental stations operating under the direct control of, or administered by, or associated with, higher education institutions. See also Expenditure on ancillary services and Expenditure on educational core services.

Expenditure on ancillary services: Ancillary services are services provided by educational institutions that are peripheral to the main educational mission. The two main components of ancillary services are student welfare services and services for the general public. At ISCED levels 0-3, student welfare services include such things as meals, school health services, and transportation to and from school. At the tertiary level, they include halls of residence (dormitories), dining halls, and health care. Services for the general public include such things as museums, radio and television broadcasting, sports, and recreational or cultural programmes. Day or evening childcare provided by pre-primary and primary institutions is not included as an ancillary service. Entities providing ancillary services cover separate organisations that provide such education-related services as vocational and psychological counselling, placement, transportation of students, and student meals and housing. See also Expenditure on educational core services and Expenditure on Research and Development (R&D).

**Expenditure on educational core services:** Expenditure on educational core services includes all expenditure that is directly related to instruction and education. This should cover all expenditure on teachers, school buildings, teaching materials, books, tuition outside schools, and administration of schools. See also *Expenditure on ancillary services* and *Expenditure on Research and Development (R&D)*.

**Expenditure on educational institutions:** Expenditure on educational institutions includes expenditure on instructional educational institutions as well as expenditure on non-instructional educational institutions. See also *Direct expenditure on educational institutions*, *Instructional educational institutions*, *Instructional educational institutions*.

**Expenditure on non-instruction:** Expenditure on non-instruction is all expenditure broadly related to student living costs.

**Expenditure outside educational institutions:** Expenditure outside educational institutions is expenditure on educational services purchased outside institutions, *e.g.*, books, computers, external tuition, etc. It also deals with student living costs and costs of student transport not provided by institutions.

**Expenditure over the average duration of tertiary studies:** Expected expenditure over the average duration of tertiary studies is calculated by multiplying current annual expenditure by the typical duration of tertiary studies.

**Field of study:** Field of study is defined in International Standard Classification of Education (ISCED) as the subject matter taught in an education programme. For details and implementation, see the *Fields of Education and Training - Manual* (EUROSTAT, 1999).

**Final consumption expenditure:** Final consumption expenditure of government services is the value of goods and services produced for their own use on current account, *i.e.*, the value of their gross output less the value of their commodity and noncommodity sales and the value of their own-account capital formation which is not segregated as an industry. The value of their gross output is equal to the sum of the value of their intermediate consumption of goods and services (including indirect taxes paid), compensation of employees, and consumption of fixed capital (*i.e.*, its depreciation due to normal wear and tear and to foreseen obsolescence). See also *Current expenditure*, *Property income paid* and *Other current transfers*.

**Financial aid to students:** Financial aid to students comprises: *i*) Government scholarships and other government grants to students or households. These include, in addition to scholarships and similar grants (fellowships, awards, bursaries, etc.), the following items: the value of special subsidies provided to students, either in cash or in kind, such as free or reduced-price travel on public transport systems; and family allowances or child allowances that are contingent on student status. Any benefits provided to students or households in the form of tax reductions, tax subsidies, or other special tax provisions are not included; *ii*) Student loans, which are reported on a gross basis, that is, without subtracting or netting out repayments or interest payments from the borrowers (students or households).

**First-generation students:** "First-generation" are those students who reported in PISA that they were born in the country of assessment but whose parents were born in another country. See *Native students* and *Non-native students*.

Foreign students: Foreign students are students who do not hold the citizenship of the country for which the data are collected. While pragmatic and operational, this classification may give rise to inconsistencies resulting from national policies regarding naturalisation of immigrants, combined with the inability of several countries to report separately foreign students net of those holding permanent residence permits. As a result, countries where naturalisation of immigrants is stringent and identification of non-resident foreign students impossible over-estimate the size of the foreign student body, compared to countries granting citizenship to their immigrants more easily.

Full-time equivalent student: A full-time equivalent (FTE) measure attempts to standardise a student's actual course load against the normal course load. Calculating the full-time/part-time status requires information on the time periods for actual and normal course loads. For the reduction of head-count data to FTEs, where data and norms on individual participation are available, course load is measured as the product of the fraction of the normal course load for a full-time student and the fraction of the school/academic year. [FTE = (actual course load/normal course load) \* (actual duration of study during reference period/normal duration of study during reference period).] When actual course load information is not available, a full-time student is considered equal to one FTE. See also Full-time student, Mode of study, Part-time student, Student and Study load.

**Full-time equivalent teacher:** A full-time equivalent (FTE) attempts to standardise a full-time teacher's teaching load against that of a part-time teacher. The basis for the calculation are the "statutory working hours" and not the "total or actual working hours" or "total or actual teaching hours". The full-time equivalence of part-time educational personnel is then determined by calculating the ratio of hours worked by part-time personnel over the statutory hours worked by a full-time employee during the school year. See also *Educational personnel*, *Full-time teacher*, *Instructional personnel*, *Part-time teacher*, *Ratio of students to teaching staff*, *Teaching staff*, *Working time* and *Teaching time*.

**Full-time student:** Students enrolled in primary and secondary level educational programmes are considered to participate full-time if they attend school for at least 75 per cent of the school day or week (as locally defined) and would normally be expected to be in the programme for the entire academic year. This includes the work-based component in combined school and work-based programmes. At the tertiary level, an individual is considered full-time if he or she is taking a course load or educational programme considered requiring at least 75 per cent of a full-time commitment of time and resources. Additionally, it is expected that the student will remain in the programme for the entire year. See also *Full-time equivalent student*, *Mode of study*, *Part-time student*, *Student* and *Study load*.

**Full-time teacher:** A teacher employed for at least 90 per cent of the normal or statutory number of hours of work for a full-time teacher over a complete school year is classified as a full-time teacher. See also *Educational personnel*, *Full-time equivalent teacher*, *Instructional personnel*, *Part-time teacher*, *Ratio of students to teaching staff* and *Teaching staff* and *Working time*.

**General programmes:** General programmes are programmes that are not designed explicitly to prepare participants for a specific class of occupations or trades or for entry into further vocational or technical education programmes. Less than 25 per cent of the programme content is classified as vocational or technical. See also *Pre-vocational programmes*, *Programme orientation*, *Upper secondary education (ISCED 3)* and *Vocational programmes*.

Government-dependent private institution: A government-dependent private institution is an institution that receives more than 50 per cent of its core funding from government agencies. The term "government dependent" refers only to the degree of a private institution's dependence on funding from government sources; it does not refer to the degree of government direction or regulation. See also Educational institution, Government-dependent private institution, Private institution and Public institution.

**Graduates:** Graduates are those students who enrolled and successfully completed the final year of a level of education (e.g., upper secondary education) during the reference year, regardless of their age. However, there are exceptions (especially in tertiary education) where graduation can also be recognised by the awarding of a certificate without the requirement that the participants are enrolled. See also *Graduation/Successful completion*, Gross graduation rates, Net graduation rates and Unduplicated total count of graduates.

**Graduation/Successful completion:** Successful completion is defined by each country. In some countries, completion is defined in terms of passing an examination or a series of examinations. In other countries, completion occurs after a requisite number of course hours have been accumulated (although completion of some or all of the course hours may also involve examinations). See also *Graduates*, *Gross graduation rates*, *Net graduation rates* and *Unduplicated total count of graduates*.

**Graduation rate:** See *Gross graduation rates* and *Net graduation rates*.

**Gross Domestic Product (GDP):** Gross Domestic Product (GDP) refers to the producers' value of the gross outputs of resident producers, including distributive trades and transport, less the value of purchasers' intermediate consumption plus import duties. GDP is expressed in local money (in millions). For countries which provide this information for a reference year that is different to the calendar year (*e.g.*, Australia and New Zealand), adjustments are made by linearly weighting GDP between two adjacent national reference years to match the calendar year. Data for GDP are provided in Annex 2.

**Gross graduation rates:** Gross graduation rates refer to the total number of graduates (the graduates themselves may be of any age) at the specified level of education divided by the population at the typical graduation age from the specified level. In many countries, defining a typical age of graduation is difficult, however, because graduates are dispersed over a wide range of ages. See also *Graduates*, *Graduation/Successful completion*, *Net graduation rates* and *Unduplicated total count of graduates*.

**Head count:** This refers to the method of data collection: the number of individuals are counted, regardless of the intensity of participation/length of their programme. See also *Full-time student*, *Part-time student*, *Full-time teacher* and *Part-time teacher*.

Human capital: Human capital is productive wealth embodied in labour, skills and knowledge.

**IEA Civic Education Study:** The International Association for the Evaluation (IEA) Civic Education Study tested 14-year-olds in 28 countries, including 17 OECD countries, on their knowledge of civic-related content, their skills in understanding political communication, their concepts and attitudes towards civics, and their participation or practice in this area. The test was designed to identify and examine the ways in which young people are prepared to undertake their role as citizens in democracies, both inside and outside the school.

**Independent private institution:** An independent private institution is an institution that receives less than 50 per cent of its core funding from government agencies. The term "independent" refers only to the degree of a private institution's dependence on funding from government sources; it does not refer to the degree of government direction or regulation. See also *Educational institution*, *Government-dependent private institution*, *Private institution* and *Public institution*.

**Instruction time:** See *Intended instruction time*.

**Instructional educational institutions:** Instructional educational institutions are educational institutions that directly provide instructional programmes (*i.e.*, teaching) to individuals in an organised group setting or through distance education. Business enterprises or other institutions providing short-term courses of training or instruction to individuals on a "one-to-one" basis are not included. See also *Expenditure on educational institutions* and *Non-instructional educational institutions*.

**Instructional personnel:** Instructional Personnel comprises two sub-categories: Classroom teachers at ISCED 0-4 and academic staff at ISCED 5-6; and teacher aides at ISCED 0-4 and teaching / research assistants at ISCED 5-6. See also *Educational personnel*, *Maintenance* and *operations personnel*, *Management/Quality control/Administration*, *Professional support for students*, *Ratio of students to teaching staff*, *Teaching staff* and *Teaching time*.

**Intended instruction time:** Intended instruction time refers to the number of hours per year for which students receive instruction in both the compulsory and non-compulsory parts of the curriculum. For countries that have no formal policy on instruction time, the number of hours was estimated from survey data. Hours lost when schools are closed for festivities and celebrations, such as national holidays, are excluded. Intended instruction time does not include non-compulsory time outside the school day. It does not include homework, individual tutoring or private study taken before or after school. See also Compulsory core curriculum, Compulsory curriculum, Compulsory flexible curriculum and Non-compulsory curriculum.

**Intergovernmental transfers:** Intergovernmental transfers are transfers of funds designated for education from one level of government to another. The restriction to funds earmarked for education is very important in order to avoid ambiguity about funding sources. General-purpose intergovernmental transfers are not included (e.g., revenue sharing grants, general fiscal equalisation grants, or distributions of shared taxes from a national government to provinces, states, or Länder), even where such transfers provide the funds that regional or local authorities draw on to finance education.

International Standard Classification of Education (ISCED): The International Standard Classification of Education (ISCED-97) is used to define the levels and fields of education used in this publication. For details on ISCED 1997 and how it is nationally implemented see Classifying Educational Programmes: Manual For ISCED-97 Implementation in OECD Countries (Paris, 1999). See also Pre-primary education (ISCED 0), Primary education (ISCED 1), Lower secondary education (ISCED 2), Upper secondary education (ISCED 3), Post-secondary non-tertiary level of education (ISCED 4), Tertiary-type A education (ISCED 5A), Tertiary-type B education (ISCED 5B) and Advanced Research Qualifications (ISCED 6).

International Standard Classification of Occupations (ISCO): The International Standard Classification of Occupations (1998) classifies persons according to their actual and potential relation with jobs. Jobs are classified with respect to the type of work performed or to be performed. The basic criteria used to define the system of major, sub-major, minor and unit groups is the "skill" level and "skill specialisation" required to carry out the tasks and duties of the occupations, with separate major groups for "Legislators, senior officials and managers" and for "Armed forces".

**Internet:** The Internet is an electronic communications network that connects computer networks and organisational computer facilities around the world. See also Local Area Network and World Wide Web.

**Job-related continuing education and training:** Job-related continuing education and training refers to all organised, systematic education and training activities in which people take part in order to obtain knowledge and/or learn new skills for a current or a future job, to increase earnings, to improve job and/or career opportunities in a current or another field and generally to improve their opportunities for advancement and promotion.

**Labour force:** The total labour force or currently active population, which is defined according to the guidelines of the International Labour Office (ILO), comprises all persons who fulfil the requirements for inclusion among the employed or the unemployed as defined in OECD Labour Force Statistics. See also *Work status*.

Language spoken at home: In PISA, students were asked if the language spoken at home most of the time is the language of assessment, another official national language, other national dialect or language, or another language. The responses were then grouped into two categories: the language spoken at home most of the time is different from the language of assessment, from other official national languages, and from other national dialects or languages, and; the language spoken at home most of the time is the language of assessment, other official national languages, or other national dialects or languages.

**Local area network (LAN):** A Local Area Network is a network of personal computers in a small area (as an office) that are linked by cable, can communicate directly with other devices in the network, and can share resources. See also *Internet* and *WorldWideWeb*.

**Lower secondary education (ISCED 2):** Lower secondary education (ISCED 2) generally continues the basic programmes of the primary level, although teaching is typically more subject-focused, often employing more specialised teachers who conduct classes in their field of specialisation. Lower secondary education may either be "terminal" (*i.e.*, preparing students for entry directly into working life) and/or "preparatory" (*i.e.*, preparing students for upper secondary education). This level usually consists of two to six years of schooling (the mode of OECD countries is three years). See also *International Standard Classification of Education (ISCED)*.

Maintenance and operations personnel: Maintenance and operations personnel refers to personnel who support the maintenance and operation of schools, school security and ancillary services, such as the transportation of students to and from school and food services operations. This category includes the following types of personnel: masons, carpenters, electricians, locksmiths, maintenance repairers, painters and paperhangers, plasterers, plumbers, and vehicle mechanics. It also includes bus drivers and other vehicle operators, construction workers, gardeners and groundskeepers, bus monitors and crossing guards, cooks/food carers, custodians, food servers, dormitory supervisors, and security guards. See also Educational personnel, Instructional personnel, Management/Quality control/Administration, Professional support for students, Ratio of students to teaching staff and Teaching staff.

Management/Quality control/Administration: Management/Quality control/Administration comprises four categories: School Level Management, Higher Level Management, School Level Administrative Personnel and Higher Level Administrative Personnel at all ISCED levels. See also Educational personnel, Instructional personnel, Maintenance and operations personnel, Professional support for students, Ratio of students to teaching staff and Teaching staff.

**Mathematical literacy:** Mathematical literacy is defined in PISA as the capacity to identify, understand and engage in mathematics, and to make well-founded judgements about the role that mathematics plays in an individual's current and future private life, occupational life, social life with peers and relatives, and life as a constructive, concerned and reflective citizen. See also *Reading literacy* and *Scientific literacy*.

**Mode of study:** Mode of study refers to the study load of the student, whether full-time or part-time. See also *Full-time* student, *Full-time* equivalent student, *Part-time* student, *Student* and *Study* load.

**Native students:** "Native" students are those students who reported in PISA that they were born in the country of assessment and who had at least one parent born in that country. See also *First-generation students* and *Non-native students*.

**Net capital transfers paid:** Net capital transfers paid are capital transfers to the resident private sector and to the rest of the world minus capital transfers received from the resident private sector and the rest of the world.

Net contact hours of teaching: See Teaching time.

**Net graduation rates:** Net graduation rates is the percentage of persons within a virtual age cohort who obtain a tertiary qualification, thus being unaffected by changes in population size or typical graduation age. The net graduation rate is calculated by dividing the number of graduates by the population for each single year of age. See also *Graduates*, *Graduation/Successful completion*, *Net graduation rates* and *Unduplicated total count of graduates*.

**New entrants:** New entrants to a level of education are students who are entering any programme leading to a recognised qualification at this level of education for the first time, irrespective of whether the students enter the programme at the beginning or at an advanced stage of the programme. See also *Entry rates*.

**Non-compulsory curriculum:** The non-compulsory curriculum is that which is defined entirely at the school level or eventually at the programme level if various programme types exist. See also *Compulsory core curriculum*, *Compulsory flexible curriculum* and *Intended instruction time*.

Non-instructional educational institutions: Non-instructional educational institutions are educational institutions that provide administrative, advisory or professional services to other educational institutions, although they do not enrol students themselves. Examples include national, state, and provincial ministries or departments of education; other bodies that administer education at various levels of government or analogous bodies in the private sector; and organisations that provide such education-related services as vocational or psychological counselling, placement, testing, financial aid to students, curriculum development, educational research, building operations and maintenance services, transportation of students, and student meals and housing. See also Expenditure on educational institutions and Instructional educational institutions.

**Non-native students:** "Non-native" students are those students who reported in PISA that they were born outside the country of assessment and whose parents were also born in another country. See also *Native students* and *First-generation students*.

**Non-salary compensation:** Non-salary compensation includes expenditure by employers or public authorities on retirement programmes, health care or health insurance, unemployment compensation, disability insurance, other forms of social insurance, non-cash supplements (e.g., free or subsidised housing), maternity benefits, free or subsidised child care, and such other fringe benefits as each country may provide. This expenditure does not include contributions made by the employees themselves, or deducted from their gross salaries. See also *Salaries* and *Staff compensation*.

Other current transfers: Other current transfers paid are net casualty insurance premiums, social security benefits, social assistance grants, unfunded employee pension and welfare benefits (paid directly to former or present employees without having special funds, reserves or insurance for this purpose), current transfers to private non-profit institutions serving households and current transfers to the rest of the world. See also Current expenditure, Final consumption expenditure and Property income paid.

**Participation rate:** The labour force participation rate, which is defined according to the guidelines of the International Labour Office (ILO), refers to the percentage of individuals in the population of the same age group who are either employed or unemployed. See also *Employed*, *Labour force*, *Unemployed* and *Unemployment rate*.

**Part-time student:** Students enrolled in primary and secondary-level educational programmes are considered to participate part-time if they attend school for less than 75 per cent of the school day or week (as locally defined) and would normally be expected to be in the programme for the entire academic year. At the tertiary level, an individual is considered part-time if he or she is taking a course load or educational programme that requires less than 75 per cent of a full-time commitment of time and resources. See also *Full-time equivalent student*, *Full-time student*, *Mode of study*, *Student* and *Study load*.

**Part-time teacher:** A teacher employed for less than 90 per cent of the normal or statutory number of hours of work for a full-time teacher over a complete school year is classified as a part-time teacher. See also *Educational personnel*, *Full-time equivalent teacher*, *Full-time teacher*, *Instructional personnel*, *Ratio of students to teaching staff and Teaching staff*, *Teaching time* and *Working time*.

PISA index of achievement press: The PISA index of achievement press was derived from students' reports on the frequency with which, in their <class of the language of assessment>: the teacher wants students to work hard; the teacher tells students that they can do better; the teacher does not like it when students deliver <careless> work; and, students have to learn a lot. A four-point scale with the response categories 'never', 'some lessons', 'most lessons' and 'every lesson' was used. The index was derived

using the WARM estimator described above with 'never' coded as 1 and all other response categories coded as 0.

PISA index of comfort with and perceived ability to use computers: The PISA index of comfort with and perceived ability to use computers was derived from students' responses to the following questions: How comfortable are you with using a computer?; How comfortable are you with taking a test on a computer?; and, If you compare yourself with other 15-year-olds, how would you rate your ability to use a computer? For the first three questions, a four-point scale was used with the response categories 'very comfortable', 'comfortable', 'somewhat comfortable' and 'not at all comfortable'. For the last questions, a four-point scale was used with the response categories 'excellent', 'good', 'fair' and 'poor'. The index was derived using the WARM estimator described above. For information on the conceptual underpinning of the index see Eignor et al. (1998).

PISA index of disciplinary climate: The PISA index of disciplinary climate summarises students' reports on the frequency with which, in their <class of the language of assessment>: the teacher has to wait a long time for students to <quieten down>; students cannot work well; students don't listen to what the teacher says; students don't start working for a long time after the lesson begins; there is noise and disorder; and, at the start of class, more than five minutes are spent doing nothing. A four-point scale with the response categories 'never', 'some lessons', 'most lessons' and 'every lesson' was used. This index was inverted so that low values indicate a poor disciplinary climate.

PISA index of economic, social and cultural status (ESCS): The PISA index of economic, social and cultural status was created on the basis of the following variables: the International Socio-Economic Index of Occupational Status (ISEI); the highest level of education of the student's parents, converted into years of schooling; the PISA index of family wealth; the PISA index of home educational resources; and the PISA index of possessions related to "classical" culture in the family home.

**PISA** index of interest in computers: The PISA index of interest in computers was derived from the students' responses to the following statements: it is very important to me to work with a computer; to play or work with a computer is really fun; I use a computer because I am very interested in this; and, I forget the time, when I am working with the computer. A two-point scale with the response categories 'yes' and 'no' was used. The index was derived using the WARM estimator described above. For information on the conceptual underpinning of the index see Eignor *et al.* (1998).

PISA index of teacher support: The PISA index of teacher support was derived from students' reports on the frequency with which: the teacher shows an interest in every student's learning; the teacher gives students an opportunity to express opinions; the teacher helps students with their work; the teacher continues teaching until the students understand; the teacher does a lot to help students; and, the teacher helps students with their learning. A four-point scale with the response categories 'never', 'some lessons', 'most lessons' and 'every lesson' was used. The index was derived using the WARM estimator (Warm, 1985) described above.

PISA index of the use of school resources: The PISA index of the use of school resources was derived from the frequency with which students reported using the following resources in their school: the school library; calculators; the Internet; and <science> laboratories. Students responded on a five-point scale with the following categories: 'never or hardly ever', 'a few times a year', 'about once a month', 'several times a month' and 'several times a week'. The index was derived using the WARM estimator described above.

PISA International Socio-Economic Index of Occupational Status (ISEI): The PISA International Socio-Economic Index of Occupational Status (ISEI) was derived from students' responses on parental occupation. The index captures the attributes of occupations that convert parents' education into income. The index was derived by the optimal scaling of occupation groups to maximise the indirect effect of education on income through occupation and to minimise the direct effect of education on income, net of occupation (both effects being net of age). For more information on the methodology, see Ganzeboom *et al.* (1992). The PISA International Socio-Economic Index of Occupational Status is based on either the father or mother's occupations, whichever is the higher.

**PISA** mean score: To facilitate the interpretation of the scores assigned to students in PISA, the PISA mean score for combined reading, mathematical and scientific literacy performance across OECD countries was set at 500 and the standard deviation at 100, with the data weighted so that each OECD country contributed equally.

**PISA population:** The PISA population refer to 15-year-old students, or students aged between 15 years and 3 (completed) months and 16 years and 2 (completed) months at the beginning of the testing period, and enrolled in an educational institution, regardless of the grade level or type of institution in which they were enrolled and of whether they participated in school full-time or part-time. See also *Population*.

**Population:** Population refers to all nationals present in or temporarily absent from the country and aliens permanently settled in the country. For further details, see OECD Labour Force Statistics. See also *PISA population*.

**Post-secondary non-tertiary level of education (ISCED 4):** Post-secondary non-tertiary education straddles the boundary between upper secondary and post-secondary education from an international point of view, even though it might clearly be considered upper secondary or post-secondary programmes in a national context. Although their content may not be significantly more advanced than upper secondary programmes, they serve to broaden the knowledge of participants who have already gained an upper secondary qualification. The students tend to be older than those enrolled at the upper secondary level. See also *International Standard Classification of Education (ISCED)*.

**Pre-primary education (ISCED 0):** Pre-primary education (ISCED 0) is defined as the initial stage of organised instruction, designed primarily to introduce very young children to a school-type environment, that is, to provide a bridge between home and a school-based atmosphere. ISCED level 0 programmes should be centre or school-based, be designed to meet the educational and developmental needs of children at least three years of age, and have staff that are adequately trained (*i.e.*, qualified) to provide an educational programme for the children. See also *International Standard Classification of Education (ISCED)*.

**Pre-vocational programmes:** Pre-vocational education is mainly designed to introduce participants to the world of work and to prepare them for entry into further vocational or technical programmes. Successful completion of such programmes does not lead to a labour-market relevant vocational or technical qualification. See also *General programmes*, *Programme orientation*, *Upper secondary education (ISCED 3)* and *Vocational programmes*.

**Primary education (ISCED 1):** Primary education (ISCED 1) usually begins at ages five, six or seven and lasts for four to six years (the mode of the OECD countries being six years). Programmes at the primary level generally require no previous formal education, although it is becoming increasingly common for children to have attended a pre-primary programme before entering primary education. The boundary between pre-primary and primary education is typically the beginning of systematic studies characteristic of primary education, *e.g.*, reading, writing and mathematics. It is common, however, for children to begin learning basic literacy and numeracy skills at the pre-primary level. See also *International Standard Classification of Education (ISCED)*.

**Private expenditure:** Private expenditure refers to expenditure funded by private sources, *i.e.*, households and other private entities. "Households" means students and their families. "Other private entities" include private business firms and non-profit organisations, including religious organisations, charitable organisations, and business and labour associations. Private expenditure comprises school fees; materials such as textbooks and teaching equipment; transport to school (if organised by the school); meals (if provided by the school); boarding fees; and expenditure by employers on initial vocational training. Note that private educational institutions are considered service providers, not funding sources.

**Private institution:** An institution is classified as private if it is controlled and managed by a non-governmental organisation (e.g., a Church, Trade Union or business enterprise), or if its Governing Board consists mostly of members not selected by a public agency. See also *Educational institution*, *Government-dependent private institution*, *Independent private institution* and *Public institution*.

**Private internal rate of return:** The private internal rate of return is equal to the discount rate that equalises the real costs of education during the period of study to the real gains from education thereafter. In its most comprehensive form, the costs equal tuition fees, foregone earnings net of taxes adjusted for the probability of being in employment minus the resources made available to students in the form of grants and loans. See also *Social rate of return*.

**Professional support for students:** Professional support for students comprises pedagogical support at ISCED 0-4 and academic support at ISCED 5-6; and health and social support at ISCED 0-6. See also *Educational personnel*, *Instructional personnel*, *Maintenance and operations personnel*, *Management/Quality control/Administration*, *Ratio of students to teaching staff* and *Teaching staff*.

**Programme destination:** Programme destination is defined according to International Standard Classification of Education (ISCED) as the destination for which programmes have been designed to prepare students, such as tertiary education, the labour market or other programmes at the same or other levels of education.

- A programmes are designed to prepare students for direct access to the next level of education;
- B programmes are designed to prepare students for access to certain types of but not all programmes at the next level of
  education; and
- C programmes are designed to prepare students for direct access to the labour market or other programmes at the same level
  of education.

Programme duration: See Duration of programme.

**Programme for International Student Assessment (PISA):** The Programme for International Student Assessment is an international study conducted by the OECD which measures how well young adults, at age 15 and therefore approaching the end of compulsory schooling, are prepared to meet the challenges of today's knowledge societies.

**Programme orientation:** Programme orientation is defined according to International Standard Classification of Education (ISCED) as the degree to which a programme is specifically oriented towards a certain class of occupations or trades and leads to a labour-market relevant qualification. See also *General programmes*, *Pre-vocational programmes* and *Vocational programmes*.

**Property income paid:** Property income paid is defined as interest, net land rent and royalties paid. See also *Current expenditure*, *Final consumption expenditure* and *Other current transfers*.

**Public expenditure:** Public expenditure refers to spending of public authorities at all levels. Expenditure that is not directly related to education (*e.g.*, culture, sports, youth activities, etc.) is, in principle, not included. Expenditure on education by other ministries or equivalent institutions, for example Health and Agriculture, is included.

**Public institution:** An institution is classified as public if it is controlled and managed directly by a public education authority or agency or; is controlled and managed either by a government agency directly or by a governing body (Council, Committee etc.), most of whose members are appointed by a public authority or elected by public franchise. See *Educational institution* and *Public institution*.

Purchasing Power Parities (PPP): Purchasing Power Parities (PPP) are the currency exchange rates that equalise the purchasing power of different currencies. This means that a given sum of money, when converted into different currencies at the PPP rates, will buy the same basket of goods and services in all countries. In other words, PPPs are the rates of currency conversion, which eliminate the differences in price levels among countries. Thus, when expenditure on GDP for different countries is converted into a common currency by means of PPPs, it is, in effect, expressed at the same set of international prices so that comparisons between countries reflect only differences in the volume of goods and services purchased. The purchasing power parities used in this publication are given in Annex 2.

**Ratio of students to computers:** In PISA, the ratio of students per computer was calculated by dividing the total number of computers in each school by the total number of students enrolled in each school.

Ratio of students to teaching staff: The ratio of students to teaching staff is calculated as the total number of full-time equivalent students divided by the total number of full-time equivalent educational personnel. See also Educational personnel, Full-time equivalent student, Full-time equivalent teacher, Instructional personnel Maintenance and operations personnel, Management/Quality control/Administration, Professional support for students, Teaching staff and Teaching time.

**Reading literacy:** Reading literacy is defined in PISA as the ability to understand, use and reflect on written texts in order to achieve one's goals, to develop one's knowledge and potential, and to participate effectively in society. See also *Mathematical literacy* and *Scientific literacy*.

**Relative earnings:** Relative earnings from work are the mean annual earnings from employment of individuals with a certain level of educational attainment divided by the mean annual earnings from employment of individuals whose highest level of education is the upper secondary level. See also *Earnings*.

**Research and development:** See Expenditure on Research and Development (R&D).

**Retirement expenditure:** Retirement expenditure is the cost incurred currently, exclusive of any contribution by employees, in providing future retirement benefits for persons currently employed in education. This cost can be measured by actual or imputed employers (or third party) contributions to retirement systems. The reason for not counting employee's contributions is that they are already counted in the gross salary component of total compensation.

**Salaries:** Salaries are the gross salaries of educational personnel, before deduction of taxes, contributions for retirement or health care plans, and other contributions or premiums for social insurance or other purposes. See also *Non-salary compensation* and *staff compensation*.

**School expectancy:** School expectancy is the average duration of formal education in which a five-year-old child can expect to enrol over his or her lifetime. It is calculated by adding the net enrolment percentages for each single year of age from the age of five onwards.

School location: In PISA, school location refers to the community in which the school is located, such as a <village, hamlet or rural area> (fewer than 3 000 people), a <small town> (3 000 to about 15 000 people), a <town> (15 000 to about 100 000 people), a <city> (100 000 to about 1 000 000 people), close to the centre of a <city> with over 1 000 000 people or elsewhere in a <city> with over 1 000 000 people.

**School-based programmes:** In school-based (vocational and technical) programmes, instruction takes place (either partly or exclusively) in educational institutions. This includes special training centres for vocational education run by public or private authorities or enterprise-based special training centres if these qualify as educational institutions. These programmes can have an on-the-job training component, *i.e.*, a component of some practical experience in the workplace. See also *Combined school and work-based programmes*, *General programmes*, *Programme orientation* and *Vocational programmes*.

**Scientific literacy:** PISA defines scientific literacy as the capacity to use scientific knowledge, to identify questions, and to draw evidence-based conclusions in order to understand and help make decisions about the natural world and the changes made to it through human activity. See also *Mathematical literacy* and *Reading literacy*.

Secondary education (ISCED 23): See Lower secondary education and Upper secondary education.

**Social internal rate of return:** The social internal rate of return refers to the costs and benefits to society of investment in education, which includes the opportunity cost of having people not participating in the production of output and the full cost of the provision of education rather than only the cost borne by the individual. The social benefit includes the increased productivity associated with the investment in education and a host of possible non-economic benefits, such as lower crime, better health, more social cohesion and more informed and effective citizens. See also *Private rate of return*.

**Spending on educational services other than instruction:** Spending on educational services other than instruction includes public spending on ancillary services such as meals, transport to schools, or housing on the campus; private spending on fees for ancillary services; subsidised private spending on student living costs or reduced prices for transport; and private spending on student living costs or transport. See also *Expenditure on ancillary services*, *Expenditure on educational core services* and *Expenditure on Research and Development (R&D)*.

**Staff compensation:** Expenditure on staff compensation includes gross salaries plus non-salary compensation (fringe benefits). See also *Non-salary compensation* and *Salaries*.

**Standard error:** The standard errors used in PISA are expressions of the degree of uncertainty of an estimate, which are estimates of national performance based on samples of students rather than the values that could be calculated if every student in every country had answered every question. Consequently, it is important to know the degree of uncertainty inherent in the estimates.

**Statistical significance:** Differences are reported as statistically significant when a difference of that size, or larger, would be observed less than 5 per cent of the time, if there was actually no difference in corresponding population values. Similarly, the risk of reporting as significant if there is, in fact, no correlation between to measures is contained at 5 per cent.

Statutory teachers' salaries: See Teachers' salaries.

**Student:** A student is defined as any individual participating in educational services covered by the data collection. The number of students enrolled refers to the number of individuals (head count) who are enrolled within the reference period and not necessarily to the number of registrations. Each student enrolled is counted only once. See also *Full-time student*, *Full-time equivalent student*, *Part-time student* and *Study load*.

**Study load:** There are two basic measures of study load: time in the classroom and progress towards a qualification. Time in classroom attempts to measure the amount of instruction time that a student receives and can be counted as hours of instruction per day or year, counts of the number of courses taken, or a combination of the two. These measures are based on characteristics of the course or on patterns of attendance, not on the programme in which the student is enrolled. Because of this, such measures of study load will be useful when there is no programme structure or when programme structures are not comparable. The second measure of study load is the unit used to measure progress towards a qualification. Such measures focus less on the amount of instruction and more on the "academic value" of that instruction. It is conceivable, therefore, those

courses with the same quantity of instruction may have different academic values and they would only be the same if measures of academic progress were made in amounts of instruction. See also *Full-time equivalent student*, *Full-time student*, *Mode of study* and *Part-time student*.

**Support services:** Entities providing support services to other educational institutions include institutions that provide educational support and materials as well as operation and maintenance services for buildings. These are commonly part of the general-purpose units of public authorities.

**Survival rates:** Survival rate at the tertiary level is defined as the proportion of new entrants to the specified level of education who successfully complete a first qualification. It is calculated as the ratio of the number of students who are awarded an initial degree to the number of new entrants to the level *n* years before, *n* being the number of years of full-time study required to complete the degree. See also *Dropout*.

**Teachers' salaries:** Teachers' salaries are expressed as statutory salaries, which are scheduled salaries according to official pay scales. The salaries reported are defined as gross salaries (total sum of money that is paid by the employer for the labour supplied) minus the employer's contribution to social security and pension (according to existing salary scales).

- Starting salaries refer to the average scheduled gross salary per year for a full-time teacher with the minimum training necessary to be fully qualified at the beginning of his or her teaching career.
- Salaries after 15 years of experience refer to the scheduled annual salary of a full-time classroom teacher with the minimum training necessary to be fully qualified and with 15 years of experience.
- Maximum salaries reported refer to the scheduled maximum annual salary (top of the salary scale) of a full-time classroom teacher with the minimum training to be fully qualified for his or her job.

Salaries are "before tax", i.e., before deductions for income taxes. See also Additional bonuses to base salary.

**Teaching days:** The number of teaching days is the number of teaching weeks minus the days when the school is closed for festivities. See also *Teaching time*, *Teaching weeks*, *Working time* and *Working time in school*.

Teaching staff: Teaching staff refer to professional personnel directly involved in teaching students, including classroom teachers; special education teachers; and other teachers who work with students as a whole class in a classroom, in small groups in a resource room, or in one-to-one teaching inside or outside a regular classroom. Teaching staff also includes chairpersons of departments whose duties include some amount of teaching, but it does not include non-professional personnel who support teachers in providing instruction to students, such as teachers' aides and other paraprofessional personnel. See also Educational personnel, Full-time teacher, Full-time equivalent teacher, Instructional personnel Maintenance and operations personnel, Management/Quality control/Administration, Part-time teacher, Professional support for students, Ratio of students to teaching staff and Teaching time.

**Teaching time:** Teaching time is defined as the net contact hours of teaching. It is calculated on the basis of the annual number of weeks of instruction multiplied by the minimum/maximum number of periods, which a teacher is supposed to spend teaching a class or a group, multiplied by the length of a period in minutes and divided by 60. Periods of time formally allowed for breaks between lessons or groups of lessons, and days when schools are closed for public holidays and festivities, are excluded. In primary education, however, short breaks that teachers spend with the class are typically included. See also *Teaching days, Teaching weeks, Working time* and *Working time in school*.

**Teaching weeks:** The number of teaching weeks is defined as the number of weeks of instruction not counting holiday weeks. See also *Teaching days*, *Teaching time*, *Working time* and *Working time in school*.

**Tertiary education (ISCED 56):** See Tertiary-type A education (ISCED 5A) and Tertiary-type B education (ISCED 5B).

**Tertiary-type A education (ISCED 5A):** Tertiary-type A programmes (ISCED 5A) are largely theory-based and are designed to provide sufficient qualifications for entry to advanced research programmes and professions with high skill requirements, such as medicine, dentistry or architecture. Tertiary-type A programmes have a minimum cumulative theoretical duration (at tertiary level) of three years' full-time equivalent, although they typically last four or more years. These programmes are not exclusively offered at universities. Conversely, not all programmes nationally recognised as university programmes fulfil the criteria to be classified as tertiary-type A. Tertiary-type A programmes include second-degree programmes like the American Master. First and second programmes are sub-classified by the cumulative duration of the programmes, *i.e.*, the total study time needed at the tertiary level to complete the degree. See also *International Standard Classification of Education (ISCED)* and *Tertiary-type B education (ISCED 5B)*.

**Tertiary-type B education (ISCED 5B):** Tertiary-type B programmes (ISCED 5B) are typically shorter than those of tertiary-type A and focus on practical, technical or occupational skills for direct entry into the labour market, although some theoretical foundations may be covered in the respective programmes. They have a minimum duration of two years full-time equivalent at the tertiary level. See also *International Standard Classification of Education (ISCED)* and *Tertiary-type A education (ISCED 5A)*.

**Theoretical age:** Theoretical ages refer to the ages as established by law and regulation for the entry and ending of a cycle of education. Note that the theoretical ages may differ significantly from the typical ages. See also *Typical age*, *Typical ending age*, *Typical graduation age* and *Typical starting age*.

Third International Mathematics and Science Study (TIMSS): The Third International Mathematics and Science Study, conducted by the IEA, measured the mathematics and science achievement of fourth and eighth-grade students in 1995, 1999 and 2003.

**Transfer and payments to other private entities:** Transfer and payments to other private entities are government transfers and certain other payments (mainly subsidies) to other private entities (commercial companies and non-profit organisations). These transfers and payments can take diverse forms, *e.g.*, transfers to business or labour associations that provide adult education; subsidies to companies or labour organisations (or associations of such entities) that operate apprenticeship programmes; and interest rate subsidies or defaults guarantee payments to private financial institutions that provide student loans.

**Typical age:** Typical ages refer to the ages that normally correspond to the age at entry and ending of a cycle of education. These ages relate to the theoretical duration of a cycle assuming full-time attendance and no repetition of a year. The assumption is made that, at least in the ordinary education system, a student can proceed through the educational programme in a standard number of years, which is referred to as the theoretical duration of the programme. See also *Theoretical age*, *Typical ending age*, *Typical graduation age* and *Typical starting age*.

**Typical ending age:** The typical ending age should be the age at the beginning of the last school/academic year of the corresponding level and programme. See also *Theoretical age*, *Typical age*, *Typical graduation age* and *Typical starting age*.

**Typical graduation age:** The typical graduation age should be the age at the end of the last school/academic year of the corresponding level and programme when the degree is obtained. Note that at some levels of education the term "graduation age" may not translate literally and would be equivalent to a "completion age"; it is used here purely as a convention. See also *Theoretical age, Typical age, Typical ending age* and *Typical starting age*.

**Typical starting age:** The typical starting age should be the age at the beginning of the first school/academic year of the corresponding level and programme. See also *Theoretical age*, *Typical age*, *Typical ending age* and *Typical graduation age*.

**Unduplicated total count of graduates:** Unduplicated total count of graduates is calculated by netting out those students who graduated from programmes in a previous year and/or who are earning more than one qualification at the specified level during the reference period. It represents therefore a count of individuals graduating and not certificates being awarded. See also *Graduates*, *Graduation/Successful completion*, *Gross graduation rates* and *Net graduation rates*.

**Unemployed:** The unemployed, which is defined according to the guidelines of the International Labour Office (ILO), refers to individuals who are without work, actively seeking employment and currently available to start work. See also *Employed*, *Labour force*, *Participation rate*, *Unemployment rate* and *Work status*.

**Unemployment rate:** The unemployment rate (expressed as a percentage), which is defined according to the guidelines of the International Labour Office (ILO), is the number of unemployed persons divided by the number of labour force participants. See also *Employed*, *Labour force*, *Participation rate* and *Unemployed*.

**Upper secondary education (ISCED 3):** Upper secondary education (ISCED 3) corresponds to the final stage of secondary education in most OECD countries. Instruction is often more organised along subject-matter lines than at ISCED level 2 and teachers typically need to have a higher level, or more subject-specific, qualifications than at ISCED 2. The entrance age to this level is typically 15 or 16 years. There are substantial differences in the typical duration of ISCED 3 programmes both across and between countries, typically ranging from two to five years of schooling. ISCED 3 may either be "terminal" (*i.e.*, preparing the students for entry directly into working life) and/or "preparatory" (*i.e.*, preparing students for tertiary education). Programmes at level 3 can also be subdivided into three categories based on the degree to which the programme is specifically oriented towards a specific class of occupations or trades and leads to a labour-market relevant qualification: General, Pre-vocational

or pre-technical, and Vocational or technical programmes. See also General programmes, International Standard Classification of Education (ISCED), Pre-vocational programmes and Vocational programmes.

**Vocational programmes:** Vocational education prepares participants for direct entry, without further training, into specific occupations. Successful completion of such programmes leads to a labour-market relevant vocational qualification. Some indicators divide vocational programmes into school-based programmes and combined school and work-based programmes on the basis of the amount of training that is provided in school as opposed to training in the workplace. See also *Combined school and work-based programmes*, *General programmes*, *Pre-vocational programmes*, *Programme orientation*, *School-based programmes* and *Upper secondary education (ISCED 3)*.

**Work status:** Work status, which is defined according to the guidelines of the International Labour Office (ILO), refers to the position of the population within the labour force as defined in OECD Labour Force Statistics. See also *Employed*, *Labour force* and *Unemployed*.

Work study programmes: 'Work-study programmes' are combinations of work and education in which periods of both form part of an integrated, formal education or training activity. Examples of such programmes include the 'dual system' in Germany; 'apprentissage' or 'formation en alternance' in France and Belgium; internship or co-operative education in Canada; apprenticeship in Ireland; and "youth training" in the United Kingdom.

Working time: Teacher's working time refers to the normal working hours of a full-time teacher. According to the formal policy in a given country, working time can refer only to the time directly associated with teaching (and other curricular activities for students such as assignments and tests, but excluding annual examinations); or to time directly associated with teaching and to hours devoted to other activities related to teaching, such as lesson preparation, counselling of students, correction of assignments and tests, professional development, meetings with parents, staff meetings and general school tasks. Working time does not include paid overtime. See also Educational personnel, Full-time equivalent teacher, Full-time teacher, Instructional personnel, Part-time teacher, Ratio of students to teaching staff, Teaching days, Teaching staff, Teaching time, Teaching weeks and Working time in school.

**Working time in school:** Working time in school refers to the working time teachers are supposed to be at school including teaching time and non-teaching time. See also *Teaching days*, *Teaching time*, *Teaching weeks* and *Working time*.

**World Wide Web (WWW):** The World Wide Web is a part of the Internet designed to allow easier navigation of the network through the use of graphical user interfaces and hypertext links between different addresses. See also *Internet* and *Local Area Network*.

## CONTRIBUTORS TO THIS PUBLICATION

Many people have contributed to the development of this publication. The following lists the names of the country representatives, researchers and experts who have actively taken part in the preparatory work leading to the publication of this edition of *Education at a Glance - OECD Indicators 2002*. The OECD wishes to thank them all for their valuable efforts.

#### **National Co-ordinators**

Mr. Dan ANDERSSON (Sweden)

Ms. Elizabetta MIDENA (Italy)

Ms. Ikuko ARIMATSU (Japan) Mr. Gerardo MUÑOZ SANCHEZ-BRUNETE (Spain)

Ms. Hatice BAL (Turkey)

Ms. Marion NORRIS (New Zealand)

M. Dominique BARTHÉLÉMY (Belgium)

Mr. Torlach O CONNOR (Ireland)

Mr. H.H. DALMIJN (Netherlands)

Mr. Brendan O'REILLY (Australia)

Mr. Antonio Manuel Pinto FAZENDEIRO (Portugal)

Mr. Laurence OGLE (United States)

Mr. Michael FEDEROWICZ (Poland)

Ms. Hyun-Jeong PARK (Korea)

Mr. Guillermo GIL (Spain)

Mr. Elin PEDERSEN (Norway)

Mr. Heinz GILOMEN (Switzerland)

Mr. Friedrich H. PLANK (Austria)

Ms. Margrét HARÐARDÓTTIR (Iceland) Mr. Vladimir POKOJNY (Slovak Republic)

Mr. G. Douglas HODGKINSON (Canada) Mr. Imre RADÁCSI (Hungary)
Mr. Gregory KAFETZOPOULOS (Greece) Ms. Janice ROSS (United Kingdom)

Ms. Maki KUBO (Japan) Mr. Ingo RUSS (Germany)

Mr. Matti KYRÖ (Finland)
Mr. Claude SAUVAGEOT (France)
Mr. Antonio Giunta LA SPADA (Italy)
Mr. Yasuyuki SIMOTUMA (Japan)
Mr. Verome LEVY (Luxembourg)
Mr. Jérôme LEVY (Luxembourg)
Mr. Ken THOMASSEN (Denmark)

Mr. Dittrich MAGERKURTH (Germany)

Ms. Ann VAN DRIESSCHE (Belgium)

Mr. Lubomir MARTINEC (Czech Republic) Mr. Arturo VILLARUEL (Mexico)

#### **Technical Group on Education Statistics and Indicators**

Mr. Victor MANUEL VELÁZ QUEZ CASTAÑEDA (Mexico)

Mr. R.R.G. ABELN (Netherlands)

Mr. Douglas LYND (UNESCO)

Mr. Paul AMACHER (Switzerland) Mr. Dittrich MAGERKURTH (Germany)

Ms. Birgitta ANDREN (Sweden) Mr. Robert MAHEU (Canada)

Ms. Karin ARVEMO-NOTSTRAND (Sweden) Mr. Joaquim MAIA GOMES (Portugal)
Ms. Alina BARAN (Poland) Ms. Giuliana MATTEOCCI (Italy)

Ms. Eva BOLIN (Sweden) Mr. Konstantinos MITROGIANNIS (Greece)

Mr. John CANLIN (United Kingdom)
Mr. Yoshiro NAKAYA (Japan)
Mr. Fernando CELESTINO REY (Spain)
Mr. Geir NYGARD (Norway)
Mr. Fernando CORDOVA CALDERON (Mexico)
Mr. Muiris O'CONNOR (Ireland)
Mr. Eduardo DE LA FUENTE (Spain)
Mr. Brendan O'REILLY (Australia)

Ms. Angela VEGLIANTE (European Commission)

Ms. Gemma DE SANCTIS (Italy)

Ms. Hyun-Jeong PARK (Korea)

Ms. Ritsuko DOKO (Japan)

Mr. Wolfgang PAULI (Austria)

Ms. Maria DOKOU (Greece)
Mr. João PEREIRA DE MATOS (Portugal)
Mr. J. Douglas DREW (Canada)
Ms. Marianne PERIE (United States)
Ms. Mary DUNNE (EUROSTAT)
Mr. Spyridon PILOS (EUROSTAT)
Mr. Jean Paul REEFF (Luxembourg)
Mr. Timo ERTOLA (Finland)
Mr. Ron ROSS (New Zealand)

Mr. Pierre FALLOURD (France) Mr. Jean-Claude ROUCLOUX (Belgium)

Mrs. Esin FENERCIOGLU (Turkey) Mr. Ingo RUSS (Germany)

Mr. Paul GINI (New Zealand) Mr. Joel SHERMAN (United States) Mr. Bengt GREF (Sweden) Mr. Thomas SNYDER (United States) Ms. Yonca GUNDUZ-OZCERI (Turkey) Ms. Maria Pia SORVILLO (Italy) Mr. Heikki HAVEN (Finland) Mr. Konstantinos STOUKAS (Greece) Mr. Walter HOERNER (Germany) Mr. DickTAKKENBERG (Netherlands) Mr. Jesus IBANEZ MILLA (Spain) Mr. KenTHOMASSEN (Denmark) Mr. Klaus Fribert JACOBSEN (Denmark) Mr. MikaTUONONEN (Finland) Ms. Michèle JACQUOT (France) Mr. Shuichi UEHARA (Japan) Ms. Ásta URBANCIC (Iceland) Ms. Nathalie JAUNIAUX (Belgium) Mr. Felix KOSCHIN (Czech Republic) Mr. Matti VAISANEN (Finland) Mr. Karsten KUHL (Denmark) Ms. Erika VALLE BUTZE (Mexico) Ms. KyeYoung LEE (Korea) Ms. Ann VAN DRIESSCHE (Belgium) Mr. Jérôme LEVY (Luxembourg) Mr. Juraj VANTUCH (Slovak Republic) Ms. Judit KOZMA LUKACS (Hungary) Ms. Elisabetta VASSENDEN (Norway)

Mr. Erik VERSTRAETE (Belgium)

#### **Network A on Educational Outcomes**

Ms. Michaela KLENHOVÁ (Czech Republic)

Lead Country: United States

Network Leader: Mr. Eugene OWEN

Ms. Lorna BERTRAND (United Kingdom)

Mr. Vladislav ROSA (Slovak Republic)

Ms. Christiane BLONDIN (Belgium)

Ms. Eva SCHOEYEN (Norway)

Ms. Müfie CALISKAN (Turkey)

Mr. Jochen SCHWEITZER (Germany)

Ms. Sunhee CHAE (Korea) Mr. Gerry SHIEL (Ireland)

Mr. Fernando CORDOVA CALDERON (Mexico)

Mr. Joern SKOVSGAARD (Denmark)

Ms. Chiara CROCE (Italy)

Mr. Arnold A. J. SPEE (Netherlands)

Mr. Guillermo GIL (Spain)

Mrs. Jacqueline LEVASSEUR (France)

Mrs. Jana STRAKOVÁ (Czech Republic)

Mr. Pirjo LINNAKYLA (Finland) Mr. P. Benedek TÓTA (Hungary)
Mr. Jay MOSKOWITZ (United States) Mr. Luc VAN DE POELE (Belgium)

Mr. Jerry MUSSIO (Canada) Ms. Evangelia VARNAVA-SKOURA (Greece)

Mr. Michael O'GORMAN (Canada) Mr. Ryo WATANABE (Japan)
Mr. Jules PESCHAR (Netherlands) Ms. Anita WESTER (Sweden)

#### CONTRIBUTORS TO THIS PUBLICATION

Mr. Friedrich H. PLANK (Austria)
Ms. Wendy WHITHAM (Australia)
Ms. Glória RAMALHO (Portugal)
Mr. Erich RAMSEIER (Switzerland)
Ms. Marta ZVALOVA (Slovak Republic)

#### **Network B on Student Destinations**

Lead country: Sweden

Network Leader: Mr. Jonas BÖRJESSON

Mr. Jean-Paul REEFF (Luxembourg)

Ms, Yupin BAE (United States)

Ms, Anne-France MOSSOUX (CEDEFOP)

Ms. Ariane BAYE (Belgium) Mr. Philip O'CONNELL (Ireland)

Ms. Irja BLOMQVIST (Finland)

Ms. Simona PACE (Italy)

Ms. Anna BORKOWSKY (Switzerland)

Mr. Ali PANAL (Turkey)

Mr. Richard BRIDGE (Australia) Mr. Kenny PETERSSON (Sweden)

Mr. Fernando CELESTINO REY (Spain)

Ms. Cheryl REMINGTON (New Zealand)

Ms. Jihee CHOI (Korea) Ms. Aila REPO (Finland)

Mr. Erik DAHL (Norway) Ms. Véronique SANDOVAL (France)
Mr. H.H. DALMIJN (Netherlands) Ms. Emilia SAO PEDRO (Portugal)

Mr. Patrice DE BROUCKER (Canada) Ms. Astrid SCHORN-BUCHNER (Luxembourg)
Ms. Pascaline DESCY (CEDEFOP) Mr. Peter SCRIMGEOUR (United Kingdom)

Mr. Kjetil DIGRE (Norway) Mr. Dan SHERMAN (United States)
Ms. Isabelle ERAUW (Belgium) Ms. Irena SKRZYPCZAK (Poland)

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Ms. Cécile SLAPE (OECD)

#### Others contributors to this publication

Ms. Isabel ABELE (OECD)

Mr. Kai v. AHLEFELD (Layout)

Mr. Gilles BURST (Layout)

Ms. Katja HETTLER (Layout)

Mr. Michael JUNG (OECD)

Ms. Christine JUNG (OECD)

Ms. Deborah GLASSMAN (Editor)

Ms. Catherine DUCHENE (OECD)

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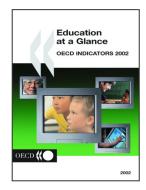
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